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NOVEMBER 2013



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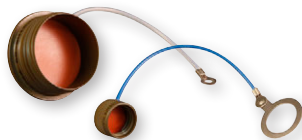
**Part Number Index and Introduction**

**A**



**AS85049 Qualified Backshells and Connector Accessories**

**B**



**MIL-DTL-38999 Qualified Connector Accessories**

**C**



**MIL-DTL-28840 Qualified Backshells and Connector Accessories**

**D**



**MIL-DTL-83723 Qualified Backshells and Connector Accessories**

**E**



**AS81511 Qualified Backshells and Connector Accessories**

**F**



**Miscellaneous Qualified Backshells and Connector Accessories**

**G**



**Backshell-to-Connector Assembly Tools**

**H**



**Quick-Reference Part Number Index**

**J**

Dimensions in inches (millimeters) and are subject to change without notice.



## Military Standard Backshells and Accessories Part and Page Number Index

### SECTION B • AS85049 QUALIFIED PRODUCTS • SECTION B

| Industry Specification Number | Part Identification Number   | Military Part Number Superseded   | Glenair Commercial Part Number                                   | Description  | Glenair Connector Designator/Interface   | Page No.                                  |
|-------------------------------|--|---|--|--|--|---|
| AS85049/1                     | M85049/1   | MS3057 "B"  | 620-053 Style B  | Straight Strain Relief   | MS "V" Thread  | <b>B-2</b>                                |
| AS85049/2                     | M85049/2   | MS3057 "C"  | 620-053 Style C  | Straight Environmental Strain Relief   | MS "V" Thread  | <b>B-3</b>                                |
| AS85049/3                     | M85049/3 Style 1<br>M85049/3 Style 2<br>M85049/3 Style 3               | MS17340/MS90571 Style 1<br>MS17340/MS90571 Style 2<br>MS17340/MS90571 Style 3 | GS85049/3<br>377   | Straight Environmental Backshell   | "C"<br>MIL-DTL-22992, C, J & R   | <b>B-4</b><br><b>B-5</b><br><b>B-6</b>    |
| AS85049/4                     | M85049/4 Style 1<br>M85049/4 Style 2<br>M85049/4 Style 3               | MS17342/MS90569 Style 1<br>MS17342/MS90569 Style 2<br>MS17342/MS90569 Style 3 | GS85049/4<br>377   | Straight Step-Up Environmental Backshell   | "C"<br>MIL-DTL-22992, C, J & R   | <b>B-7</b><br><b>B-9</b><br><b>B-11</b>   |
| AS85049/5                     | M85049/5 Style 1<br>M85049/5 Style 2<br>M85049/5 Style 3               | MS17341/MS90570 Style 1<br>MS17341/MS90570 Style 2<br>MS17341/MS90570 Style 3 | 377-034  | Straight Step-Down Environmental Backshell   | "C"<br>MIL-DTL-22992, C, J & R   | <b>B-13</b><br><b>B-15</b><br><b>B-17</b> |
| AS85049/6                     | M85049/6   | MS3189A   | 390AB001   | 45° RFI/EMI Environmental Backshell  | "A"<br>AS50151; MIL-DTL-26482, Series 2; AS81703 Series 3; MIL-DTL-83723, Series III | <b>B-19</b>                               |
| AS85049/7                     | M85049/7   | MS3189B   | 370AB001   | 45° Environmental Backshell  | "A"<br>AS50151; MIL-DTL-26482, Series 2; AS81703 Series 3; MIL-DTL-83723, Series III | <b>B-21</b>                               |
| AS85049/8                     | M85049/8   | MS3188A   | 390AA001   | 90° RFI/EMI Environmental Backshell  | "A"<br>AS50151; MIL-DTL-26482, Series 2; AS81703 Series 3; MIL-DTL-83723, Series III | <b>B-23</b>                               |
| AS85049/9                     | M85049/9   | MS3188B   | 360-061  | 90° Environmental Backshell  | "A"<br>AS50151; MIL-DTL-26482, Series 2; AS81703 Series 3; MIL-DTL-83723, Series III | <b>B-25</b>                               |
| AS85049/10                    | M85049/10  | MS3437A   | 390AS001   | Straight RFI/EMI Environmental Backshell   | "A"<br>AS50151; MIL-DTL-26482, Series 2; AS81703 Series 3; MIL-DTL-83723, Series III | <b>B-27</b>                               |
| AS85049/11                    | M85049/11  | MS3437B   | 370AS001   | Straight Environmental Backshell   | "A"<br>AS50151; MIL-DTL-26482, Series 2; AS81703 Series 3; MIL-DTL-83723, Series III | <b>B-31</b>                               |
| AS85049/14                    | M85049/14-<br>M85049/14 N<br>M85049/14 S                               | MIL-C-85049/14  | 610HS011   | E Nut<br>E Nut, Non-Detented, Self Locking<br>E Nut, Detented, Self-Locking  | "H"<br>MIL-DTL-38999, Ser. III & IV<br>EN3645  | <b>B-35</b>                               |
| AS85049/15                    | M85049/15-<br>M85049/15 N<br>M85049/15 S<br>M85049/15 G<br>M85049/15 H | MIL-C-85049/15  | 450HB001<br>450HB041<br>450HB043<br>450HB043 "G"<br>450HB041 "G" | 45° Qwik-Ty® Strain Relief<br>Non-Detented, Self-Locking<br>Detented Self-Locking<br>Detented, Self-Locking, Ground Lug<br>Non-Detented Self-Locking, Ground Lug | "H"<br>MIL-DTL-38999, Ser. III & IV;<br>EN3645                                       | <b>B-36</b>                               |
| AS85049/16                    | M85049/16-<br>M85049/16 N<br>M85049/16 S<br>M85049/16 G<br>M85049/16 H | MIL-C-85049/16  | 450HA001<br>450HA041<br>450HA043<br>450HA043 "G"<br>450HA041 "G" | 90° Qwik-Ty® Strain Relief<br>Non-Detented, Self-Locking<br>Detented Self-Locking<br>Detented, Self-Locking, Ground Lug<br>Non-Detented Self-Locking, Ground Lug | "H"<br>MIL-DTL-38999, Ser. III & IV;<br>EN3645                                       | <b>B-36</b>                               |
| AS85049/17                    | M85049/17  | MIL-C-38999/5   | 390FS012   | Straight RFI/EMI Environmental Backshell   | "F"<br>MIL-DTL-38999 Series I & II   | <b>B-37</b>                               |
| AS85049/18                    | M85049/18  | MIL-C-85049/18  | 390HS011   | Straight RFI/EMI Environmental Backshell   | "H"<br>MIL-DTL-38999, Ser. III & IV;<br>EN3645                                       | <b>B-38</b>                               |
| AS85049/19                    | M85049/19  | MIL-C-85049/19  | 380HS007   | Straight Environmental Backshell   | "H"<br>MIL-DTL-38999, Ser. III & IV;<br>EN3645                                       | <b>B-39</b>                               |

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# Military Standard Backshells and Accessories Part and Page Number Index



## SECTION B • AS85049 QUALIFIED PRODUCTS • SECTION B

| Industry Specification Number | Part Identification Number                | Military Part Number Superseded      | Glenair Commercial Part Number | Description  | Glenair Connector Designator/Interface   | Page No.     |
|-------------------------------|---|--------------------------------------|--------------------------------|--|--|--------------|
| AS85049/20                    | M85049/20                                 | MIL-C-85049/20                       | 440HS063                       | Straight Crimp Ring Backshell and Crimp Ring   | "H"<br>MIL-DTL-38999, Ser. III & IV;<br>EN3645   | B-41         |
| AS85049/21                    | M85049/21                                 | MIL-C-85049/21                       | 360HS002                       | Straight Non-Environmental Strain Relief Backshell   | "H"<br>MIL-DTL-38999, Ser. III & IV;<br>EN3645   | B-42         |
| AS85049/23                    | M85049/23                                 | MS3189C                              | 380AB001                       | 45° RFI-EMI Non-Environmental Backshell  | "A"<br>AS50151; MIL-DTL-26482,<br>Series 2; AS81703 Series 3;<br>MIL-DTL-83723, Series III | B-43         |
| AS85049/24                    | M85049/24                                 | MS3188C                              | 390AA001                       | 90° RFI-EMI Non-Environmental Backshell  | "A"<br>AS50151; MIL-DTL-26482,<br>Series 2; AS81703 Series 3;<br>MIL-DTL-83723, Series III | B-45         |
| AS85049/25                    | M85049/25                                 | MS3437C                              | 380AS001                       | Straight RFI-EMI Non-Environmental Backshell   | "A"<br>AS50151; MIL-DTL-26482,<br>Series 2; AS81703 Series 3;<br>MIL-DTL-83723, Series III | B-47         |
| AS85049/26                    | M85049/26-1<br>M85049/26-2<br>M85049/26-3 | MS3419<br>MS3161<br>MIL-C-85049/26-3 | 440AS063<br>687-150            | Adapter Only<br>Crimp Ring Only<br>Adapter with Crimp Ring                                     | "A"<br>AS50151; MIL-DTL-26482,<br>Series 2; AS81703 Series 3;<br>MIL-DTL-83723, Series III | B-51<br>B-52 |
| AS85049/27                    | M85049/27-<br>M85049/27 N<br>M85049/27 S  | MIL-DTL-38999/1                      | 610FS011                       | E Nut<br>E Nut, Non-Detented, Self-Locking<br>E Nut, Detented, Self-Locking                    | "F"<br>MIL-DTL-38999 Series I & II   | B-53         |
| AS85049/28                    | M85049/28                                 | M83733/15                            | G61570                         | Strt. Rectangular Non-Environmental Backshell  | ---  | B-54         |
| AS85049/29                    | M85049/29                                 | MIL-DTL-38999/6                      | 360FS002                       | Straight Non-Environmental Strain Relief Backshell   | "F"<br>MIL-DTL-38999 Series I & II   | B-55         |
| AS85049/30                    | M85049/30                                 | MIL-DTL-38999/4                      | 400FS001                       | Straight RFI-EMI Individual Shield Termination Backshell                                       | "F"<br>MIL-DTL-38999 Series I & II   | B-56         |
| AS85049/31                    | M85049/31-<br>M85049/31 N<br>M85049/31 S  | MS3416                               | 610AS011                       | E Nut<br>E Nut, Non-Detented, Self-Locking<br>E Nut, Detented, Self Locking                    | "A"<br>AS50151; MIL-DTL-26482,<br>Series 2; AS81703 Series 3;<br>MIL-DTL-83723, Series III | B-57         |
| AS85049/33                    | M85049/33-2                               | MIL-DTL-38999/2                      | 440FS063                       | Straight Crimp Ring Non-Environmental Backshell  | "F"<br>MIL-DTL-38999 Series I & II   | B-58         |
| AS85049/34                    | M85049/34                                 | MS3484                               | 320                            | Straight Adapter and Extender For use with MS3114 & MS3124 Connectors                          | "D"<br>MIL-DTL-26482 Series I  | B-59         |
| AS85049/36                    | M85049/36                                 | MIL-DTL-38999/7                      | 380FS008                       | Straight RFI-EMI Non-Environmental Backshell   | "F"<br>MIL-DTL-38999 Series I & II   | B-60         |
| AS85049/37                    | M85049/37                                 | MIL-DTL-38999/8                      | 380FD007                       | 90° RFI-EMI Non-Environmental Backshell  | "F"<br>MIL-DTL-38999 Series I & II   | B-61         |
| AS85049/38                    | M85049/38 N<br>M85049/38 S                | MIL-C-85049/38-                      | 620HS011<br>620HS048           | Str. Strain Relief, Non-Detented Self-Locking<br>Straight Strain Relief, Detented Self-Locking | "H"<br>MIL-DTL-38999 Series III & IV<br>EN3645   | B-62         |
| AS85049/39                    | M85049/39                                 | MIL-C-85049/39                       | 620HA011<br>620HA048           | 90° Strain Relief, Non-Detented Self-Locking<br>90° Strain Relief, Detented Self-Locking       | "H"<br>MIL-DTL-38999 Series III & IV;<br>EN3645  | B-63         |
| AS85049/41                    | M85049/41                                 | MS3057A                              | 620-053 Style A                | Straight Strain Relief   | MS "V" Thread  | B-64         |
| AS85049/42                    | M85049/42                                 | MS3057D                              | 620-053 Style H                | Straight Strain Relief   | MS "V" Thread  | B-65         |
| AS85049/43                    | M85049/43                                 | MS3415                               | 620AB047                       | 45° Strain Relief  | ---  | B-66         |
| AS85049/44                    | M85049/44                                 | M83733/16                            | G61257                         | Straight Rectangular Strain Relief Backshell   | ---  | B-67         |
| AS85049/45                    | M85049/45                                 | MS27663                              | 440FS037                       | Straight Strain Relief   | "F"<br>MIL-DTL-38999 Series I & II   | B-68         |
| AS85049/46                    | M85049/46                                 | MS27663                              | 440FA037                       | 90° Non-Self-Locking Composite Strain Relief   | "F"<br>MIL-DTL-38999 Series I & II   | B-69         |

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## Military Standard Backshells and Accessories Part and Page Number Index

### SECTION B • AS85049 QUALIFIED PRODUCTS • SECTION B

| Industry Specification Number          | Part Identification Number                | Military Part Number Superseded     | Glenair Commercial Part Number   | Description   | Glenair Connector Designator/Interface   | Page No.                                  |
|--|---|-------------------------------------|----------------------------------|---|--|---|
| AS85049/47                             | M85049/47                                 | MS27507                             | 620FA012                         | 90° Self-Locking or Non-Self-Locking Strain Relief  | "F"<br>MIL-DTL-38999 Series I & II   | <b>B-70</b>                               |
| AS85049/48                             | M85049/48-1<br>M85049/48-2<br>M85049/48-3 | M24308/20<br>M24308/21<br>M24308/22 | GS85049/48<br>550/557            | Rectangular Strain Relief Backshell   | MIL-DTL-24308  | <b>B-71</b><br><b>B-72</b><br><b>B-73</b> |
| AS85049/49                             | M85049/49-2                               | MS27506                             | 620FS054                         | Straight Strain Relief  | "F"<br>MIL-DTL-38999 Series I & II   | <b>B-74</b>                               |
| AS85049/50                             | M85049/50                                 | MS24308/19                          | GS85049/50<br>550/557            | Rectangular Strain Relief Backshell   | MIL-DTL-24308  | <b>B-75</b>                               |
| AS85049/51                             | M85049/51                                 | MS3418                              | 620AA046                         | 90° Self-Locking or Non-Self-Locking Strain Relief  | "A"<br>AS50151; MIL-DTL-26482, Series 2; AS81703 Series 3; MIL-DTL-83723, Series III | <b>B-76</b>                               |
| AS85049/52                             | M85049/52                                 | MS3417                              | 620AS046                         | Straight Self-Locking or Non-Self-Locking Strain Relief                                     | "A"<br>AS50151; MIL-DTL-26482, Series 2; AS81703 Series 3; MIL-DTL-83723, Series III | <b>B-77</b>                               |
| AS85049/53<br>AS85049/54<br>AS85049/55 | M85049/53<br>M85049/54<br>M85049/55       | MS3152<br>MS3153<br>MS3154          | 450AS001<br>450BS001<br>450AA001 | Straight Qwik-Ty® Strain Relief<br>45° Qwik-Ty® Strain Relief<br>90° Qwik-Ty® Strain Relief | "A"<br>AS50151; MIL-DTL-26482, Series 2; AS81703 Series 3; MIL-DTL-83723, Series III | <b>B-78</b>                               |
| AS85049/56<br>AS85049/57               | M85049/56<br>M85049/57                    | MS27668<br>MS27669                  | 450FS001<br>450FB001             | Straight Qwik-Ty® Strain Relief<br>45° Qwik-Ty® Strain Relief                               | "F"<br>MIL-DTL-38999 Ser. I & II   | <b>B-79</b>                               |
| AS85049/58                             | M85049/58                                 | MS27485                             | GS85049/58<br>310                | Potting Boot Ring   | "F"<br>MIL-DTL-38999 Ser. I & II   | <b>B-80</b>                               |
| AS85049/59                             | M85049/59                                 | MS90568                             | 310CS002                         | Straight Shrink Boot Adapter  | "C"<br>MIL-DTL-22992   | <b>B-81</b>                               |
| AS85049/60                             | M85049/60-1<br>M85049/60-2G               | MS3158<br>MS3416                    | 310AS001<br>310AS002             | Straight Shrink Boot Adapter<br>Straight Shrink Boot Adapter                                | "A"<br>AS50151; MIL-DTL-26482, Series 2; AS81703 Series 3; MIL-DTL-83723, Series III | <b>B-82</b><br><b>B-83</b>                |
| AS85049/61                             | M85049/61                                 | MS27332                             | GS85049/61<br>310                | Potting Boot Ring   | MIL-DTL-27599  | <b>B-84</b>                               |
| AS85049/62                             | M85049/62                                 | M38999/2                            | 310FS001                         | Straight Shrink Boot Adapter  | "F"<br>MIL-DTL-38999 Ser. I & II   | <b>B-85</b>                               |
| AS85049/63                             | M85049/63                                 | MS27670                             | 450FA001                         | 90° Qwik-Ty® Strain Relief  | "F"<br>MIL-DTL-38999 Ser. I & II   | <b>B-86</b>                               |
| AS85049/69                             | M85049/69                                 | MIL-C-85049/69                      | 310HS001                         | Straight Shrink Boot Adapter  | "H"<br>MIL-DTL-38999 Ser. III & IV<br>EN3645   | <b>B-87</b>                               |
| AS85049/74                             | M85049/74                                 | MS27333                             | GS85049/74<br>687                | Potting Boot for Use with AS85049/61<br>Potting Boot Ring (Page B-84)                       | --   | <b>B-88</b>                               |
| AS85049/75                             | M85049/75                                 | MS27486                             | GS85049/75<br>687                | Potting Boot for Use with AS85049/58<br>Potting Boot Ring (Page B-80)                       | --   | <b>B-89</b>                               |
| AS85049/76                             | M85049/76                                 | MIL-C-85049/76                      | 390FL011                         | 90° EMI/RFI Environmental Backshell   | "F"<br>MIL-DTL-38999 Ser. I & II   | <b>B-90</b>                               |
| AS85049/77                             | M85049/77                                 | MIL-C-85049/77                      | 390FK011                         | 45° EMI/RFI Environmental Backshell   | "F"<br>MIL-DTL-38999 Ser. I & II   | <b>B-91</b>                               |
| AS85049/78                             | M85049/78                                 | MIL-C-85049/78                      | 390HK011                         | 45° EMI/RFI Environmental Backshell   | "H"<br>MIL-DTL-38999 Ser. III & IV<br>EN3645   | <b>B-92</b>                               |
| AS85049/79                             | MIL-C-85049/79                            | 390HL011                            | 390HL011                         | 90° EMI/RFI Environmental Backshell   | "H"<br>MIL-DTL-38999 Ser. III & IV<br>EN3645   | <b>B-93</b>                               |
| AS85049/80                             | M85049/80                                 | MIL-C-85049/80                      | GS85049/80<br>687                | Sealing Plug, Sizes 8, 12 and 16  | MIL-DTL-38999  | <b>B-94</b>                               |

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# Military Standard Backshells and Accessories Part and Page Number Index



## SECTION B • AS85049 QUALIFIED PRODUCTS • SECTION B

| Industry Specification Number          | Part Identification Number          | Military Part Number Superseded                    | Glenair Commercial Part Number   | Description  | Glenair Connector Designator/Interface   | Page No.     |
|--|-------------------------------------|--|----------------------------------|--|--|--------------|
| AS85049/81                             | M85049/81                           | MIL-C-85049/81                                     | GS85049/81<br>687                | Sealing Plug   | MIL-DTL-38999  | <b>B-96</b>  |
| AS85049/82<br>AS85049/83<br>AS85049/84 | M85049/82<br>M85049/83<br>M85049/84 | MIL-C-85049/82<br>MIL-C-85049/83<br>MIL-C-85049/84 | 440AS069<br>440AH069<br>440AJ069 | Straight Banding Backshell<br>45° Banding Backshell<br>90° Banding Backshell   | "A"<br>AS50151; MIL-DTL-26482,<br>Series 2; AS81703 Series 3;<br>MIL-DTL-83723, Series III | <b>B-97</b>  |
| AS85049/85<br>AS85049/86<br>AS85049/87 | M85049/85<br>M85049/86<br>M85049/87 | MIL-C-85049/85<br>MIL-C-85049/86<br>MIL-C-85049/87 | 440FS069<br>440FH069<br>440FJ069 | Straight Banding Backshell<br>45° Banding Backshell<br>90° Banding Backshell   | "F"<br>MIL-DTL-38999<br>Series I & I   | <b>B-99</b>  |
| AS85049/88<br>AS85049/89<br>AS85049/90 | M85049/88<br>M85049/89<br>M85049/90 | MIL-C-85049/88<br>MIL-C-85049/89<br>MIL-C-85049/90 | 440HS069<br>440HH069<br>440HJ069 | Straight Banding Backshell<br>45° Banding Backshell<br>90° Banding Backshell   | "H"<br>MIL-DTL-38999 Ser. III & IV<br>EN3645   | <b>B-101</b> |
| AS85049/91<br>AS85049/92               | M85049/91<br>M85049/92              | MIL-C-85049/91<br>MIL-C-85049/92                   | 620HS042<br>620HA042             | Straight Strain Relief<br>90° Strain Relief  | "H"<br>MIL-DTL-38999 Ser. III & IV<br>EN3645   | <b>B-103</b> |
| AS85049/93                             | M85049/93                           | MIL-C-85049/93                                     | 687-207                          | Banding Split Ring   | ---  | <b>B-104</b> |
| AS85049/94                             | M85049/94                           | MIL-C-88528/1                                      | GS85049/94<br>687                | Full Perimeter Mounting Flange   | ---  | <b>B-105</b> |
| AS85049/95                             | M85049/95                           | MIL-C-88528/2                                      | GS85049/95<br>687                | 3/4 Perimeter Mounting Flange  | ---  | <b>B-106</b> |
| AS85049/96                             | M85049/96                           | MIL-C-88528/3                                      | GS85049/96<br>687                | 1/4 Perimeter Mounting Flange  | ---  | <b>B-107</b> |
| AS85049/103                            | M85049/103                          | ---  | 447HS557                         | Straight Shield Sock Composite Adapter with Detented or Non-Detented Self-Locking Coupling Nut                       | "H"<br>MIL-DTL-38999 Ser. III & IV<br>EN3645   | <b>B-108</b> |
| AS85049/104                            | M85049/104                          | ---  | 447HB557                         | 45° Shield Sock Composite Adapter with Detented or Non-Detented Self-Locking Coupling Nut                            | "H"<br>MIL-DTL-38999 Ser. III & IV<br>EN3645   | <b>B-110</b> |
| AS85049/105                            | M85049/105                          | ---  | 447HA557                         | 90° Shield Sock Composite Adapter with Detented or Non-Detented Self-Locking Coupling Nut                            | "H"<br>MIL-DTL-38999 Ser. III & IV<br>EN3645   | <b>B-112</b> |
| AS85049/109                            | M85049/109                          | 88064  | 319AS001                         | Straight Shield Sock Shrink Boot Adapter with Detented or Non-Detented Self-Locking or Non-Self Locking Coupling Nut | "A"<br>AS50151; MIL-DTL-26482,<br>Series 2; AS81703 Series 3;<br>MIL-DTL-83723, Series III | <b>B-114</b> |
| AS85049/111                            | M85049/111                          | 89018  | 319AJ001                         | 90° Shield Sock Shrink Boot Adapter with Optional Self-Locking Coupling Nut  | "A"<br>AS50151; MIL-DTL-26482,<br>Series 2; AS81703 Series 3;<br>MIL-DTL-83723, Series III | <b>B-116</b> |
| AS85049/112                            | M85049/112                          | 89014  | 319FS001                         | Straight Shield Sock Shrink Boot Adapter with Optional Self-Locking Coupling Nut                                     | "F"<br>MIL-DTL-38999 Series I & II   | <b>B-118</b> |
| AS85049/114                            | M85049/114                          | 89016  | 319FJ001                         | 90° Shield Sock Shrink Boot Adapter with Detented or Non-Detented Self-Locking Coupling Nut                          | "F"<br>MIL-DTL-38999 Series I & II   | <b>B-120</b> |
| AS85049/115                            | M85049/115                          | 89013  | 319HS001                         | Straight Shield Sock Shrink Boot Adapter with Optional Self-Locking Coupling Nut                                     | "H"<br>MIL-DTL-38999 Ser. III & IV<br>EN3645   | <b>B-122</b> |
| AS85049/118                            | M85049/118                          | ---  | 620AS038                         | Straight Strain Relief, Self-Locking or Non-Self-Locking   | "A"<br>AS50151; MIL-DTL-26482,<br>Series 2; AS81703 Series 3;<br>MIL-DTL-83723, Series III | <b>B-124</b> |
| AS85049/120                            | M85049/120                          | ---  | 620AA038                         | 90° Strain Relief, Self-Locking or Non-Self-Locking  | "A"<br>AS50151; MIL-DTL-26482,<br>Series 2; AS81703 Series 3;<br>MIL-DTL-83723, Series III | <b>B-126</b> |
| AS85049/121                            | M85049/121                          | ---  | 620FS038                         | Straight Strain Relief, Self-Locking or Non-Self-Locking   | "F"<br>MIL-DTL-38999 Series I & II;<br>MIL-DTL-27599                                       | <b>B-128</b> |

Dimensions in inches (millimeters) and are subject to change without notice.



## Military Standard Backshells and Accessories Part and Page Number Index

A

### SECTION B • AS85049 QUALIFIED PRODUCTS • SECTION B

| Industry Specification Number  | Part Identification Number                                       | Military Part Number Superseded | Glenair Commercial Part Number                             | Description  | Glenair Connector Designator/Interface               | Page No.   |
|--------------------------------|--|---------------------------------|--|--|--|--|
| AS85049/123                    | M85049/123   | --                              | 620FA038   | 90° Strain Relief, Self-Locking or Non-Self-Locking  | "F"<br>MIL-DTL-38999 Series I & II;<br>MIL-DTL-27599 | <b>B-130</b>   |
| AS85049/124                    | M85049/124   | --                              | 620HS038   | Straight Strain Relief, Self-Locking or Non-Self-Locking   | "H"<br>MIL-DTL-38999 Ser. III & IV<br>EN3645         | <b>B-132</b>   |
| AS85049/126                    | M85049/126   | --                              | 620HA038   | 90° Strain Relief, Self-Locking or Non-Self-Locking  | "H"<br>MIL-DTL-38999 Ser. III & IV<br>EN3645         | <b>B-134</b>   |
| AS85049/127                    | M85049/127   | --                              | 687-581  | Bushing Strip  | --   | <b>B-136</b>   |
| AS85049/128-3<br>AS85049/128-4 | M85049/128-3<br>M85049/128-4                                     | --                              | 600-052<br>600-052-1                                       | Standard Clamping Band<br>Precoiled Standard Clamping Band   | AS85049/128  | <b>B-137</b>   |
| AS85049/130                    | M85049/130   | --                              | Consult Factory  | Gasket   | --   | <b>B-138</b>   |
| AS85049/139                    | M85049/139   | MS3420                          | GS85049/139<br>687   | Telescoping Bushing, C or L  | --   | <b>B-140</b>   |
| AS85049/140                    | M85049/140-05<br>M85049/140-09<br>M85049/140-20<br>M85049/140-25 | MS3109                          | 770-003S107<br>770-006S102W1<br>770-007S104<br>770-018S102 | Straight Lipped Heat Shrink Boot<br>Str. Lipped Long Tail Low Profile H.S. Boot<br>Str. Lipped Mini. Long Tail Low Profile H.S. Boot<br>Straight Lipped Sealing Heat Shrink Boot | --   | <b>B-142</b><br><b>B-144</b><br><b>B-146</b><br><b>B-148</b> |
| AS85049/141                    | M85049/141-03<br>M85049/141-10<br>M85049/141-19                  | MS3117                          | 770-003A105<br>770-006A103<br>770-007A103                  | 90° Lipped Heat Shrink Boot<br>90° Lipped Low Profile Heat Shrink Boot<br>90° Lipped Mini. Low Profile Heat Shrink Boot  | --   | <b>B-150</b><br><b>B-152</b><br><b>B-154</b>                 |
| AS85049/142                    | M85049/142-02<br>M85049/142-05<br>M85049/142-10                  | --                              | 770-011T102<br>770-010Y105<br>770-013110W1                 | Tee Transition Wide Body Heat Shrink Boot<br>Wye Transition Wide Body Heat Shrink Boot<br>1:3 Transition Wide Body Heat Shrink Boot  | --   | <b>B-156</b><br><b>B-158</b><br><b>B-160</b>                 |

### SECTION C • MIL-DTL-38999 QUALIFIED PRODUCTS • SECTION C

| Industry Specification Number        | Part Identification Number | Military Part Number Superseded | Glenair Commercial Part Number | Description  | Glenair Connector Designator/Interface   | Page No.   |
|--------------------------------------|----------------------------|---------------------------------|--------------------------------|--|--|------------|
| MIL-DTL-38999<br>MIL-DTL-38999       | MS27501<br>MS27502         | MS20048<br>MS20047              | 660-012<br>660-013             | Protective Plug Cover<br>Protective Receptacle Cover                                   | MIL-DTL-38999 Series I                   | <b>C-2</b> |
| MIL-DTL-38999                        | MS27510<br>MS27511         | MS27352<br>MS27353              | 660-014<br>660-015             | Protective Plug Cover<br>Protective Receptacle Cover                                   | MIL-DTL-38999 Series II                  | <b>C-3</b> |
| MIL-DTL-38999/22                     | D38999/22                  | --                              | 650HS010                       | Dummy Storage Receptacle, Threaded Coupling  | MIL-DTL-38999, Series III                | <b>C-4</b> |
| MIL-DTL-38999/28                     | D38999/28                  | --                              | Consult Factory                | Jam Nut with Safety Wire Holes   | MIL-DTL-38999 Series III & IV;<br>EN3645 | <b>C-5</b> |
| MIL-DTL-38999/32<br>MIL-DTL-38999/33 | D38999/32<br>D38999/33     | --                              | 660-023<br>660-024             | Composite or Metal Threaded Plug Cover<br>Composite or Metal Threaded Receptacle Cover | MIL-DTL-38999, Series III                | <b>C-6</b> |
| MIL-DTL-38999/50                     | D38999/50                  | --                              | 650HS007                       | Dummy Storage Receptacle, Bayonet Coupling   | MIL-DTL-38999, Series IV                 | <b>C-7</b> |

Dimensions in inches (millimeters) and are subject to change without notice.



# Military Standard Backshells and Accessories Part and Page Number Index



## SECTION D • MIL-DTL-28840 QUALIFIED PRODUCTS • SECTION D

| Industry Specification Number        | Part Identification Number | Military Part Number Superseded | Glenair Commercial Part Number | Description   | Glenair Connector Designator/Interface | Page No.     |
|--------------------------------------|----------------------------|---------------------------------|--------------------------------|---|--|--------------|
| MIL-DTL-28840/1                      | M28840/1                   | —                               | 620GS051                       | Straight Non-Self-Locking Strain Relief   | "G"<br>MIL-DTL-28840                   | D-2          |
| MIL-DTL-28840/2                      | M28840/2                   | —                               | 620GA051                       | 90° Non-Self-Locking Strain Relief  | "G"<br>MIL-DTL-28840                   | D-3          |
| MIL-DTL-28840/3                      | M28840/3                   | —                               | 620GB051                       | 45° Non-Self-Locking Strain Relief  | "G"<br>MIL-DTL-28840                   | D-4          |
| MIL-DTL-28840/4                      | M28840/4                   | —                               | —                              | Metal-Core Conduit  | "G"<br>MIL-DTL-28840                   | D-5          |
| MIL-DTL-28840/5                      | M28840/5                   | —                               | —                              | Straight Backshell for Metal-Core Conduit   | "G"<br>MIL-DTL-28840                   | D-6          |
| MIL-DTL-28840/6                      | M28840/6 A<br>M28840/6 B   | —                               | 390AB001<br>370 Series         | Strt. EMI/RFI Environmental Backshell, Style A<br>Straight Environmental Backshell, Style B | "G"<br>MIL-DTL-28840                   | D-7<br>D-8   |
| MIL-DTL-28840/7                      | M28840/7                   | —                               | 650GS001                       | Dummy Storage Receptacle, Threaded Coupling   | "G"<br>MIL-DTL-28840                   | D-9          |
| MIL-DTL-28840/8                      | M28840/8-<br>M28840/8 A    | —                               | 390-061                        | 90° Environmental Backshell, Style A<br>90° EMI/RFI Environmental Backshell, Style B        | "G"<br>MIL-DTL-28840                   | D-10<br>D-11 |
| MIL-DTL-28840/9                      | M28840/9 B<br>M28840/9 A   | —                               | 390-061                        | 45° Environmental Backshell, Style A<br>45° EMI/RFI Environmental Backshell                 | "G"<br>MIL-DTL-28840                   | D-12<br>D-13 |
| MIL-DTL-28840/13<br>MIL-DTL-28840/15 | M28840/13<br>M28840/15     | —                               | 660-011<br>660-010             | Protective Threaded Receptacle Cover<br>Protective Threaded Plug Cover                      | MIL-DTL-28840                          | D-14         |
| MIL-DTL-28840/22                     | M28840/22                  | —                               | —                              | Metal-Core Conduit Bushing  | "G"<br>MIL-DTL-28840                   | D-15         |
| MIL-DTL-28840/23                     | M28840/23                  | —                               | Consult Factory                | E Nut, Non-Self-Locking   | "G"<br>MIL-DTL-28840                   | D-16         |
| MIL-DTL-28840/24                     | M28840/24                  | —                               | Consult Factory                | Gasket  | "G"<br>MIL-DTL-28840                   | D-17         |

## SECTION E • MIL-DTL-83723 QUALIFIED PRODUCTS • SECTION E

| Industry Specification Number        | Part Identification Number                | Military Part Number Superseded | Glenair Commercial Part Number | Description  | Glenair Connector Designator/Interface | Page No.          |
|--------------------------------------|---|---------------------------------|--------------------------------|--|--|-------------------|
| MIL-DTL-83723/27                     | M83723/27M                                | —                               | 310KS002                       | Straight Shrink Boot Adapter   | "K"<br>MIL-DTL-83723 Series II         | E-2               |
| MIL-DTL-83723/35                     | M83723/35S<br>M83723/35A<br>M83723/35N    | —                               | Consult Factory                | Strt. Non-Environmental Strain Relief Backshell<br>90° Non-Environmental Strain Relief Backshell<br>Non-Self-Locking E-Nut | "K"<br>MIL-DTL-83723 Series II         | E-3<br>E-4<br>E-5 |
| MIL-DTL-83723/50                     | M83723/50 R<br>M83723/50 B<br>M83723/50 A | —                               | Consult Factory                | Straight Qwik-Ty® Strain Relief<br>45° Qwik-Ty® Strain Relief<br>90° Qwik-Ty® Strain Relief                                | "K"<br>MIL-DTL-83723 Series II         | E-6               |
| MIL-DTL-83723/59<br>MIL-DTL-83723/60 | M83723/59-1<br>M83723/60-1                | MS27292<br>MS27293              | 660-021<br>660-022             | Protective Plug Cover, Threaded Coupling<br>Protective Receptacle Cover, Threaded Coupling                                 | MIL-DTL-83723, Series III              | E-7               |
| MIL-DTL-83723/59<br>MIL-DTL-83723/60 | M83723/59-2<br>M83723/60-2                | MS27294<br>MS27295              | 660-019<br>660-020             | Protective Plug Cover Bayonet Coupling<br>Protective Receptacle Cover Bayonet Coupling                                     | MIL-DTL-83723, Series III              | E-8               |
| MIL-DTL-83723/70                     | M83723/70                                 | —                               | Consult Factory                | Straight Quick Disconnect Receptacle Adapter   | —                                      | E-9               |

Dimensions in inches (millimeters) and are subject to change without notice.  
Mil-Spec Backshells and Accessories

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## Military Standard Backshells and Accessories Part and Page Number Index

A

### SECTION F • AS81511 QUALIFIED PRODUCTS • SECTION F

| Industry Specification Number | Part Identification Number | Military Part Number Superseded | Glenair Commercial Part Number | Description  | Glenair Connector Designator/Interface         | Page No. |
|-------------------------------|----------------------------|---------------------------------|--------------------------------|--|--|----------|
| AS81511/13                    | M81511/13                  | —                               | 620JS001                       | Straight Non-Self-Locking Strain Relief  | "J"<br>AS81511 Series I, II, III & IV          | F-2      |
| AS81511/14                    | M81511/14 A<br>M81511/14 B | —                               | 390JS012<br>390JS012           | Straight EMI/RFI Environmental Backshell A<br>Straight EMI/RFI Environmental Backshell B | "J"<br>AS81511 Series I, II, III & IV          | F-3      |
| AS81511/14                    | M81511/14 C<br>M81511/14 D | —                               | 380JS008<br>380JS008           | Str. EMI/RFI Non-Environmental Backshell C<br>Str. EMI/RFI Non-Environmental Backshell D | "J"<br>AS81511 Series I, II, III & IV          | F-5      |
| AS81511/17<br>AS81511/18      | M81511/17<br>M81511/18     | —                               | 660-017<br>660-018             | Protective Plug Cover<br>Protective Receptacle Cover                                     | AS81511 Series I, II, III & IV                 | F-7      |
| AS81511/19                    | M81511/19                  | —                               | 650JS002                       | Dummy Storage Receptacle   | AS81511 Series I, II, III & IV                 | F-8      |
| AS81511/20                    | M81511/20                  | —                               | Consult Factory                | Jam Nut  | AS81511 Series I, II, III & IV                 | F-9      |
| AS81511/29                    | M81511/29                  | —                               | 660-016                        | Protective Plug Cover  | AS81511 Series I, II, III & IV                 | F-7      |
| AS81511/30                    | M81511/30                  | —                               | 650JS001                       | Dummy Storage Receptacle Bayonet Coupling  | MIL-DTL-26500 and<br>MIL-DTL-83723, Series III | F-10     |

### SECTION G • MISCELLANEOUS QUALIFIED PRODUCTS • SECTION G

| Industry Specification Number | Part Identification Number | Military Part Number Superseded | Glenair Commercial Part Number | Description  | Glenair Connector Designator/Interface  | Page No. |
|-------------------------------|----------------------------|---------------------------------|--------------------------------|--|---|----------|
| AS25042<br>AS25043            | MS25042<br>MS25043         | MS25042<br>MS25043              | 660-004<br>660-005             | Threaded Protective Plug Cover<br>Threaded Protective Receptacle Cover                   | AS50151   | G-2      |
| MS17349<br>MS17350            | MS17349<br>MS17350         | —                               | 660-007<br>660-006             | Threaded Protective Receptacle Cover<br>Threaded Protective Plug Cover                   | MIL-DTL-22992   | G-3      |
| MS27291                       | MS27291                    | —                               | 620ES050                       | Straight Non-Self-Locking Strain Relief  | "E"<br>MIL-DTL-26500  | G-4      |
| MIL-DTL-26500                 | MS27558                    | —                               | G2221-A                        | 90° Non-Self-Locking Strain Relief   | "E"<br>MIL-DTL-26500  | G-5      |
| MIL-DTL-26500                 | MS27559                    | —                               | G2221-B                        | 90° Non-Self-Locking Strain Relief   | "E"<br>MIL-DTL-26500  | G-6      |
| —                             | MS27741                    | —                               | 410-003                        | TAG® Ring for Reliable Terminations  | —   | G-7      |
| AS50151                       | MS3105                     | —                               | 650BS001                       | Dummy Storage Receptacle, Threaded Coupling  | AS50151   | G-8      |
| —                             | MS3115                     | —                               | 650DS001                       | Dummy Storage Receptacle, Bayonet Coupling   | MIL-DTL-26482   | G-9      |
| —                             | MS3180<br>MS3181           | —                               | 660-008<br>660-009             | Protective Plug Cover, Bayonet Coupling<br>Protective Receptacle Cover, Bayonet Coupling | MIL-DTL-26482   | G-10     |
| —                             | MS27512                    | MS3186                          | Consult Factory                | Jam Nut with Safety Wire Holes   | AS50151; MIL-DTL-26482;<br>MIL-DTL-26500;<br>MIL-DTL-83723 Series I;<br>MIL-DTL-83723, Series III<br>MIL-DTL-38999 Series I;<br>MIL-DTL-38999 Series II;<br>MIL-DTL-28840;<br>MIL-DTL-27599 | G-11     |
| —                             | M29504/04                  | —                               | Consult Factory                | Fiber Optic Pin Terminus, Size 16  | MIL-DTL-29504   | G-13     |
| —                             | M29504/05                  | —                               | Consult Factory                | Fiber Optic Socket Terminus, Size 16   | MIL-DTL-29504   | G-14     |
| MIL-DTL-83513/05              | M83513/05                  | —                               | Consult Factory                | Micro-D Jackscrew Kits   | MIL-DTL-83513/05  | G-15     |
| MIL-DTL-83538/9               | M83538/9S                  | —                               | Consult Factory                | Straight Adapter and Extender  | MIL-DTL-83538/4   | G-16     |
| MIL-S-81824/1                 | M81824/1                   | —                               | 070-001                        | In-Line Splice, Insulated and Environmental  | —   | G-17     |

Dimensions in inches (millimeters) and are subject to change without notice.



## Military Standard Backshells and Accessories Part and Page Number Index



### SECTION H • GLENAIR QUALIFIED TOOLS • SECTION H

| Industry Specification Number | Part Identification Number | Military Part Number Superseded | Glenair Commercial Part Number | Description   | Glenair Connector Designator/Interface                                      | Page No. |
|-------------------------------|----------------------------|---------------------------------|--------------------------------|---|---|----------|
| --                            | --                         | --                              | TG37                           | Connector Wrench for MIL-DTL-26500 and MIL-DTL-83723 Series III   | MIL-DTL-26500;<br>MIL-DTL-83723 Series III                                  | H-2      |
| --                            | MS3481                     | --                              | TG39                           | Connector Wrench for MIL-DTL-26482, Ser. I & II; MIL-DTL-83723, Ser. I & NAS 1599                       | MIL-DTL-26482 Series I & II;<br>MIL-DTL-83723 Series I;<br>NAS 1599         | H-3      |
| --                            | --                         | --                              | TG47                           | Connector Wrench for MIL-DTL-22992, Classes C, J and R  | MIL-DTL-22992,<br>Classes C, J and R  | H-4      |
| --                            | --                         | --                              | TG48                           | Connector Wrench for MIL-DTL-38999, Series II   | MIL-DTL-38999 Series II   | H-5      |
| --                            | --                         | --                              | TG52                           | Connector Wrench for MIL-C-81511, Series II and IV  | MIL-C-81511 Series II & IV  | H-6      |
| --                            | --                         | --                              | TG60                           | Connector Wrench for MIL-DTL-27599 and MIL-DTL-38999, Series I  | MIL-DTL-27599;<br>MIL-DTL-38999 Series I                                    | H-7      |
| --                            | --                         | --                              | TG83                           | Wrench for SJT Connectors (LN29729)   | LN29729   | H-8      |
| --                            | --                         | --                              | TG90                           | Connector Wrench For MIL-DTL-38999, Ser III   | MIL-DTL-38999 Series III  | H-9      |
| --                            | --                         | --                              | 600B005                        | Plug and Receptacle Holder for MIL-DTL-501555 Series MS3100 Solder & Crimp and MIL-DTL-83723, Series II | MIL-DTL-50155 Series MS3100<br>Solder and Crimp;<br>MIL-DTL-83723 Series II | H-10     |
| --                            | --                         | --                              | 600C005                        | Plug and Receptacle Holder for MIL-DTL-22992 Classes C, J and R   | MIL-DTL-22992<br>Classes C, J and R   | H-11     |
| --                            | --                         | --                              | 600D005                        | Plug and Receptacle Holder for MIL-DTL-26482, Series I and II, MIL-DTL-83723, Series I and NAS 1599     | MIL-DTL-26482 Series I & II;<br>MIL-DTL-83723 Series I;<br>NAS 1599         | H-12     |
| --                            | --                         | --                              | 600E005                        | Plug and Receptacle Holder for MIL-DTL-26500 and MIL-DTL-83723 Series III                               | MIL-DTL-26500;<br>MIL-DTL-83723 Series III                                  | H-13     |
| --                            | --                         | --                              | 600F005                        | Plug and Receptacle Holder for MIL-DTL-27599 and MIL-DTL-38999 Series I                                 | MIL-DTL-27599;<br>MIL-DTL-38999 Series I                                    | H-14     |
| --                            | --                         | --                              | 600FF005                       | Plug and Receptacle Holder for MIL-DTL-38999, Series II   | MIL-DTL-38999 Series II   | H-15     |
| --                            | --                         | --                              | 600G005                        | Plug and Receptacle Holder for MIL-DTL-28840  | MIL-DTL-28840   | H-16     |
| --                            | --                         | --                              | 600H005                        | Plug and Receptacle Holder for MIL-DTL-38999, Series III  | MIL-DTL-38999 Series III  | H-17     |
| --                            | --                         | --                              | 600HH005                       | Plug and Receptacle Holder for MIL-DTL-38999, Series IV   | MIL-DTL-38999 Series IV   | H-18     |
| --                            | --                         | --                              | 600J005                        | Plug and Receptacle Holder for MIL-DTL-81511, Series I, II, III and IV                                  | MIL-DTL-81511<br>Series I, II, III & IV                                     | H-19     |

Dimensions in inches (millimeters) and are subject to change without notice.



## Standard Materials, Finishes and Tolerances

A

AS85049/GLENAIR FINISH CODE CROSS-REFERENCE

| AS85049<br>Finish Code | Material, Finish  | Recommended Glenair<br>Accessory Finish Code |
|------------------------|---|--|
| A                      | Aluminum, Black Anodize (RoHS Compliant)  | C  |
| B                      | Stainless Steel, Cadmium Plate, Black   | ZU   |
| G                      | Aluminum, Electroless Nickel Plate (Space Grade)                                  | MA   |
| J                      | Composite, Cadmium Plate, Olive Drab  | XW   |
| L                      | Composite, Cadmium Plate, Olive Drab, Selective                                   | XX   |
| M                      | Composite, Electroless Nickel Plate (RoHS Compliant)                              | XM   |
| N                      | Aluminum, Electroless Nickel Plate  | M  |
| P                      | Aluminum, Cadmium Plate, Olive Drab, Selective                                    | NFP  |
| S                      | Stainless Steel, Pasivate (RoHS Compliant)  | Z1   |
| T                      | Composite, Unplated (RoHS Compliant)  | XO   |
| W                      | Aluminum, Cadmium Plate, Olive Drab   | NF   |
| X                      | Aluminum, Nickel Fluorocarbon Polymer (RoHS Compliant)                            | MT   |
| XC                     | Composite, Nickel Fluorocarbon Polymer (RoHS Compliant)                           | XMT  |
| XS                     | Stainless Steel, Nickel Fluorocarbon Polymer (RoHS Compliant)                     | ZMT  |
| Y                      | Aluminum, Pure Dense Electrodeposited Aluminum (RoHS Compliant)                   | AL   |
| YC                     | Composite, Pure Dense Electrodeposited Aluminum (RoHS Compliant)                  | XAL  |
| YL                     | Composite, Pure Dense Electrodeposited Aluminum, Selective (RoHS Compliant)       | XAP  |
| YP                     | Aluminum, Pure Dense Electrodeposited Aluminum, Selective (RoHS Compliant)        | ALP  |
| YS                     | Stainless Steel, Pure Dense Electrodeposited Aluminum, Selective (RoHS Compliant) | ZAL  |
| Z                      | Aluminum, Zinc Nickel, Black (RoHS Compliant)                                     | ZR   |
| ZC                     | Composite, Zinc Nickel, Black (RoHS Compliant)                                    | XZR  |
| ZL                     | Composite, Zinc Nickel, Black, Selective (RoHS Compliant)                         | XZS  |
| ZP                     | Aluminum, Zinc Nickel, Black, Selective (RoHS Compliant)                          | ZS   |
| ZS                     | Stainless Steel, Zinc Nickel, Black (RoHS Compliant)                              | ZZR  |

**Note:** Every effort has been made to present accurate information in this catalog. Editorial errors that are brought to our attention will be corrected in future editions. All dimensions presented in this catalog should be confirmed by the factory prior to inclusion within designs or specifications. We are constantly incorporating product improvements and therefore Glenair reserves the right to make changes without notice.

Any liability or warranty as to quality, performance, or fitness for use of Glenair products is always based on the condition that they apply to only new, unused products that are properly stored, handled, installed, used, maintained and inspected by the user in a manner appropriate for the intended use of the product.

### TOLERANCES

On all length callouts, tolerance is  $\pm .060$  unless otherwise specified.

Unless otherwise specified, the following other dimensional tolerances will apply:

$$.xx = \pm .030 (.080)$$

$$.xxx = \pm .015 (0.400)$$

$$\text{Lengths} = \pm .060 (1.524)$$

$$\text{Angles} = \pm 5^\circ$$

Dimensions in inches (millimeters) and are subject to change without notice.

# Recommended Torque Values



## INSTALLATION TORQUE VALUES FOR CIRCULAR ELECTRICAL CONNECTOR ACCESSORIES

| Shell Sizes                               | <b>Group 1</b><br>Light and Medium Duty<br>AS50151 (AS31001 Series)<br>MIL-DTL-26482 Series I<br>MIL-DTL-26500<br>MIL-DTL-27599<br>MIL-DTL-38999 Series I and II<br>MIL-C-81511 Series I, II, III and IV<br>AS81703 Series I | <b>Group 2</b><br>Heavy Duty<br>AS50151 (AS34001 Series)<br>MIL-DTL-22992<br>MIL-DTL-26482 Series II<br>MIL-DTL-28840<br>MIL-DTL-38999 Series III and IV<br>AS81703 Series III<br>MIL-DTL-83723 Series I, II and III | <b>Group 2</b><br>Composite<br>Material<br>Coupling<br>Threads<br>(See Note 1) |
|---|--|--|--|
| <b>Torque Requirements in Inch-Pounds</b> |  |  |  |
| 8, 9, A                                   | 30/40  | 51/61  | 35   |
| 3, 10, 10SL, 11, B                        | 30/40  | 71/81  | 35   |
| 7, 12, 12S, 13, C                         | 35/45  | 103/113  | 45   |
| 14, 14S, 15, D                            | 35/45  | 111/121  | 45   |
| 16, 16S, 17, E                            | 35/45  | 111/121  | 45   |
| 18, 19, 27, F                             | 35/45  | 111/121  | 45   |
| 20, 21, 37, G                             | 75/85  | 131/141  | 80   |
| 22, 23, H                                 | 75/85  | 131/141  | 80   |
| 24, 25, 61, J                             | 75/85  | 131/141  | 80   |
| 28, 29                                    | 115/125  | 143/153  | 120  |
| 32, 33                                    | 115/125  | 143/153  | 120  |
| 36  | 115/125  | 142/153  | 120  |
| 40  | 155/165  | 159/169  | N/A  |
| 44  | 155/165  | 159/169  | N/A  |
| 48  | 155/165  | 159/169  | N/A  |

### TORQUE VALUES FOR CABLE CLAMP SCREWS

Torque requirements in Inch-Pounds for corrosion resistant or steel plated screws only

| Screw Size | Into Aluminum or Corrosion Resistant Steel |
|------------|--|
| 2-56       | 1.5/2.5                                    |
| 4-40       | 3.5/4.5                                    |
| 6-32       | 5.0/7.0                                    |
| 8-32       | 7.0/9.0                                    |
| 10-32      | 9.0/11.0                                   |
| .250-20    | 11.0/13.0                                  |

1) Use Glenair 600-091 and 600-007 Torque Tools when tightening hexagonal composite accessory couplings.

2) For additional guidance or values/conditions not listed, refer to SAE AIR6151.

### CABLE CLAMP WITH GROMMET - TORQUE VALUES

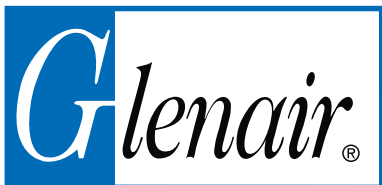
Torque Requirements in Inch-Pounds

| Clamp Size | Torque Min/Max Values |
|------------|-----------------------|
| 3          | 30/40                 |
| 4          | 30/40                 |
| 6          | 35/55                 |
| 8          | 35/55                 |
| 10         | 35/55                 |
| 12         | 40/60                 |
| 16         | 40/60                 |
| 20         | 40/60                 |
| 24         | 80/100                |
| 28         | 80/100                |
| 32         | 80/100                |
| 40         | 80/100                |

EMI/RFI shielding terminated with conical metal ferrule(s) should employ a minimum recommended torque of 35 in-lb.

Dimensions in inches (millimeters) and are subject to change without notice.





## Military Standard Connector Index

The following is a list of circular connectors defined by U.S. Military Specifications, cross-referenced to the applicable active or inactive part number series.

The symbols in the Connector Designator column are an essential element in Glenair's commercial backshell part number developments.

A

### MILITARY STANDARD CONNECTOR INDEX

| Part No. | Connector Designator | AS50151 Specification | Series  | Description                                   |
|----------|----------------------|-----------------------|---------|---|
| MS3100   | B                    | AS50151               | AS31001 | Receptacle, Wall Mtg (Solder)                 |
| MS3101   | B                    | AS50151               | AS31001 | Receptacle                                    |
| MS3102   | **                   | AS50151               | AS31001 | Receptacle, Box Mtg (Solder)                  |
| MS3103   | **                   | AS50151               | AS31001 | Receptacle, Potting (Solder)                  |
| MS3105   | **                   | AS50151               | AS31001 | Dummy Receptacle                              |
| MS3106   | B                    | AS50151               | AS31001 | Plug, Straight (Solder)                       |
| MS3107   | B                    | AS50151               | AS31001 | Plug, Quick Disconnect (Solder)               |
| MS3108   | B                    | AS50151               | AS31001 | Plug, 90° (Solder)                            |
| MS3110   | D-729                | MIL-DTL-26482         | 1       | Receptacle, Wall Mtg                          |
| MS3111   | D                    | MIL-DTL-26482         | 1       | Plug, Cable Connecting                        |
| MS3112   | **                   | MIL-DTL-26482         | 1       | Receptacle, Box Mount                         |
| MS3113   | **                   | MIL-DTL-26482         | 1       | Receptacle, Solder Mtg                        |
| MS3114   | D-717                | MIL-DTL-26482         | 1       | Receptacle, Jam Nut                           |
| MS3115   | **                   | MIL-DTL-26482         | 1-2     | Dummy Receptacle                              |
| MS3116   | D                    | MIL-DTL-26482         | 1       | Plug, Straight                                |
| MS3119   | **                   | MIL-DTL-26482         | 1       | Receptacle, Thru-Bulkhead                     |
| MS3120   | D                    | MIL-DTL-26482         | 1       | Receptacle, Wall Mtg (Crimp)                  |
| MS3121   | D                    | MIL-DTL-26482         | 1       | Plug, Straight (Crimp)                        |
| MS3122   | **                   | MIL-DTL-26482         | 1       | Receptacle, Box Mtg (Crimp)                   |
| MS3124   | D-717                | MIL-DTL-26482         | 1       | Receptacle, Rear Mtg, Jam Nut (Crimp)         |
| MS3126   | D                    | MIL-DTL-26482         | 1       | Plug, Straight (Crimp)                        |
| MS3127   | **                   | MIL-DTL-26482         | 1       | Receptacle, Box Mtg (Crimp)                   |
| MS3128   | *                    | MIL-DTL-26482         | 1       | Plug, Straight (Crimp)                        |
| MS3130   | *                    | AS81703               | 1       | Receptacle, Push Pull, Wide Flange            |
| MS3132   | X-706                | AS81703               | 1       | Receptacle, Push Pull, Box Mtg                |
| MS3134   | X-706                | AS81703               | 1       | Receptacle, Push Pull, Jam Nut                |
| MS3135   | **                   | AS81703               | 1       | Dummy Receptacle                              |
| MS3137   | X-706                | AS81703               | 1       | Plug, Straight, Push Pull                     |
| MS3138   | X-706                | AS81703               | 1       | Plug, Lanyard, Push Pull                      |
| MS3139   | **                   | AS81703               | 1       | Receptacle, Thru-Bulkhead                     |
| MS3140   | X-706B               | AS81703               | 2       | Receptacle, Push Pull, Wall Mtg               |
| MS3142   | **                   | AS81703               | AS31001 | Receptacle, Hermetic, Box Mtg                 |
| MS3143   | **                   | AS81703               | AS31001 | Receptacle, Hermetic, Solder Mount            |
| MS3144   | X-706B               | AS81703               | 2       | Receptacle, Push Pull, Jam Nut                |
| MS3145   | **                   | AS81703               | 3       | Receptacle, Hermetic, Push Pull, Box Mount    |
| MS3146   | **                   | AS81703               | 3       | Receptacle, Push Pull, Hermetic, Solder Mount |
| MS3147   | X-706B               | AS81703               | 2       | Plug, Push Pull (Crimp)                       |
| MS3148   | X706B                | AS81703               | 2       | Plug, Push Pull, Lanyard (Crimp)              |
| MS3149   | **                   | AS81703               | 3       | Receptacle, Push Pull, Hermetic               |

\* Consult Factory  
\*\* Connector does not accommodate rear accessories.

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# Military Standard Connector Index and Reference Guide



| Part No. | Connector Designator | Specification | Series  | Description                                     |
|----------|----------------------|---------------|---------|---|
| MS3400   | A                    | AS50151       | AS34001 | Receptacle, Wall Mtg                            |
| MS3401   | A                    | AS50151       | AS34001 | Receptacle, Cable Connecting                    |
| MS3402   | **                   | AS50151       | AS34001 | Receptacle, Box Mtg                             |
| MS3404   | A                    | AS50151       | AS34001 | Receptacle, Jam Nut                             |
| MS3406   | A                    | AS50151       | AS34001 | Plug  |
| MS3408   | A                    | AS50151       | AS34001 | Plug, 90°                                       |
| MS3409   | A                    | AS50151       | AS34001 | Plug, 45°                                       |
| MS3412   | A                    | AS50151       | AS34001 | Receptacle, Wall Mtg                            |
| MS3424   | A                    | AS81703       | 3       | Receptacle, Push Pull, Wall Mtg                 |
| MS3440   | **                   | MIL-DTL-26482 | 2       | Receptacle, Narrow Flange Mtg (Was M83723/9/10) |
| MS3442   | **                   | MIL-DTL-26482 | 2       | Receptacle, Wide Flange Mtg                     |
| MS3443   | **                   | MIL-DTL-26482 | 2       | Receptacle, Solder Flange Mtg                   |
| MS3445   | *                    | AS81703       | 2       | Plug, push Pull, Rack and Panel Mtg             |
| MS3446   | A                    | AS81703       | 3       | Plug, Rack and Panel                            |
| MS3449   | **                   | MIL-DTL-26482 | 2       | Receptacle, Single Hole Mtg                     |
| MS3450   | A                    | AS50151       | AS34501 | Receptacle, Wall Mtg (Was M83723/9/10)          |
| MS3451   | A                    | AS50151       | AS34501 | Receptacle, Cable Connecting (Was M83723/19/20) |
| MS3452   | **                   | AS50151       | AS34501 | Receptacle, Box Mtg (Was M83723/21/22)          |
| MS3454   | A                    | AS50151       | AS34501 | Receptacle, Jam Nut                             |
| MS3456   | A                    | AS50151       | AS34501 | Plug, Straight (Was M83723/52/53)               |
| MS3459   | A                    | AS50151       | AS34501 | Plug, Straight, Self-Locking (Was M83723/17/18) |
| MS3463   | **                   | AS81703       | 3       | Receptacle, Push Pull                           |
| MS3464   | A                    | AS81703       | 3       | Receptacle, Push Pull, Jam Nut                  |
| MS3466   | **                   | AS81703       | 3       | Receptacle, Push Pull, Hermetic                 |
| MS3467   | A                    | AS81703       | 3       | Plug, Push Pull                                 |
| MS3468   | A                    | AS81703       | 3       | Plug, Push Pull, Lanyard                        |
| MS3469   | **                   | AS81703       | 3       | Receptacle, Push Pull, Hermetic, Jam Nut        |
| MS3470   | A                    | MIL-DTL-26482 | 2       | Receptacle, Narrow Flange Mtg (Was M83723/1/2)  |
| MS3471   | A                    | MIL-DTL-26482 | 2       | Receptacle, Cable Connecting (Was M83723/7/8)   |
| MS3472   | A                    | MIL-DTL-26482 | 2       | Receptacle, Wide Flange Mtg (Was M83723/3/4))   |
| MS3473   | **                   | MIL-DTL-26482 | 2       | Receptacle, Solder Mtg, Hermetic                |
| MS3474   | A                    | MIL-DTL-26482 | 2       | Receptacle, Rear Mtg, Jam Nut (Was M83723/5/6)  |
| MS3475   | A                    | MIL-DTL-26482 | 2       | Plug, RFI Shielded (Was M83723/42/43)           |
| MS3476   | A                    | MIL-DTL-26482 | 2       | Plug, Straight, (Was M83723/13/14)              |
| MS3477   | **                   | MIL-DTL-26482 | 2       | Receptacle, Hermetic, Box Mtg                   |
| MS3479   | **                   | MIL-DTL-26482 | 2       | Receptacle, Hermetic, Rear Mtg, Jam Nut         |
| MS17343  | C                    | MIL-DTL-22992 | R       | Receptacle, Wall Mtg                            |
| MS17344  | C                    | MIL-DTL-22992 | R       | Plug, Straight                                  |
| MS17345  | C                    | MIL-DTL-22992 | R       | Plug, Cable Connecting                          |
| MS17346  | C                    | MIL-DTL-22992 | R       | Receptacle, Box Mtg                             |
| MS17347  | C                    | MIL-DTL-22992 | R       | Receptacle, Jam Nut                             |
| MS17348  | C                    | MIL-DTL-22992 | R       | Receptacle, Jam Nut, Box Mtg                    |
| MS18062  | **                   | MIL-DTL-22992 | R       | Dummy Receptacle                                |
| MS20026  | *                    | MIL-DTL-27599 |         | Receptacle, Wall Mtg, Solder                    |
| MS20027  | *                    | MIL-DTL-27599 |         | Receptacle, Line                                |
| MS20028  | *                    | MIL-DTL-27599 |         | Plug, Straight                                  |
| MS20029  | **                   | MIL-DTL-27599 |         | Receptacle, Jam Nut Mtg                         |

\* Consult Factory      \*\* Connector does not accommodate rear accessories.

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# Military Standard Connector Index and Reference Guide



| Part No.  | Connector Designator | Specification  | Series | Description                           |
|-----------|----------------------|----------------|--------|---------------------------------------|
| MS27505   | **                   | MIL-DTL-38999  | I      | Receptacle, Back Panel Box Mtg        |
| MS27508   | **                   | MIL-DTL-38999  | II     | Receptacle, Back Panel Box Mtg        |
| MS27513   | **                   | MIL-DTL-38999  | II     | Receptacle, Box Mtg                   |
| MS27515   | F                    | MIL-DTL-38999  | I      | Inactive Use MS27656                  |
| MS27613   | E-710                | MIL-DTL-26500K |        | Receptacle, Panel Mtg                 |
| MS27614   | E-710                | MIL-DTL-26500K |        | Receptacle, D-Hole Mtg                |
| MS27615   | E-710                | MIL-DTL-26500K |        | Plug, Straight                        |
| MS27652   | F                    | MIL-DTL-38999  | I      | Inactive Use MS27466                  |
| MS27653   | F                    | MIL-DTL-38999  | I      | Inactive Use MS27467                  |
| MS27654   | F                    | MIL-DTL-38999  | I      | Inactive Use MS27656                  |
| MS27656   | F                    | MIL-DTL-38999  | I      | Receptacle, Back Panel, Wall Mtg      |
| MS27661   | F-752                | MIL-DTL-38999  | I      | Plug, Lanyard Release                 |
| MS27662   | **                   | MIL-DTL-38999  | I      | Receptacle, Thru-Bulkhead             |
| MS27664   | **                   | MIL-DTL-38999  | II     | Receptacle, Back-Panel Wall Mtg       |
| MS27665   | F                    | MIL-DTL-38999  | I      | Plug, Rack & Panel Mtg                |
| MS27667   | **                   | MIL-DTL-38999  | II     | Receptacle, Thru-Bulkhead             |
| MS90555   | *                    | MIL-DTL-22992  | L      | Receptacle, Wall Mtg                  |
| MS90556   | *                    | MIL-DTL-22992  | L      | Plug, Straight                        |
| MS90557   | *                    | MIL-DTL-22992  | L      | Plug, Cable Connecting                |
| MS90558   | *                    | MIL-DTL-22992  | L      | Receptacle, W/Coupling Ring, Wall Mtg |
| M28840/10 | G                    | MIL-DTL-28840  |        | Receptacle, Wall Mtg                  |
| M28840/11 | G                    | MIL-DTL-28840  |        | Receptacle, Cable Connecting          |
| M28840/12 | **                   | MIL-DTL-28840  |        | Receptacle, Box Mtg                   |
| M28840/14 | G                    | MIL-DTL-28840  |        | Receptacle, Jam Nut                   |
| M28840/16 | G                    | MIL-DTL-28840  |        | Plug, Straight                        |
| D38999/20 | H                    | MIL-DTL-38999  | III    | Receptacle, Wall Mtg                  |
| D38999/21 | **                   | MIL-DTL-38999  | III    | Receptacle, Hermetic                  |
| D38999/23 | **                   | MIL-DTL-38999  | III    | Receptacle, Hermetic, Jam Nut         |
| D38999/24 | H                    | MIL-DTL-38999  | III    | Receptacle, Jam Nut                   |
| D38999/25 | **                   | MIL-DTL-38999  | III    | Receptacle, Hermetic, Solder Mtg      |
| D38999/26 | H                    | MIL-DTL-38999  | III    | Plug, Straight                        |
| D38999/27 | **                   | MIL-DTL-38999  | III    | Receptacle, Hermetic, Weld Mtg        |
| D38999/29 | *                    | MIL-DTL-38999  | III    | Plug, Lanyard Release                 |
| D38999/30 | H-701                | MIL-DTL-38999  | III    | Plug, Lanyard Release                 |
| D38999/40 | H                    | MIL-DTL-38999  | IV     | Receptacle, Wall Mtg                  |
| D38999/42 | H                    | MIL-DTL-38999  | IV     | Receptacle, Box Mtg                   |
| D38999/44 | H-715                | MIL-DTL-38999  | IV     | Receptacle, Jam Nut                   |
| D38999/46 | H                    | MIL-DTL-38999  | IV     | Plug, Straight, EMI                   |
| D38999/47 | H                    | MIL-DTL-38999  | IV     | Plug, Straight                        |
| M81511/1  | J                    | AS81511        | 2      | Receptacle, Flange Mtg                |
| M81511/2  | **                   | AS81511        | 2      | Receptacle, Solder Flange             |
| M81511/3  | J                    | AS81511        | 2      | Receptacle, Jam Nut                   |
| M81511/4  | **                   | AS81511        | 2      | Receptacle, Jam Nut                   |
| M81511/5  | J                    | AS81511        | 2      | Plug, Cable Connecting                |
| M81511/6  | J                    | AS81511        | 2      | Plug                                  |
| M81511/21 | J                    | AS81511        | 1      | Receptacle, Flange Mtg                |
| M81511/22 | **                   | AS81511        | 1      | Receptacle, Solder Flange Mtg         |

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## Military Standard Connector Index and Reference Guide

A

| Part No.  | Connector Designator | Specification | Series | Description                                |
|-----------|----------------------|---------------|--------|--|
| M81511/23 | J                    | AS81511       | 1      | Receptacle, Jam Nut                        |
| M81511/24 | **                   | AS81511       | 1      | Receptacle, Jam Nut                        |
| M81511/25 | J                    | AS81511       | 1      | Receptacle, Cable Connecting               |
| M81511/26 | J                    | AS81511       | 1      | Plug                                       |
| M81511/27 | **                   | AS81511       | 1      | Receptacle Thru-Bulkhead, Jam Nut          |
| M81511/28 | **                   | AS81511       | 2      | Receptacle, Thru-Bulkhead, Single Hole Mtg |
| M81511/31 | J                    | AS81511       | 2      | Receptacle, Flange Mtg                     |
| M81511/32 | J                    | AS81511       | 2      | Receptacle, Jam Nut Mtg                    |
| M81511/33 | J                    | AS81511       | 2      | Receptacle, Cable Connecting               |
| M81511/34 | J                    | AS81511       | 2      | Plug                                       |
| M81511/35 | J                    | AS81511       | 1      | Receptacle, Flange Mtg                     |
| M81511/36 | J                    | AS81511       | 1      | Receptacle, Jam Nut                        |
| M81511/37 | J                    | AS81511       | 1      | Receptacle, Cable Connecting               |
| M81511/38 | J                    | AS81511       | 1      | Plug                                       |
| M81511/41 | J                    | AS81511       | 3      | Receptacle, Flange Mtg                     |
| M81511/42 | **                   | AS81511       | 3      | Receptacle, Solder Flange Mtg              |
| M81511/44 | **                   | AS81511       | 3      | Receptacle, Jam Nut                        |
| M81511/45 | J                    | AS81511       | 3      | Receptacle, Cable Connecting               |
| M81511/46 | J                    | AS81511       | 3      | Plug                                       |
| M81511/47 | **                   | AS81511       | 3      | Receptacle, Solder Flange Mtg              |
| M81511/48 | **                   | AS81511       | 3      | Receptacle, Jam Nut                        |
| M81511/49 | J                    | AS81511       | 3      | Receptacle, Jam Nut                        |
| M81511/50 | **                   | AS81511       | 4      | Receptacle, Jam Nut                        |
| M81511/51 | J                    | AS81511       | 4      | Receptacle, Flange Mtg                     |
| M81511/52 | **                   | AS81511       | 4      | Receptacle, Solder Flange Mtg              |
| M81511/53 | J                    | AS81511       | 4      | Receptacle, Jam Nut                        |
| M81511/54 | **                   | AS81511       | 4      | Receptacle, Jam Nut                        |
| M81511/55 | J                    | AS81511       | 4      | Receptacle, Cable Connecting               |
| M81511/56 | J                    | AS81511       | 4      | Plug                                       |
| M81511/57 | **                   | AS81511       | 4      | Receptacle, Solder Flange Mtg              |
| M81582/1  | *                    | MIL-C-81582   |        | Receptacle, Single Hole Mtg                |
| M81582/2  | *                    | MIL-C-81582   |        | Plug, Lanyard Release                      |
| M83723/1  | A                    | MIL-DTL-83723 | I      | Superseded by MS3470                       |
| M83723/2  | A                    | MIL-DTL-83723 | I      | Superseded by MS3470                       |
| M83723/3  | A                    | MIL-DTL-83723 | I      | Superseded by MS3472                       |
| M83723/4  | A                    | MIL-DTL-83723 | I      | Superseded by MS3472                       |
| M83723/5  | A                    | MIL-DTL-83723 | I      | Superseded by MS3474                       |
| M83723/6  | A                    | MIL-DTL-83723 | I      | Superseded by MS3474                       |
| M83723/7  | A                    | MIL-DTL-83723 | I      | Superseded by MS3471                       |
| M83723/8  | A                    | MIL-DTL-83723 | I      | Superseded by MS3471                       |
| M83723/9  | **                   | MIL-DTL-83723 | I      | Superseded by MS3440                       |
| M83723/10 | **                   | MIL-DTL-83723 | I      | Superseded by MS3442                       |
| M83723/11 | **                   | MIL-DTL-83723 | I      | Superseded by MS3443                       |
| M83723/12 | **                   | MIL-DTL-83723 | I      | Superseded by MS3443                       |
| M83723/13 | A                    | MIL-DTL-83723 | I      | Superseded by MS3476                       |
| M83723/14 | A                    | MIL-DTL-83723 | I      | Superseded by MS3476                       |
| M83723/17 | K                    | MIL-DTL-83723 | II     | Superseded by MS3451                       |

\* Consult Factory      \*\* Connector does not accommodate rear accessories.

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# Military Standard Connector Index and Reference Guide

A

| Part No.  | Connector Designator | Specification | Series | Description                                       |
|-----------|----------------------|---------------|--------|---|
| M83723/94 | **                   | MIL-DTL-83723 | III    | Receptacle, Bayonet, Single Hole Mtg., Hermetic   |
| M83723/95 | A                    | MIL-DTL-83723 | III    | Plug, Threaded, Socket Contact, Self-Locking      |
| M83723/96 | A                    | MIL-DTL-83723 | III    | Plug, Threaded, Pin Contact, Self-Locking         |
| M83723/97 | A                    | MIL-DTL-83723 | III    | Plug, Threaded, RFI, Socket Contact, Self-Locking |
| M83723/98 | A                    | MIL-DTL-83723 | III    | Plug, Threaded, Pin Contact, Self-Locking         |
| NATC00    | H*                   | SSQ221635     |        | Receptacle, Flange                                |
| NATC06    | H*                   | SSQ221635     |        | Plug  |
| NATC07    | H*                   | SSQ221635     |        | Receptacle, Jam Nut                               |
| NATC09    | ***                  | SSQ221635     |        | Receptacle, Weld Mtg.                             |
| NATC77    | ***                  | SSQ221635     |        | Receptacle, Jam Nut                               |
| NATC99    | ***                  | SSQ221635     |        | Receptacle, Weld Mtg.                             |
| NBO       | A                    | 40M39569      |        | Receptacle, Flange Mtg.                           |
| NBOH      | **                   | 40M39569      |        | Receptacle, Hermetic                              |
| NB3H      | **                   | 40M39569      |        | Receptacle, Hermetic                              |
| NB4       | A                    | 40M39569      |        | Receptacle, Flange Mtg.                           |
| NB5H      | **                   | 40M39569      |        | Through-Bulkhead, Hermetic                        |
| NB6       | A                    | 40M39569      |        | Plug, Straight                                    |
| NB6G      | A                    | 40M39569      |        | Plug, Straight, EMI                               |
| NB7       | A                    | 40M39569      |        | Receptacle, Jam Nut                               |
| NB7H      | **                   | 40M39569      |        | Receptacle, Hermetic                              |
| NB8H      | **                   | 40M39569      |        | Receptacle, Hermetic                              |
| NLSO      | F                    | 40M38277      |        | Receptacle, Flange Mtg.                           |
| NLS3H     | **                   | 40M38277      |        | Receptacle, Hermetic                              |
| NLS6      | F                    | 40M38277      |        | Plug, Straight                                    |
| NLS6G     | F                    | 40M38277      |        | Plug, Straight, EMI                               |
| NLS7      | F                    | 40M38277      |        | Receptacle, Jam Nut                               |
| NLS7H     | **                   | 40M38277      |        | Receptacle, Jam Nut                               |
| NZGL00    | H**                  | SSQ21635      |        | Receptacle, Flange                                |
| NZGL03    | ***                  | SSQ21635      |        | Receptacle, Lever                                 |
| NZGL06    | H**                  | SSQ21635      |        | Plug  |
| NZGL07    | H**                  | SSQ21635      |        | Receptacle, Weld Mtg                              |
| NZGL09    | ***                  | SSQ21635      |        | Receptacle, Weld Mtg                              |
| NZGL66    | H**                  | SSQ21635      |        | Plug  |
| NZGL77    | ***                  | SSQ21635      |        | Receptacle, Jam Nut                               |
| NZGL99    | ***                  | SSQ21635      |        | Receptacle, Weld Mtg                              |

\* Consult Factory

\*\* Connector does not accommodate rear accessories.

H\* NATC Series size 09 through 25 mates to Glenair connector designator H. Consult factory for sizes 33 and 37.

H\*\* NZGL Series requires special accessories manufactured by Glenair. Consult factory.

\*\*\* Connector noted does not have accessory thread (NZGL and NATC hermetic/control leakage classes).

Dimensions in inches (millimeters) and are subject to change without notice.

# AS85049 Qualified Backshells and Connector Accessories



AS85049

B

| Part No.   | Description                                   | Page No. |
|------------|---|----------|
| AS85049/1  | Straight Strain Relief                        | B-2      |
| AS85049/2  | Straight Environmental Strain Relief          | B-3      |
| AS85049/3  | Straight Environmental Backshell              | B-4-6    |
| AS85049/4  | Straight Step-Up Environmental Backshell      | B-7-11   |
| AS85049/5  | Straight Step-Down Environmental Backshell    | B-13-17  |
| AS85049/6  | 45° RFI/EMI Environmental Backshell           | B-19     |
| AS85049/7  | 45° Environmental Backshell                   | B-21     |
| AS85049/8  | 90° RFI/EMI Environmental Backshell           | B-23     |
| AS85049/9  | 90° Environmental Backshell                   | B-25     |
| AS85049/10 | Straight RFI/EMI Environmental Backshell      | B-27     |
| AS85049/11 | Straight Environmental Backshell              | B-31     |
| AS85049/14 | E Nuts  | B-35     |
| AS85049/15 | 45° Qwik-Ty® Strain Reliefs                   | B-36     |
| AS85049/16 | 90° Qwik-Ty® Strain Reliefs                   | B-36     |
| AS85049/17 | Straight RFI/EMI Environmental Backshell      | B-37     |
| AS85049/18 | Straight RFI/EMI Environmental Backshell      | B-38     |
| AS85049/19 | Straight Environmental Backshell              | B-39     |
| AS85049/20 | Straight Crimp Ring Backshell and Crimp Ring  | B-41     |
| AS85049/21 | Straight Non-Environmental Strain Relief      | B-42     |
| AS85049/23 | 45° RFI-EMI Non-Environmental Backshell       | B-43     |
| AS85049/24 | 90° RFI-EMI Non-Environmental Backshell       | B-45     |
| AS85049/25 | Straight RFI-EMI Non-Environmental Backshell  | B-47     |
| AS85049/26 | Adapter / Crimp Ring                          | B-51-52  |
| AS85049/27 | E Nuts  | B-53     |
| AS85049/28 | Strt. Rectangular Non-Environmental Backshell | B-54     |
| AS85049/29 | Straight Non-Environmental Strain Relief      | B-55     |
| AS85049/30 | Straight RFI-EMI Shield Termination Backshell | B-56     |
| AS85049/31 | E Nuts  | B-57     |
| AS85049/33 | Straight Crimp Ring Non-Env. Backshell        | B-58     |
| AS85049/34 | Straight Adapter and Extender                 | B-59     |
| AS85049/36 | Straight RFI-EMI Non-Environmental Backshell  | B-60     |
| AS85049/37 | 90° RFI-EMI Non-Environmental Backshell       | B-61     |
| AS85049/38 | Straight Strain Reliefs                       | B-62     |
| AS85049/39 | 90° Strain Reliefs                            | B-63     |
| AS85049/41 | Straight Strain Relief                        | B-64     |
| AS85049/42 | Straight Strain Relief                        | B-65     |
| AS85049/43 | 45° Strain Relief                             | B-66     |
| AS85049/44 | Straight Rectangular Strain Relief Backshell  | B-67     |
| AS85049/45 | Straight Strain Relief                        | B-68     |
| AS85049/46 | 90° Non-Self-Locking Composite Strain Relief  | B-69     |
| AS85049/47 | 90° Strain Reliefs                            | B-70     |
| AS85049/48 | Rectangular Strain Relief Backshell           | B-71-73  |
| AS85049/49 | Straight Strain Relief                        | B-74     |
| AS85049/50 | Rectangular Strain Relief Backshell           | B-75     |
| AS85049/51 | 90° Strain Reliefs                            | B-76     |
| AS85049/52 | Straight Strain Reliefs                       | B-77     |

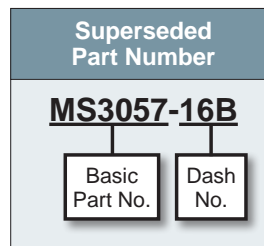
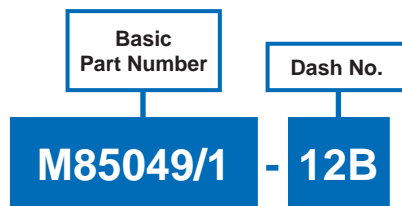
| Part No.           | Description                                   | Page No.  |
|--------------------|---|-----------|
| AS85049/53 /54 /55 | Qwik-Ty® Strain Reliefs                       | B-78      |
| AS85049/56 /57     | Qwik-Ty® Strain Reliefs                       | B-79      |
| AS85049/58         | Potting Boot Ring                             | B-80      |
| AS85049/59         | Straight Shrink Boot Adapter                  | B-81      |
| AS85049/60         | Straight Shrink Boot Adapters                 | B-82-83   |
| AS85049/61         | Potting Boot Ring                             | B-84      |
| AS85049/62         | Straight Shrink Boot Adapter                  | B-85      |
| AS85049/63         | 90° Qwik-Ty® Strain Relief                    | B-86      |
| AS85049/69         | Straight Shrink Boot Adapter                  | B-87      |
| AS85049/74         | Potting Boot                                  | B-88      |
| AS85049/75         | Potting Boot                                  | B-89      |
| AS85049/76         | 90° EMI/RFI Environmental Backshell           | B-90      |
| AS85049/77         | 45° EMI/RFI Environmental Backshell           | B-91      |
| AS85049/78         | 45° EMI/RFI Environmental Backshell           | B-92      |
| AS85049/79         | 90° EMI/RFI Environmental Backshell           | B-93      |
| AS85049/80         | Sealing Plug, Sizes 8, 12 and 16              | B-94      |
| AS85049/81         | Sealing Plug                                  | B-96      |
| AS85049/82 /83 /84 | Banding Backshells                            | B-97      |
| AS85049/85 /86 /87 | Banding Backshells                            | B-99      |
| AS85049/88 /89 /90 | Banding Backshells                            | B-101     |
| AS85049/91 /92     | Strain Reliefs                                | B-103     |
| AS85049/93         | Banding Split Ring                            | B-104     |
| AS85049/94         | Full Perimeter Mounting Flange                | B-105     |
| AS85049/95         | 3/4 Perimeter Mounting Flange                 | B-106     |
| AS85049/96         | 1/4 Perimeter Mounting Flange                 | B-107     |
| AS85049/103        | Straight Shield Sock Composite Adapter        | B-108     |
| AS85049/104        | 45° Shield Sock Composite Adapter             | B-110     |
| AS85049/105        | 90° Shield Sock Composite Adapter             | B-112     |
| AS85049/109        | Straight Shield Sock Shrink Boot Adapter      | B-114     |
| AS85049/111        | 90° Shield Sock Sock Shrink Boot Adapter      | B-116     |
| AS85049/112        | Straight Shield Sock Sock Shrink Boot Adapter | B-118     |
| AS85049/114        | 90° Shield Sock Shrink Boot Adapter           | B-120     |
| AS85049/115        | Straight Shield Sock Shrink Boot Adapter      | B-122     |
| AS85049/118        | Straight Strain Relief                        | B-124     |
| AS85049/120        | 90° Strain Relief                             | B-126     |
| AS85049/121        | Straight Strain Relief                        | B-128     |
| AS85049/123        | 90° Strain Relief                             | B-130     |
| AS85049/124        | Sraight Strain Relief                         | B-132     |
| AS85049/126        | 90° Strain Relief                             | B-134     |
| AS85049/127        | Bushing Strip                                 | B-136     |
| AS85049/128-3, -4  | Clamping Bands                                | B-137     |
| AS85049/130        | Gasket  | B-138     |
| AS85049/139        | Telescoping Bushing, C or L                   | B-140     |
| AS85049/140        | Straight Lipped Heat Shrink Boots             | B-142-148 |
| AS85049/141        | 90° Lipped Heat Shrink Boots                  | B-150-154 |
| AS85049/142        | Wide Body Heat Shrink Boot Transitions        | B-156-160 |

Dimensions in inches (millimeters) and are subject to change without notice.

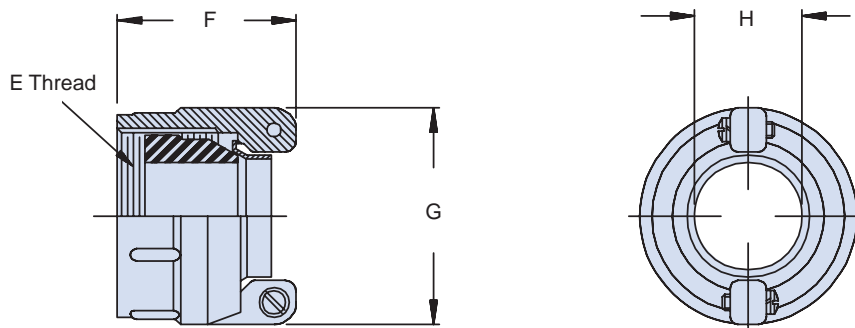
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B


**TABLE I: Shell Size, Cable Entry and Backshell Dimensions**

| Dash No. | Conn. Shell Ref.(s) | E Thread Class 2B | F Max |        | Ø G Max |        | H Min |        |
|----------|---------------------|-------------------|-------|--------|---------|--------|-------|--------|
| 3B       | 8S, 10S             | 1/2 - 28 UNEF     | 1.031 | (26.2) | .812    | (20.6) | .231  | (5.9)  |
| 4B       | 10SL, 12S, 12       | 5/8 - 24 UNEF     | 1.031 | (26.2) | .937    | (23.8) | .315  | (8.0)  |
| 6B       | 14S, 14             | 3/4 - 20 UNEF     | 1.031 | (26.2) | 1.062   | (27.0) | .440  | (11.2) |
| 8B       | 16S, 16             | 7/8 - 20 UNEF     | 1.031 | (26.2) | 1.188   | (30.2) | .515  | (13.1) |
| 10B      | 18                  | 1 - 20 UNEF       | 1.094 | (27.8) | 1.312   | (33.3) | .614  | (15.6) |
| 12B      | 20, 22              | 1 3/16 - 18 UNEF  | 1.219 | (31.0) | 1.562   | (39.7) | .738  | (18.7) |
| 16B      | 24, 28              | 1 7/16 - 18 UNEF  | 1.219 | (31.0) | 1.750   | (44.5) | .926  | (23.5) |
| 20B      | 32                  | 1 3/4 - 18 UNS    | 1.344 | (34.1) | 2.250   | (57.2) | 1.200 | (30.5) |
| 24B      | 36                  | 2 - 18 UNS        | 1.547 | (39.3) | 2.375   | (60.3) | 1.363 | (34.6) |
| 28B      | 40                  | 2 1/4 - 16 UN     | 1.547 | (39.3) | 2.625   | (66.7) | 1.611 | (40.9) |
| 32B      | 44                  | 2 1/2 - 16 UN     | 1.734 | (44.0) | 2.812   | (71.4) | 1.865 | (47.4) |
| 40B      | 48                  | 3 - 16 UN         | 1.781 | (45.2) | 3.312   | (84.1) | 2.365 | (60.1) |

**APPLICATION NOTES**

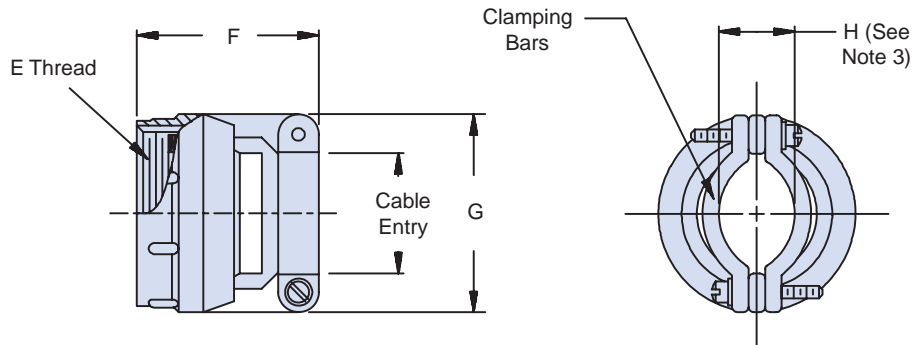
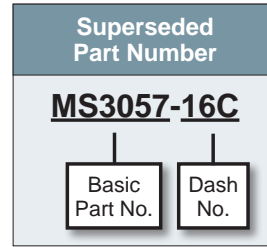
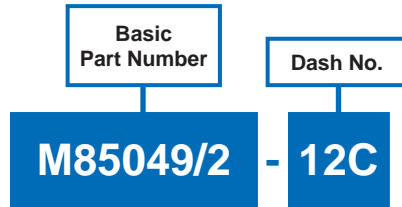
1. Finish on M85049/1 is Cadmium Olive Drab over Electroless Nickel (1,000 hour salt spray).
2. Assembly to be identified with manufacturer's name and part number, space permitting.
3. Cable Entry is defined as the accommodation entry for the wire bundle or cable. Dimensions are not intended for inspection criteria.
4. For complete dimensions, see the applicable Military Specification.
5. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.

# AS85049/2 and MS3057C Strain Reliefs



AS85049



**TABLE I: Shell Size, Cable Entry and Backshell Dimensions**

| Dash No. | Conn. Shell Ref.(s) | E Thread Class 2B | F Max        | Ø G Max      | H Max Closed | Cable Entry Max |
|----------|---------------------|-------------------|--------------|--------------|--------------|-----------------|
| 3C       | 8S, 10S             | 1/2 - 28 UNEF     | 1.375 (34.9) | .812 (20.6)  | .217 (5.5)   | .219 (5.6)      |
| 4C       | 10SL, 12S, 12       | 5/8 - 24 UNEF     | 1.375 (34.9) | .937 (23.8)  | .296 (7.5)   | .312 (7.9)      |
| 6C       | 14S, 14             | 3/4 - 20 UNEF     | 1.375 (34.9) | 1.062 (27.0) | .390 (9.9)   | .438 (11.1)     |
| 8C       | 16S, 16             | 7/8 - 20 UNEF     | 1.375 (34.9) | 1.188 (30.2) | .434 (11.0)  | .531 (13.5)     |
| 10C      | 18                  | 1 - 20 UNEF       | 1.437 (36.5) | 1.312 (33.3) | .434 (11.0)  | .625 (15.9)     |
| 12C      | 20, 22              | 1 3/16 - 18 UNEF  | 1.437 (36.5) | 1.562 (39.7) | .596 (15.1)  | .750 (19.1)     |
| 16C      | 24, 28              | 1 7/16 - 18 UNEF  | 1.562 (39.7) | 1.750 (44.5) | .596 (15.1)  | .938 (23.8)     |
| 20C      | 32                  | 1 3/4 - 18 UNS    | 1.812 (46.0) | 2.250 (57.2) | .858 (21.8)  | 1.250 (31.8)    |
| 24C      | 36                  | 2 - 18 UNS        | 2.062 (52.4) | 2.375 (60.3) | .858 (21.8)  | 1.375 (34.9)    |
| 28C      | 40                  | 2 1/4 - 16 UN     | 2.062 (52.4) | 2.625 (66.7) | 1.107 (28.1) | 1.625 (41.3)    |
| 32C      | 44                  | 2 1/2 - 16 UN     | 2.188 (55.6) | 2.812 (71.4) | 1.421 (36.1) | 1.875 (47.6)    |

## APPLICATION NOTES

1. Finish on M85049/2 is Cadmium Olive Drab over Electroless Nickel, 1,000 hour salt spray.
2. Assembly to be identified with manufacturer's name and part number, space permitting.
3. Cable Entry is defined as the accommodation entry for the wire bundle or cable. Dimensions are not intended for inspection criteria.
4. For complete dimensions, see the applicable Military Specification.
5. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.

B





# AS85049/3 Style 2 Straight Environmental Backshell



AS85049

B

### CONNECTOR DESIGNATOR:

**C** MIL-DTL-22992 Classes C, J and R

### Finish

A = Black Anodize  
 W = Cadmium, Olive Drab  
 Y = Pure Dense Electrodeposited Aluminum  
 X = Nickel Fluorocarbon Polymer  
 Z = Zinc Nickel

**M85049/3**

**W**

**10**

**A**

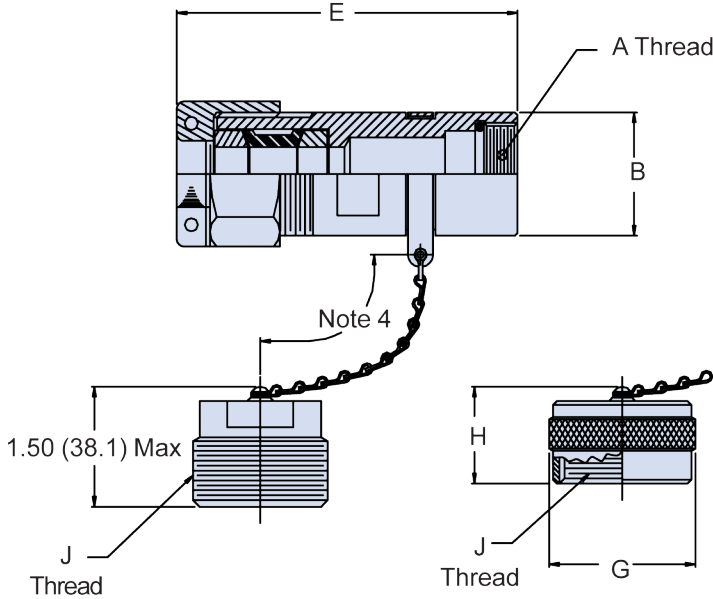
**2**

Basic Part Number

Dash Number (Table II)

Type A or B

Style 2



**TYPE A - Plug Cap**  
For use with MS17344

**TYPE B - Receptacle Cap**  
For use with MS17343,  
MS17345, and MS17347

**TABLE II: Dash No. and Cable Range**

| Dash No. | Shell Size | Cable Range Min | Cable Range Max |
|----------|------------|-----------------|-----------------|
| 1        | 12         | .246 (6.2)      | .396 (10.1)     |
| 2        | 14         | .321 (8.2)      | .521 (13.2)     |
| 3        | 16         | .446 (11.3)     | .646 (16.4)     |
| 4        | 18         | .565 (14.4)     | .765 (19.4)     |
| 5        | 20         | .690 (17.5)     | .890 (22.6)     |
| 6        | 22         | .815 (20.7)     | 1.015 (25.8)    |
| 7        | 24         | .980 (24.9)     | 1.180 (30.0)    |
| 8        | 28         | 1.230 (31.2)    | 1.430 (36.3)    |
| 9        | 28         | 1.030 (26.2)    | 1.230 (31.2)    |
| 10       | 32         | 1.430 (36.3)    | 1.670 (42.4)    |
| 11       | 36         | 1.660 (42.2)    | 1.860 (47.2)    |
| 12       | 40         | 1.860 (47.2)    | 2.110 (53.6)    |

**TABLE I: Shell Size and Dimensions**

| Shell Size | A Thread Class 2B-LH | B Dia ±.015 (0.4) | E Max         | G Dia Max    | H Max       | J Thread (Plated) Class 2 (A or B) |
|------------|----------------------|-------------------|---------------|--------------|-------------|------------------------------------|
| 12         | .7500 - 20 UNEF      | .933 (23.7)       | 4.000 (101.6) | 1.094 (27.8) | .765 (19.4) | 0.875-0.1P-0.2L-DS                 |
| 14         | .8750 - 20 UNEF      | 1.057 (26.8)      | 4.100 (104.1) | 1.219 (31.0) | .765 (19.4) | 1.000-0.1P-0.2L-DS                 |
| 16         | 1.0000 - 20 UNEF     | 1.183 (30.0)      | 4.400 (111.8) | 1.344 (34.1) | .980 (24.9) | 1.125-0.1P-0.2L-DS                 |
| 18         | 1.1250 - 18 UNEF     | 1.307 (33.2)      | 4.900 (124.5) | 1.469 (37.3) | .980 (24.9) | 1.250-0.1P-0.2L-DS                 |
| 20         | 1.2500 - 18 UNEF     | 1.433 (36.4)      | 4.900 (124.5) | 1.562 (39.7) | .980 (24.9) | 1.375-0.1P-0.2L-DS                 |
| 22         | 1.3750 - 18 UNEF     | 1.557 (39.5)      | 4.900 (124.5) | 1.688 (42.9) | .980 (24.9) | 1.500-0.1P-0.2L-DS                 |
| 24         | 1.6250 - 18 UNEF     | 1.807 (45.9)      | 5.000 (127.0) | 1.938 (49.2) | .980 (24.9) | 1.750-0.1P-0.2L-DS                 |
| 28         | 1.8750 - 16 UN       | 2.057 (52.2)      | 5.300 (134.6) | 2.219 (56.4) | .980 (24.9) | 2.000-0.1P-0.2L-DS                 |
| 32         | 2.0625 - 16 UNS      | 2.307 (58.6)      | 5.600 (142.2) | 2.469 (62.7) | .980 (24.9) | 2.250-0.1P-0.2L-DS                 |
| 36         | 2.3125 - 16 UNS      | 2.557 (64.9)      | 5.600 (142.2) | 2.719 (69.1) | .980 (24.9) | 2.500-0.1P-0.2L-DS                 |
| 40         | 2.6250 - 16 UN       | 2.870 (72.9)      | 5.725 (145.4) | 2.969 (75.4) | .980 (24.9) | 2.750-0.1P-0.2L-DS                 |

### APPLICATION NOTES

- For complete dimensions see the applicable Military Specification.
- Metric dimensions (mm) are in parentheses.
- Cable Range is defined as the accommodation range for the wire bundle or cable. Dimensions shown are not intended for inspection criteria.
- Approximate chain lengths: Dash No. 01-12 = 5.0 (127.0); Dash No. 13-29 = 6.0 (152.4).

Dimensions in inches (millimeters) and are subject to change without notice.



# AS85049/3 Style 3 Straight Environmental Backshell

## CONNECTOR DESIGNATOR:

**C** MIL-DTL-22992 Classes C, J and R

TABLE II: Dash Number and Cable Range

| Dash No. | Shell Size | Cable Range  |              | F Appr. Free Length |
|----------|------------|--------------|--------------|---------------------|
|          |            | Min          | Max          |                     |
| 1        | 12         | .281 (7.1)   | .377 (9.6)   | 3.344 (84.9)        |
| 2        | 12         | .219 (5.6)   | .281 (7.1)   | 1.062 (27.0)        |
| 3        | 14         | .400 (10.2)  | .438 (11.1)  | 4.344 (110.3)       |
| 4        | 16         | .511 (13.0)  | .605 (15.4)  | 5.188 (131.8)       |
| 5        | 16         | .436 (11.1)  | .530 (13.5)  | 4.688 (119.1)       |
| 6        | 16         | .316 (8.0)   | .405 (10.3)  | 3.688 (93.7)        |
| 7        | 18         | .605 (15.4)  | .699 (17.8)  | 6.188 (157.2)       |
| 8        | 18         | .560 (14.2)  | .625 (15.9)  | 6.188 (157.2)       |
| 9        | 18         | .361 (9.2)   | .455 (11.6)  | 4.188 (106.4)       |
| 10       | 20         | .715 (18.2)  | .828 (21.0)  | 6.688 (169.9)       |
| 11       | 20         | .449 (11.4)  | .562 (14.3)  | 5.188 (131.8)       |
| 12       | 22         | .787 (20.0)  | .900 (22.9)  | 7.188 (182.6)       |
| 13       | 22         | .637 (16.2)  | .750 (19.1)  | 6.688 (169.9)       |
| 14       | 24         | .984 (25.0)  | 1.109 (28.2) | 7.688 (195.3)       |
| 15       | 24         | .875 (22.2)  | 1.000 (25.4) | 7.188 (182.6)       |
| 16       | 24         | .755 (19.2)  | .880 (22.4)  | 6.688 (169.9)       |
| 17       | 28         | 1.185 (30.1) | 1.310 (33.3) | 8.688 (220.7)       |
| 18       | 28         | 1.105 (28.1) | 1.230 (31.2) | 8.188 (208.0)       |
| 19       | 28         | 1.055 (26.8) | 1.180 (30.0) | 8.188 (208.0)       |
| 20       | 32         | 1.406 (35.7) | 1.531 (38.9) | 10.688 (271.5)      |
| 21       | 32         | 1.320 (33.5) | 1.455 (37.0) | 9.688 (246.1)       |
| 22       | 32         | 1.250 (31.8) | 1.375 (34.9) | 9.688 (246.1)       |
| 23       | 36         | 1.531 (38.9) | 1.656 (42.1) | 12.688 (322.3)      |
| 24       | 36         | 1.437 (36.5) | 1.562 (39.7) | 11.188 (284.2)      |
| 25       | 44         | 2.105 (53.5) | 2.250 (57.2) | 17.188 (436.6)      |
| 26       | 44         | 2.025 (51.4) | 2.170 (55.1) | 17.188 (436.6)      |

B

| Finish                                   |                                 |
|--|---------------------------------|
| A = Black Anodize                        | X = Nickel Fluorocarbon Polymer |
| W = Cadmium, Olive Drab                  | Z = Zinc Nickel                 |
| Y = Pure Dense Electrodeposited Aluminum |                                 |

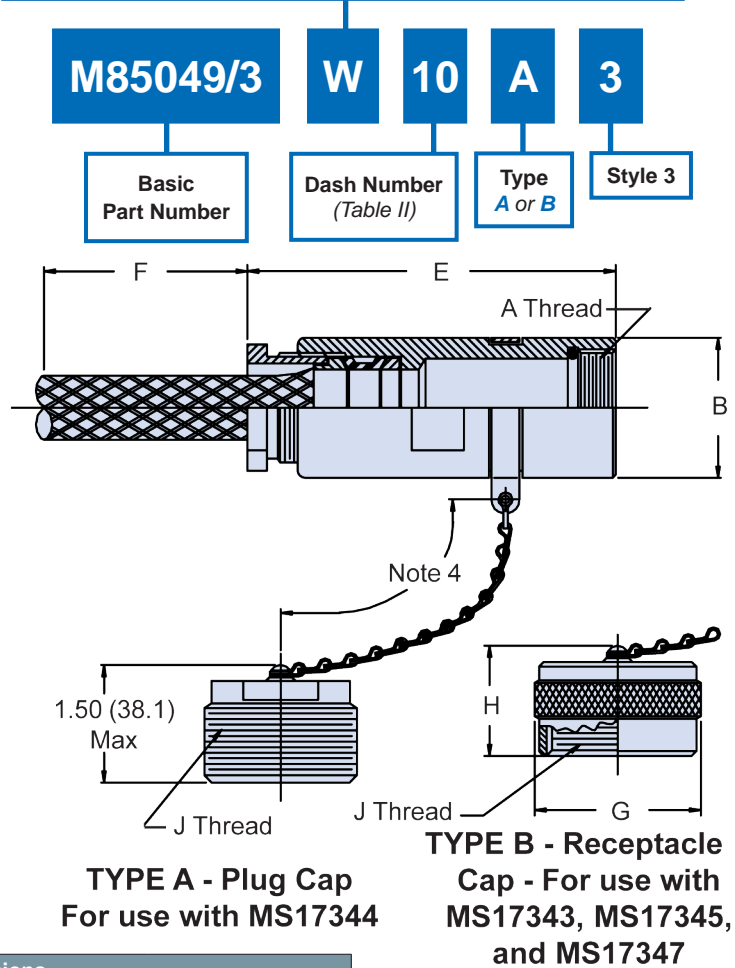


TABLE I: Shell Size and Dimensions

| Shell Size | A Thread Class 2B-LH | B Dia ±.015 (0.4) | E Max         | G Dia Max    | H Max       | J Thread (Plated) Class 2 (A or B) |
|------------|----------------------|-------------------|---------------|--------------|-------------|------------------------------------|
| 12         | .7500 - 20 UNEF      | .933 (23.7)       | 2.935 (74.5)  | 1.094 (27.8) | .765 (19.4) | 0.875-0.1P-0.2L-DS                 |
| 14         | .8750 - 20 UNEF      | 1.057 (26.8)      | 3.248 (82.5)  | 1.219 (31.0) | .765 (19.4) | 1.000-0.1P-0.2L-DS                 |
| 16         | 1.0000 - 20 UNEF     | 1.183 (30.0)      | 3.712 (94.3)  | 1.344 (34.1) | .980 (24.9) | 1.125-0.1P-0.2L-DS                 |
| 18         | 1.1250 - 18 UNEF     | 1.307 (33.2)      | 4.024 (102.2) | 1.469 (37.3) | .980 (24.9) | 1.250-0.1P-0.2L-DS                 |
| 20         | 1.2500 - 18 UNEF     | 1.433 (36.4)      | 4.115 (104.5) | 1.562 (39.7) | .980 (24.9) | 1.375-0.1P-0.2L-DS                 |
| 22         | 1.3750 - 18 UNEF     | 1.557 (39.5)      | 4.150 (105.4) | 1.688 (42.9) | .980 (24.9) | 1.500-0.1P-0.2L-DS                 |
| 24         | 1.6250 - 18 UNEF     | 1.807 (45.9)      | 4.212 (107.0) | 1.938 (49.2) | .980 (24.9) | 1.750-0.1P-0.2L-DS                 |
| 28         | 1.8750 - 16 UN       | 2.057 (52.2)      | 4.275 (108.6) | 2.219 (56.4) | .980 (24.9) | 2.000-0.1P-0.2L-DS                 |
| 32         | 2.0625 - 16 UNS      | 2.307 (58.6)      | 4.337 (110.2) | 2.469 (62.7) | .980 (24.9) | 2.250-0.1P-0.2L-DS                 |
| 36         | 2.3125 - 16 UNS      | 2.557 (64.9)      | 4.399 (111.7) | 2.719 (69.1) | .980 (24.9) | 2.500-0.1P-0.2L-DS                 |
| 44         | 2.8750 - 16 UN       | 3.120 (72.9)      | 5.799 (147.3) | 3.217 (81.7) | .980 (24.9) | 3.000-0.1P-0.2L-DS                 |

## APPLICATION NOTES

- For complete dimensions see the applicable Military Specification.
- Metric dimensions (mm) are in parentheses.
- Cable Range is defined as the accommodation range for the wire bundle or cable. Dimensions shown are not intended for inspection criteria.
- Approximate chain lengths: Dash No. 01-12 = 5.0 (127.0); Dash No. 13-29 = 6.0 (152.4).

Dimensions in inches (millimeters) and are subject to change without notice.







## AS85049/4 Style 1 Straight Environmental Backshell

TABLE I: Shell Size and Dimensions

| Shell Size | A Thread<br>Class 2B-LH | B Dia<br>±.015 (0.4) | G Dia<br>Max | H<br>Max    | J Thread (Plated)<br>Class 2 (A or B) |
|------------|-------------------------|----------------------|--------------|-------------|---------------------------------------|
| 12         | .7500 - 20 UNEF         | .933 (23.7)          | 1.094 (27.8) | .765 (19.4) | 0.875-0.1P-0.2L-DS                    |
| 14         | .8750 - 20 UNEF         | 1.057 (26.8)         | 1.219 (31.0) | .765 (19.4) | 1.000-0.1P-0.2L-DS                    |
| 18         | 1.1250 - 18 UNEF        | 1.307 (33.2)         | 1.469 (37.3) | .980 (24.9) | 1.250-0.1P-0.2L-DS                    |
| 20         | 1.2500 - 18 UNEF        | 1.433 (36.4)         | 1.562 (39.7) | .980 (24.9) | 1.375-0.1P-0.2L-DS                    |
| 22         | 1.3750 - 18 UNEF        | 1.557 (39.5)         | 1.688 (42.9) | .980 (24.9) | 1.500-0.1P-0.2L-DS                    |
| 24         | 1.6250 - 18 UNEF        | 1.807 (45.9)         | 1.938 (49.2) | .980 (24.9) | 1.750-0.1P-0.2L-DS                    |
| 28         | 1.8750 - 16 UN          | 2.057 (52.2)         | 2.219 (56.4) | .980 (24.9) | 2.000-0.1P-0.2L-DS                    |
| 32         | 2.0625 - 16 UNS         | 2.307 (58.6)         | 2.469 (62.7) | .980 (24.9) | 2.250-0.1P-0.2L-DS                    |
| 36         | 2.3125 - 16 UNS         | 2.557 (64.9)         | 2.719 (69.1) | .980 (24.9) | 2.500-0.1P-0.2L-DS                    |
| 40         | 2.6250 - 16 UN          | 2.870(72.9)          | 2.969(75.4)  | .980 (24.9) | 2.750-0.1P-0.2L-DS                    |
| 44         | 2.8750 - 16 UN          | 3.120 (79.2)         | 3.217 (81.7) | .980 (24.9) | 3.000-0.1P-0.2L-DS                    |

TABLE II: Dash Number and Cable Range

| Dash No. | Shell Size | E<br>Max      | F<br>±.031 (0.8) | Cable Range<br>Min Max |              |
|----------|------------|---------------|------------------|------------------------|--------------|
| 1        | 12         | 4.275 (108.6) | 1.375 (34.9)     | .436 (11.1)            | .530 (13.5)  |
| 2        | 12         | 3.678 (93.4)  | 1.125 (28.6)     | .406 (10.3)            | .500 (12.7)  |
| 3        | 12         | 4.275 (108.6) | 1.375 (34.9)     | .311 (7.9)             | .405 (10.3)  |
| 4        | 14         | 4.177 (106.1) | 1.375 (34.9)     | .511 (13.0)            | .605 (15.4)  |
| 5        | 14         | 4.489 (114.0) | 1.562 (39.7)     | .531 (13.5)            | .625 (15.9)  |
| 6        | 14         | 4.177 (106.1) | 1.375 (34.9)     | .436 (11.1)            | .530 (13.5)  |
| 7        | 14         | 4.177 (106.1) | 1.375 (34.9)     | .311 (7.9)             | .405 (10.3)  |
| 8        | 18         | 4.584 (116.4) | 1.688 (42.9)     | .715 (18.2)            | .828 (21.0)  |
| 9        | 20         | 4.647 (118.0) | 1.812 (46.0)     | .637 (16.2)            | .750 (19.1)  |
| 10       | 20         | 4.896 (124.4) | 2.125 (54.0)     | .875 (22.2)            | 1.000 (25.4) |
| 11       | 20         | 4.647 (118.0) | 1.812 (46.0)     | .787 (20.0)            | .900 (22.9)  |
| 12       | 20         | 4.896 (124.4) | 2.125 (54.0)     | .930 (23.6)            | 1.055 (26.8) |
| 13       | 22         | 4.896 (124.4) | 2.125 (54.0)     | .875 (22.2)            | 1.000 (25.4) |
| 14       | 22         | 4.896 (124.4) | 2.125 (54.0)     | .984 (25.0)            | 1.109 (28.2) |
| 15       | 24         | 4.959 (126.0) | 2.469 (62.7)     | 1.055 (26.8)           | 1.180 (30.0) |
| 16       | 24         | 4.959 (126.0) | 2.469 (62.7)     | 1.185 (30.1)           | 1.310 (33.3) |
| 17       | 24         | 4.959 (126.0) | 2.469 (62.7)     | 1.105 (28.1)           | 1.230 (31.2) |
| 18       | 24         | 4.959 (126.0) | 2.625 (66.7)     | 1.250 (31.8)           | 1.375 (34.9) |
| 19       | 28         | 5.021 (127.5) | 2.625 (66.7)     | 1.320 (33.5)           | 1.445 (36.7) |
| 20       | 28         | 5.021 (127.5) | 2.625 (66.7)     | 1.406 (35.7)           | 1.531 (38.9) |
| 21       | 28         | 5.021 (127.5) | 2.625 (66.7)     | 1.250 (31.8)           | 1.375 (34.9) |
| 22       | 32         | 5.083 (129.1) | 2.953 (75.0)     | 1.531 (38.9)           | 1.656 (42.1) |
| 23       | 32         | 5.385 (136.8) | 3.171 (80.5)     | 1.700 (43.2)           | 1.828 (46.4) |
| 24       | 32         | 5.083 (129.1) | 2.953 (75.0)     | 1.437 (36.5)           | 1.562 (39.7) |
| 25       | 32         | 5.385 (136.8) | 3.171 (80.5)     | 1.605 (40.8)           | 1.730 (43.9) |
| 26       | 36         | 5.354 (136.0) | 3.171 (80.5)     | 1.775 (45.1)           | 1.900 (48.3) |
| 27       | 36         | 5.354 (136.0) | 3.171 (80.5)     | 1.605 (40.8)           | 1.730 (43.9) |
| 28       | 36         | 5.354 (136.0) | 3.171 (80.5)     | 1.700 (43.2)           | 1.825 (46.4) |
| 29       | 36         | 5.354 (136.0) | 3.171 (80.5)     | 1.859 (47.2)           | 1.984 (50.4) |
| 30       | 36         | 5.385 (136.8) | 3.375 (85.7)     | 1.917 (48.7)           | 2.062 (52.4) |
| 31       | 40         | 5.682 (144.3) | 3.625 (92.1)     | 2.230 (56.6)           | 2.375 (60.3) |
| 32       | 40         | 5.682 (144.3) | 3.500 (88.9)     | 2.105 (53.5)           | 2.250 (57.2) |
| 33       | 40         | 5.620 (142.7) | 3.375 (85.7)     | 2.000 (50.8)           | 2.145 (54.5) |
| 34       | 40         | 5.620 (142.7) | 3.375 (85.7)     | 1.917 (48.7)           | 2.062 (52.4) |
| 35       | 44         | 6.471 (164.4) | 3.531 (89.7)     | 2.183 (55.4)           | 2.328 (59.1) |

Dimensions in inches (millimeters) and are subject to change without notice.





## AS85049/4 Style 2 Straight Environmental Backshell

| Shell Size | A Thread Class 2B-LH | B Dia ±.015 (0.4) | E Max         | G Dia Max    | H Max       | J Thread (Plated) Class 2 (A or B) |
|------------|----------------------|-------------------|---------------|--------------|-------------|------------------------------------|
| 12         | .7500 - 20 UNEF      | .933 (23.7)       | 4.000 (101.6) | 1.094 (27.8) | .765 (19.4) | 0.875-0.1P-0.2L-DS                 |
| 14         | .8750 - 20 UNEF      | 1.057 (26.8)      | 4.100 (104.1) | 1.219 (31.0) | .765 (19.4) | 1.000-0.1P-0.2L-DS                 |
| 16         | 1.0000 - 20 UNEF     | 1.183 (30.0)      | 4.400 (111.8) | 1.344 (34.1) | .980 (24.9) | 1.125-0.1P-0.2L-DS                 |
| 18         | 1.1250 - 18 UNEF     | 1.307 (33.2)      | 4.900 (124.5) | 1.469 (37.3) | .980 (24.9) | 1.250-0.1P-0.2L-DS                 |
| 20         | 1.2500 - 18 UNEF     | 1.433 (36.4)      | 4.900 (124.5) | 1.562 (39.7) | .980 (24.9) | 1.375-0.1P-0.2L-DS                 |
| 22         | 1.3750 - 18 UNEF     | 1.557 (39.5)      | 4.900 (124.5) | 1.688 (42.9) | .980 (24.9) | 1.500-0.1P-0.2L-DS                 |
| 24         | 1.6250 - 18 UNEF     | 1.807 (45.9)      | 5.000 (127.0) | 1.938 (49.2) | .980 (24.9) | 1.750-0.1P-0.2L-DS                 |
| 28         | 1.8750 - 16 UN       | 2.057 (52.2)      | 5.300 (134.6) | 2.219 (56.4) | .980 (24.9) | 2.000-0.1P-0.2L-DS                 |
| 32         | 2.0625 - 16 UNS      | 2.307 (58.6)      | 5.600 (142.2) | 2.469 (62.7) | .980 (24.9) | 2.250-0.1P-0.2L-DS                 |
| 36         | 2.3125 - 16 UNS      | 2.557 (64.9)      | 5.600 (142.2) | 2.719 (69.1) | .980 (24.9) | 2.500-0.1P-0.2L-DS                 |
| 40         | 2.6250 - 16 UN       | 2.870 (72.9)      | 5.725 (145.4) | 2.969 (75.4) | .980 (24.9) | 2.750-0.1P-0.2L-DS                 |

| Dash No. | Shell Size | F ± .005 (0.1) | Cable Range  |              |
|----------|------------|----------------|--------------|--------------|
|          |            |                | Min          | Max          |
| 1        | 12         | 1.219 (31.0)   | .321 (8.2)   | .521 (13.2)  |
| 2        | 14         | 1.344 (34.1)   | .446 (11.3)  | .646 (16.4)  |
| 3        | 16         | 1.469 (37.3)   | .565 (14.4)  | .765 (19.4)  |
| 4        | 18         | 1.625 (41.3)   | .690 (17.5)  | .890 (22.6)  |
| 5        | 20         | 1.750 (44.5)   | .815 (20.7)  | 1.015 (25.8) |
| 6        | 22         | 2.000 (50.8)   | .980 (24.9)  | 1.180 (30.0) |
| 7        | 24         | 2.250 (57.2)   | 1.230 (31.2) | 1.430 (36.3) |
| 8        | 24         | 2.250 (57.2)   | 1.030 (26.2) | 1.230 (31.2) |
| 9        | 28         | 2.500 (63.5)   | 1.430 (36.3) | 1.670 (42.4) |
| 10       | 32         | 2.750 (69.9)   | 1.660 (42.2) | 1.860 (47.2) |
| 11       | 36         | 3.062 (77.8)   | 1.860 (47.2) | 2.110 (53.6) |
| 12       | 40         | 3.437 (87.3)   | 2.200 (55.9) | 2.400 (61.0) |
| 13       | 40         | 3.437 (87.3)   | 2.200 (55.9) | 2.200 (55.9) |

### APPLICATION NOTES

- For complete dimensions see the applicable Military Specification.
- Metric dimensions (mm) are in parentheses.
- Cable Range is defined as the accommodation range for the wire bundle or cable. Dimensions shown are not intended for inspection criteria.
- Approximate chain lengths: Dash No. 01-12 = 5.0 (127.0); Dash No. 13-29 = 6.0 (152.4).

Dimensions in inches (millimeters) and are subject to change without notice.

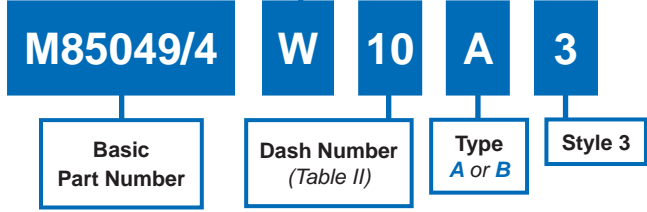
# AS85049/4 Style 3 Straight Environmental Backshell



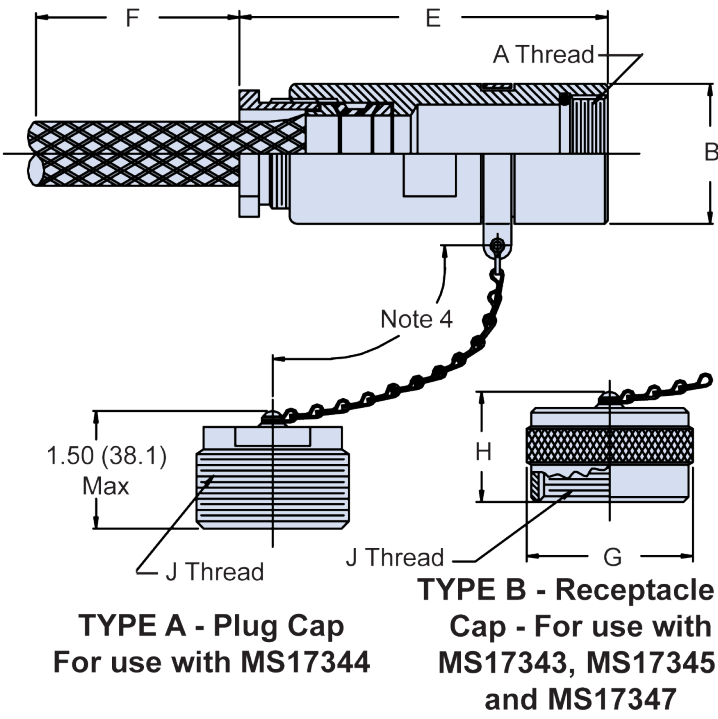
AS85049

| CONNECTOR DESIGNATOR: |                                  |
|-----------------------|----------------------------------|
| <b>C</b>              | MIL-DTL-22992 Classes C, J and R |

| Finish  |  |
|---|--|
| <b>A</b> = Black Anodize                        | <b>X</b> = Nickel Fluorocarbon Polymer |
| <b>W</b> = Cadmium, Olive Drab                  | <b>Z</b> = Zinc Nickel                 |
| <b>Y</b> = Pure Dense Electrodeposited Aluminum |  |



**B**



| APPLICATION NOTES |  |
|-------------------|--|
| 1.                | For complete dimensions see the applicable Military Specification.   |
| 2.                | Metric dimensions (mm) are in parentheses.   |
| 3.                | Cable Range is defined as the accommodation range for the wire bundle or cable. Dimensions shown are not intended for inspection criteria. |
| 4.                | Approximate chain lengths: Dash No. 01-12 = 5.0 (127.0); Dash No. 13-29 = 6.0 (152.4).   |

Dimensions in inches (millimeters) and are subject to change without notice.





## AS85049/4 Style 3 Straight Environmental Backshell

**TABLE I: Shell Size and Dimensions**

| Shell Size | A Thread Class 2B-LH | B Dia ±.015 (0.4) | G Dia Max    | H Max       | J Thread (Plated) Class 2 (A or B) |
|------------|----------------------|-------------------|--------------|-------------|------------------------------------|
| 12         | .7500 - 20 UNEF      | .933 (23.7)       | 1.094 (27.8) | .765 (19.4) | 0.875-0.1P-0.2L-DS                 |
| 14         | .8750 - 20 UNEF      | 1.057 (26.8)      | 1.219 (31.0) | .765 (19.4) | 1.000-0.1P-0.2L-DS                 |
| 18         | 1.1250 - 18 UNEF     | 1.307 (33.2)      | 1.469 (37.3) | .980 (24.9) | 1.250-0.1P-0.2L-DS                 |
| 20         | 1.2500 - 18 UNEF     | 1.433 (36.4)      | 1.562 (39.7) | .980 (24.9) | 1.375-0.1P-0.2L-DS                 |
| 22         | 1.3750 - 18 UNEF     | 1.557 (39.5)      | 1.688 (42.9) | .980 (24.9) | 1.500-0.1P-0.2L-DS                 |
| 24         | 1.6250 - 18 UNEF     | 1.807 (45.9)      | 1.938 (49.2) | .980 (24.9) | 1.750-0.1P-0.2L-DS                 |
| 28         | 1.8750 - 16 UN       | 2.057 (52.2)      | 2.219 (56.4) | .980 (24.9) | 2.000-0.1P-0.2L-DS                 |
| 32         | 2.0625 - 16 UNS      | 2.307 (58.6)      | 2.469 (62.7) | .980 (24.9) | 2.250-0.1P-0.2L-DS                 |
| 36         | 2.3125 - 16 UNS      | 2.557 (64.9)      | 2.719 (69.1) | .980 (24.9) | 2.500-0.1P-0.2L-DS                 |
| 40         | 2.6250 - 16 UN       | 2.870 (72.9)      | 2.969 (75.4) | .980 (24.9) | 3.000-0.1P-0.2L-DS                 |

**TABLE II: Dash Number and Cable Range**

| Dash No. | Shell Size | E Max         | F Appr. Free Length | Cable Range Min | Cable Range Max |
|----------|------------|---------------|---------------------|-----------------|-----------------|
| 1        | 12         | 3.810 (96.8)  | 4.688 (119.1)       | .436 (11.1)     | .530 (13.5)     |
| 2        | 12         | 3.248 (82.5)  | 4.344 (110.3)       | .406 (10.3)     | .500 (12.7)     |
| 3        | 12         | 3.810 (96.8)  | 3.688 (93.7)        | .316 (8.0)      | .405 (10.3)     |
| 4        | 14         | 4.024 (102.2) | 6.188 (157.2)       | .560 (14.2)     | .625 (15.9)     |
| 5        | 14         | 3.712 (94.3)  | 5.188 (131.8)       | .511 (13.0)     | .605 (15.4)     |
| 6        | 14         | 3.712 (94.3)  | 4.688 (119.1)       | .430 (10.9)     | .530 (13.5)     |
| 7        | 14         | 3.712 (94.3)  | 3.688 (93.7)        | .316 (8.0)      | .405 (10.3)     |
| 8        | 18         | 4.087 (103.8) | 6.688 (169.9)       | .715 (18.2)     | .828 (21.0)     |
| 9        | 20         | 4.212 (107.0) | 7.688 (195.3)       | .930 (23.6)     | 1.055 (26.8)    |
| 10       | 20         | 4.212 (107.0) | 7.188 (182.6)       | .875 (22.2)     | 1.000 (25.4)    |
| 11       | 20         | 4.150 (105.4) | 7.188 (182.6)       | .787 (20.0)     | .900 (22.9)     |
| 12       | 20         | 4.150 (105.4) | 7.188 (182.6)       | .637 (16.2)     | .750 (19.1)     |
| 13       | 22         | 4.212 (107.0) | 7.688 (195.3)       | .984 (25.0)     | 1.109 (28.2)    |
| 14       | 22         | 4.212 (107.0) | 7.188 (182.6)       | .875 (22.2)     | 1.000 (25.4)    |
| 15       | 24         | 4.275 (108.6) | 9.688 (246.1)       | 1.250 (31.8)    | 1.375 (34.9)    |
| 16       | 24         | 4.275 (108.6) | 8.688 (220.7)       | 1.185 (30.1)    | 1.310 (33.3)    |
| 17       | 24         | 4.275 (108.6) | 8.188 (208.0)       | 1.105 (28.1)    | 1.230 (31.2)    |
| 18       | 24         | 4.275 (108.6) | 8.188 (208.0)       | 1.055 (26.8)    | 1.180 (30.0)    |
| 19       | 28         | 4.337 (110.2) | 10.688 (271.5)      | 1.406 (35.7)    | 1.531 (38.9)    |
| 20       | 28         | 4.337 (110.2) | 9.688 (246.1)       | 1.320 (33.5)    | 1.445 (36.7)    |
| 21       | 28         | 4.337 (110.2) | 9.688 (246.1)       | 1.250 (31.8)    | 1.375 (34.9)    |
| 22       | 32         | 4.704 (119.5) | 13.688 (347.7)      | 1.700 (43.2)    | 1.825 (46.4)    |
| 23       | 32         | 4.704 (119.5) | 13.688 (347.7)      | 1.605 (40.8)    | 1.730 (43.9)    |
| 24       | 32         | 4.399 (111.7) | 12.688 (322.3)      | 1.531 (38.9)    | 1.656 (42.1)    |
| 25       | 36         | 4.704 (119.5) | 14.188 (360.4)      | 1.917 (48.7)    | 2.062 (52.4)    |
| 26       | 36         | 4.673 (118.7) | 13.688 (347.7)      | 1.859 (47.2)    | 1.984 (50.4)    |
| 27       | 36         | 4.673 (118.7) | 13.688 (347.7)      | 1.775 (45.1)    | 1.900 (48.3)    |
| 28       | 36         | 4.673 (118.7) | 13.688 (347.7)      | 1.700 (43.2)    | 1.825 (46.4)    |
| 29       | 36         | 4.673 (118.7) | 13.688 (347.7)      | 1.605 (40.8)    | 1.730 (43.9)    |
| 30       | 40         | 5.000 (127.0) | 18.188 (462.0)      | 2.230 (56.6)    | 2.375 (60.3)    |
| 31       | 40         | 5.000 (127.0) | 17.188 (436.6)      | 2.105 (53.5)    | 2.250 (57.2)    |
| 32       | 40         | 4.939 (125.5) | 14.188 (360.4)      | 2.000 (50.8)    | 2.145 (54.5)    |
| 33       | 40         | 4.939 (125.5) | 14.188 (360.4)      | 1.917 (48.7)    | 2.062 (52.4)    |

Dimensions in inches (millimeters) and are subject to change without notice.

# AS85049/5 Style 1 Straight Environmental Backshell

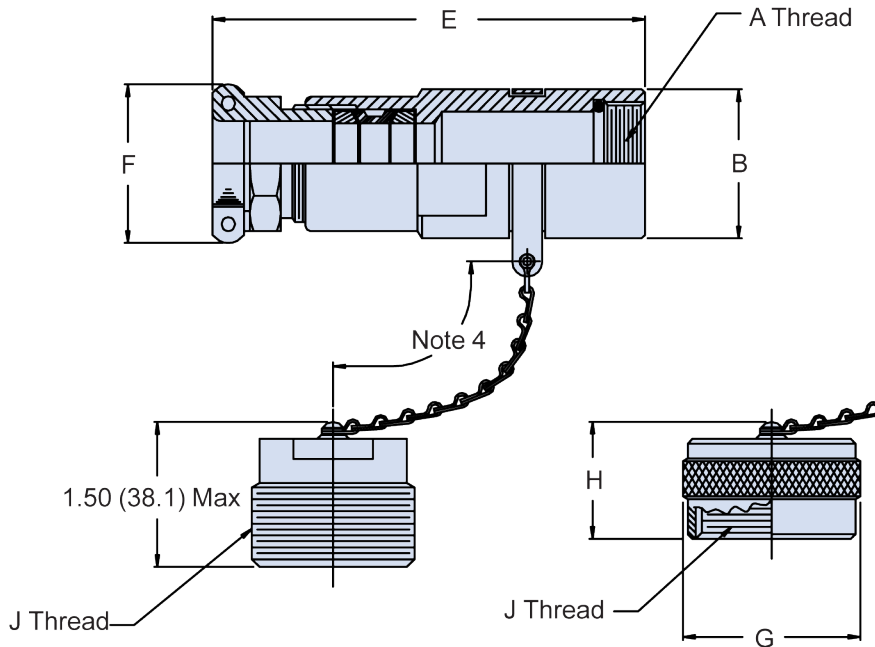
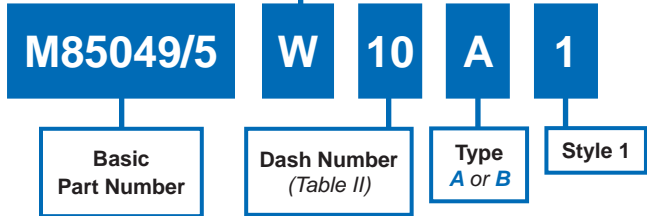


AS85049

B

|                              |                                  |
|------------------------------|----------------------------------|
| <b>CONNECTOR DESIGNATOR:</b> |                                  |
| <b>C</b>                     | MIL-DTL-22992 Classes C, J and R |

|   |  |
|---|--|
| <b>Finish</b>                                   |  |
| <i>A = Black Anodize</i>                        | <i>X = Nickel Fluorocarbon Polymer</i> |
| <i>W = Cadmium, Olive Drab</i>                  | <i>Z = Zinc Nickel</i>                 |
| <i>Y = Pure Dense Electrodeposited Aluminum</i> |  |



**TYPE A - Plug Cap**  
For use with MS17344

**TYPE B - Receptacle Cap**  
For use with MS17343,  
MS17345, and MS17347

| APPLICATION NOTES |  |
|-------------------|--|
| 1.                | For complete dimensions see the applicable Military Specification.   |
| 2.                | Metric dimensions (mm) are in parentheses.   |
| 3.                | Cable Range is defined as the accommodation range for the wire bundle or cable. Dimensions shown are not intended for inspection criteria. |
| 4.                | Approximate chain lengths: Dash No. 01-12 = 5.0 (127.0); Dash No. 13-29 = 6.0 (152.4).   |

Dimensions in inches (millimeters) and are subject to change without notice.



# AS85049/5 Style 1 Straight Environmental Backshell

TABLE I: Shell Size and Dimensions

| Shell Size | A Thread<br>Class 2B-LH | B Dia<br>±.015 (0.4) | G Dia<br>Max | H<br>Max    | J Thread (Plated)<br>Class 2 (A or B) |
|------------|-------------------------|----------------------|--------------|-------------|---------------------------------------|
| 12         | .7500 - 20 UNEF         | .933 (23.7)          | 1.094 (27.8) | .765 (19.4) | 0.875-0.1P-0.2L-DS                    |
| 18         | 1.1250 - 18 UNEF        | 1.307 (33.2)         | 1.469 (37.3) | .980 (24.9) | 1.250-0.1P-0.2L-DS                    |
| 20         | 1.2500 - 18 UNEF        | 1.433 (36.4)         | 1.562 (39.7) | .980 (24.9) | 1.375-0.1P-0.2L-DS                    |
| 22         | 1.3750 - 18 UNEF        | 1.557 (39.5)         | 1.688 (42.9) | .980 (24.9) | 1.500-0.1P-0.2L-DS                    |
| 24         | 1.6250 - 18 UNEF        | 1.807 (45.9)         | 1.938 (49.2) | .980 (24.9) | 1.750-0.1P-0.2L-DS                    |
| 28         | 1.8750 - 16 UN          | 2.057 (52.2)         | 2.219 (56.4) | .980 (24.9) | 2.000-0.1P-0.2L-DS                    |
| 32         | 2.0625 - 16 UNS         | 2.307 (58.6)         | 2.469 (62.7) | .980 (24.9) | 2.250-0.1P-0.2L-DS                    |
| 36         | 2.3125 - 16 UNS         | 2.557 (64.9)         | 2.719 (69.1) | .980 (24.9) | 2.500-0.1P-0.2L-DS                    |
| 40         | 2.6250 - 16 UN          | 2.870 (72.9)         | 2.969 (75.4) | .980 (24.9) | 2.750-0.1P-0.2L-DS                    |
| 44         | 2.8750 - 16 UN          | 3.120 (79.2)         | 3.217 (81.7) | .980 (24.9) | 3.000-0.1P-0.2L-DS                    |

TABLE II: Dash Number and Cable Range

| Dash No. | Shell Size | E<br>Max      | F<br>± .031 (0.8) | Cable Range  |              |
|----------|------------|---------------|-------------------|--------------|--------------|
|          |            |               |                   | Min          | Max          |
| 1        | 12         | 3.182 (80.8)  | .938 (23.8)       | .156 (4.0)   | .250 (6.4)   |
| 2        | 18         | 3.901 (99.1)  | 1.062 (27.0)      | .281 (7.1)   | .375 (9.5)   |
| 3        | 18         | 3.932 (99.9)  | 1.125 (28.6)      | .281 (7.1)   | .375 (9.5)   |
| 4        | 18         | 3.901 (99.1)  | 1.062 (27.0)      | .188 (4.8)   | .281 (7.1)   |
| 5        | 18         | 4.177 (106.1) | 1.375 (34.9)      | .511 (13.0)  | .605 (15.4)  |
| 6        | 18         | 4.177 (106.1) | 1.375 (34.9)      | .436 (11.1)  | .530 (13.5)  |
| 7        | 20         | 4.489 (114.0) | 1.562 (39.7)      | .605 (15.4)  | .699 (17.8)  |
| 8        | 20         | 4.489 (114.0) | 1.562 (39.7)      | .361 (9.2)   | .455 (11.6)  |
| 9        | 20         | 4.306 (109.4) | 1.375 (34.9)      | .511 (13.0)  | .605 (15.4)  |
| 10       | 22         | 4.584 (116.4) | 1.688 (42.9)      | .449 (11.4)  | .562 (14.3)  |
| 11       | 22         | 4.306 (109.4) | 1.375 (34.9)      | .311 (7.9)   | .405 (10.3)  |
| 12       | 22         | 4.306 (109.4) | 1.375 (34.9)      | .715 (18.2)  | .828 (21.0)  |
| 13       | 24         | 4.647 (118.0) | 1.812 (46.0)      | .787 (20.0)  | .900 (22.9)  |
| 14       | 24         | 4.647 (118.0) | 1.812 (46.0)      | .517 (13.1)  | .630 (16.0)  |
| 15       | 24         | 4.647 (118.0) | 1.812 (46.0)      | .637 (16.2)  | .750 (19.1)  |
| 16       | 24         | 4.647 (118.0) | 1.812 (46.0)      | .857 (21.8)  | .970 (24.6)  |
| 17       | 24         | 4.542 (115.4) | 1.688 (42.9)      | .715 (18.2)  | .828 (21.0)  |
| 18       | 24         | 4.647 (118.0) | 1.812 (46.0)      | .692 (17.6)  | .805 (20.4)  |
| 19       | 28         | 4.896 (124.4) | 2.125 (54.0)      | .755 (19.2)  | .880 (22.4)  |
| 20       | 28         | 4.896 (124.4) | 2.125 (54.0)      | .984 (25.0)  | 1.109 (28.2) |
| 21       | 28         | 4.647 (118.0) | 1.812 (46.0)      | .637 (16.2)  | .750 (19.1)  |
| 22       | 28         | 4.229 (107.4) | 1.125 (28.6)      | .281 (7.1)   | .375 (9.5)   |
| 23       | 28         | 4.647 (118.0) | 1.812 (46.0)      | .857 (21.8)  | .970 (24.6)  |
| 24       | 28         | 4.896 (124.4) | 2.125 (54.0)      | .875 (22.2)  | 1.000 (25.4) |
| 25       | 28         | 4.431 (112.5) | 1.375 (34.9)      | .436 (11.1)  | .530 (13.5)  |
| 26       | 28         | 4.647 (118.0) | 1.812 (46.0)      | .567 (14.4)  | .680 (17.3)  |
| 27       | 32         | 4.896 (124.4) | 2.125 (54.0)      | .930 (23.6)  | 1.055 (26.8) |
| 28       | 32         | 4.959 (126.0) | 2.469 (62.7)      | 1.105 (28.1) | 1.230 (31.2) |
| 29       | 32         | 4.647 (118.0) | 1.812 (46.0)      | .637 (16.2)  | .750 (19.1)  |
| 30       | 32         | 4.896 (124.4) | 2.125 (54.0)      | .755 (19.2)  | .880 (22.4)  |
| 31       | 32         | 4.896 (124.4) | 2.125 (54.0)      | .984 (25.0)  | 1.109 (28.2) |
| 32       | 32         | 4.647 (118.0) | 1.812 (46.0)      | .857 (21.8)  | .970 (24.6)  |
| 33       | 32         | 4.276 (108.6) | 1.125 (28.6)      | .281 (7.1)   | .375 (9.5)   |
| 34       | 32         | 4.431 (112.5) | 1.375 (34.9)      | .436 (11.1)  | .530 (13.5)  |
| 35       | 32         | 4.959 (126.0) | 2.469 (62.7)      | 1.005 (25.5) | 1.130 (28.7) |
| 36       | 36         | 4.959 (126.0) | 2.469 (62.7)      | 1.185 (30.1) | 1.310 (33.3) |
| 37       | 36         | 4.896 (124.4) | 2.125 (54.0)      | .984 (25.0)  | 1.109 (28.2) |
| 38       | 36         | 5.021 (127.5) | 2.625 (66.7)      | 1.250 (31.8) | 1.375 (34.9) |
| 39       | 36         | 4.959 (126.0) | 2.469 (62.7)      | 1.055 (26.8) | 1.180 (30.0) |
| 40       | 36         | 5.021 (127.5) | 2.625 (66.7)      | 1.320 (33.5) | 1.445 (36.7) |
| 41       | 36         | 4.651 (118.1) | 1.812 (46.0)      | .857 (21.8)  | .970 (24.6)  |
| 42       | 36         | 4.959 (126.0) | 2.469 (62.7)      | 1.105 (28.1) | 1.230 (31.2) |
| 43       | 40         | 6.354 (161.4) | 3.171 (80.5)      | 1.815 (46.1) | 1.940 (49.3) |
| 44       | 40         | 6.354 (161.4) | 3.171 (80.5)      | 1.700 (43.2) | 1.825 (46.4) |
| 45       | 40         | 6.354 (161.4) | 3.171 (80.5)      | 1.605 (40.8) | 1.730 (43.9) |
| 46       | 40         | 6.057 (153.8) | 2.953 (75.0)      | 1.531 (38.9) | 1.656 (42.1) |
| 47       | 44         | 6.345 (161.2) | 3.375 (85.7)      | 1.867 (47.4) | 2.000 (50.8) |
| 48       | 44         | 5.266 (133.8) | 3.171 (80.5)      | 1.775 (45.1) | 1.900 (48.3) |

Dimensions in inches (millimeters) and are subject to change without notice.







## AS85049/5 Style 2 Straight Environmental Backshell

B

TABLE I: Shell Size and Dimensions

| Shell Size | A Thread Class 2B-LH | B Dia ±.015 (0.4) | E Max         | G Dia Max    | H Max       | J Thread (Plated) Class 2 (A or B) |
|------------|----------------------|-------------------|---------------|--------------|-------------|------------------------------------|
| 12         | .7500 - 20 UNEF      | .933 (23.7)       | 4.000 (101.6) | 1.094 (27.8) | .765 (19.4) | 0.875-0.1P-0.2L-DS                 |
| 14         | .8750 - 20 UNEF      | 1.057 (26.8)      | 4.100 (104.1) | 1.219 (31.0) | .765 (19.4) | 1.000-0.1P-0.2L-DS                 |
| 16         | 1.0000 - 20 UNEF     | 1.183 (30.0)      | 4.400 (111.8) | 1.344 (34.1) | .980 (24.9) | 1.125-0.1P-0.2L-DS                 |
| 18         | 1.1250 - 18 UNEF     | 1.307 (33.2)      | 4.600 (116.8) | 1.469 (37.3) | .980 (24.9) | 1.250-0.1P-0.2L-DS                 |
| 20         | 1.2500 - 18 UNEF     | 1.433 (36.4)      | 4.900 (124.5) | 1.562 (39.7) | .980 (24.9) | 1.375-0.1P-0.2L-DS                 |
| 22         | 1.3750 - 18 UNEF     | 1.557 (39.5)      | 4.900 (124.5) | 1.688 (42.9) | .980 (24.9) | 1.500-0.1P-0.2L-DS                 |
| 24         | 1.6250 - 18 UNEF     | 1.807 (45.9)      | 5.000 (127.0) | 1.938 (49.2) | .980 (24.9) | 1.750-0.1P-0.2L-DS                 |
| 28         | 1.8750 - 16 UN       | 2.057 (52.2)      | 5.300 (134.6) | 2.219 (56.4) | .980 (24.9) | 2.000-0.1P-0.2L-DS                 |
| 32         | 2.0625 - 16 UNS      | 2.057 (52.2)      | 5.600 (142.2) | 2.469 (62.7) | .980 (24.9) | 2.250-0.1P-0.2L-DS                 |
| 36         | 2.3125 - 16 UNS      | 2.557 (64.9)      | 5.600 (142.2) | 2.719 (69.1) | .980 (24.9) | 2.500-0.1P-0.2L-DS                 |
| 40         | 2.6250 - 16 UN       | 2.870 (72.9)      | 5.725 (145.4) | 2.969 (75.4) | .980 (24.9) | 2.750-0.1P-0.2L-DS                 |

TABLE II: Dash Number and Cable Range

| Dash No. | Shell Size | F ± .031 (0.8) | Cable Range  |              |
|----------|------------|----------------|--------------|--------------|
|          |            |                | Min          | Max          |
| 1        | 12         | .969 (24.6)    | .130 (3.3)   | .280 (7.1)   |
| 2        | 14         | 1.094 (27.8)   | .246 (6.2)   | .396 (10.1)  |
| 3        | 16         | 1.219 (31.0)   | .321 (8.2)   | .521 (13.2)  |
| 4        | 18         | 1.344 (34.1)   | .446 (11.3)  | .646 (16.4)  |
| 5        | 18         | 1.344 (34.1)   | .300 (7.6)   | .475 (12.1)  |
| 6        | 20         | 1.469 (37.3)   | .565 (14.4)  | .765 (19.4)  |
| 7        | 20         | 1.469 (37.3)   | .400 (10.2)  | .600 (15.2)  |
| 8        | 22         | 1.625 (41.3)   | .690 (17.5)  | .890 (22.6)  |
| 9        | 22         | 1.625 (41.3)   | .500 (12.7)  | .700 (17.8)  |
| 10       | 22         | 1.625 (41.3)   | .400 (10.2)  | .525 (13.3)  |
| 11       | 24         | 1.750 (44.5)   | .815 (20.7)  | 1.015 (25.8) |
| 12       | 24         | 1.750 (44.5)   | .595 (15.1)  | .815 (20.7)  |
| 13       | 28         | 2.000 (50.8)   | .980 (24.9)  | 1.180 (30.0) |
| 14       | 28         | 2.000 (50.8)   | .780 (19.8)  | .980 (24.9)  |
| 15       | 32         | 2.250 (57.2)   | 1.230 (31.2) | 1.430 (36.3) |
| 16       | 32         | 2.250 (57.2)   | 1.030 (26.2) | 1.230 (31.2) |
| 17       | 36         | 2.500 (63.5)   | 1.470 (37.3) | 1.670 (42.4) |
| 18       | 36         | 2.500 (63.5)   | 1.270 (32.3) | 1.470 (37.3) |
| 19       | 40         | 2.750 (69.9)   | 1.660 (42.2) | 1.860 (47.2) |
| 20       | 40         | 2.750 (69.9)   | 1.400 (35.6) | 1.660 (42.2) |

## APPLICATION NOTES

- For complete dimensions see the applicable Military Specification.
- Metric dimensions (mm) are in parentheses.
- Cable Range is defined as the accommodation range for the wire bundle or cable. Dimensions shown are not intended for inspection criteria.
- Approximate chain lengths: Dash No. 01-12 = 5.0 (127.0); Dash No. 13-29 = 6.0 (152.4).

Dimensions in inches (millimeters) and are subject to change without notice.

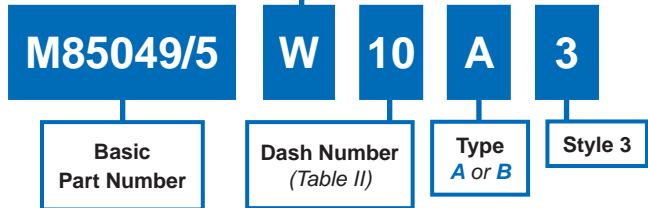
# AS85049/5 Style 3 Straight Environmental Backshell



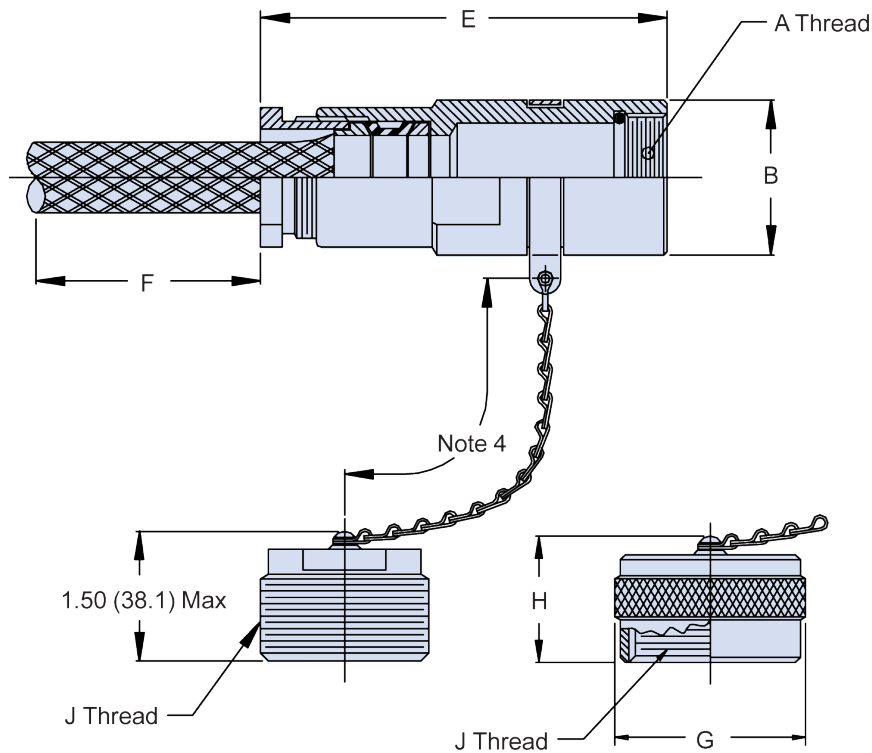
AS85049

| CONNECTOR DESIGNATOR: |                                  |
|-----------------------|----------------------------------|
| <b>C</b>              | MIL-DTL-22992 Classes C, J and R |

| Finish  |  |
|---|--|
| <i>A</i> = Black Anodize                        | <i>X</i> = Nickel Fluorocarbon Polymer |
| <i>W</i> = Cadmium, Olive Drab                  | <i>Z</i> = Zinc Nickel                 |
| <i>Y</i> = Pure Dense Electrodeposited Aluminum |  |



**B**



**TYPE A - Plug Cap**  
For use with MS17344

**TYPE B - Receptacle Cap**  
For use with MS17343,  
MS17345, and MS17347

| APPLICATION NOTES |  |
|-------------------|--|
| 1.                | For complete dimensions see the applicable Military Specification.   |
| 2.                | Metric dimensions (mm) are in parentheses.   |
| 3.                | Cable Range is defined as the accommodation range for the wire bundle or cable. Dimensions shown are not intended for inspection criteria. |
| 4.                | Approximate chain lengths: Dash No. 01-12 = 5.0 (127.0); Dash No. 13-29 = 6.0 (152.4).   |

Dimensions in inches (millimeters) and are subject to change without notice.



## AS85049/5 Style 3 Straight Environmental Backshell

TABLE I: Shell Size and Dimensions

| Shell Size | A Thread<br>Class 2B-LH | B Dia<br>±.015 (0.4) | G Dia<br>Max | H<br>Max    | J Thread (Plated)<br>Class 2 (A or B) |
|------------|-------------------------|----------------------|--------------|-------------|---------------------------------------|
| 12         | .7500 - 20 UNEF         | .933 (23.7)          | 1.094 (27.8) | .765 (19.4) | 0.875-0.1P-0.2L-DS                    |
| 18         | 1.1250 - 18 UNEF        | 1.307 (33.2)         | 1.469 (37.3) | .980 (24.9) | 1.250-0.1P-0.2L-DS                    |
| 20         | 1.2500 - 18 UNEF        | 1.433 (36.4)         | 1.562 (39.7) | .980 (24.9) | 1.375-0.1P-0.2L-DS                    |
| 22         | 1.3750 - 18 UNEF        | 1.557 (39.5)         | 1.688 (42.9) | .980 (24.9) | 1.500-0.1P-0.2L-DS                    |
| 24         | 1.6250 - 18 UNEF        | 1.807 (45.9)         | 1.938 (49.2) | .980 (24.9) | 1.750-0.1P-0.2L-DS                    |
| 28         | 1.8750 - 16 UN          | 2.057 (52.2)         | 2.219 (56.4) | .980 (24.9) | 2.000-0.1P-0.2L-DS                    |
| 32         | 2.0625 - 16 UNS         | 2.307 (58.6)         | 2.469 (62.7) | .980 (24.9) | 2.250-0.1P-0.2L-DS                    |
| 36         | 2.3125 - 16 UNS         | 2.557 (64.9)         | 2.719 (69.1) | .980 (24.9) | 2.500-0.1P-0.2L-DS                    |
| 40         | 2.6250 - 16 UN          | 2.875 (73.0)         | 2.969 (75.4) | .980 (24.9) | 2.750-0.1P-0.2L-DS                    |
| 44         | 2.8750 - 16 UN          | 3.125 (79.4)         | 3.217 (81.7) | .980 (24.9) | 3.000-0.1P-0.2L-DS                    |

TABLE II: Dash Number, Shell Size and Cable Range

| Dash No. | Shell Size | Cable Range  |              | E<br>Max      | F Appr.<br>Free Length |
|----------|------------|--------------|--------------|---------------|------------------------|
|          |            | Min          | Max          |               |                        |
| 1        | 12         | .160 (4.1)   | .222 (5.6)   | 2.752 (69.9)  | 2.406 (61.1)           |
| 2        | 18         | .511 (13.0)  | .605 (15.4)  | 3.712 (94.3)  | 5.188 (131.8)          |
| 3        | 18         | .436 (11.1)  | .530 (13.5)  | 3.712 (94.3)  | 4.688 (119.1)          |
| 4        | 18         | .306 (7.8)   | .375 (9.5)   | 3.502 (89.0)  | 3.844 (97.6)           |
| 5        | 18         | .219 (5.6)   | .281 (7.1)   | 3.471 (88.2)  | 2.844 (72.2)           |
| 6        | 20         | .605 (15.4)  | .699 (17.8)  | 4.024 (102.2) | 6.188 (157.2)          |
| 7        | 20         | .511 (13.0)  | .605 (15.4)  | 3.841 (97.6)  | 5.188 (131.8)          |
| 8        | 20         | .361 (9.2)   | .455 (11.6)  | 4.024 (102.2) | 4.188 (106.4)          |
| 9        | 22         | .715 (18.2)  | .828 (21.0)  | 4.087 (103.8) | 6.688 (169.9)          |
| 10       | 22         | .449 (11.4)  | .562 (14.3)  | 4.087 (103.8) | 5.188 (131.8)          |
| 11       | 22         | .316 (8.0)   | .405 (10.3)  | 3.841 (97.6)  | 3.688 (93.7)           |
| 12       | 24         | .692 (17.6)  | .805 (20.4)  | 4.150 (105.4) | 6.688 (169.9)          |
| 13       | 24         | .637 (16.2)  | .750 (19.1)  | 4.150 (105.4) | 6.688 (169.9)          |
| 14       | 24         | .517 (13.1)  | .630 (16.0)  | 4.150 (105.4) | 5.688 (144.5)          |
| 15       | 28         | .984 (25.0)  | 1.109 (28.2) | 4.212 (107.0) | 7.688 (195.3)          |
| 16       | 28         | .875 (22.2)  | 1.000 (25.4) | 4.212 (107.0) | 7.188 (182.6)          |
| 17       | 28         | .755 (19.2)  | .880 (22.4)  | 4.212 (107.0) | 6.688 (169.9)          |
| 18       | 28         | .637 (16.2)  | .750 (19.1)  | 4.150 (105.4) | 6.688 (169.9)          |
| 19       | 28         | .567 (14.4)  | .680 (17.3)  | 4.150 (105.4) | 6.688 (169.9)          |
| 20       | 28         | .436 (11.1)  | .530 (13.5)  | 3.966 (100.7) | 4.688 (119.1)          |
| 21       | 28         | .306 (7.8)   | .375 (9.5)   | 3.799 (96.5)  | 3.844 (97.6)           |
| 22       | 32         | 1.105 (28.1) | 1.230 (31.2) | 4.275 (108.6) | 8.188 (208.0)          |
| 23       | 32         | 1.005 (25.5) | 1.130 (28.7) | 4.275 (108.6) | 7.188 (182.6)          |
| 24       | 32         | .930 (23.6)  | 1.055 (26.8) | 4.212 (107.0) | 7.688 (195.3)          |
| 25       | 32         | .857 (21.8)  | .970 (24.6)  | 4.150 (105.4) | 7.188 (182.6)          |
| 26       | 32         | .755 (19.2)  | .880 (22.4)  | 4.212 (107.0) | 6.688 (169.9)          |
| 27       | 32         | .637 (16.2)  | .750 (19.1)  | 4.150 (105.4) | 6.688 (169.9)          |
| 28       | 32         | .436 (11.1)  | .530 (13.5)  | 3.966 (100.7) | 4.688 (119.1)          |
| 29       | 32         | .306 (7.8)   | .375 (9.5)   | 3.846 (97.7)  | 3.844 (97.6)           |
| 30       | 36         | 1.320 (33.5) | 1.445 (36.7) | 4.337 (110.2) | 9.688 (246.1)          |
| 31       | 36         | 1.250 (31.8) | 1.375 (34.9) | 4.337 (110.2) | 9.688 (246.1)          |
| 32       | 36         | 1.185 (30.1) | 1.310 (33.3) | 4.275 (108.6) | 8.688 (220.7)          |
| 33       | 36         | 1.105 (28.1) | 1.230 (31.2) | 4.275 (108.6) | 8.188 (208.0)          |
| 34       | 36         | 1.055 (26.8) | 1.180 (30.0) | 4.275 (108.6) | 8.188 (208.0)          |
| 35       | 36         | .984 (25.0)  | 1.109 (28.2) | 4.212 (107.0) | 7.688 (195.3)          |
| 36       | 36         | .857 (21.8)  | .970 (24.6)  | 4.154 (105.5) | 7.188 (182.6)          |
| 37       | 40         | 1.815 (46.1) | 1.940 (49.3) | 5.673 (144.1) | 13.188 (335.0)         |
| 38       | 40         | 1.700 (43.2) | 1.825 (46.4) | 5.673 (144.1) | 13.188 (335.0)         |
| 39       | 40         | 1.605 (40.8) | 1.730 (43.9) | 5.673 (144.1) | 13.188 (335.0)         |
| 40       | 40         | 1.531 (38.9) | 1.656 (42.1) | 5.373 (136.5) | 12.688 (322.3)         |
| 41       | 44         | 1.862 (47.3) | 2.000 (50.8) | 5.673 (144.1) | 14.188 (360.4)         |
| 42       | 44         | 1.775 (45.1) | 1.900 (48.3) | 4.594 (116.7) | 12.688 (322.3)         |

Dimensions in inches (millimeters) and are subject to change without notice.

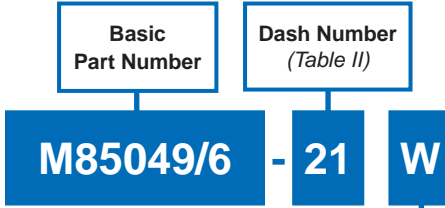
# AS85049/6 and MS3189A 45° EMI/RFI Environmental Backshell



AS85049

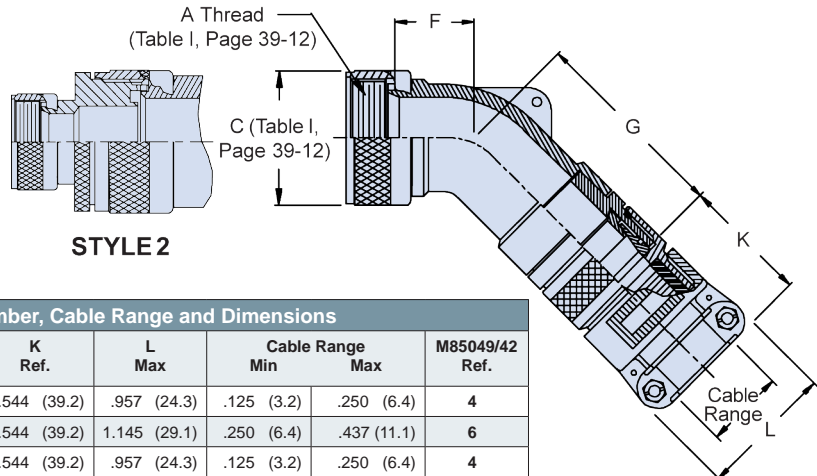
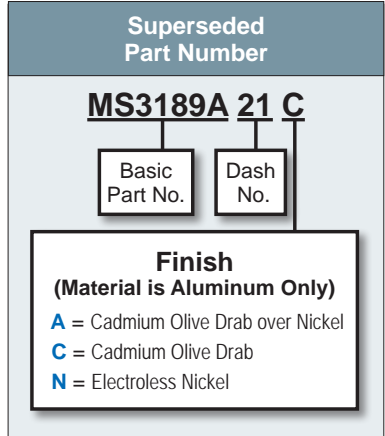
B

| CONNECTOR DESIGNATOR: |   |
|-----------------------|---|
| <b>A</b>              | AS50151 Series 34001                                      |
|                       | MIL-DTL-26482 Series II                                   |
|                       | AS81703 Series III  |
|                       | MIL-DTL-83723 Series I & III                              |
|                       | 40M39569, DEF 5326-3, EN 2997                             |
|                       | EN 3646, ESC 10, ESC 11, LN 29504                         |
|                       | NFC93422 Series HE302<br>PAN 6432-1, PAN 6432-2, PATT 602 |



**Finish / Material**

**B** = Black Cadmium / Stainless Steel  
**N** = Electroless Nickel / Aluminum  
**S** = Passivated / Stainless Steel  
**W** = 1,000 Hr. Cadmium Olive Drab  
over Electroless Nickel / Aluminum  
**X** = Aluminum, Nickel Fluorocarbon Polymer  
**Z** = Aluminum, Zinc-Nickel, Black  
**XS** = Stainless Steel, Nickel Fluorocarbon Polymer  
**ZS** = Stainless Steel, Zinc-Nickel, Black



| TABLE I: Dash Number, Cable Range and Dimensions |            |              |              |              |              |             |              |                |  |
|--|------------|--------------|--------------|--------------|--------------|-------------|--------------|----------------|--|
| Dash No.   | Shell Size | F Max        | G Max        | K Ref.       | L Max        | Cable Range |              | M85049/42 Ref. |  |
|  |            |              |              |              |              | Min         | Max          |                |  |
| 1  | 3          | .686 (17.4)  | 2.034 (51.7) | 1.544 (39.2) | .957 (24.3)  | .125 (3.2)  | .250 (6.4)   | 4              |  |
| 2  | 3          | 1.500 (38.1) | 1.306 (33.2) | 1.544 (39.2) | 1.145 (29.1) | .250 (6.4)  | .437 (11.1)  | 6              |  |
| 3  | 8          | .625 (15.9)  | 1.974 (50.1) | 1.544 (39.2) | .957 (24.3)  | .125 (3.2)  | .250 (6.4)   | 4              |  |
| 4  | 10         | .686 (17.4)  | 1.369 (34.8) | 1.544 (39.2) | .957 (24.3)  | .125 (3.2)  | .312 (7.9)   | 4              |  |
| 5  | 10         | .686 (17.4)  | 2.034 (51.7) | 1.544 (39.2) | 1.145 (29.1) | .250 (6.4)  | .375 (9.5)   | 6              |  |
| 6  | 12         | .750 (19.1)  | 2.034 (51.7) | 1.544 (39.2) | .957 (24.3)  | .125 (3.2)  | .312 (7.9)   | 4              |  |
| 7  | 12         | .750 (19.1)  | 2.034 (51.7) | 1.544 (39.2) | 1.145 (29.1) | .250 (6.4)  | .437 (11.1)  | 6              |  |
| 8  | 12         | .750 (19.1)  | 2.124 (53.9) | 1.844 (46.8) | 1.332 (33.8) | .350 (8.9)  | .500 (12.7)  | 10             |  |
| 9  | 14         | .813 (20.7)  | 1.779 (45.2) | 1.544 (39.2) | 1.145 (29.1) | .250 (6.4)  | .437 (11.1)  | 6              |  |
| 10   | 14         | .813 (20.7)  | 2.234 (56.7) | 1.844 (46.8) | 1.332 (33.8) | .350 (8.9)  | .575 (14.6)  | 10             |  |
| 11   | 16         | .906 (23.0)  | 1.874 (47.6) | 1.544 (39.2) | 1.145 (29.1) | .250 (6.4)  | .437 (11.1)  | 6              |  |
| 12   | 16         | .906 (23.0)  | 2.424 (61.6) | 1.916 (48.7) | 1.551 (39.4) | .500 (12.7) | .700 (17.8)  | 12             |  |
| 13   | 18         | 1.093 (27.8) | 2.062 (52.4) | 1.844 (46.8) | 1.332 (33.8) | .350 (8.9)  | .625 (15.9)  | 10             |  |
| 14   | 18         | 1.093 (27.8) | 2.424 (61.6) | 2.000 (50.8) | 1.770 (45.0) | .625 (15.9) | .779 (19.8)  | 16             |  |
| 15   | 20         | 1.093 (27.8) | 2.062 (52.4) | 1.844 (46.8) | 1.332 (33.8) | .350 (8.9)  | .625 (15.9)  | 10             |  |
| 16   | 20         | 1.093 (27.8) | 2.574 (65.4) | 2.000 (50.8) | 1.770 (45.0) | .625 (15.9) | .904 (23.0)  | 16             |  |
| 17   | 22         | 1.188 (30.2) | 2.217 (56.3) | 1.916 (48.7) | 1.551 (39.4) | .500 (12.7) | .750 (19.1)  | 12             |  |
| 18   | 22         | 1.188 (30.2) | 2.574 (65.4) | 2.230 (56.6) | 2.113 (53.7) | .875 (22.2) | 1.029 (26.1) | 20             |  |
| 19   | 24         | 1.188 (30.2) | 2.217 (56.3) | 1.916 (48.7) | 1.551 (39.4) | .500 (12.7) | .750 (19.1)  | 12             |  |
| 20   | 24         | 1.188 (30.2) | 2.624 (66.6) | 2.230 (56.6) | 2.113 (53.7) | .875 (22.2) | 1.144 (29.1) | 20             |  |
| 21   | 28         | 1.313 (33.4) | 2.562 (65.1) | 2.000 (50.8) | 1.770 (45.0) | .625 (15.9) | .937 (23.8)  | 16             |  |

- APPLICATION NOTES

  1. For complete dimensions see the applicable Military Specification.
  2. When maximum cable entry is exceeded, Style 2 will be supplied.
  3. Metric dimensions (mm) are in parentheses.
  4. Cable Range is defined as the accommodation range for the wire bundle or cable. Dimensions shown are not intended for inspection criteria.

Continued on Page B-20

Dimensions in inches (millimeters) and are subject to change without notice.

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# AS85049/6 and MS3189A 45° EMI/RFI Environmental Backshell

TABLE I: Continued from Page B-19

| Dash No. | Shell Size | F Max        | G Max        | K Ref.       | L Max        | Cable Range  |              | M85049/42 Ref. |
|----------|------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|
|          |            |              |              |              |              | Min          | Max          |                |
| 22       | 28         | 1.312 (33.3) | 2.280 (57.9) | 2.024 (51.4) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 23       | 32         | 1.375 (34.9) | 2.724 (69.2) | 2.000 (50.8) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 24       | 32         | 1.375 (34.9) | 2.724 (69.2) | 2.230 (56.6) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 25       | 32         | 1.375 (34.9) | 2.374 (60.3) | 2.550 (64.8) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 26       | 36         | 1.406 (35.7) | 2.814 (71.5) | 2.000 (50.8) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 27       | 36         | 1.406 (35.7) | 2.814 (71.5) | 2.024 (51.4) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 28       | 36         | 1.406 (35.7) | 2.468 (62.7) | 2.600 (66.0) | 3.020 (76.7) | 1.437 (36.5) | 1.840 (46.7) | 32             |
| 29       | 40         | 2.156 (54.8) | 2.634 (66.9) | 2.000 (50.8) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 30       | 40         | 2.156 (54.8) | 2.634 (66.9) | 2.024 (51.4) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 31       | 40         | 2.156 (54.8) | 2.468 (62.7) | 2.600 (66.0) | 3.020 (76.7) | 1.437 (36.5) | 1.875 (47.6) | 32             |
| 32       | 44         | 2.156 (54.8) | 2.814 (71.5) | 2.000 (50.8) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 33       | 44         | 2.156 (54.8) | 2.468 (62.7) | 2.024 (51.4) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 34       | 44         | 2.156 (54.8) | 2.468 (62.7) | 2.600 (66.0) | 3.020 (76.7) | 1.437 (36.5) | 1.875 (47.6) | 32             |
| 35       | 48         | 2.156 (54.8) | 2.814 (71.5) | 2.000 (50.8) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 36       | 48         | 2.156 (54.8) | 2.814 (71.5) | 2.024 (51.4) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 37       | 48         | 2.156 (54.8) | 2.468 (62.7) | 2.600 (66.0) | 3.020 (76.7) | 1.437 (36.5) | 1.875 (47.6) | 32             |
| 38       | 61         | 1.188 (30.2) | 2.574 (65.4) | 1.916 (48.7) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 39       | 61         | 1.188 (30.2) | 2.217 (56.3) | 2.230 (56.6) | 2.113 (53.7) | .875 (22.2)  | 1.184 (30.1) | 20             |
| 40       | 16         | .906 (23.0)  | 2.234 (56.7) | 1.844 (46.8) | 1.332 (33.8) | .350 (8.9)   | .625 (15.9)  | 10             |
| 41       | 18         | 1.093 (27.8) | 2.424 (61.6) | 1.544 (39.2) | .957 (24.3)  | .125 (3.2)   | .312 (7.9)   | 4              |
| 42       | 18         | 1.093 (27.8) | 2.424 (61.6) | 1.544 (39.2) | 1.145 (29.1) | .250 (6.4)   | .437 (11.1)  | 6              |
| 43       | 20         | 1.093 (27.8) | 2.424 (61.6) | 1.544 (39.2) | 1.145 (29.1) | .250 (6.4)   | .437 (11.1)  | 6              |
| 44       | 22         | 1.188 (30.2) | 2.574 (65.4) | 1.544 (39.2) | .957 (24.3)  | .125 (3.2)   | .312 (7.9)   | 4              |
| 45       | 22         | 1.188 (30.2) | 2.574 (65.4) | 1.544 (39.2) | 1.145 (29.1) | .250 (6.4)   | .437 (11.1)  | 6              |
| 46       | 24         | 1.188 (30.2) | 2.574 (65.4) | 1.844 (46.8) | 1.332 (33.8) | .350 (8.9)   | .625 (15.9)  | 10             |
| 47       | 36         | 1.406 (35.7) | 2.814 (71.5) | 1.916 (48.7) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 48       | 40         | 2.156 (54.8) | 2.814 (71.5) | 1.916 (48.7) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 49*      | 10         | 1.500 (38.1) | 2.034 (51.7) | 1.544 (39.2) | 1.145 (29.1) | .250 (6.4)   | .437 (11.1)  | 6              |
| 50*      | 14         | 1.842 (46.8) | 2.424 (61.6) | 1.916 (48.7) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 51*      | 16         | 1.937 (49.2) | 2.574 (65.4) | 2.000 (50.8) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 52       | 18         | 1.093 (27.8) | 2.424 (61.6) | 1.916 (48.7) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 53       | 61         | 1.188 (30.2) | 2.574 (65.4) | 2.000 (50.8) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 54       | 20         | 1.093 (27.8) | 2.424 (61.6) | 1.916 (48.7) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 55*      | 20         | 2.061 (52.3) | 2.624 (66.6) | 2.230 (56.6) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 56       | 22         | 1.188 (30.2) | 2.574 (65.4) | 1.844 (46.8) | 1.332 (33.8) | .350 (8.9)   | .625 (15.9)  | 10             |
| 57       | 22         | 1.188 (30.2) | 2.574 (65.4) | 2.000 (50.8) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 58*      | 22         | 2.061 (52.3) | 2.624 (66.6) | 2.230 (56.6) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 59       | 24         | 1.188 (30.2) | 2.574 (65.4) | 2.000 (50.8) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 60       | 28         | 1.313 (33.4) | 2.624 (66.6) | 1.916 (48.7) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 61       | 28         | 1.313 (33.4) | 2.624 (66.6) | 2.230 (56.6) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 62       | 32         | 1.375 (34.9) | 2.724 (69.2) | 2.024 (51.4) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 63       | 36         | 1.406 (35.7) | 2.814 (71.5) | 2.230 (56.6) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 64       | 36         | 1.406 (35.7) | 2.814 (71.5) | 2.550 (64.8) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 65       | 40         | 2.156 (54.8) | 2.814 (71.5) | 2.230 (56.6) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 66       | 40         | 2.156 (54.8) | 2.814 (71.5) | 2.550 (64.8) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 67       | 44         | 2.156 (54.8) | 2.814 (71.5) | 2.230 (56.6) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 68       | 44         | 2.156 (54.8) | 2.814 (71.5) | 2.550 (64.8) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 69       | 48         | 2.156 (54.8) | 2.814 (71.5) | 2.230 (56.6) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 70       | 48         | 2.156 (54.8) | 2.814 (71.5) | 2.550 (64.8) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 71*      | 12         | 1.654 (42.0) | 2.234 (56.4) | 1.844 (46.8) | 1.332 (33.8) | .350 (8.9)   | .625 (15.9)  | 10             |
| 72*      | 18         | 1.937 (49.2) | 2.574 (65.4) | 2.000 (50.8) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 73*      | 24         | 2.061 (52.3) | 2.624 (66.6) | 2.230 (56.6) | 2.116 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 74       | 14         | .813 (20.7)  | 2.124 (53.9) | 1.544 (39.2) | .957 (24.3)  | .125 (3.2)   | .312 (7.9)   | 04             |
| 75       | 16         | .906 (23.0)  | 2.234 (56.4) | 1.544 (39.2) | .957 (24.3)  | .125 (3.2)   | .312 (7.9)   | 04             |

\* Denotes Style 2

Dimensions in inches (millimeters) and are subject to change without notice.

# AS85049/7 and MS3189B 45° Environmental Backshell

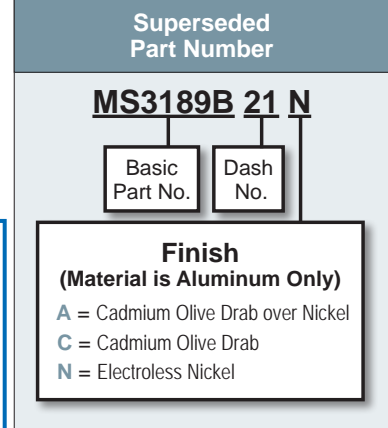
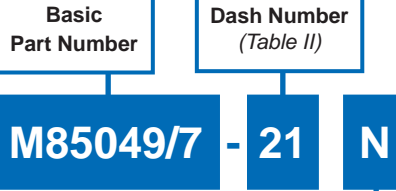


AS85049

B

### CONNECTOR DESIGNATOR:

|          |   |
|----------|---|
| <b>A</b> | AS50151 Series AS34001                                    |
|          | MIL-DTL-26482 Series II                                   |
|          | AS81703 Series III  |
|          | MIL-DTL-83723 Series I & III                              |
|          | 40M39569, DEF 5326-3, EN 2997                             |
|          | EN 3646, ESC 10, ESC 11, LN 29504                         |
|          | NFC93422 Series HE302<br>PAN 6432-1, PAN 6432-2, PATT 602 |

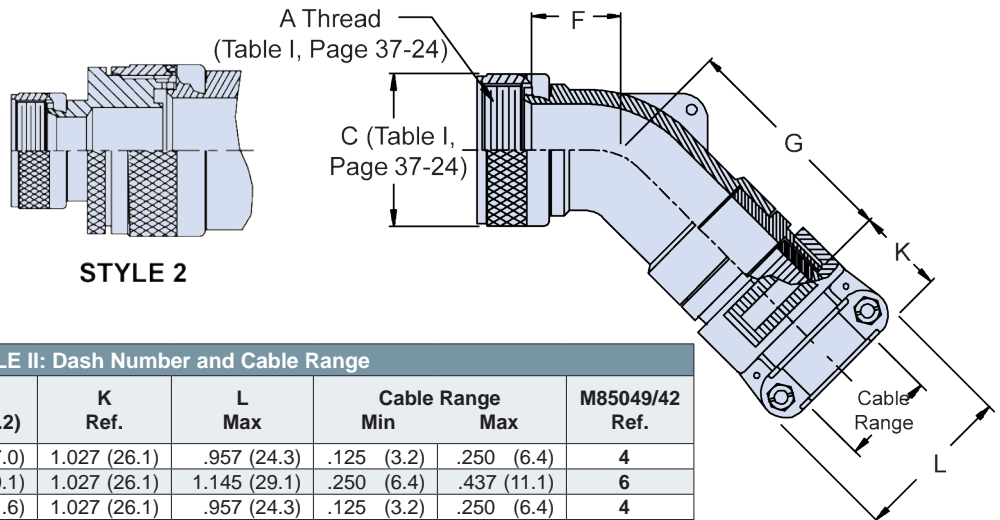


### APPLICATION NOTES

- For complete dimensions see the applicable Military Specification.
- Metric dimensions (mm) are in parentheses.
- When maximum cable entry is exceeded, Style 2 will be supplied.
- Cable Range is defined as the accommodation range for the wire bundle or cable. Dimensions shown are not intended for inspection criteria.
- Approximate chain lengths: Dash No. 01-12 = 5.0 (127.0); Dash No. 13-29 = 6.0 (152.4).

#### Finish / Material

**B** = Black Cadmium / Stainless Steel  
**N** = Electroless Nickel / Aluminum  
**S** = Passivated / Stainless Steel  
**W** = 1,000 Hr. Cadmium Olive Drab over Electroless Nickel / Aluminum  
**X** = Nickel Fluorocarbon Polymer / Aluminum  
**Y** = Pure Dense Electrodeposited Aluminum / Aluminum  
**Z** = Zinc Nickel, Black / Aluminum  
**XS** = Nickel Fluorocarbon Polymer / Stainless Steel  
**YS** = Pure Dense Electrodeposited Aluminum / Stainless Steel  
**ZS** = Zinc Nickel, Black / Stainless Steel



STYLE 2

TABLE II: Dash Number and Cable Range

| Dash No. | Shell Size | F Max        | G ± .125 (3.2) | K Ref.       | L Max        | Cable Range Min | Cable Range Max | M85049/42 Ref. |
|----------|------------|--------------|----------------|--------------|--------------|-----------------|-----------------|----------------|
| 1        | 03         | .688 (17.5)  | 1.852 (47.0)   | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)      | .250 (6.4)      | 4              |
| 2        | 03         | 1.500 (38.1) | 1.972 (50.1)   | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)      | .437 (11.1)     | 6              |
| 3        | 08         | .625 (15.9)  | 1.244 (31.6)   | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)      | .250 (6.4)      | 4              |
| 4        | 10         | .688 (17.5)  | 1.912 (48.6)   | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)      | .312 (7.9)      | 4              |
| 5        | 10         | .688 (17.5)  | 1.307 (33.2)   | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)      | .375 (9.5)      | 6              |
| 6        | 12         | .750 (19.1)  | 1.972 (50.1)   | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)      | .312 (7.9)      | 4              |
| 7        | 12         | .750 (19.1)  | 1.972 (50.1)   | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)      | .437 (11.1)     | 6              |
| 8        | 12         | .750 (19.1)  | 1.972 (50.1)   | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)      | .500 (12.7)     | 10             |
| 9        | 14         | .812 (20.6)  | 2.062 (52.4)   | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)      | .437 (11.1)     | 6              |
| 10       | 14         | .812 (20.6)  | 1.717 (43.6)   | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)      | .575 (14.6)     | 10             |
| 11       | 16         | .906 (23.0)  | 2.172 (55.2)   | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)      | .437 (11.1)     | 6              |
| 12       | 16         | .906 (23.0)  | 1.812 (46.0)   | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)     | .700 (17.8)     | 12             |
| 13       | 18         | 1.093 (27.8) | 2.362 (60.0)   | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)      | .625 (15.9)     | 10             |
| 14       | 18         | 1.093 (27.8) | 2.000 (50.8)   | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)     | .779 (19.8)     | 16             |
| 15       | 20         | 1.093 (27.8) | 2.362 (60.0)   | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)      | .625 (15.9)     | 10             |
| 16       | 20         | 1.093 (27.8) | 2.000 (50.8)   | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)     | .904 (23.0)     | 16             |
| 17       | 22         | 1.188 (30.2) | 2.512 (63.8)   | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)     | .750 (19.1)     | 12             |
| 18       | 22         | 1.188 (30.2) | 2.155 (54.7)   | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)     | 1.029 (26.1)    | 20             |
| 19       | 24         | 1.188 (30.2) | 2.512 (63.8)   | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)     | .750 (19.1)     | 12             |
| 20       | 24         | 1.188 (30.2) | 2.093 (53.2)   | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)     | 1.144 (29.1)    | 20             |
| 21       | 28         | 1.312 (33.3) | 2.500 (63.5)   | 1.156 (33.7) | 1.770 (45.0) | .625 (15.9)     | .937 (23.8)     | 16             |

Table Continued on Page B-22

Dimensions in inches (millimeters) and are subject to change without notice.



# AS85049/7 and MS3189B 45° Environmental Backshell

TABLE II: Dash Number and Cable Range (Continued From Page B-21)

| Dash No. | Shell Size | F Max        | G ± .125 (3.2) | K Ref.       | L Max        | Cable Range  |              | M85049/42 Ref. |
|----------|------------|--------------|----------------|--------------|--------------|--------------|--------------|----------------|
|          |            |              |                |              |              | Min          | Max          |                |
| 22       | 28         | 1.312 (33.3) | 2.218 (56.3)   | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 23       | 32         | 1.375 (34.9) | 2.662 (67.6)   | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 24       | 32         | 1.375 (34.9) | 2.662 (67.6)   | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 25       | 32         | 1.375 (34.9) | 2.312 (58.7)   | 1.781 (45.2) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 26       | 36         | 1.406 (35.7) | 2.752 (69.9)   | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 27       | 36         | 1.406 (35.7) | 2.752 (69.9)   | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 28       | 36         | 1.406 (35.7) | 2.406 (61.1)   | 1.830 (46.5) | 3.020 (76.7) | 1.437 (36.5) | 1.840 (46.7) | 32             |
| 29       | 40         | 2.156 (54.8) | 2.752 (69.9)   | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 30       | 40         | 2.156 (54.8) | 2.752 (69.9)   | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 31       | 40         | 2.156 (54.8) | 2.406 (61.1)   | 1.830 (46.5) | 3.020 (76.7) | 1.437 (36.5) | 1.875 (47.6) | 32             |
| 32       | 44         | 2.156 (54.8) | 2.752 (69.9)   | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 33       | 44         | 2.156 (54.8) | 2.752 (69.9)   | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 34       | 44         | 2.156 (54.8) | 2.406 (61.1)   | 1.830 (46.5) | 3.020 (76.7) | 1.437 (36.5) | 1.875 (47.6) | 32             |
| 35       | 48         | 2.156 (54.8) | 2.752 (69.9)   | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 36       | 48         | 2.156 (54.8) | 2.752 (69.9)   | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 37       | 48         | 2.156 (54.8) | 2.406 (61.1)   | 1.830 (46.5) | 3.020 (76.7) | 1.437 (36.5) | 1.875 (47.6) | 32             |
| 38       | 61         | 1.188 (30.2) | 2.512 (63.8)   | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 39       | 61         | 1.188 (30.2) | 2.155 (54.7)   | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.184 (30.1) | 20             |
| 40       | 16         | .906 (23.0)  | 2.172 (55.2)   | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)   | .625 (15.9)  | 10             |
| 41       | 18         | 1.093 (27.8) | 2.362 (60.0)   | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)   | .312 (7.9)   | 4              |
| 42       | 18         | 1.093 (27.8) | 2.362 (60.0)   | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)   | .437 (11.1)  | 6              |
| 43       | 20         | 1.093 (27.8) | 2.362 (60.0)   | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)   | .437 (11.1)  | 6              |
| 44       | 22         | 1.188 (30.2) | 2.512 (63.8)   | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)   | .312 (7.9)   | 4              |
| 45       | 22         | 1.188 (30.2) | 2.512 (63.8)   | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)   | .437 (11.1)  | 6              |
| 46       | 24         | 1.188 (30.2) | 2.512 (63.8)   | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)   | .625 (15.9)  | 10             |
| 47       | 36         | 1.406 (35.7) | 2.752 (69.9)   | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 48       | 40         | 2.156 (54.8) | 2.752 (69.9)   | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 49*      | 10         | 1.500 (38.1) | 1.972 (50.1)   | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)   | .437 (11.1)  | 6              |
| 50*      | 14         | 1.842 (46.8) | 2.362 (60.0)   | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 51*      | 16         | 1.938 (49.2) | 2.512 (63.8)   | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 52       | 18         | 1.093 (27.8) | 2.362 (60.0)   | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 53       | 61         | 1.188 (30.2) | 2.512 (63.8)   | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 54       | 20         | 1.093 (27.8) | 2.362 (60.0)   | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 55*      | 20         | 2.061 (52.3) | 2.562 (65.1)   | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 56       | 22         | 1.188 (30.2) | 2.512 (63.8)   | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)   | .625 (15.9)  | 10             |
| 57       | 22         | 1.188 (30.2) | 2.512 (63.8)   | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 58*      | 22         | 2.061 (52.3) | 2.562 (65.1)   | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 59       | 24         | 1.188 (30.2) | 2.512 (63.8)   | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 60       | 28         | 1.312 (33.3) | 2.562 (65.1)   | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 61       | 28         | 1.312 (33.3) | 2.562 (65.1)   | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 62       | 32         | 1.375 (34.9) | 2.662 (67.6)   | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 63       | 36         | 1.406 (35.7) | 2.752 (69.9)   | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 64       | 36         | 1.406 (35.7) | 2.752 (69.9)   | 1.781 (45.2) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 65       | 40         | 2.156 (54.8) | 2.752 (69.9)   | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 66       | 40         | 2.156 (54.8) | 2.752 (69.9)   | 1.781 (45.2) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 67       | 44         | 2.156 (54.8) | 2.752 (69.9)   | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 68       | 44         | 2.156 (54.8) | 2.752 (69.9)   | 1.781 (45.2) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 69       | 48         | 2.156 (54.8) | 2.752 (69.9)   | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 70       | 48         | 2.156 (54.8) | 2.752 (69.9)   | 1.781 (45.2) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 71*      | 12         | 1.654 (42.0) | 2.173 (55.2)   | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)   | .625 (15.9)  | 10             |
| 72*      | 18         | 1.938 (49.2) | 2.512 (63.8)   | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 73*      | 24         | 2.061 (52.3) | 2.562 (65.1)   | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 74       | 14         | .812 (20.6)  | 2.062 (52.4)   | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)   | .312 (7.9)   | 4              |
| 75       | 16         | .906 (23.0)  | 2.172 (55.2)   | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)   | .312 (7.9)   | 4              |

Dimensions in inches (millimeters) and are subject to change without notice.

# AS85049/8 and MS3188A 90° EMI/RFI Environmental Backshell



AS85049

B

### CONNECTOR DESIGNATOR:

**A**  
AS50151 Series AS34001  
MIL-DTL-26482 Series II  
AS81703 Series III  
MIL-DTL-83723 Series I & III  
40M39569, DEF 5326-3, EN 2997  
EN 3646, ESC 10, ESC 11,  
LN 29504  
NFC93422 Series HE302  
PAN 6432-1, PAN 6432-2,  
PATT 602

Basic  
Part Number

Dash Number  
(Table II)

**M85049/8**

**- 21**

**W**

Superseded  
Part Number

**MS3188A 21 C**

Basic  
Part No.

Dash  
No.

**Finish  
(Material is Aluminum Only)**  
**A** = Cadmium Olive Drab over Nickel  
**C** = Cadmium Olive Drab  
**N** = Electroless Nickel

### Finish / Material

**B** = Black Cadmium / Stainless Steel  
**N** = Electroless Nickel / Aluminum  
**S** = Passivated / Stainless Steel  
**W** = 1,000 Hr. Cadmium Olive Drab  
over Electroless Nickel / Aluminum  
**X** = Aluminum, Nickel Fluorocarbon Polymer  
**Z** = Aluminum, Zinc-Nickel, Black  
**XS** = Stainless Steel, Nickel Fluorocarbon Polymer  
**ZS** = Stainless Steel, Zinc-Nickel, Black

### APPLICATION NOTES

- For complete dimensions see the applicable Military Specification.
- When maximum cable entry is exceeded, Style 2 will be supplied.
- Metric dimensions (mm) are in parentheses.
- Cable Range is defined as the accommodation range for the wire bundle or cable. Dimensions shown are not intended for inspection criteria.

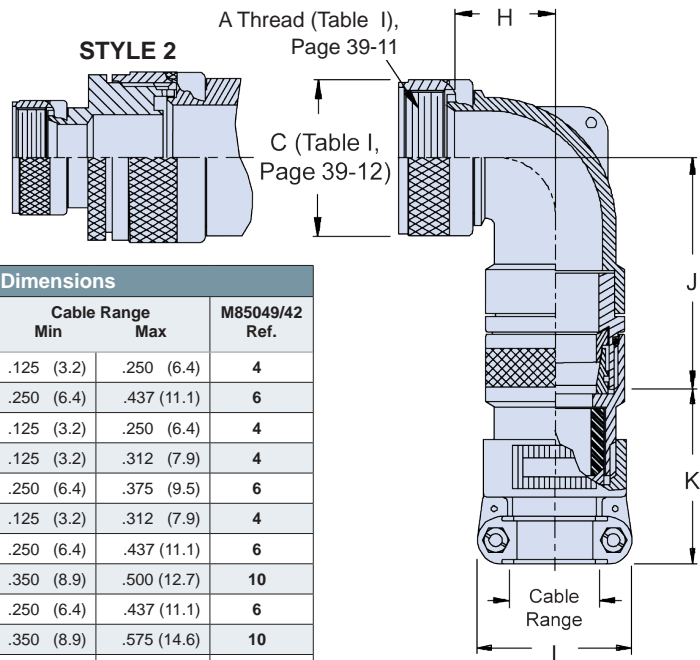


TABLE I: Dash Number, Cable Range and Dimensions

| Dash No. | Shell Size | H Max        | J Max        | K Ref.       | L Max        | Cable Range Min | Cable Range Max | M85049/42 Ref. |
|----------|------------|--------------|--------------|--------------|--------------|-----------------|-----------------|----------------|
| 1        | 3          | .761 (19.3)  | 1.924 (48.9) | 1.544 (39.2) | .957 (24.3)  | .125 (3.2)      | .250 (6.4)      | 4              |
| 2        | 3          | 1.511 (38.4) | 1.444 (36.7) | 1.544 (39.2) | 1.145 (29.1) | .250 (6.4)      | .437 (11.1)     | 6              |
| 3        | 8          | .666 (16.9)  | 1.324 (33.6) | 1.544 (39.2) | .957 (24.3)  | .125 (3.2)      | .250 (6.4)      | 4              |
| 4        | 10         | .761 (19.3)  | 2.044 (51.9) | 1.544 (39.2) | .957 (24.3)  | .125 (3.2)      | .312 (7.9)      | 4              |
| 5        | 10         | .761 (19.3)  | 1.444 (36.7) | 1.544 (39.2) | 1.145 (29.1) | .250 (6.4)      | .375 (9.5)      | 6              |
| 6        | 12         | .766 (19.5)  | 2.064 (52.4) | 1.544 (39.2) | .957 (24.3)  | .125 (3.2)      | .312 (7.9)      | 4              |
| 7        | 12         | .766 (19.5)  | 2.064 (52.4) | 1.544 (39.2) | 1.145 (29.1) | .250 (6.4)      | .437 (11.1)     | 6              |
| 8        | 12         | .766 (19.5)  | 1.459 (37.1) | 1.844 (46.8) | 1.332 (33.8) | .350 (8.9)      | .500 (12.7)     | 10             |
| 9        | 14         | .866 (22.0)  | 2.134 (54.2) | 1.544 (39.2) | 1.145 (29.1) | .250 (6.4)      | .437 (11.1)     | 6              |
| 10       | 14         | .866 (22.0)  | 1.779 (45.2) | 1.844 (46.8) | 1.332 (33.8) | .350 (8.9)      | .575 (14.6)     | 10             |
| 11       | 16         | 1.051 (26.7) | 2.224 (56.5) | 1.544 (39.2) | 1.145 (29.1) | .250 (6.4)      | .437 (11.1)     | 6              |
| 12       | 16         | 1.051 (26.7) | 1.869 (47.5) | 1.916 (48.7) | 1.551 (39.4) | .500 (12.7)     | .700 (17.8)     | 12             |
| 13       | 18         | 1.141 (29.0) | 2.394 (60.8) | 1.844 (46.8) | 1.332 (33.8) | .350 (8.9)      | .625 (15.9)     | 10             |
| 14       | 18         | 1.141 (29.0) | 2.044 (51.9) | 2.000 (50.8) | 1.770 (45.0) | .625 (15.9)     | .779 (19.8)     | 16             |
| 15       | 20         | 1.141 (29.0) | 2.394 (60.8) | 1.844 (46.8) | 1.332 (33.8) | .350 (8.9)      | .625 (15.9)     | 10             |
| 16       | 20         | 1.141 (29.0) | 2.044 (51.9) | 2.000 (50.8) | 1.770 (45.0) | .625 (15.9)     | .904 (23.0)     | 16             |
| 17       | 22         | 1.291 (32.8) | 2.504 (63.6) | 1.916 (48.7) | 1.551 (39.4) | .500 (12.7)     | .750 (19.1)     | 12             |
| 18       | 22         | 1.291 (32.8) | 2.149 (54.6) | 2.230 (56.6) | 2.113 (53.7) | .875 (22.2)     | 1.029 (26.1)    | 20             |
| 19       | 24         | 1.291 (32.8) | 2.504 (63.6) | 1.916 (48.7) | 1.551 (39.4) | .500 (12.7)     | .750 (19.1)     | 12             |
| 20       | 24         | 1.291 (32.8) | 2.149 (54.6) | 2.230 (56.6) | 2.113 (53.7) | .875 (22.2)     | 1.144 (29.1)    | 20             |
| 21       | 28         | 1.391 (35.3) | 2.674 (67.9) | 2.000 (50.8) | 1.770 (45.0) | .625 (15.9)     | .937 (23.8)     | 16             |

Continued on Page B-23

Dimensions in inches (millimeters) and are subject to change without notice.

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# AS85049/8 and MS3188A 90° EMI/RFI Environmental Backshell

TABLE I: Continued from Page B-23

| Dash No. | Shell Size | H Max        | J Max        | K Ref.       | L Max        | Cable Range  |              | M85049/42 Ref. |
|----------|------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|
|          |            |              |              |              |              | Min          | Max          |                |
| 22       | 28         | 1.391 (35.3) | 2.319 (58.9) | 2.024 (51.4) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 23       | 32         | 1.741 (44.2) | 2.924 (74.3) | 2.000 (50.8) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 24       | 32         | 1.741 (44.2) | 2.924 (74.3) | 2.230 (56.6) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 25       | 32         | 1.741 (44.2) | 2.569 (65.3) | 2.550 (64.8) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 26       | 36         | 1.941 (49.3) | 2.894 (73.5) | 2.000 (50.8) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 27       | 36         | 1.941 (49.3) | 2.894 (73.5) | 2.024 (51.4) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 28       | 36         | 1.941 (49.3) | 2.539 (64.5) | 2.600 (66.0) | 3.020 (76.7) | 1.437 (36.5) | 1.840 (46.7) | 32             |
| 29       | 40         | 2.691 (68.4) | 2.894 (73.5) | 2.000 (50.8) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 30       | 40         | 2.691 (68.4) | 2.894 (73.5) | 2.024 (51.4) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 31       | 40         | 2.691 (68.4) | 2.539 (64.5) | 2.600 (66.0) | 3.020 (76.7) | 1.437 (36.5) | 1.875 (47.6) | 32             |
| 32       | 44         | 2.691 (68.4) | 2.894 (73.5) | 2.000 (50.8) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 33       | 44         | 2.691 (68.4) | 2.894 (73.5) | 2.024 (51.4) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 34       | 44         | 2.691 (68.4) | 2.539 (64.5) | 2.600 (66.0) | 3.020 (76.7) | 1.437 (36.5) | 1.875 (47.6) | 32             |
| 35       | 48         | 2.691 (68.4) | 2.894 (73.5) | 2.000 (50.8) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 36       | 48         | 2.691 (68.4) | 2.894 (73.5) | 2.024 (51.4) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 37       | 48         | 2.691 (68.4) | 2.539 (64.5) | 2.600 (66.0) | 3.020 (76.7) | 1.437 (36.5) | 1.875 (47.6) | 32             |
| 38       | 61         | 1.291 (32.8) | 2.504 (63.6) | 1.916 (48.7) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 39       | 61         | 1.291 (32.8) | 2.149 (54.6) | 2.230 (56.6) | 2.113 (53.7) | .875 (22.2)  | 1.184 (30.1) | 20             |
| 40       | 16         | 1.051 (26.7) | 2.224 (56.5) | 1.844 (46.8) | 1.332 (33.8) | .350 (8.9)   | .625 (15.9)  | 10             |
| 41       | 18         | 1.141 (29.0) | 2.394 (60.8) | 1.544 (39.2) | .957 (24.3)  | .125 (3.2)   | .312 (7.9)   | 4              |
| 42       | 18         | 1.141 (29.0) | 2.394 (60.8) | 1.544 (39.2) | 1.145 (29.1) | .250 (6.4)   | .437 (11.1)  | 6              |
| 43       | 20         | 1.141 (29.0) | 2.394 (60.8) | 1.544 (39.2) | 1.145 (29.1) | .250 (6.4)   | .437 (11.1)  | 6              |
| 44       | 22         | 1.291 (32.8) | 2.504 (63.6) | 1.544 (39.2) | .957 (24.3)  | .125 (3.2)   | .312 (7.9)   | 4              |
| 45       | 22         | 1.291 (32.8) | 2.504 (63.6) | 1.544 (39.2) | 1.145 (29.1) | .250 (6.4)   | .437 (11.1)  | 6              |
| 46       | 24         | 1.291 (32.8) | 2.504 (63.6) | 1.844 (46.8) | 1.332 (33.8) | .350 (8.9)   | .625 (15.9)  | 10             |
| 47       | 36         | 1.941 (49.3) | 2.894 (73.5) | 1.916 (48.7) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 48       | 40         | 1.941 (49.3) | 2.894 (73.5) | 1.916 (48.7) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 49*      | 10         | 1.516 (38.5) | 2.064 (52.4) | 1.544 (39.2) | 1.145 (29.1) | .250 (6.4)   | .437 (11.1)  | 6              |
| 50*      | 14         | 1.891 (48.0) | 2.394 (60.8) | 1.916 (48.7) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 51*      | 16         | 2.041 (51.8) | 2.504 (63.6) | 2.000 (50.8) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 52       | 18         | 1.141 (29.0) | 2.394 (60.8) | 1.916 (48.7) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 53       | 61         | 1.291 (32.8) | 2.149 (54.6) | 2.000 (50.8) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 54       | 20         | 1.141 (29.0) | 2.394 (60.8) | 1.916 (48.7) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 55*      | 20         | 2.141 (54.4) | 2.674 (67.9) | 2.230 (56.6) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 56       | 22         | 1.291 (32.8) | 2.504 (63.6) | 1.844 (46.8) | 1.332 (33.8) | .350 (8.9)   | .625 (15.9)  | 10             |
| 57       | 22         | 1.291 (32.8) | 2.504 (63.6) | 2.000 (50.8) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 58*      | 22         | 2.141 (54.4) | 2.674 (67.9) | 2.230 (56.6) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 59       | 24         | 1.291 (32.8) | 2.504 (63.6) | 2.000 (50.8) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 60       | 28         | 1.391 (35.3) | 2.674 (67.9) | 1.916 (48.7) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 61       | 28         | 1.391 (35.3) | 2.674 (67.9) | 2.230 (56.6) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 62       | 32         | 1.741 (44.2) | 2.924 (74.3) | 2.024 (51.4) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 63       | 36         | 1.941 (49.3) | 2.894 (73.5) | 2.230 (56.6) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 64       | 36         | 1.941 (49.3) | 2.894 (73.5) | 2.550 (64.8) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 65       | 40         | 2.691 (68.4) | 2.894 (73.5) | 2.230 (56.6) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 66       | 40         | 2.691 (68.4) | 2.894 (73.5) | 2.550 (64.8) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 67       | 44         | 2.691 (68.4) | 2.894 (73.5) | 2.230 (56.6) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 68       | 44         | 2.691 (68.4) | 2.894 (73.5) | 2.550 (64.8) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 69       | 48         | 2.691 (68.4) | 2.894 (73.5) | 2.230 (56.6) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 70       | 48         | 2.691 (68.4) | 2.894 (73.5) | 2.550 (64.8) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 71*      | 12         | 1.811 (46.0) | 2.224 (56.5) | 1.844 (46.8) | 1.332 (33.8) | .350 (8.9)   | .625 (15.9)  | 10             |
| 72*      | 18         | 2.051 (52.1) | 2.504 (63.6) | 2.000 (50.8) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 73*      | 24         | 2.151 (54.6) | 2.674 (67.9) | 2.230 (56.6) | 2.116 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 74       | 14         | .866 (22.0)  | 2.134 (54.2) | 1.544 (39.2) | .957 (24.3)  | .125 (3.2)   | .312 (7.9)   | 04             |
| 75       | 16         | 1.051 (26.7) | 2.224 (56.5) | 1.544 (39.2) | .957 (24.3)  | .125 (3.2)   | .312 (7.9)   | 04             |

\* Denotes Style 2

Dimensions in inches (millimeters) and are subject to change without notice.



# AS85049/9 and MS3188B 90° Environmental Backshell



AS85049

B

### CONNECTOR DESIGNATOR:

- A**
- AS50151 Series AS34001
  - MIL-DTL-26482 Series II
  - AS81703 Series III
  - MIL-DTL-83723 Series I & III
  - 40M39569, DEF 5326-3, EN 2997
  - EN 3646, ESC 10, ESC 11, LN 29504
  - NFC93422 Series HE302
  - PAN 6432-1, PAN 6432-2, PATT 602

Basic Part Number

Dash Number (Table II)

**M85049/9 - 21 N**

Superseded Part Number

**MS3188B 21 N**

Basic Part No.

Dash No.

### Finish (Material is Aluminum Only)

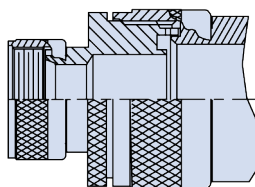
- A = Cadmium Olive Drab over Nickel
- C = Cadmium Olive Drab
- N = Electroless Nickel

### Finish / Material

- B = Black Cadmium / Stainless Steel
- N = Electroless Nickel / Aluminum
- S = Passivated / Stainless Steel
- W = 1,000 Hr. Cadmium Olive Drab over Electroless Nickel / Aluminum
- X = Nickel Fluorocarbon Polymer
- Y = Pure Dense Electrodeposited Aluminum
- Z = Zinc Nickel
- XS = Nickel Fluorocarbon Polymer / Stainless Steel
- YS = Pure Dense Electrodeposited Aluminum / Stainless Steel
- ZS = Zinc Nickel, Black / Stainless Steel

### APPLICATION NOTES

1. For complete dimensions see the applicable Military Specification.
2. Metric dimensions (mm) are in parentheses.
3. When maximum cable entry is exceeded, Style 2 will be supplied.
4. Cable Range is defined as the accommodation range for the wire bundle or cable. Dimensions shown are not intended for inspection criteria.
5. Approximate chain lengths: Dash No. 01-12 = 5.0 (127.0); Dash No. 13-29 = 6.0 (152.4).



STYLE 2

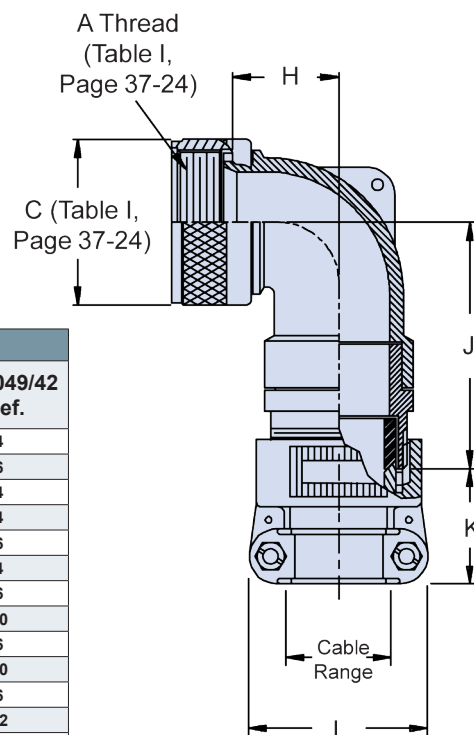


TABLE II: Dash Number and Cable Range (Continued on Page B-26)

| Dash No. | Shell Size | H Max        | J Max        | K Ref.       | L Max        | Cable Range Min | Cable Range Max | M85049/42 Ref. |
|----------|------------|--------------|--------------|--------------|--------------|-----------------|-----------------|----------------|
| 1        | 03         | .761 (19.3)  | 1.862 (47.3) | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)      | .250 (6.4)      | 4              |
| 2        | 03         | 1.511 (38.4) | 1.382 (35.1) | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)      | .437 (11.1)     | 6              |
| 3        | 08         | .666 (16.9)  | 1.262 (32.1) | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)      | .250 (6.4)      | 4              |
| 4        | 10         | .761 (19.3)  | 1.982 (50.3) | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)      | .312 (7.9)      | 4              |
| 5        | 10         | .761 (19.3)  | 1.382 (35.1) | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)      | .375 (9.5)      | 6              |
| 6        | 12         | .766 (19.5)  | 2.002 (50.9) | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)      | .312 (7.9)      | 4              |
| 7        | 12         | .766 (19.5)  | 2.002 (50.9) | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)      | .437 (11.1)     | 6              |
| 8        | 12         | .766 (19.5)  | 1.397 (35.5) | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)      | .500 (12.7)     | 10             |
| 9        | 14         | .866 (22.0)  | 2.072 (52.6) | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)      | .437 (11.1)     | 6              |
| 10       | 14         | .866 (22.0)  | 1.717 (43.6) | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)      | .575 (14.6)     | 10             |
| 11       | 16         | 1.051 (26.7) | 2.162 (54.9) | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)      | .437 (11.1)     | 6              |
| 12       | 16         | 1.051 (26.7) | 1.807 (45.9) | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)     | .700 (17.8)     | 12             |
| 13       | 18         | 1.141 (29.0) | 2.332 (59.2) | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)      | .625 (15.9)     | 10             |
| 14       | 18         | 1.141 (29.0) | 1.982 (50.3) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)     | .779 (19.8)     | 16             |
| 15       | 20         | 1.141 (29.0) | 2.332 (59.2) | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)      | .625 (15.9)     | 10             |
| 16       | 20         | 1.141 (29.0) | 1.982 (50.3) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)     | .904 (23.0)     | 16             |
| 17       | 22         | 1.291 (32.8) | 2.442 (62.0) | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)     | .750 (19.1)     | 12             |
| 18       | 22         | 1.291 (32.8) | 2.087 (53.0) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)     | 1.029 (26.1)    | 20             |
| 19       | 24         | 1.291 (32.8) | 2.442 (62.0) | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)     | .750 (19.1)     | 12             |
| 20       | 24         | 1.291 (32.8) | 2.087 (53.0) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)     | 1.144 (29.1)    | 20             |
| 21       | 28         | 1.391 (35.3) | 2.612 (66.3) | 1.156 (33.7) | 1.770 (45.0) | .625 (15.9)     | .937 (23.8)     | 16             |

Table Continued on Page B-26

Dimensions in inches (millimeters) and are subject to change without notice.

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Mil-Spec Backshells

U.S. CAGE Code 06324

Rev. 8.29.14

Printed in U.S.A.



## AS85049/9 and MS3188B 90° Environmental Backshell

**TABLE II: Dash Number and Cable Range (Continued From Page B-25)**

| Dash No. | Shell Size | H            |  | J            |  | K            |  | L            |  | Cable Range  |              | M85049/42 Ref. |
|----------|------------|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--------------|----------------|
|          |            | Max          |  | Max          |  | Ref.         |  | Max          |  | Min          | Max          |                |
| 22       | 28         | 1.391 (35.3) |  | 2.257 (57.3) |  | 1.500 (38.1) |  | 2.363 (60.0) |  | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 23       | 32         | 1.741 (44.2) |  | 2.862 (72.7) |  | 1.156 (29.4) |  | 1.770 (45.0) |  | .625 (15.9)  | .937 (23.8)  | 16             |
| 24       | 32         | 1.741 (44.2) |  | 2.862 (72.7) |  | 1.375 (34.9) |  | 2.113 (53.7) |  | .875 (22.2)  | 1.250 (31.8) | 20             |
| 25       | 32         | 1.741 (44.2) |  | 2.507 (63.7) |  | 1.781 (45.2) |  | 2.770 (70.4) |  | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 26       | 36         | 1.941 (49.3) |  | 2.832 (71.9) |  | 1.156 (29.4) |  | 1.770 (45.0) |  | .625 (15.9)  | .937 (23.8)  | 16             |
| 27       | 36         | 1.941 (49.3) |  | 2.832 (71.9) |  | 1.500 (38.1) |  | 2.363 (60.0) |  | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 28       | 36         | 1.941 (49.3) |  | 2.477 (62.9) |  | 1.830 (46.5) |  | 3.020 (76.7) |  | 1.437 (36.5) | 1.840 (46.7) | 32             |
| 29       | 40         | 2.691 (68.4) |  | 2.832 (71.9) |  | 1.156 (29.4) |  | 1.770 (45.0) |  | .625 (15.9)  | .937 (23.8)  | 16             |
| 30       | 40         | 2.691 (68.4) |  | 2.832 (71.9) |  | 1.500 (38.1) |  | 2.363 (60.0) |  | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 31       | 40         | 2.691 (68.4) |  | 2.477 (62.9) |  | 1.830 (46.5) |  | 3.020 (76.7) |  | 1.437 (36.5) | 1.875 (47.6) | 32             |
| 32       | 44         | 2.691 (68.4) |  | 2.832 (71.9) |  | 1.156 (29.4) |  | 1.770 (45.0) |  | .625 (15.9)  | .937 (23.8)  | 16             |
| 33       | 44         | 2.691 (68.4) |  | 2.832 (71.9) |  | 1.500 (38.1) |  | 2.363 (60.0) |  | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 34       | 44         | 2.691 (68.4) |  | 2.477 (62.9) |  | 1.830 (46.5) |  | 3.020 (76.7) |  | 1.437 (36.5) | 1.875 (47.6) | 32             |
| 35       | 48         | 2.691 (68.4) |  | 2.832 (71.9) |  | 1.156 (29.4) |  | 1.770 (45.0) |  | .625 (15.9)  | .937 (23.8)  | 16             |
| 36       | 48         | 2.691 (68.4) |  | 2.832 (71.9) |  | 1.500 (38.1) |  | 2.363 (60.0) |  | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 37       | 48         | 2.691 (68.4) |  | 2.477 (62.9) |  | 1.830 (46.5) |  | 3.020 (76.7) |  | 1.437 (36.5) | 1.875 (47.6) | 32             |
| 38       | 61         | 1.291 (32.8) |  | 2.442 (62.0) |  | 1.059 (26.9) |  | 1.551 (39.4) |  | .500 (12.7)  | .750 (19.1)  | 12             |
| 39       | 61         | 1.291 (32.8) |  | 2.087 (53.0) |  | 1.375 (34.9) |  | 2.113 (53.7) |  | .875 (22.2)  | 1.184 (30.1) | 20             |
| 40       | 16         | 1.051 (26.7) |  | 2.162 (54.9) |  | 1.027 (26.1) |  | 1.332 (33.8) |  | .350 (8.9)   | .625 (15.9)  | 10             |
| 41       | 18         | 1.141 (29.0) |  | 2.332 (59.2) |  | 1.027 (26.1) |  | .957 (24.3)  |  | .125 (3.2)   | .312 (7.9)   | 4              |
| 42       | 18         | 1.141 (29.0) |  | 2.332 (59.2) |  | 1.027 (26.1) |  | 1.145 (29.1) |  | .250 (6.4)   | .437 (11.1)  | 6              |
| 43       | 20         | 1.141 (29.0) |  | 2.332 (59.2) |  | 1.027 (26.1) |  | 1.145 (29.1) |  | .250 (6.4)   | .437 (11.1)  | 6              |
| 44       | 22         | 1.291 (32.8) |  | 2.442 (62.0) |  | 1.027 (26.1) |  | .957 (24.3)  |  | .125 (3.2)   | .312 (7.9)   | 4              |
| 45       | 22         | 1.291 (32.8) |  | 2.442 (62.0) |  | 1.027 (26.1) |  | 1.145 (29.1) |  | .250 (6.4)   | .437 (11.1)  | 6              |
| 46       | 24         | 1.291 (32.8) |  | 2.442 (62.0) |  | 1.027 (26.1) |  | 1.332 (33.8) |  | .350 (8.9)   | .625 (15.9)  | 10             |
| 47       | 36         | 1.941 (49.3) |  | 2.832 (71.9) |  | 1.059 (26.9) |  | 1.551 (39.4) |  | .500 (12.7)  | .750 (19.1)  | 12             |
| 48       | 40         | 1.941 (49.3) |  | 2.832 (71.9) |  | 1.059 (26.9) |  | 1.551 (39.4) |  | .500 (12.7)  | .750 (19.1)  | 12             |
| 49*      | 10         | 1.516 (38.5) |  | 2.002 (50.9) |  | 1.027 (26.1) |  | 1.145 (29.1) |  | .250 (6.4)   | .437 (11.1)  | 6              |
| 50*      | 14         | 1.891 (48.0) |  | 2.332 (59.2) |  | 1.059 (26.9) |  | 1.551 (39.4) |  | .500 (12.7)  | .750 (19.1)  | 12             |
| 51*      | 16         | 2.041 (51.8) |  | 2.442 (62.0) |  | 1.156 (29.4) |  | 1.770 (45.0) |  | .625 (15.9)  | .937 (23.8)  | 16             |
| 52       | 18         | 1.141 (29.0) |  | 2.332 (59.2) |  | 1.059 (26.9) |  | 1.551 (39.4) |  | .500 (12.7)  | .750 (19.1)  | 12             |
| 53       | 61         | 1.291 (32.8) |  | 2.087 (53.0) |  | 1.156 (29.4) |  | 1.770 (45.0) |  | .625 (15.9)  | .937 (23.8)  | 16             |
| 54       | 20         | 1.141 (29.0) |  | 2.332 (59.2) |  | 1.059 (26.9) |  | 1.551 (39.4) |  | .500 (12.7)  | .750 (19.1)  | 12             |
| 55*      | 20         | 2.141 (54.4) |  | 2.612 (66.3) |  | 1.375 (34.9) |  | 2.113 (53.7) |  | .875 (22.2)  | 1.250 (31.8) | 20             |
| 56       | 22         | 1.291 (32.8) |  | 2.442 (62.0) |  | 1.027 (26.1) |  | 1.332 (33.8) |  | .350 (8.9)   | .625 (15.9)  | 10             |
| 57       | 22         | 1.291 (32.8) |  | 2.442 (62.0) |  | 1.156 (29.4) |  | 1.770 (45.0) |  | .625 (15.9)  | .937 (23.8)  | 16             |
| 58*      | 22         | 2.141 (54.4) |  | 2.612 (66.3) |  | 1.375 (34.9) |  | 2.113 (53.7) |  | .875 (22.2)  | 1.250 (31.8) | 20             |
| 59       | 24         | 1.291 (32.8) |  | 2.442 (62.0) |  | 1.156 (29.4) |  | 1.770 (45.0) |  | .625 (15.9)  | .937 (23.8)  | 16             |
| 60       | 28         | 1.391 (35.3) |  | 2.612 (66.3) |  | 1.059 (26.9) |  | 1.551 (39.4) |  | .500 (12.7)  | .750 (19.1)  | 12             |
| 61       | 28         | 1.391 (35.3) |  | 2.612 (66.3) |  | 1.375 (34.9) |  | 2.113 (53.7) |  | .875 (22.2)  | 1.250 (31.8) | 20             |
| 62       | 32         | 1.741 (44.2) |  | 2.862 (72.7) |  | 1.500 (38.1) |  | 2.363 (60.0) |  | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 63       | 36         | 1.941 (49.3) |  | 2.832 (71.9) |  | 1.375 (34.9) |  | 2.113 (53.7) |  | .875 (22.2)  | 1.250 (31.8) | 20             |
| 64       | 36         | 1.941 (49.3) |  | 2.832 (71.9) |  | 1.781 (45.2) |  | 2.770 (70.4) |  | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 65       | 40         | 2.691 (68.4) |  | 2.832 (71.9) |  | 1.375 (34.9) |  | 2.113 (53.7) |  | .875 (22.2)  | 1.250 (31.8) | 20             |
| 66       | 40         | 2.691 (68.4) |  | 2.832 (71.9) |  | 1.781 (45.2) |  | 2.770 (70.4) |  | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 67       | 44         | 2.691 (68.4) |  | 2.832 (71.9) |  | 1.375 (34.9) |  | 2.113 (53.7) |  | .875 (22.2)  | 1.250 (31.8) | 20             |
| 68       | 44         | 2.691 (68.4) |  | 2.832 (71.9) |  | 1.781 (45.2) |  | 2.770 (70.4) |  | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 69       | 48         | 2.691 (68.4) |  | 2.832 (71.9) |  | 1.375 (34.9) |  | 2.113 (53.7) |  | .875 (22.2)  | 1.250 (31.8) | 20             |
| 70       | 48         | 2.691 (68.4) |  | 2.832 (71.9) |  | 1.781 (45.2) |  | 2.770 (70.4) |  | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 71*      | 12         | 1.811 (46.0) |  | 2.162 (54.9) |  | 1.027 (26.1) |  | 1.332 (33.8) |  | .350 (8.9)   | .625 (15.9)  | 10             |
| 72*      | 18         | 2.051 (52.1) |  | 2.442 (62.0) |  | 1.156 (29.4) |  | 1.770 (45.0) |  | .625 (15.9)  | .937 (23.8)  | 16             |
| 73*      | 24         | 2.151 (54.6) |  | 2.612 (66.3) |  | 1.375 (34.9) |  | 2.116 (53.7) |  | .875 (22.2)  | 1.250 (31.8) | 20             |
| 74       | 14         | .866 (22.0)  |  | 2.072 (52.6) |  | 1.027 (26.1) |  | .957 (24.3)  |  | .125 (3.2)   | .312 (7.9)   | 4              |
| 75       | 16         | 1.051 (26.7) |  | 2.162 (54.9) |  | 1.027 (26.1) |  | .957 (24.3)  |  | .125 (3.2)   | .312 (7.9)   | 4              |

Dimensions in inches (millimeters) and are subject to change without notice.

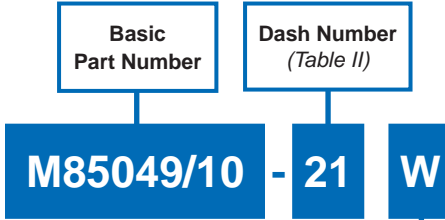
# AS85049/10 and MS3437A Straight EMI/RFI Environmental Backshell



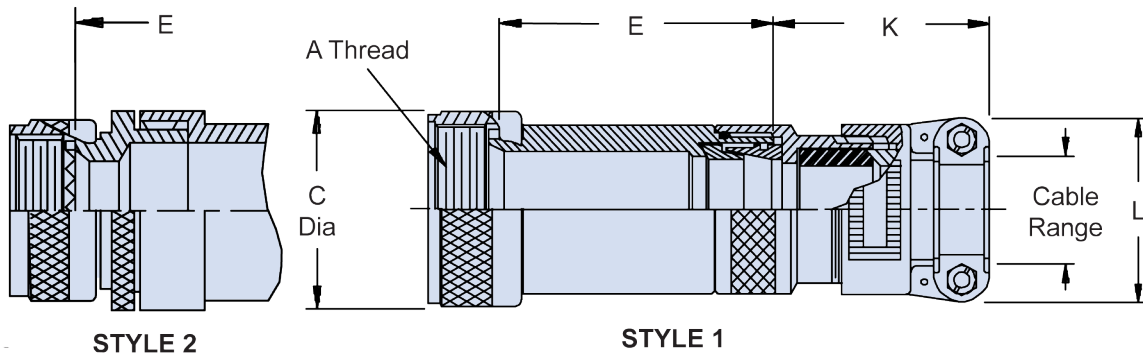
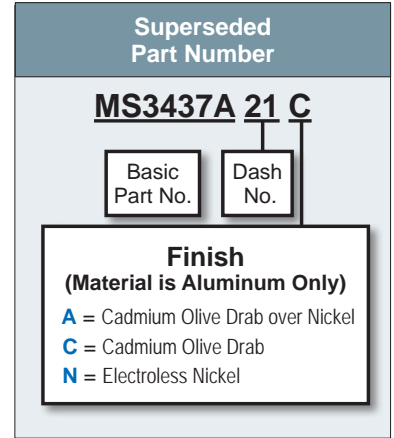
AS85049

B

| CONNECTOR DESIGNATOR: |                                   |
|-----------------------|-----------------------------------|
| <b>A</b>              | AS50151 Series AS34001            |
|                       | MIL-DTL-26482 Series II           |
|                       | AS81703 Series III                |
|                       | MIL-DTL-83723 Series I & III      |
|                       | 40M39569, DEF 5326-3, EN 2997     |
|                       | EN 3646, ESC 10, ESC 11, LN 29504 |
|                       | NFC93422 Series HE302             |
|                       | PAN 6432-1, PAN 6432-2, PATT 602  |



| Finish / Material  |
|--|
| <b>B</b> = Black Cadmium / Stainless Steel                                 |
| <b>N</b> = Electroless Nickel / Aluminum                                   |
| <b>S</b> = Passivated / Stainless Steel                                    |
| <b>W</b> = 1,000 Hr. Cadmium Olive Drab over Electroless Nickel / Aluminum |
| <b>X</b> = Aluminum, Nickel Fluorocarbon Polymer                           |
| <b>Z</b> = Aluminum, Zinc-Nickel, Black                                    |
| <b>XS</b> = Stainless Steel, Nickel Fluorocarbon Polymer                   |
| <b>ZS</b> = Stainless Steel, Zinc-Nickel, Black                            |



| TABLE I: Shell Size and Dimensions |                   |             |
|------------------------------------|-------------------|-------------|
| Shell Size                         | A Thread Class 2B | C Dia Max   |
| 3                                  | .562 - 24 UNEF    | .67 (17.0)  |
| 8                                  | .500 - 20 UNF     | .62 (15.7)  |
| 10                                 | .625 - 24 UNEF    | .73 (18.5)  |
| 12                                 | .750 - 20 UNEF    | .86 (21.8)  |
| 14                                 | .875 - 20 UNEF    | .98 (24.9)  |
| 16                                 | 1.000 - 20 UNEF   | 1.11 (28.2) |
| 18                                 | 1.062 - 18 UNEF   | 1.22 (31.0) |
| 20                                 | 1.188 - 18 UNEF   | 1.34 (34.0) |
| 22                                 | 1.313 - 18 UNEF   | 1.47 (37.3) |
| 24                                 | 1.438 - 18 UNEF   | 1.59 (40.4) |
| 28                                 | 1.750 - 18 UNS    | 1.97 (50.0) |
| 32                                 | 2.000 - 18 UNS    | 2.22 (56.4) |
| 36                                 | 2.250 - 16 UN     | 2.47 (62.7) |
| 40                                 | 2.500 - 16 UN     | 2.72 (69.1) |
| 44                                 | 2.750 - 16 UN     | 2.97 (75.4) |
| 48                                 | 3.000 - 16 UN     | 3.22 (81.8) |
| 61                                 | 1.500 - 18 UNEF   | 1.65 (41.9) |

| APPLICATION NOTES |  |
|-------------------|--|
| 1.                | For complete dimensions see the applicable Military Specification.   |
| 2.                | Metric dimensions (mm) are in parentheses.   |
| 3.                | Cable Range is defined as the accommodation range for the wire bundle or cable. Dimensions shown are not intended for inspection criteria. |

Dimensions in inches (millimeters) and are subject to change without notice.



# AS85049/10 and MS3437A Straight EMI/RFI Environmental Backshell

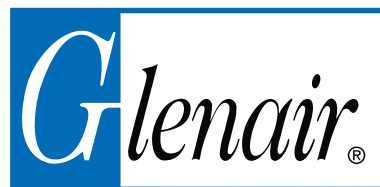
**TABLE II: Dash No., Style, Shell Size, Dimensions and Cable Range**

| Dash No. | Shell Size | Style | E             |  | K            |  | L            |  | Cable Range |              | M85049/42 Ref. |
|----------|------------|-------|---------------|--|--------------|--|--------------|--|-------------|--------------|----------------|
|          |            |       | Max           |  | Ref          |  | Max          |  | Min         | Max          |                |
| 01       | 3          | 1     | 2.125 (54.0)  |  | 1.544 (39.2) |  | .957 (24.3)  |  | .125 (3.2)  | .250 (6.4)   | 4              |
| 02       | 3          | 1     | 3.125 (79.4)  |  | 1.544 (39.2) |  | .957 (24.3)  |  | .125 (3.2)  | .250 (6.4)   | 4              |
| 03       | 3          | 2     | 2.875 (73.0)  |  | 1.544 (39.2) |  | 1.145 (29.1) |  | .250 (6.4)  | .437 (11.1)  | 6              |
| 04       | 3          | 2     | 3.875 (98.4)  |  | 1.544 (39.2) |  | 1.145 (29.1) |  | .250 (6.4)  | .437 (11.1)  | 6              |
| 05       | 8          | 1     | 2.125 (54.0)  |  | 1.544 (39.2) |  | .957 (24.3)  |  | .125 (3.2)  | .250 (6.4)   | 4              |
| 06       | 8          | 1     | 3.125 (79.4)  |  | 1.544 (39.2) |  | .957 (24.3)  |  | .125 (3.2)  | .250 (6.4)   | 4              |
| 07       | 8          | 2     | 2.875 (73.0)  |  | 1.544 (39.2) |  | 1.145 (29.1) |  | .250 (6.4)  | .437 (11.1)  | 6              |
| 08       | 8          | 2     | 3.875 (98.4)  |  | 1.544 (39.2) |  | 1.145 (29.1) |  | .250 (6.4)  | .437 (11.1)  | 6              |
| 09       | 10         | 1     | 2.125 (54.0)  |  | 1.544 (39.2) |  | .957 (24.3)  |  | .125 (3.2)  | .312 (7.9)   | 4              |
| 10       | 10         | 1     | 3.125 (79.4)  |  | 1.544 (39.2) |  | .957 (24.3)  |  | .125 (3.2)  | .312 (7.9)   | 4              |
| 11       | 10         | 2     | 2.875 (73.0)  |  | 1.544 (39.2) |  | 1.145 (29.1) |  | .250 (6.4)  | .437 (11.1)  | 6              |
| 12       | 10         | 2     | 3.875 (98.4)  |  | 1.544 (39.2) |  | 1.145 (29.1) |  | .250 (6.4)  | .437 (11.1)  | 6              |
| 13       | 12         | 1     | 2.125 (54.0)  |  | 1.544 (39.2) |  | 1.145 (29.1) |  | .250 (6.4)  | .437 (11.1)  | 6              |
| 14       | 12         | 1     | 3.125 (79.4)  |  | 1.544 (39.2) |  | 1.145 (29.1) |  | .250 (6.4)  | .437 (11.1)  | 6              |
| 15       | 12         | 2     | 2.875 (73.0)  |  | 1.844 (46.8) |  | 1.332 (33.8) |  | .350 (8.9)  | .625 (15.9)  | 10             |
| 16       | 12         | 2     | 3.875 (98.4)  |  | 1.844 (46.8) |  | 1.332 (33.8) |  | .350 (8.9)  | .625 (15.9)  | 10             |
| 17       | 14         | 1     | 2.125 (54.0)  |  | 1.844 (46.8) |  | 1.332 (33.8) |  | .350 (8.9)  | .575 (14.6)  | 10             |
| 18       | 14         | 1     | 3.125 (79.4)  |  | 1.844 (46.8) |  | 1.332 (33.8) |  | .350 (8.9)  | .575 (14.6)  | 10             |
| 19       | 14         | 2     | 2.875 (73.0)  |  | 1.916 (48.7) |  | 1.551 (39.4) |  | .500 (12.7) | .750 (19.1)  | 12             |
| 20       | 14         | 2     | 3.875 (98.4)  |  | 1.916 (48.7) |  | 1.551 (39.4) |  | .500 (12.7) | .750 (19.1)  | 12             |
| 21       | 16         | 1     | 2.125 (54.0)  |  | 1.916 (48.7) |  | 1.551 (39.4) |  | .500 (12.7) | .700 (17.8)  | 12             |
| 22       | 16         | 1     | 3.125 (79.4)  |  | 1.916 (48.7) |  | 1.551 (39.4) |  | .500 (12.7) | .700 (17.8)  | 12             |
| 23       | 16         | 2     | 2.875 (73.0)  |  | 2.000 (50.8) |  | 1.770 (45.0) |  | .625 (15.9) | .937 (23.8)  | 16             |
| 24       | 16         | 2     | 3.875 (98.4)  |  | 2.000 (50.8) |  | 1.770 (45.0) |  | .625 (15.9) | .937 (23.8)  | 16             |
| 25       | 18         | 1     | 2.125 (54.0)  |  | 1.844 (46.8) |  | 1.332 (33.8) |  | .350 (8.9)  | .625 (15.9)  | 10             |
| 26       | 18         | 1     | 3.125 (79.4)  |  | 1.844 (46.8) |  | 1.332 (33.8) |  | .350 (8.9)  | .625 (15.9)  | 10             |
| 27       | 18         | 1     | 2.125 (54.0)  |  | 1.916 (48.7) |  | 1.551 (39.4) |  | .500 (12.7) | .750 (19.1)  | 12             |
| 28       | 18         | 1     | 3.125 (79.4)  |  | 1.916 (48.7) |  | 1.551 (39.4) |  | .500 (12.7) | .750 (19.1)  | 12             |
| 29       | 18         | 2     | 2.875 (73.0)  |  | 2.000 (50.8) |  | 1.770 (45.0) |  | .625 (15.9) | .937 (23.8)  | 16             |
| 30       | 18         | 2     | 3.875 (98.4)  |  | 2.000 (50.8) |  | 1.770 (45.0) |  | .625 (15.9) | .937 (23.8)  | 16             |
| 31       | 20         | 1     | 3.125 (79.4)  |  | 1.844 (46.8) |  | 1.332 (33.8) |  | .350 (8.9)  | .625 (15.9)  | 10             |
| 32       | 20         | 1     | 4.125 (104.8) |  | 1.844 (46.8) |  | 1.332 (33.8) |  | .350 (8.9)  | .625 (15.9)  | 10             |
| 33       | 20         | 1     | 3.125 (79.4)  |  | 1.916 (48.7) |  | 1.551 (39.4) |  | .500 (12.7) | .750 (19.1)  | 12             |
| 34       | 20         | 1     | 4.125 (104.8) |  | 1.916 (48.7) |  | 1.551 (39.4) |  | .500 (12.7) | .750 (19.1)  | 12             |
| 35       | 20         | 2     | 3.875 (98.4)  |  | 2.000 (50.8) |  | 1.770 (45.0) |  | .625 (15.9) | .937 (23.8)  | 16             |
| 36       | 20         | 2     | 4.875 (123.8) |  | 2.000 (50.8) |  | 1.770 (45.0) |  | .625 (15.9) | .937 (23.8)  | 16             |
| 37       | 20         | 2     | 3.875 (98.4)  |  | 2.230 (56.6) |  | 2.113 (53.7) |  | .875 (22.2) | 1.250 (31.8) | 20             |
| 38       | 20         | 2     | 4.875 (123.8) |  | 2.230 (56.6) |  | 2.113 (53.7) |  | .875 (22.2) | 1.250 (31.8) | 20             |
| 39       | 22         | 1     | 3.125 (79.4)  |  | 1.844 (46.8) |  | 1.332 (33.8) |  | .350 (8.9)  | .625 (15.9)  | 10             |
| 40       | 22         | 1     | 4.125 (104.8) |  | 1.844 (46.8) |  | 1.332 (33.8) |  | .350 (8.9)  | .625 (15.9)  | 10             |
| 41       | 22         | 1     | 3.125 (79.4)  |  | 1.916 (48.7) |  | 1.551 (39.4) |  | .500 (12.7) | .750 (19.1)  | 12             |
| 42       | 22         | 1     | 4.125 (104.8) |  | 1.916 (48.7) |  | 1.551 (39.4) |  | .500 (12.7) | .750 (19.1)  | 12             |
| 43       | 22         | 1     | 3.125 (79.4)  |  | 2.000 (50.8) |  | 1.770 (45.0) |  | .625 (15.9) | .937 (23.8)  | 16             |
| 44       | 22         | 1     | 4.125 (104.8) |  | 2.000 (50.8) |  | 1.770 (45.0) |  | .625 (15.9) | .937 (23.8)  | 16             |
| 45       | 22         | 2     | 3.875 (98.4)  |  | 2.230 (56.6) |  | 2.113 (53.7) |  | .875 (22.2) | 1.250 (31.8) | 20             |
| 46       | 22         | 2     | 4.875 (123.8) |  | 2.230 (56.6) |  | 2.113 (53.7) |  | .875 (22.2) | 1.250 (31.8) | 20             |
| 47       | 24         | 1     | 3.125 (79.4)  |  | 1.916 (48.7) |  | 1.551 (39.4) |  | .500 (12.7) | .750 (19.1)  | 12             |
| 48       | 24         | 1     | 4.125 (104.8) |  | 1.916 (48.7) |  | 1.551 (39.4) |  | .500 (12.7) | .750 (19.1)  | 12             |
| 49       | 24         | 1     | 3.125 (79.4)  |  | 2.000 (50.8) |  | 1.770 (45.0) |  | .625 (15.9) | .812 (20.6)  | 16             |
| 50       | 24         | 1     | 4.125 (104.8) |  | 2.000 (50.8) |  | 1.770 (45.0) |  | .625 (15.9) | .812 (20.6)  | 16             |
| 51       | 24         | 1     | 3.125 (79.4)  |  | 2.000 (50.8) |  | 1.770 (45.0) |  | .625 (15.9) | .937 (23.8)  | 16             |
| 52       | 24         | 1     | 4.125 (104.8) |  | 2.000 (50.8) |  | 1.770 (45.0) |  | .625 (15.9) | .937 (23.8)  | 16             |

Continued on Page B-29

Dimensions in inches (millimeters) and are subject to change without notice.

# AS85049/10 and MS3437A Straight EMI/RFI Environmental Backshell



AS85049

B

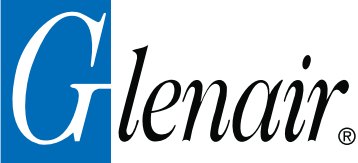
TABLE II: (Continued from Page B-28)

| Dash No. | Shell Size | Style | E Max         | K Ref        | L Max        | Cable Range  |              | M85049/42 Ref. |
|----------|------------|-------|---------------|--------------|--------------|--------------|--------------|----------------|
|          |            |       |               |              |              | Min          | Max          |                |
| 53       | 24         | 2     | 3.875 (98.4)  | 2.230 (56.6) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 54       | 24         | 2     | 4.875 (123.8) | 2.230 (56.6) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 55       | 28         | 1     | 3.125 (79.4)  | 1.916 (48.7) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 56       | 28         | 1     | 4.125 (104.8) | 1.916 (48.7) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 57       | 28         | 1     | 3.125 (79.4)  | 2.000 (50.8) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 58       | 28         | 1     | 4.125 (104.8) | 2.000 (50.8) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 59       | 28         | 1     | 3.125 (79.4)  | 2.230 (56.6) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 60       | 28         | 1     | 4.125 (104.8) | 2.230 (56.6) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 61       | 28         | 1     | 3.125 (79.4)  | 2.024 (51.4) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 62       | 28         | 1     | 4.126 (104.8) | 2.024 (51.4) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 63       | 32         | 1     | 3.125 (79.4)  | 2.000 (50.8) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 64       | 32         | 1     | 4.125 (104.8) | 2.000 (50.8) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 65       | 32         | 1     | 3.125 (79.4)  | 2.230 (56.6) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 66       | 32         | 1     | 4.125 (104.8) | 2.230 (56.6) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 67       | 32         | 1     | 3.125 (79.4)  | 2.024 (51.4) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 68       | 32         | 1     | 4.125 (104.8) | 2.024 (51.4) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 69       | 32         | 1     | 3.125 (79.4)  | 2.550 (64.8) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 70       | 32         | 1     | 4.125 (104.8) | 2.550 (64.8) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 71       | 36         | 1     | 4.125 (104.8) | 2.230 (56.6) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 72       | 36         | 1     | 5.125 (130.2) | 2.230 (56.6) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 73       | 36         | 1     | 4.125 (104.8) | 2.024 (51.4) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 74       | 36         | 1     | 5.125 (130.2) | 2.024 (51.4) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 75       | 36         | 1     | 4.125 (104.8) | 2.550 (64.8) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 76       | 36         | 1     | 5.125 (130.2) | 2.550 (64.8) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 77       | 36         | 2     | 5.000 (127.0) | 2.600 (66.0) | 3.020 (76.7) | 1.437 (36.5) | 1.875 (47.6) | 32             |
| 78       | 36         | 2     | 6.000 (152.4) | 2.600 (66.0) | 3.020 (76.7) | 1.437 (36.5) | 1.875 (47.6) | 32             |
| 79       | 40         | 1     | 4.125 (104.8) | 2.230 (56.6) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 80       | 40         | 1     | 5.125 (130.2) | 2.230 (56.6) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 81       | 40         | 1     | 4.125 (104.8) | 2.024 (51.4) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 82       | 40         | 1     | 5.125 (130.2) | 2.024 (51.4) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 83       | 40         | 1     | 4.125 (104.8) | 2.550 (64.8) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 84       | 40         | 1     | 5.125 (130.2) | 2.550 (64.8) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 85       | 40         | 1     | 4.125 (104.8) | 2.600 (66.0) | 3.020 (76.7) | 1.437 (36.5) | 1.875 (47.6) | 32             |
| 86       | 40         | 1     | 5.125 (130.2) | 2.600 (66.0) | 3.020 (76.7) | 1.437 (36.5) | 1.875 (47.6) | 32             |
| 87       | 44         | 1     | 4.125 (104.8) | 2.230 (56.6) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 88       | 44         | 1     | 5.125 (130.2) | 2.230 (56.6) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 89       | 44         | 1     | 4.125 (104.8) | 2.024 (51.4) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 90       | 44         | 1     | 5.125 (130.2) | 2.024 (51.4) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 91       | 44         | 1     | 4.125 (104.8) | 2.550 (64.8) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 92       | 44         | 1     | 5.125 (130.2) | 2.550 (64.8) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 93       | 44         | 1     | 4.125 (104.8) | 2.600 (66.0) | 3.020 (76.7) | 1.437 (36.5) | 1.875 (47.6) | 32             |
| 94       | 44         | 1     | 5.125 (130.2) | 2.600 (66.0) | 3.020 (76.7) | 1.437 (36.5) | 1.875 (47.6) | 32             |
| 95       | 48         | 1     | 4.125 (104.8) | 2.230 (56.6) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 96       | 48         | 1     | 5.125 (130.2) | 2.230 (56.6) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 97       | 48         | 1     | 4.125 (104.8) | 2.024 (51.4) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 98       | 48         | 1     | 5.125 (130.2) | 2.024 (51.4) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 99       | 48         | 1     | 4.125 (104.8) | 2.550 (64.8) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 100      | 48         | 1     | 5.125 (130.2) | 2.550 (64.8) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 101      | 48         | 1     | 4.125 (104.8) | 2.600 (66.0) | 3.020 (76.7) | 1.437 (36.5) | 1.875 (47.6) | 32             |
| 102      | 48         | 1     | 5.125 (130.2) | 2.600 (66.0) | 3.020 (76.7) | 1.437 (36.5) | 1.875 (47.6) | 32             |
| 103      | 61         | 1     | 3.125 (79.4)  | 1.916 (48.7) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 104      | 61         | 1     | 4.125 (104.8) | 1.916 (48.7) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |

Continued on Page B-30

Dimensions in inches (millimeters) and are subject to change without notice.





# AS85049/10 and MS3437A Straight EMI/RFI Environmental Backshell

TABLE II: (Continued from Page B-29)

| Dash No. | Shell Size | Style | E Max         | K Ref        | L Max        | Cable Range  |              | M85049/42 Ref. |
|----------|------------|-------|---------------|--------------|--------------|--------------|--------------|----------------|
|          |            |       |               |              |              | Min          | Max          |                |
| 105      | 61         | 1     | 3.125 (79.4)  | 2.000 (50.8) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 106      | 61         | 1     | 4.125 (104.8) | 2.000 (50.8) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 107      | 61         | 2     | 3.875 (98.4)  | 2.230 (56.6) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 108      | 61         | 2     | 4.875 (123.8) | 2.230 (56.6) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 109      | 61         | 2     | 3.875 (98.4)  | 2.024 (51.4) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 110      | 61         | 2     | 4.875 (123.8) | 2.024 (51.4) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 111      | 12         | 1     | 2.125 (54.0)  | 1.844 (46.8) | 1.332 (33.8) | .350 (8.9)   | .500 (12.7)  | 10             |
| 112      | 16         | 1     | 2.125 (54.0)  | 1.544 (39.2) | 1.145 (29.1) | .250 (6.4)   | .437 (11.1)  | 6              |
| 113      | 16         | 1     | 3.125 (79.4)  | 1.544 (39.2) | 1.145 (29.1) | .250 (6.4)   | .437 (11.1)  | 6              |
| 114      | 12         | 1     | 2.125 (54.0)  | 1.544 (39.2) | .957 (24.3)  | .125 (3.2)   | .312 (7.9)   | 4              |
| 115      | 12         | 1     | 3.125 (79.4)  | 1.544 (39.2) | .957 (24.3)  | .125 (3.2)   | .312 (7.9)   | 4              |
| 116      | 14         | 1     | 2.125 (54.0)  | 1.544 (39.2) | 1.145 (29.1) | .250 (6.4)   | .437 (11.1)  | 6              |
| 117      | 14         | 1     | 3.125 (79.4)  | 1.544 (39.2) | 1.145 (29.1) | .250 (6.4)   | .437 (11.1)  | 6              |
| 118      | 16         | 1     | 2.125 (54.0)  | 1.844 (46.8) | 1.332 (33.8) | .350 (8.9)   | .625 (15.9)  | 10             |
| 119      | 16         | 1     | 3.125 (79.4)  | 1.844 (46.8) | 1.332 (33.8) | .350 (8.9)   | .625 (15.9)  | 10             |
| 120      | 18         | 1     | 2.125 (54.0)  | 1.544 (39.2) | .957 (24.3)  | .125 (3.2)   | .312 (7.9)   | 4              |
| 121      | 18         | 1     | 3.125 (79.4)  | 1.544 (39.2) | .957 (24.3)  | .125 (3.2)   | .312 (7.9)   | 4              |
| 122      | 18         | 1     | 2.125 (54.0)  | 1.544 (39.2) | 1.145 (29.1) | .250 (6.4)   | .437 (11.1)  | 6              |
| 123      | 18         | 1     | 3.125 (79.4)  | 1.544 (39.2) | 1.145 (29.1) | .250 (6.4)   | .437 (11.1)  | 6              |
| 124      | 20         | 1     | 3.125 (79.4)  | 1.544 (39.2) | 1.145 (29.1) | .250 (6.4)   | .437 (11.1)  | 6              |
| 125      | 20         | 1     | 4.125 (104.8) | 1.544 (39.2) | 1.145 (29.1) | .250 (6.4)   | .437 (11.1)  | 6              |
| 126      | 22         | 1     | 3.125 (79.4)  | 1.544 (39.2) | .957 (24.3)  | .125 (3.2)   | .312 (7.9)   | 4              |
| 127      | 22         | 1     | 4.125 (104.8) | 1.544 (39.2) | .957 (24.3)  | .125 (3.2)   | .312 (7.9)   | 4              |
| 128      | 22         | 1     | 3.125 (79.4)  | 1.544 (39.2) | 1.145 (29.1) | .250 (6.4)   | .437 (11.1)  | 6              |
| 129      | 22         | 1     | 4.125 (104.8) | 1.544 (39.2) | 1.145 (29.1) | .250 (6.4)   | .437 (11.1)  | 6              |
| 130      | 24         | 1     | 3.125 (79.4)  | 1.844 (46.8) | 1.332 (33.8) | .350 (8.9)   | .625 (15.9)  | 10             |
| 131      | 24         | 1     | 4.125 (104.8) | 1.844 (46.8) | 1.332 (33.8) | .350 (8.9)   | .625 (15.9)  | 10             |
| 132      | 36         | 1     | 4.125 (104.8) | 1.916 (48.7) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 133      | 36         | 1     | 5.125 (130.2) | 1.916 (48.7) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 134      | 40         | 1     | 4.125 (104.8) | 1.916 (48.7) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 135      | 40         | 1     | 5.125 (130.2) | 1.916 (48.7) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 136      | 10         | 1     | 2.125 (54.0)  | 1.544 (39.2) | 1.145 (29.1) | .250 (6.4)   | .375 (9.5)   | 6              |
| 137      | 10         | 1     | 3.125 (79.4)  | 1.544 (39.2) | 1.145 (29.1) | .250 (6.4)   | .375 (9.5)   | 6              |
| 138      | 12         | 1     | 2.125 (54.0)  | 1.844 (46.8) | 1.332 (33.8) | .350 (8.9)   | .500 (12.7)  | 10             |
| 139      | 12         | 1     | 3.125 (79.4)  | 1.844 (46.8) | 1.332 (33.8) | .350 (8.9)   | .500 (12.7)  | 10             |
| 140      | 20         | 1     | 3.125 (79.4)  | 2.000 (50.8) | 1.770 (45.0) | .625 (15.9)  | .904 (23.0)  | 16             |
| 141      | 20         | 1     | 4.125 (104.8) | 2.000 (50.8) | 1.770 (45.0) | .625 (15.9)  | .904 (23.0)  | 16             |
| 142      | 22         | 1     | 3.125 (79.4)  | 2.230 (56.6) | 2.113 (53.7) | .875 (22.2)  | 1.029 (26.1) | 20             |
| 143      | 22         | 1     | 4.125 (104.8) | 2.230 (56.6) | 2.113 (53.7) | .875 (22.2)  | 1.029 (26.1) | 20             |
| 144      | 24         | 1     | 3.125 (79.4)  | 2.230 (56.6) | 2.113 (53.7) | .875 (22.2)  | 1.144 (29.1) | 20             |
| 145      | 24         | 1     | 4.125 (104.8) | 2.230 (56.6) | 2.113 (53.7) | .875 (22.2)  | 1.144 (29.1) | 20             |
| 146      | 36         | 1     | 4.125 (104.8) | 2.600 (66.0) | 3.020 (76.7) | 1.437 (36.5) | 1.840 (46.7) | 32             |
| 147      | 36         | 1     | 5.125 (130.2) | 2.600 (66.0) | 3.020 (76.7) | 1.437 (36.5) | 1.840 (46.7) | 32             |
| 148      | 36         | 1     | 4.125 (104.8) | 2.000 (50.8) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 149      | 36         | 1     | 5.125 (130.2) | 2.000 (50.8) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 150      | 14         | 1     | 2.125 (54.0)  | 1.544 (39.2) | .957 (24.3)  | .125 (3.2)   | .312 (7.9)   | 4              |
| 151      | 14         | 1     | 3.125 (79.4)  | 1.544 (39.2) | .957 (24.3)  | .125 (3.2)   | .312 (7.9)   | 4              |
| 152      | 16         | 1     | 2.125 (54.0)  | 1.544 (39.2) | .957 (24.3)  | .125 (3.2)   | .312 (7.9)   | 4              |
| 153      | 16         | 1     | 3.125 (79.4)  | 1.544 (39.2) | .957 (24.3)  | .125 (3.2)   | .312 (7.9)   | 4              |
| 154      | 44         | 1     | 4.125 (104.8) | 2.000 (50.8) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 155      | 44         | 1     | 5.125 (130.2) | 2.000 (50.8) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 156      | 40         | 1     | 4.125 (104.8) | 2.000 (50.8) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 157      | 40         | 1     | 5.125 (130.2) | 2.000 (50.8) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |

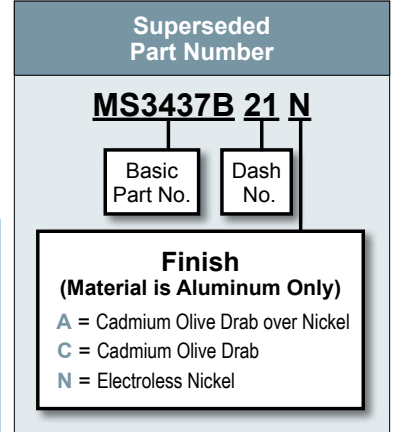
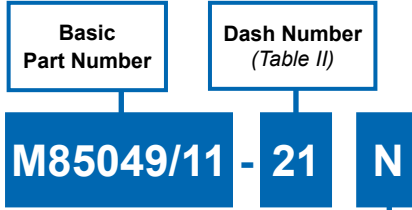
Dimensions in inches (millimeters) and are subject to change without notice.

# AS85049/11 and MS3437B Straight Environmental Backshell



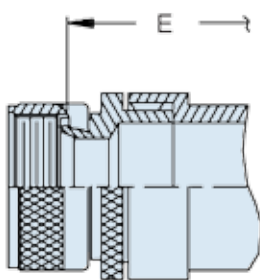
AS85049

| CONNECTOR DESIGNATOR: |   |
|-----------------------|---|
| <b>A</b>              | AS50151 Series AS34001                                    |
|                       | MIL-DTL-26482 Series II                                   |
|                       | AS81703 Series III  |
|                       | MIL-DTL-83723 Series I & III                              |
|                       | 40M39569, DEF 5326-3, EN 2997                             |
|                       | EN 3646, ESC 10, ESC 11, LN 29504                         |
|                       | NFC93422 Series HE302<br>PAN 6432-1, PAN 6432-2, PATT 602 |

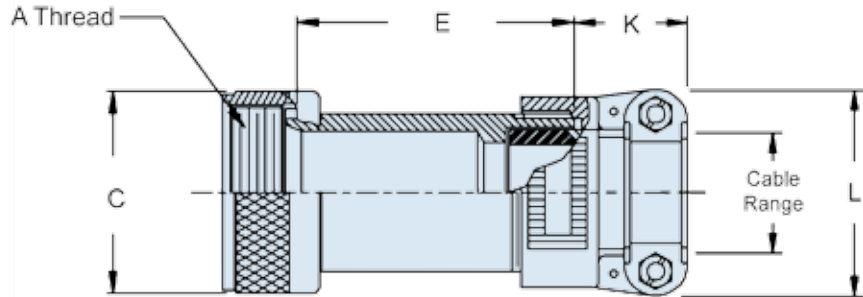


**Finish / Material**

**B** = Black Cadmium / Stainless Steel  
**N** = Electroless Nickel / Aluminum  
**S** = Passivated / Stainless Steel  
**W** = 1,000 Hr. Cadmium Olive Drab over Electroless Nickel / Aluminum  
**X** = Nickel Fluorocarbon Polymer / Aluminum  
**Y** = Pure Dense Electrodeposited Aluminum / Aluminum  
**Z** = Zinc Nickel, Black / Aluminum  
**XS** = Nickel Fluorocarbon Polymer / Stainless Steel  
**YS** = Pure Dense Electrodeposited Aluminum / Stainless Steel  
**ZS** = Zinc Nickel, Black / Stainless Steel



**STYLE 2**



**STYLE 1**

| Shell Size | A Thread Class 2B-LH | C Dia Max    |
|------------|----------------------|--------------|
| 3          | .562 - 24 UNEF       | .669 (17.0)  |
| 8          | .500 - 20 UNF        | .617 (15.7)  |
| 10         | .625 - 24 UNEF       | .734 (18.6)  |
| 12         | .750 - 20 UNEF       | .858 (21.8)  |
| 14         | .875 - 20 UNEF       | .984 (25.0)  |
| 16         | 1.000 - 20 UNEF      | 1.112 (28.2) |
| 18         | 1.062 - 18 UNEF      | 1.218 (30.9) |
| 20         | 1.188 - 18 UNEF      | 1.345 (34.2) |
| 22         | 1.313 - 18 UNEF      | 1.468 (37.3) |
| 24         | 1.438 - 18 UNEF      | 1.593 (40.5) |
| 28         | 1.750 - 18 UNS       | 1.969 (50.0) |
| 32         | 2.000 - 18 UNS       | 2.219 (56.4) |
| 36         | 2.250 - 16 UN        | 2.469 (62.7) |
| 40         | 2.500 - 16 UN        | 2.719 (69.1) |
| 44         | 2.750 - 16 UN        | 2.969 (75.4) |
| 48         | 3.000 - 16 UN        | 3.219 (81.8) |
| 61         | 1.500 - 18 UNEF      | 1.653 (42.0) |

- APPLICATION NOTES**

  - For complete dimensions see the applicable Military Specification.
  - Metric dimensions (mm) are in parentheses.
  - When maximum cable entry is exceeded, Style 2 will be supplied.
  - Cable Range is defined as the accommodation range for the wire bundle or cable. Dimensions shown are not intended for inspection criteria.

Dimensions in inches (millimeters) and are subject to change without notice.



## AS85049/11 and MS3437B Straight Environmental Backshell

TABLE II: Dash Number and Cable Range (Continued on Page B-33)

| Dash No. | Shell Size | Style | E Max         | K Ref.       | L Max        | Cable Range |              | M85049/42 Ref. |
|----------|------------|-------|---------------|--------------|--------------|-------------|--------------|----------------|
|          |            |       |               |              |              | Min         | Max          |                |
| 01       | 3          | 1     | 2.125 (54.0)  | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)  | .250 (6.4)   | 4              |
| 02       | 3          | 1     | 3.125 (79.4)  | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)  | .250 (6.4)   | 4              |
| 03       | 3          | 2     | 2.875 (73.0)  | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)  | .437 (11.1)  | 6              |
| 04       | 3          | 2     | 3.875 (98.4)  | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)  | .437 (11.1)  | 6              |
| 05       | 8          | 1     | 2.125 (54.0)  | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)  | .250 (6.4)   | 4              |
| 06       | 8          | 1     | 3.125 (79.4)  | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)  | .250 (6.4)   | 4              |
| 07       | 8          | 2     | 2.875 (73.0)  | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)  | .437 (11.1)  | 6              |
| 08       | 8          | 2     | 3.875 (98.4)  | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)  | .437 (11.1)  | 6              |
| 09       | 10         | 1     | 2.125 (54.0)  | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)  | .312 (7.9)   | 4              |
| 10       | 10         | 1     | 3.125 (79.4)  | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)  | .312 (7.9)   | 4              |
| 11       | 10         | 2     | 2.875 (73.0)  | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)  | .437 (11.1)  | 6              |
| 12       | 10         | 2     | 3.875 (98.4)  | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)  | .437 (11.1)  | 6              |
| 13       | 12         | 1     | 2.125 (54.0)  | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)  | .437 (11.1)  | 6              |
| 14       | 12         | 1     | 3.125 (79.4)  | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)  | .437 (11.1)  | 6              |
| 15       | 12         | 2     | 2.875 (73.0)  | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)  | .625 (15.9)  | 10             |
| 16       | 12         | 2     | 3.875 (98.4)  | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)  | .625 (15.9)  | 10             |
| 17       | 14         | 1     | 2.125 (54.0)  | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)  | .575 (14.6)  | 10             |
| 18       | 14         | 1     | 3.125 (79.4)  | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)  | .575 (14.6)  | 10             |
| 19       | 14         | 2     | 2.875 (73.0)  | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7) | .750 (19.1)  | 12             |
| 20       | 14         | 2     | 3.875 (98.4)  | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7) | .750 (19.1)  | 12             |
| 21       | 16         | 1     | 2.125 (54.0)  | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7) | .700 (17.8)  | 12             |
| 22       | 16         | 1     | 3.125 (79.4)  | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7) | .700 (17.8)  | 12             |
| 23       | 16         | 2     | 2.875 (73.0)  | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9) | .937 (23.8)  | 16             |
| 24       | 16         | 2     | 3.875 (98.4)  | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9) | .937 (23.8)  | 16             |
| 25       | 18         | 1     | 2.125 (54.0)  | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)  | .625 (15.9)  | 10             |
| 26       | 18         | 1     | 3.125 (79.4)  | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)  | .625 (15.9)  | 10             |
| 27       | 18         | 1     | 2.125 (54.0)  | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7) | .750 (19.1)  | 12             |
| 28       | 18         | 1     | 3.125 (79.4)  | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7) | .750 (19.1)  | 12             |
| 29       | 18         | 2     | 2.875 (73.0)  | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9) | .937 (23.8)  | 16             |
| 30       | 18         | 2     | 3.875 (98.4)  | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9) | .937 (23.8)  | 16             |
| 31       | 20         | 1     | 3.125 (79.4)  | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)  | .625 (15.9)  | 10             |
| 32       | 20         | 1     | 4.125 (104.8) | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)  | .625 (15.9)  | 10             |
| 33       | 20         | 1     | 3.125 (79.4)  | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7) | .750 (19.1)  | 12             |
| 34       | 20         | 1     | 4.125 (104.8) | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7) | .750 (19.1)  | 12             |
| 35       | 20         | 2     | 3.875 (98.4)  | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9) | .937 (23.8)  | 16             |
| 36       | 20         | 2     | 4.875 (123.8) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9) | .937 (23.8)  | 16             |
| 37       | 20         | 2     | 3.875 (98.4)  | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2) | 1.250 (31.8) | 20             |
| 38       | 20         | 2     | 4.875 (123.8) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2) | 1.250 (31.8) | 20             |
| 39       | 22         | 1     | 3.125 (79.4)  | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)  | .625 (15.9)  | 10             |
| 40       | 22         | 1     | 4.125 (104.8) | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)  | .625 (15.9)  | 10             |
| 41       | 22         | 1     | 3.125 (79.4)  | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7) | .750 (19.1)  | 12             |
| 42       | 22         | 1     | 4.125 (104.8) | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7) | .750 (19.1)  | 12             |
| 43       | 22         | 1     | 3.125 (79.4)  | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9) | .937 (23.8)  | 16             |
| 44       | 22         | 1     | 4.125 (104.8) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9) | .937 (23.8)  | 16             |
| 45       | 22         | 2     | 3.875 (98.4)  | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2) | 1.250 (31.8) | 20             |
| 46       | 22         | 2     | 4.875 (123.8) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2) | 1.250 (31.8) | 20             |
| 47       | 24         | 1     | 3.125 (79.4)  | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7) | .750 (19.1)  | 12             |
| 48       | 24         | 1     | 4.125 (104.8) | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7) | .750 (19.1)  | 12             |
| 49       | 24         | 1     | 3.125 (79.4)  | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9) | .812 (20.6)  | 16             |
| 50       | 24         | 1     | 4.125 (104.8) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9) | .812 (20.6)  | 16             |
| 51       | 24         | 1     | 3.125 (79.4)  | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9) | .937 (23.8)  | 16             |
| 52       | 24         | 1     | 4.125 (104.8) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9) | .937 (23.8)  | 16             |

Continued on Page B-33

Dimensions in inches (millimeters) and are subject to change without notice.

# AS85049/11 and MS3437B Straight Environmental Backshell



AS85049

B

**TABLE II: Dash Number and Cable Range (Continued From Page B-32)**

| Dash No. | Shell Size | Style | E Max         | K Ref.       | L Max        | Cable Range  |              | M85049/42 Ref. |
|----------|------------|-------|---------------|--------------|--------------|--------------|--------------|----------------|
|          |            |       |               |              |              | Min          | Max          |                |
| 53       | 24         | 2     | 3.875 (98.4)  | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 54       | 24         | 2     | 4.875 (123.8) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 55       | 28         | 1     | 3.125 (79.4)  | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 56       | 28         | 1     | 4.125 (104.8) | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 57       | 28         | 1     | 3.125 (79.4)  | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 58       | 28         | 1     | 4.125 (104.8) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 59       | 28         | 1     | 3.125 (79.4)  | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 60       | 28         | 1     | 4.125 (104.8) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 61       | 28         | 1     | 3.125 (79.4)  | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 62       | 28         | 1     | 4.125 (104.8) | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 63       | 32         | 1     | 3.125 (79.4)  | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 64       | 32         | 1     | 4.125 (104.8) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 65       | 32         | 1     | 3.125 (79.4)  | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 66       | 32         | 1     | 4.125 (104.8) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 67       | 32         | 1     | 3.125 (79.4)  | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 68       | 32         | 1     | 4.125 (104.8) | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 69       | 32         | 1     | 3.125 (79.4)  | 1.781 (45.2) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 70       | 32         | 1     | 4.125 (104.8) | 1.781 (45.2) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 71       | 36         | 1     | 4.125 (104.8) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 72       | 36         | 1     | 5.125 (130.2) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 73       | 36         | 1     | 4.125 (104.8) | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 74       | 36         | 1     | 5.125 (130.2) | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 75       | 36         | 1     | 4.125 (104.8) | 1.781 (45.2) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 76       | 36         | 1     | 5.125 (130.2) | 1.781 (45.2) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 77       | 36         | 2     | 5.000 (127.0) | 1.830 (46.5) | 3.020 (76.7) | 1.437 (36.5) | 1.875 (47.6) | 32             |
| 78       | 36         | 2     | 6.000 (152.4) | 1.830 (46.5) | 3.020 (76.7) | 1.437 (36.5) | 1.875 (47.6) | 32             |
| 79       | 40         | 1     | 4.125 (104.8) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 80       | 40         | 1     | 5.125 (130.2) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 81       | 40         | 1     | 4.125 (104.8) | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 82       | 40         | 1     | 5.125 (130.2) | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 83       | 40         | 1     | 4.125 (104.8) | 1.781 (45.2) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 84       | 40         | 1     | 5.125 (130.2) | 1.781 (45.2) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 85       | 40         | 1     | 4.125 (104.8) | 1.830 (46.5) | 3.020 (76.7) | 1.437 (36.5) | 1.875 (47.6) | 32             |
| 86       | 40         | 1     | 5.125 (130.2) | 1.830 (46.5) | 3.020 (76.7) | 1.437 (36.5) | 1.875 (47.6) | 32             |
| 87       | 44         | 1     | 4.125 (104.8) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 88       | 44         | 1     | 5.125 (130.2) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 89       | 44         | 1     | 4.125 (104.8) | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 90       | 44         | 1     | 5.125 (130.2) | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 91       | 44         | 1     | 4.125 (104.8) | 1.781 (45.2) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 92       | 44         | 1     | 5.125 (130.2) | 1.781 (45.2) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 93       | 44         | 1     | 4.125 (104.8) | 1.830 (46.5) | 3.020 (76.7) | 1.437 (36.5) | 1.875 (47.6) | 32             |
| 94       | 44         | 1     | 5.125 (130.2) | 1.830 (46.5) | 3.020 (76.7) | 1.437 (36.5) | 1.875 (47.6) | 32             |
| 95       | 48         | 1     | 4.125 (104.8) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 96       | 48         | 1     | 5.125 (130.2) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 97       | 48         | 1     | 4.125 (104.8) | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 98       | 48         | 1     | 5.125 (130.2) | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 99       | 48         | 1     | 4.125 (104.8) | 1.781 (45.2) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 100      | 48         | 1     | 5.125 (130.2) | 1.781 (45.2) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 101      | 48         | 1     | 4.125 (104.8) | 1.830 (46.5) | 3.020 (76.7) | 1.437 (36.5) | 1.875 (47.6) | 32             |
| 102      | 48         | 1     | 5.125 (130.2) | 1.830 (46.5) | 3.020 (76.7) | 1.437 (36.5) | 1.875 (47.6) | 32             |
| 103      | 61         | 1     | 3.125 (79.4)  | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 104      | 61         | 1     | 4.125 (104.8) | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |

Continued on Page B-34

Dimensions in inches (millimeters) and are subject to change without notice.



## AS85049/11 and MS3437B Straight Environmental Backshell

TABLE II: Dash Number and Cable Range (Continued From Page B-33)

| Dash No. | Shell Size | Style | E Max         | K Ref.       | L Max        | Cable Range  |              | M85049/42 Ref. |
|----------|------------|-------|---------------|--------------|--------------|--------------|--------------|----------------|
|          |            |       |               |              |              | Min          | Max          |                |
| 105      | 61         | 1     | 3.125 (79.4)  | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 106      | 61         | 1     | 4.125 (104.8) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 107      | 61         | 2     | 3.875 (98.4)  | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 108      | 61         | 2     | 4.875 (123.8) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 109      | 61         | 2     | 3.875 (98.4)  | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 110      | 61         | 2     | 4.875 (123.8) | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 111      | 12         | 1     | 2.125 (54.0)  | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)   | .500 (12.7)  | 10             |
| 112      | 16         | 1     | 2.125 (54.0)  | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)   | .437 (11.1)  | 6              |
| 113      | 16         | 1     | 3.125 (79.4)  | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)   | .437 (11.1)  | 6              |
| 114      | 12         | 1     | 2.125 (54.0)  | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)   | .312 (7.9)   | 4              |
| 115      | 12         | 1     | 3.125 (79.4)  | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)   | .312 (7.9)   | 4              |
| 116      | 14         | 1     | 2.125 (54.0)  | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)   | .437 (11.1)  | 6              |
| 117      | 14         | 1     | 3.125 (79.4)  | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)   | .437 (11.1)  | 6              |
| 118      | 16         | 1     | 2.125 (54.0)  | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)   | .625 (15.9)  | 10             |
| 119      | 16         | 1     | 3.125 (79.4)  | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)   | .625 (15.9)  | 10             |
| 120      | 18         | 1     | 2.125 (54.0)  | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)   | .312 (7.9)   | 4              |
| 121      | 18         | 1     | 3.125 (79.4)  | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)   | .312 (7.9)   | 4              |
| 122      | 18         | 1     | 2.125 (54.0)  | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)   | .437 (11.1)  | 6              |
| 123      | 18         | 1     | 3.125 (79.4)  | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)   | .437 (11.1)  | 6              |
| 124      | 20         | 1     | 3.125 (79.4)  | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)   | .437 (11.1)  | 6              |
| 125      | 20         | 1     | 4.125 (104.8) | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)   | .437 (11.1)  | 6              |
| 126      | 22         | 1     | 3.125 (79.4)  | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)   | .312 (7.9)   | 4              |
| 127      | 22         | 1     | 4.125 (104.8) | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)   | .312 (7.9)   | 4              |
| 128      | 22         | 1     | 3.125 (79.4)  | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)   | .437 (11.1)  | 6              |
| 129      | 22         | 1     | 4.125 (104.8) | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)   | .437 (11.1)  | 6              |
| 130      | 24         | 1     | 3.125 (79.4)  | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)   | .625 (15.9)  | 10             |
| 131      | 24         | 1     | 4.125 (104.8) | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)   | .625 (15.9)  | 10             |
| 132      | 36         | 1     | 4.125 (104.8) | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 133      | 36         | 1     | 5.125 (130.2) | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 134      | 40         | 1     | 4.125 (104.8) | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 135      | 40         | 1     | 5.125 (130.2) | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 136      | 10         | 1     | 2.125 (54.0)  | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)   | .375 (9.5)   | 6              |
| 137      | 10         | 1     | 3.125 (79.4)  | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)   | .375 (9.5)   | 6              |
| 138      | 12         | 1     | 2.125 (54.0)  | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)   | .500 (12.7)  | 10             |
| 139      | 12         | 1     | 3.125 (79.4)  | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)   | .500 (12.7)  | 10             |
| 140      | 20         | 1     | 3.125 (79.4)  | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .904 (23.0)  | 16             |
| 141      | 20         | 1     | 4.125 (104.8) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .904 (23.0)  | 16             |
| 142      | 22         | 1     | 3.125 (79.4)  | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.029 (26.1) | 20             |
| 143      | 22         | 1     | 4.125 (104.8) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.029 (26.1) | 20             |
| 144      | 24         | 1     | 3.125 (79.4)  | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.144 (29.1) | 20             |
| 145      | 24         | 1     | 4.125 (104.8) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.144 (29.1) | 20             |
| 146      | 36         | 1     | 4.125 (104.8) | 1.830 (46.5) | 3.020 (76.7) | 1.437 (36.5) | 1.840 (46.7) | 32             |
| 147      | 36         | 1     | 5.125 (130.2) | 1.830 (46.5) | 3.020 (76.7) | 1.437 (36.5) | 1.840 (46.7) | 32             |
| 148      | 38         | 1     | 4.125 (104.8) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 149      | 38         | 1     | 5.125 (130.2) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 150      | 14         | 1     | 2.125 (54.0)  | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)   | .312 (7.9)   | 4              |
| 151      | 14         | 1     | 3.125 (79.4)  | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)   | .312 (7.9)   | 4              |
| 152      | 16         | 1     | 2.125 (54.0)  | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)   | .312 (7.9)   | 4              |
| 153      | 16         | 1     | 3.125 (79.4)  | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)   | .312 (7.9)   | 4              |
| 154      | 44         | 1     | 4.125 (104.8) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 155      | 44         | 1     | 5.125 (130.2) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 156      | 40         | 1     | 4.125 (104.8) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 157      | 40         | 1     | 5.125 (130.2) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |

Dimensions in inches (millimeters) and are subject to change without notice.



# AS85049/14S Self-Locking E-Nut

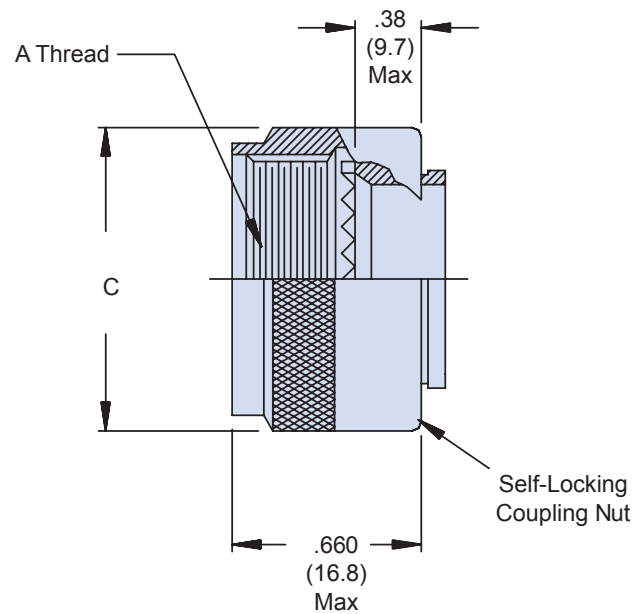
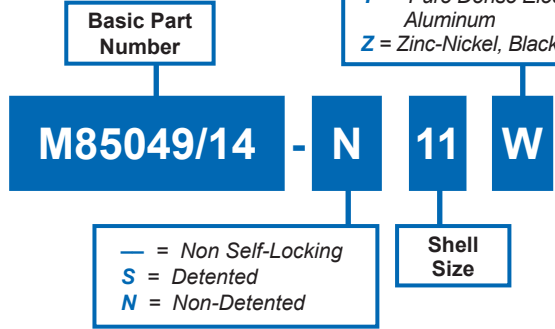


AS85049

B

| CONNECTOR DESIGNATOR: |  |
|-----------------------|--|
| <b>H</b>              | MIL-DTL-38999 Series III & IV<br>EN36455 |

| Finish   |
|--|
| <i>A</i> = Anodize, Black  |
| <i>N</i> = Electroless Nickel                                    |
| <i>W</i> = 1,000 Hour Cadmium Olive Drab over Electroless Nickel |
| <i>X</i> = Nickel Fluorocarbon Polymer                           |
| <i>Y</i> = Pure Dense Electrodeposited Aluminum                  |
| <i>Z</i> = Zinc-Nickel, Black                                    |



| TABLE I: Shell Size, Shell Size Code, Thread and Dimensions |                      |                   |             |
|---|----------------------|-------------------|-------------|
| Shell Size  | Shell Size Code Ref. | A Thread Class 2B | Ø C Max     |
| 9   | A                    | M12 X 1 - 6H      | .86 (21.8)  |
| 11  | B                    | M15 X 1 - 6H      | .98 (24.9)  |
| 13  | C                    | M18 X 1 - 6H      | 1.16 (29.5) |
| 15  | D                    | 1M22 X 1 - 6H     | 1.28 (32.5) |
| 17  | E                    | M25 X 1 - 6H      | 1.41 (35.8) |
| 19  | F                    | M28 X 1 - 6H      | 1.52 (38.6) |
| 21  | G                    | M31 X 1 - 6H      | 1.64 (41.7) |
| 23  | H                    | M34 X 1 - 6H      | 1.77 (45.0) |
| 25  | J                    | M37 X 1 - 6H      | 1.89 (48.0) |

- APPLICATION NOTES**
- For complete dimensions, see the applicable Military Specification.
  - Metric dimensions (mm) are indicated in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.

## CONNECTOR DESIGNATOR:

**H** MIL-DTL-38999, Series III and IV  
EN3645

### SELF-LOCKING COUPLING

## Configuration

— = Non-Self-Locking  
**N** = Non-Detented  
**G** = Self-Locking with Ground Lug  
**H** = Non-Detented with Ground Lug  
**S** = Self-Locking without Ground Lug

## Finish

**A** = Anodize, Black  
**N** = Electroless Nickel  
**W** = 1,000 Hour Cadmium Olive Drab  
 over Electroless Nickel  
**X** = Nickel Fluorocarbon Polymer  
**Y** = Pure Dense Electrodeposited  
 Aluminum  
**Z** = Zinc-Nickel, Black

## Basic Part Number

**M85049/15** = 45°  
**M85049/16** = 90°

**M85049/15**

**G**

**11**

**N**

Shell Size

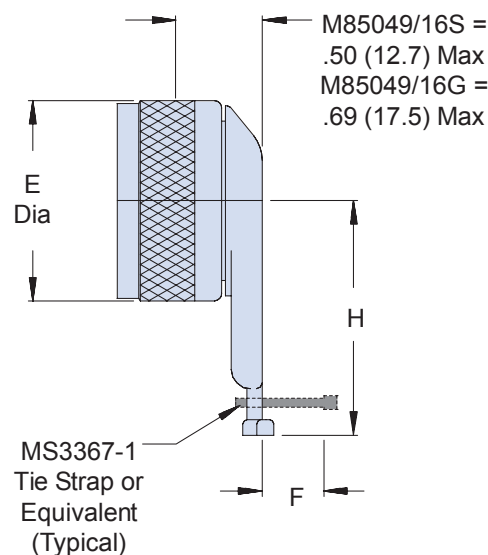
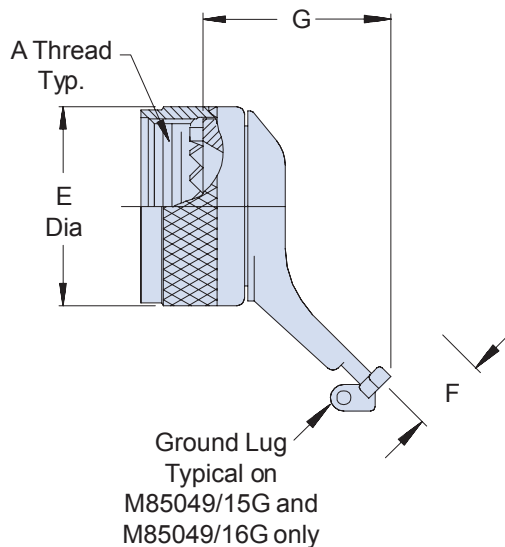


TABLE I: Shell Size, Thread, Cable Entry and Backshell Dimensions

| Shell Size | A Thread Class 2B | E Dia Max    | F Max Cable Entry | M85049/15S G Max | M85049/15G G Max | M85049/16 H Max |
|------------|-------------------|--------------|-------------------|------------------|------------------|-----------------|
| 9          | M12 X 1 - 6H      | .860 (21.8)  | .264 (6.7)        | 1.030 (26.2)     | 1.210 (30.7)     | 1.220 (31.0)    |
| 11         | M15 X 1 - 6H      | .984 (25.0)  | .392 (10.0)       | 1.030 (26.2)     | 1.210 (30.7)     | 1.290 (32.8)    |
| 13         | M18 X 1 - 6H      | 1.160 (29.5) | .506 (12.9)       | 1.030 (26.2)     | 1.390 (35.3)     | 1.620 (41.1)    |
| 15         | M22 X 1 - 6H      | 1.280 (32.5) | .631 (16.0)       | 1.090 (27.7)     | 1.390 (35.3)     | 1.660 (42.2)    |
| 17         | M25 X 1 - 6H      | 1.410 (35.8) | .756 (19.2)       | 1.110 (28.2)     | 1.390 (35.3)     | 1.720 (43.7)    |
| 19         | M28 X 1 - 6H      | 1.520 (38.6) | .845 (21.5)       | 1.210 (30.7)     | 1.390 (35.3)     | 1.720 (43.7)    |
| 21         | M31 X 1 - 6H      | 1.640 (41.7) | .970 (24.6)       | 1.260 (32.0)     | 1.390 (35.3)     | 1.790 (45.5)    |
| 23         | M34 X 1 - 6H      | 1.770 (45.0) | 1.095 (27.8)      | 1.300 (33.0)     | 1.390 (35.3)     | 1.850 (47.0)    |
| 25         | M37 X 1 - 6H      | 1.890 (48.0) | 1.220 (31.0)      | 1.340 (34.0)     | 1.390 (35.3)     | 1.910 (48.5)    |

## APPLICATION NOTES

1. Assembly identified with manufacturer's name and part number, space permitting.
2. For complete dimensions, see the applicable Military Specification.
3. Cable entry is defined as the accommodation range for the wire bundle or cable. Dimensions shown are not intended for inspection criteria.
4. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.

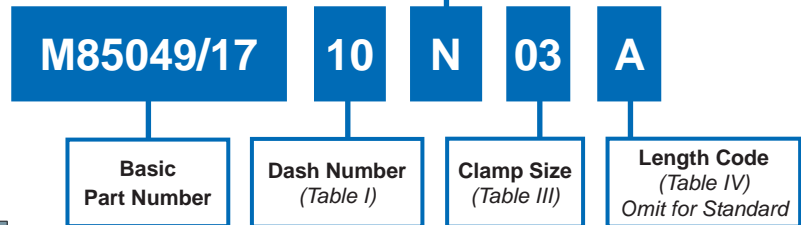
# AS85049/17 Straight EMI/RFI Environmental Backshell



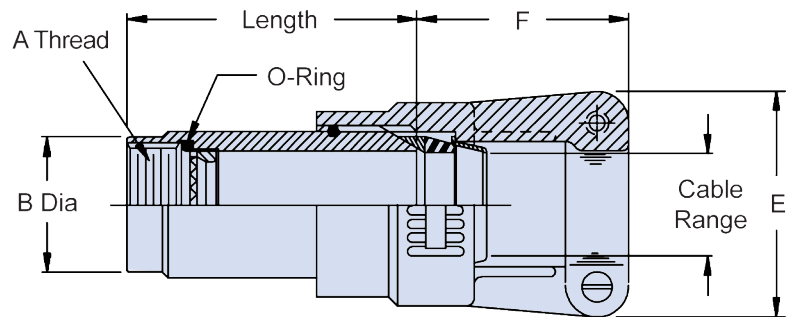
AS85049

| CONNECTOR DESIGNATOR: |                               |
|-----------------------|-------------------------------|
| <b>F</b>              | MIL-DTL-38999 Series I and II |

| Finish  |   |
|---|---|
| <b>N</b> = Electroless Nickel                                   | <b>X</b> = Aluminum, Nickel Fluorocarbon Polymer                |
| <b>W</b> = 1,000 Hr. Cadmium Olive Drab over Electroless Nickel | <b>Z</b> = Aluminum, Zinc-Nickel, Black over Electroless Nickel |



| Dash No. | Shell Size Series I | Shell Size Series II | A Thread Class 2B | B Dia Max    |
|----------|---------------------|----------------------|-------------------|--------------|
| 08       | 09                  | 08                   | .438 - 28 UNEF    | .570 (14.5)  |
| 10       | 11                  | 10                   | .562 - 24 UNEF    | .700 (17.8)  |
| 12       | 13                  | 12                   | .688 - 24 UNEF    | .830 (21.1)  |
| 14       | 15                  | 14                   | .813 - 20 UNEF    | .950 (24.1)  |
| 16       | 17                  | 16                   | .938 - 20 UNEF    | 1.080 (27.4) |
| 18       | 19                  | 18                   | 1.063 - 18 UNEF   | 1.200 (30.5) |
| 20       | 21                  | 20                   | 1.188 - 18 UNEF   | 1.330 (33.8) |
| 22       | 23                  | 22                   | 1.313 - 18 UNEF   | 1.450 (36.8) |
| 24       | 25                  | 24                   | 1.438 - 18 UNEF   | 1.580 (40.1) |



| Dash No. | Shell Size Series I | Shell Size Series II | Clamp Size |     |
|----------|---------------------|----------------------|------------|-----|
|          |                     |                      | Min        | Max |
| 08       | 09                  | 08                   | 01         | 02  |
| 10       | 11                  | 10                   | 01         | 03  |
| 12       | 13                  | 12                   | 02         | 04  |
| 14       | 15                  | 14                   | 02         | 05  |
| 16       | 17                  | 16                   | 02         | 06  |
| 18       | 19                  | 18                   | 03         | 07  |
| 20       | 21                  | 20                   | 03         | 08  |
| 22       | 23                  | 22                   | 03         | 09  |
| 24       | 25                  | 24                   | 04         | 10  |

| Clamp Size | Cable Range  |              | E Max        | F Max        |
|------------|--------------|--------------|--------------|--------------|
|            | Min          | Max          |              |              |
| 01         | .062 (1.6)   | .125 (3.2)   | .781 (19.8)  | 1.250 (31.8) |
| 02         | .125 (3.2)   | .250 (6.4)   | .969 (24.6)  | 1.250 (31.8) |
| 03         | .250 (6.4)   | .375 (9.5)   | 1.062 (27.0) | 1.250 (31.8) |
| 04         | .375 (9.5)   | .500 (12.7)  | 1.156 (29.4) | 1.250 (31.8) |
| 05         | .500 (12.7)  | .625 (15.9)  | 1.250 (31.8) | 1.312 (33.3) |
| 06         | .625 (15.9)  | .750 (19.1)  | 1.375 (34.9) | 1.375 (34.9) |
| 07         | .750 (19.1)  | .875 (22.2)  | 1.500 (38.1) | 1.500 (38.1) |
| 08         | .875 (22.2)  | 1.000 (25.4) | 1.625 (41.3) | 1.625 (41.3) |
| 09         | 1.000 (25.4) | 1.125 (28.6) | 1.750 (44.5) | 1.625 (41.3) |
| 10         | 1.125 (28.6) | 1.250 (31.8) | 1.875 (47.6) | 1.625 (41.3) |

| Length Code | Available Shell Sizes | Length        |
|-------------|-----------------------|---------------|
| Standard    | 08 - 24               | 1.500 (38.1)  |
| A           | 08 - 24               | 2.500 (63.5)  |
| B           | 14 - 24               | 3.500 (88.9)  |
| C           | 20 - 24               | 4.500 (114.3) |

- ### APPLICATION NOTES
- For complete dimensions see the applicable Military Specification.
  - Metric dimensions (mm) are in parentheses.
  - Cable Range is defined as the accommodation range for the wire bundle or cable. Dimensions shown are not intended for inspection criteria.

Dimensions in inches (millimeters) and are subject to change without notice.

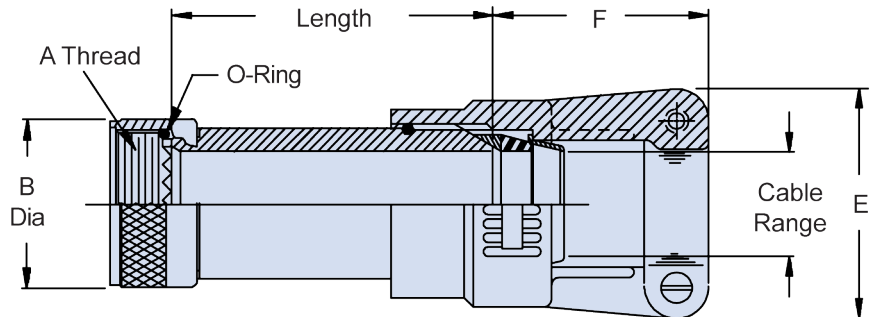
## CONNECTOR DESIGNATOR:

**H** MIL-DTL-38999, Series III and IV  
EN3645

## Finish

*N* = Electroless Nickel*W* = 1,000 Hr. Cadmium Olive Drab  
over Electroless Nickel*X* = Aluminum, Nickel Fluorocarbon Polymer*Z* = Aluminum, Zinc-Nickel, Black**M85049/18****11****N****03****A**Basic  
Part NumberShell Size  
(Table I)Clamp Size  
(Table III)Length Code  
(Table IV)  
Omit for StandardTABLE I: Shell Size,  
Thread and Dimensions

| Shell Size | A Thread Class 2B | B Dia Max    |
|------------|-------------------|--------------|
| 9          | M12 X 1 - 6H      | .750 (19.1)  |
| 11         | M15 X 1 - 6H      | .850 (21.6)  |
| 13         | M18 X 1 - 6H      | 1.000 (25.4) |
| 15         | M22 X 1 - 6H      | 1.150 (29.2) |
| 17         | M25 X 1 - 6H      | 1.250 (31.8) |
| 19         | M28 X 1 - 6H      | 1.400 (35.6) |
| 21         | M31 X 1 - 6H      | 1.550 (39.4) |
| 23         | M34 X 1 - 6H      | 1.650 (41.9) |
| 25         | M37 X 1 - 6H      | 1.850 (47.0) |

TABLE II:  
Shell Size and  
Clamp Size

| Shell Size | Clamp Size |     |
|------------|------------|-----|
|            | Min        | Max |
| 9          | 01         | 02  |
| 11         | 01         | 03  |
| 13         | 02         | 04  |
| 15         | 02         | 05  |
| 17         | 02         | 06  |
| 19         | 03         | 07  |
| 21         | 03         | 08  |
| 23         | 03         | 09  |
| 25         | 04         | 10  |

TABLE III: Clamp Size, Cable Range and Dimensions

| Clamp Size | Cable Range  |              | E Max        | F Max        |
|------------|--------------|--------------|--------------|--------------|
|            | Min          | Max          |              |              |
| 01         | .062 (1.6)   | .125 (3.2)   | .781 (19.8)  | 1.250 (31.8) |
| 02         | .125 (3.2)   | .250 (6.4)   | .969 (24.6)  | 1.250 (31.8) |
| 03         | .250 (6.4)   | .375 (9.5)   | 1.062 (27.0) | 1.250 (31.8) |
| 04         | .375 (9.5)   | .500 (12.7)  | 1.156 (29.4) | 1.250 (31.8) |
| 05         | .500 (12.7)  | .625 (15.9)  | 1.250 (31.8) | 1.312 (33.3) |
| 06         | .625 (15.9)  | .750 (19.1)  | 1.375 (34.9) | 1.375 (34.9) |
| 07         | .750 (19.1)  | .875 (22.2)  | 1.500 (38.1) | 1.500 (38.1) |
| 08         | .875 (22.2)  | 1.000 (25.4) | 1.625 (41.3) | 1.625 (41.3) |
| 09         | 1.000 (25.4) | 1.125 (28.6) | 1.750 (44.5) | 1.625 (41.3) |
| 10         | 1.125 (28.6) | 1.250 (31.8) | 1.875 (47.6) | 1.625 (41.3) |

TABLE IV: Length Code

| Length Code | Available Shell Sizes | Length        |
|-------------|-----------------------|---------------|
| Standard    | 9 - 25                | 1.500 (38.1)  |
| A           | 9 - 25                | 2.500 (63.5)  |
| B           | 9 - 25                | 3.500 (88.9)  |
| C           | 9 - 25                | 4.500 (114.3) |

## APPLICATION NOTES

- For complete dimensions see the applicable Military Specification.
- Metric dimensions (mm) are in parentheses.
- Cable Range is defined as the accommodation range for the wire bundle or cable. Dimensions shown are not intended for inspection criteria.

Dimensions in inches (millimeters) and are subject to change without notice.

# AS85049/19 Straight EMI/RFI Non-Environmental Backshell

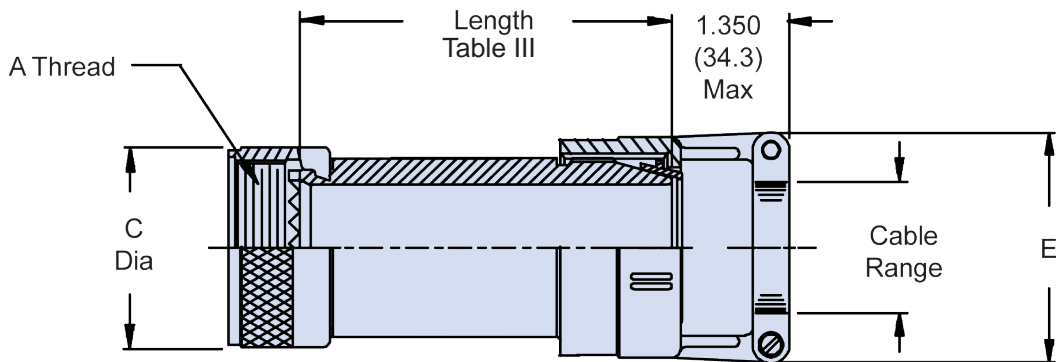
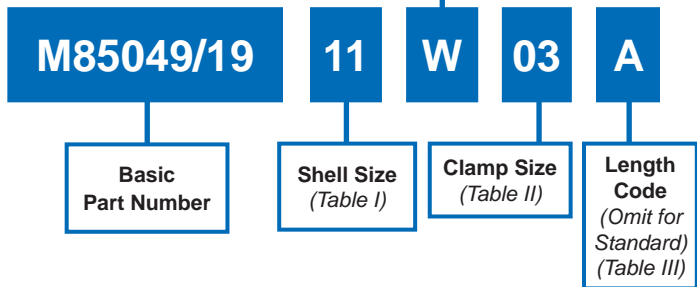


AS85049

B

| CONNECTOR DESIGNATOR: |   |
|-----------------------|---|
| <b>H</b>              | MIL-DTL-38999 Series III and IV<br>EN3645 |

| Finish                                 |
|--|
| <i>N</i> = Electroless Nickel          |
| <i>W</i> = Cadmium, Olive Drab         |
| <i>X</i> = Nickel Fluorocarbon Polymer |
| <i>Z</i> = Zinc Nickel                 |



| APPLICATION NOTES |  |
|-------------------|--|
| 1.                | For complete dimensions see the applicable Military Specification.   |
| 2.                | Metric dimensions (mm) are in parentheses.   |
| 3.                | Cable Range is defined as the accommodation range for the wire bundle or cable. Dimensions shown are not intended for inspection criteria. |

Dimensions in inches (millimeters) and are subject to change without notice.





## AS85049/19 Straight EMI/RFI Non-Environmental Backshell

TABLE I: Shell Size and Clamp Size

| Shell Size | Clamp Size |     | A Thread Class 6H | C Dia Max    |
|------------|------------|-----|-------------------|--------------|
|            | Min        | Max |                   |              |
| 9          | 01         | 02  | M12 X 1 - 6H      | .750 (19.1)  |
| 11         | 01         | 03  | M15 X 1 - 6H      | .850 (21.6)  |
| 13         | 02         | 04  | M18 X 1 - 6H      | 1.000 (25.4) |
| 15         | 02         | 05  | M22 X 1 - 6H      | 1.100 (27.9) |
| 17         | 02         | 06  | M25 X 1 - 6H      | 1.250 (31.8) |
| 19         | 03         | 07  | M28 X 1 - 6H      | 1.400 (35.6) |
| 21         | 03         | 08  | M31 X 1 - 6H      | 1.500 (38.1) |
| 23         | 03         | 09  | M34 X 1 - 6H      | 1.650 (41.9) |
| 25         | 04         | 10  | M37 X 1 - 6H      | 1.700 (43.2) |

TABLE II: Cable Range and Dimensions

| Clamp Size | Cable Range  |              | E Max        |
|------------|--------------|--------------|--------------|
|            | Min          | Max          |              |
| 01         | .062 (1.6)   | .125 (3.2)   | .800 (20.3)  |
| 02         | .125 (3.2)   | .250 (6.4)   | 1.000 (25.4) |
| 03         | .250 (6.4)   | .375 (9.5)   | 1.100 (27.9) |
| 04         | .312 (7.9)   | .500 (12.7)  | 1.200 (30.5) |
| 05         | .437 (11.1)  | .625 (15.9)  | 1.250 (31.8) |
| 06         | .562 (14.3)  | .750 (19.1)  | 1.400 (35.6) |
| 07         | .687 (17.4)  | .875 (22.2)  | 1.500 (38.1) |
| 08         | .812 (20.6)  | 1.000 (25.4) | 1.650 (41.9) |
| 09         | .937 (23.8)  | 1.125 (28.6) | 1.750 (44.5) |
| 10         | 1.062 (27.0) | 1.250 (31.8) | 1.900 (48.3) |

TABLE III: Length Code

| Length Code | Available Shell Sizes | Length        |
|-------------|-----------------------|---------------|
| Std.        | 9 - 25                | 1.500 (38.1)  |
| A           | 9 - 25                | 2.500 (63.5)  |
| B           | 15 - 25               | 3.500 (88.9)  |
| C           | 21 - 25               | 4.500 (114.3) |

Dimensions in inches (millimeters) and are subject to change without notice.

# AS85049/20 Straight Crimp Ring Backshell and Crimp Ring

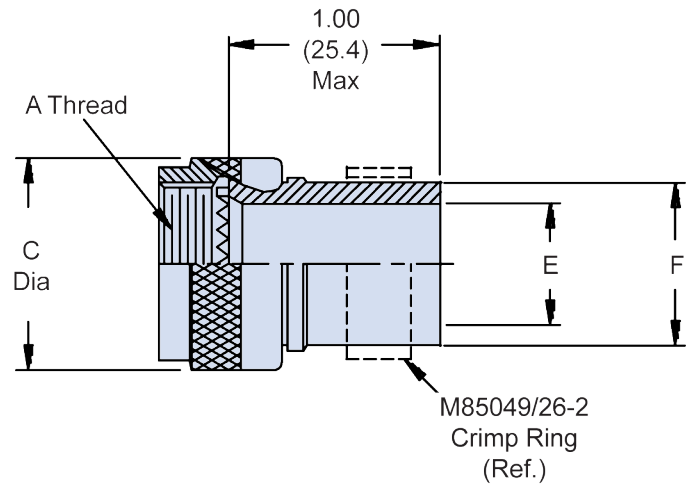
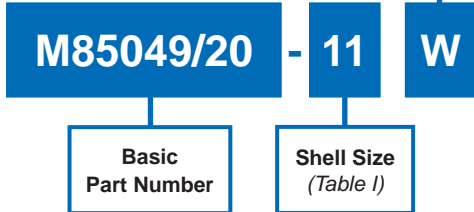


AS85049

B

| CONNECTOR DESIGNATOR: |   |
|-----------------------|---|
| <b>H</b>              | MIL-DTL-38999 Series III and IV<br>EN3645 |

| Finish  |
|---|
| <i>N</i> = Electroless Nickel                                   |
| <i>W</i> = 1,000 Hr. Cadmium Olive Drab over Electroless Nickel |
| <i>X</i> = Aluminum, Nickel Fluorocarbon Polymer                |
| <i>Z</i> = Aluminum, Zinc-Nickel, Black                         |



| Shell Size | A Thread Class 2B | C Dia Max    | E Dia ± .015 (0.4) | F Dia Max    | M85049/26-2 Crimp Ring Ref |
|------------|-------------------|--------------|--------------------|--------------|----------------------------|
| 9          | M12 X 1 - 6H      | .750 (19.1)  | .250 (6.4)         | .347 (8.8)   | 8                          |
| 11         | M15 X 1 - 6H      | .850 (21.6)  | .325 (8.3)         | .498 (12.6)  | 10                         |
| 13         | M18 X 1 - 6H      | 1.000 (25.4) | .420 (10.7)        | .510 (13.0)  | 12                         |
| 15         | M22 X 1 - 6H      | 1.100 (27.9) | .540 (13.7)        | .630 (16.0)  | 14                         |
| 17         | M25 X 1 - 6H      | 1.250 (31.8) | .670 (17.0)        | .760 (19.3)  | 16                         |
| 19         | M28 X 1 - 6H      | 1.400 (35.6) | .789 (20.0)        | .890 (22.6)  | 18                         |
| 21         | M31 X 1 - 6H      | 1.500 (38.1) | .914 (23.2)        | 1.010 (25.7) | 20                         |
| 23         | M34 X 1 - 6H      | 1.650 (41.9) | 1.039 (26.4)       | 1.130 (28.7) | 22                         |
| 25         | M37 X 1 - 6H      | 1.750 (44.5) | 1.112 (28.2)       | 1.202 (30.5) | 24                         |

- APPLICATION NOTES**
- For complete dimensions see the applicable Military Specification.
  - Metric dimensions (mm) are in parentheses.
  - Cable Entry is defined as the accommodation range for the wire bundle or cable. Dimensions shown are not intended for inspection criteria.

Dimensions in inches (millimeters) and are subject to change without notice.

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U.S. CAGE Code 06324

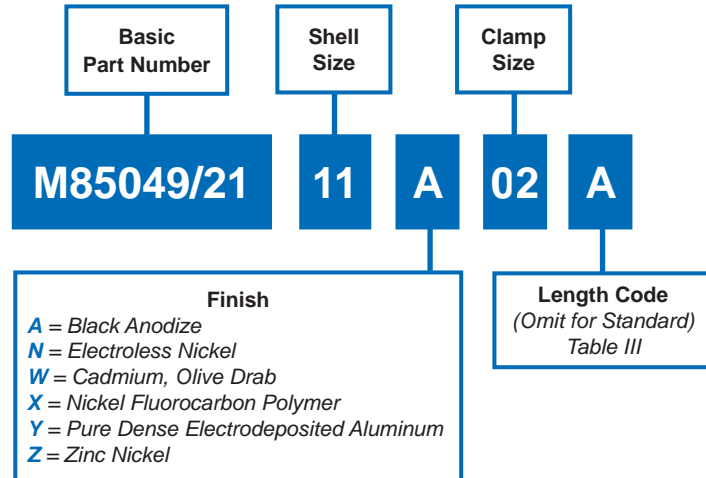
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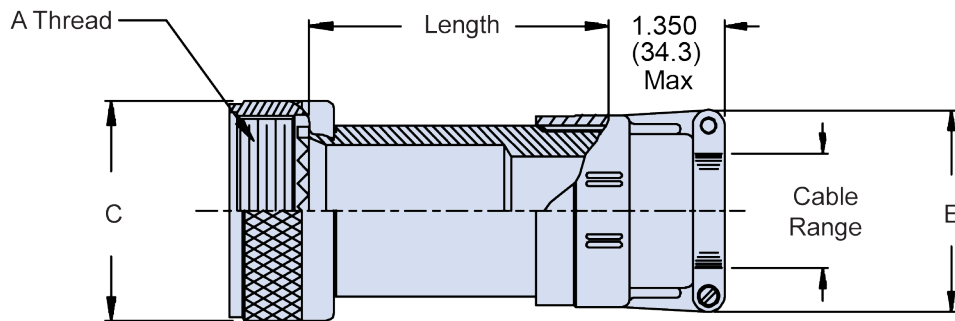
# AS85049/21 Straight Non-Environmental Strain Relief Backshell

## CONNECTOR DESIGNATOR:

**H** MIL-DTL-38999 Series III and IV  
EN3645



| Code     | Length<br>± .032 (0.8) |
|----------|------------------------|
| Standard | 1.50 (38.1)            |
| A        | 2.50 (63.5)            |
| B        | 3.50 (88.9)            |
| C        | 4.50 (114.3)           |



| Shell Size | Clamp Size* |     | A Thread Class 6H | C Dia Max    |
|------------|-------------|-----|-------------------|--------------|
|            | Min         | Max |                   |              |
| 9          | 01          | 02  | M12 X 1 - 6H      | .750 (19.1)  |
| 11         | 01          | 03  | M15 X 1 - 6H      | .850 (21.6)  |
| 13         | 02          | 04  | M18 X 1 - 6H      | 1.000 (25.4) |
| 15         | 02          | 05  | M22 X 1 - 6H      | 1.100 (27.9) |
| 17         | 02          | 06  | M25 X 1 - 6H      | 1.250 (31.8) |
| 19         | 03          | 07  | M28 X 1 - 6H      | 1.400 (35.6) |
| 21         | 03          | 08  | M31 X 1 - 6H      | 1.500 (38.1) |
| 23         | 03          | 09  | M34 X 1 - 6H      | 1.650 (41.9) |
| 25         | 04          | 10  | M37 X 1 - 6H      | 1.750 (44.5) |

\*Clamp Size from Table IV, AS85049/21 Specifications.

| Clamp Size | Cable Range  |              | E Max        |
|------------|--------------|--------------|--------------|
|            | Min          | Max          |              |
| 01         | .062 (1.6)   | .125 (3.2)   | .800 (20.3)  |
| 02         | .125 (3.2)   | .250 (6.4)   | 1.000 (25.4) |
| 03         | .250 (6.4)   | .375 (9.5)   | 1.100 (27.9) |
| 04         | .312 (7.9)   | .500 (12.7)  | 1.200 (30.5) |
| 05         | .437 (11.1)  | .625 (15.9)  | 1.250 (31.8) |
| 06         | .562 (14.3)  | .750 (19.1)  | 1.400 (35.6) |
| 07         | .687 (17.4)  | .875 (22.2)  | 1.500 (38.1) |
| 08         | .812 (20.6)  | 1.000 (25.4) | 1.650 (41.9) |
| 09         | .937 (23.8)  | 1.125 (28.6) | 1.750 (44.5) |
| 10         | 1.062 (27.0) | 1.250 (31.8) | 1.900 (48.3) |

## APPLICATION NOTES

- For complete dimensions see the applicable Military Specification.
- Metric dimensions (mm) are in parentheses.
- Cable Range is defined as the accommodation range for the wire bundle or cable. Dimensions shown are not intended for inspection criteria.

Dimensions in inches (millimeters) and are subject to change without notice.

# AS85049/23 and MS3189C 45° EMI/RFI Non-Environmental Backshell



AS85049

B

| CONNECTOR DESIGNATOR: |   |
|-----------------------|---|
| <b>A</b>              | AS50151 Series AS34001                                    |
|                       | MIL-DTL-26482 Series II                                   |
|                       | AS81703 Series III  |
|                       | MIL-DTL-83723 Series I & III                              |
|                       | 40M39569, DEF 5326-3, EN 2997                             |
|                       | EN 3646, ESC 10, ESC 11, LN 29504                         |
|                       | NFC93422 Series HE302<br>PAN 6432-1, PAN 6432-2, PATT 602 |

Basic Part Number      Dash Number  
(Table II)

**M85049/23 - 21 N**

**Superseded Part Number**

**MS3189C 21 N**

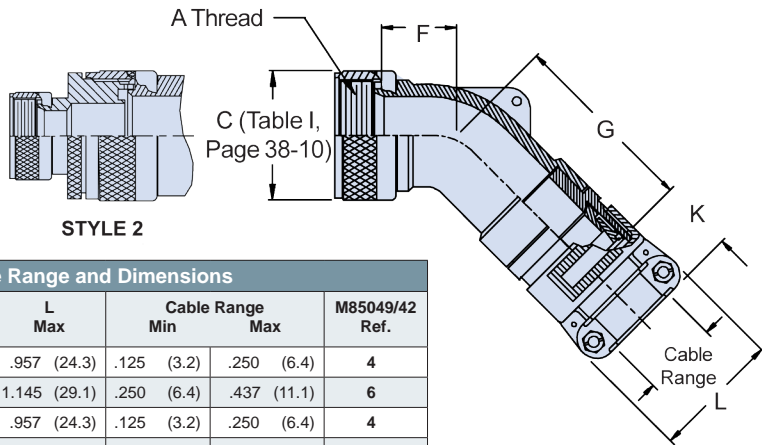
Basic Part No.      Dash No.

**Finish**  
(Material is Aluminum Only)

**A** = Cadmium Olive Drab over Nickel  
**C** = Cadmium Olive Drab  
**N** = Electroless Nickel

**Finish / Material**

**B** = Black Cadmium / Stainless Steel  
**N** = Electroless Nickel / Aluminum  
**S** = Passivated / Stainless Steel  
**W** = 1,000 Hr. Cadmium Olive Drab over Electroless Nickel / Aluminum  
**X** = Aluminum, Nickel Fluorocarbon Polymer  
**Z** = Aluminum, Zinc-Nickel, Black  
**XS** = Stainless Steel, Nickel Fluorocarbon Polymer  
**ZS** = Stainless Steel, Zinc-Nickel, Black



| TABLE II: Dash Number, Cable Range and Dimensions |            |              |              |              |              |             |              |                |
|---|------------|--------------|--------------|--------------|--------------|-------------|--------------|----------------|
| Dash No.  | Shell Size | F Max        | G Max        | K Ref.       | L Max        | Cable Range |              | M85049/42 Ref. |
|   |            |              |              |              |              | Min         | Max          |                |
| 1   | 3          | .687 (17.4)  | 1.915 (48.6) | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)  | .250 (6.4)   | 4              |
| 2   | 3          | 1.500 (38.1) | 2.035 (51.7) | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)  | .437 (11.1)  | 6              |
| 3   | 8          | .625 (15.9)  | 1.307 (33.2) | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)  | .250 (6.4)   | 4              |
| 4   | 10         | .687 (17.4)  | 1.975 (50.2) | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)  | .312 (7.9)   | 4              |
| 5   | 10         | .687 (17.4)  | 1.370 (34.8) | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)  | .375 (9.5)   | 6              |
| 6   | 12         | .750 (19.1)  | 2.035 (51.7) | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)  | .312 (7.9)   | 4              |
| 7   | 12         | .750 (19.1)  | 2.035 (51.7) | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)  | .437 (11.1)  | 6              |
| 8   | 12         | .750 (19.1)  | 2.035 (51.7) | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)  | .500 (12.7)  | 10             |
| 9   | 14         | .812 (20.6)  | 2.125 (54.0) | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)  | .437 (11.1)  | 6              |
| 10  | 14         | .812 (20.6)  | 1.780 (45.2) | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)  | .575 (14.6)  | 10             |
| 11  | 16         | .906 (23.0)  | 2.235 (56.8) | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)  | .437 (11.1)  | 6              |
| 12  | 16         | .906 (23.0)  | 1.875 (47.6) | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7) | .700 (17.8)  | 12             |
| 13  | 18         | 1.093 (27.8) | 2.425 (61.6) | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)  | .625 (15.9)  | 10             |
| 14  | 18         | 1.093 (27.8) | 2.062 (52.4) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9) | .779 (19.8)  | 16             |
| 15  | 20         | 1.093 (27.8) | 2.425 (61.6) | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)  | .625 (15.9)  | 10             |
| 16  | 20         | 1.093 (27.8) | 2.062 (52.4) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9) | .904 (23.0)  | 16             |
| 17  | 22         | 1.188 (30.2) | 2.575 (65.4) | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7) | .750 (19.1)  | 12             |
| 18  | 22         | 1.188 (30.2) | 2.218 (56.3) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2) | 1.029 (26.1) | 20             |
| 19  | 24         | 1.188 (30.2) | 2.575 (65.4) | 1.069 (27.2) | 1.551 (39.4) | .500 (12.7) | .750 (19.1)  | 12             |
| 20  | 24         | 1.188 (30.2) | 2.218 (56.3) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2) | 1.144 (29.1) | 20             |
| 21  | 28         | 1.312 (33.3) | 2.625 (66.7) | 1.156 (33.7) | 1.770 (45.0) | .625 (15.9) | .937 (23.8)  | 16             |

Continued on Page B-44

Dimensions in inches (millimeters) and are subject to change without notice.

- APPLICATION NOTES**
- For complete dimensions see the applicable Military Specification.
  - When maximum cable entry is exceeded, Style 2 will be supplied.
  - Metric dimensions (mm) are in parentheses.
  - Cable Range is defined as the accommodation range for the wire bundle or cable. Dimensions shown are not intended for inspection criteria.



# AS85049/23 and MS3189C 45° EMI/RFI Non-Environmental Backshell

TABLE II: Continued from Page B-43

| Dash No. | Shell Size | F Max        | G Max        | K Ref.       | L Max        | Cable Range  |              | M85049/42 Ref. |
|----------|------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|
|          |            |              |              |              |              | Min          | Max          |                |
| 22       | 28         | 1.312 (33.3) | 2.281 (57.9) | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 23       | 32         | 1.375 (34.9) | 2.725 (69.2) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 24       | 32         | 1.375 (34.9) | 2.725 (69.2) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 25       | 32         | 1.375 (34.9) | 2.500 (63.5) | 1.781 (45.2) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 26       | 36         | 1.406 (35.7) | 2.815 (71.5) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 27       | 36         | 1.406 (35.7) | 2.815 (71.5) | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 28       | 36         | 1.406 (35.7) | 2.469 (62.7) | 1.830 (46.5) | 3.020 (76.7) | 1.437 (36.5) | 1.840 (46.7) | 32             |
| 29       | 40         | 2.156 (54.8) | 2.815 (71.5) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 30       | 40         | 2.156 (54.8) | 2.815 (71.5) | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 31       | 40         | 2.156 (54.8) | 2.469 (62.7) | 1.830 (46.5) | 3.020 (76.7) | 1.437 (36.5) | 1.875 (47.6) | 32             |
| 32       | 44         | 2.156 (54.8) | 2.815 (71.5) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 33       | 44         | 2.156 (54.8) | 2.815 (71.5) | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 34       | 44         | 2.156 (54.8) | 2.469 (62.7) | 1.830 (46.5) | 3.020 (76.7) | 1.437 (36.5) | 1.875 (47.6) | 32             |
| 35       | 48         | 2.156 (54.8) | 2.815 (71.5) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 36       | 48         | 2.156 (54.8) | 2.815 (71.5) | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 37       | 48         | 2.156 (54.8) | 2.469 (62.7) | 1.830 (46.5) | 3.020 (76.7) | 1.437 (36.5) | 1.875 (47.6) | 32             |
| 38       | 61         | 1.188 (30.2) | 2.575 (65.4) | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 39       | 61         | 1.188 (30.2) | 2.218 (56.3) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.184 (30.1) | 20             |
| 40       | 16         | .906 (23.0)  | 2.235 (56.8) | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)   | .625 (15.9)  | 10             |
| 41       | 18         | 1.093 (27.8) | 2.425 (61.6) | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)   | .312 (7.9)   | 4              |
| 42       | 18         | 1.093 (27.8) | 2.425 (61.6) | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)   | .437 (11.1)  | 6              |
| 43       | 20         | 1.093 (27.8) | 2.425 (61.6) | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)   | .437 (11.1)  | 6              |
| 44       | 22         | 1.188 (30.2) | 2.575 (65.4) | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)   | .312 (7.9)   | 4              |
| 45       | 22         | 1.188 (30.2) | 2.575 (65.4) | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)   | .437 (11.1)  | 6              |
| 46       | 24         | 1.188 (30.2) | 2.575 (65.4) | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)   | .625 (15.9)  | 10             |
| 47       | 36         | 1.406 (35.7) | 2.815 (71.5) | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 48       | 40         | 2.156 (54.8) | 2.815 (71.5) | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 49*      | 10         | 1.500 (38.1) | 2.035 (51.7) | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)   | .437 (11.1)  | 6              |
| 50*      | 14         | 1.842 (46.8) | 2.425 (61.6) | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 51*      | 16         | 1.938 (49.2) | 2.575 (65.4) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 52       | 18         | 1.093 (27.8) | 2.425 (61.6) | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 53       | 61         | 1.188 (30.2) | 2.575 (65.4) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 54       | 20         | 1.093 (27.8) | 2.425 (61.6) | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 55*      | 20         | 2.061 (52.3) | 2.625 (66.7) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 56       | 22         | 1.188 (30.2) | 2.575 (65.4) | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)   | .625 (15.9)  | 10             |
| 57       | 22         | 1.188 (30.2) | 2.575 (65.4) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 58*      | 22         | 2.061 (52.3) | 2.625 (66.7) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 59       | 24         | 1.188 (30.2) | 2.575 (65.4) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 60       | 28         | 1.312 (33.3) | 2.625 (66.7) | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 61       | 28         | 1.312 (33.3) | 2.625 (66.7) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 62       | 32         | 1.375 (34.9) | 2.725 (69.2) | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 63       | 36         | 1.406 (35.7) | 2.815 (71.5) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 64       | 36         | 1.406 (35.7) | 2.815 (71.5) | 1.781 (45.2) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 65       | 40         | 2.156 (54.8) | 2.815 (71.5) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 66       | 40         | 2.156 (54.8) | 2.815 (71.5) | 1.781 (45.2) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 67       | 44         | 2.156 (54.8) | 2.815 (71.5) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 68       | 44         | 2.156 (54.8) | 2.815 (71.5) | 1.781 (45.2) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 69       | 48         | 2.156 (54.8) | 2.815 (71.5) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 70       | 48         | 2.156 (54.8) | 2.815 (71.5) | 1.781 (45.2) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 71*      | 12         | 1.684 (42.8) | 2.236 (56.8) | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)   | .625 (15.9)  | 10             |
| 72*      | 18         | 1.938 (49.2) | 2.575 (65.4) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 73*      | 24         | 2.061 (52.3) | 2.625 (66.7) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 74       | 14         | .812 (20.6)  | 2.125 (54.0) | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)   | .312 (7.9)   | 04             |
| 75       | 16         | .906 (23.0)  | 2.235 (56.8) | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)   | .312 (7.9)   | 04             |

\* Denotes Style 2

Dimensions in inches (millimeters) and are subject to change without notice.



# AS85049/24 and MS3188C 90° EMI/RFI Non-Environmental Backshell



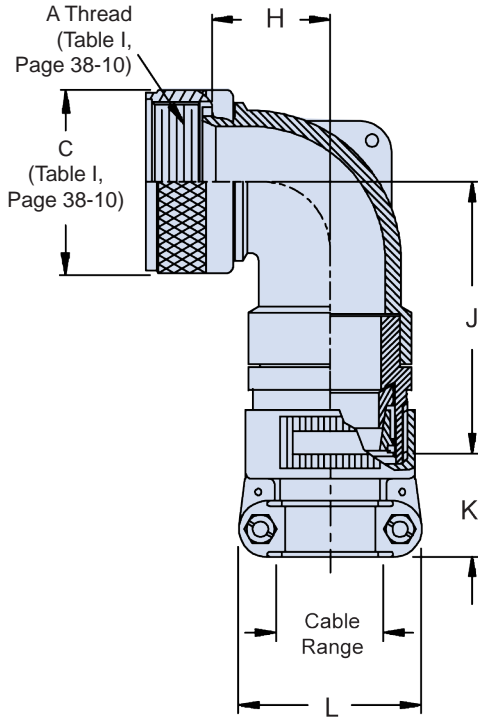
AS85049

B

| CONNECTOR DESIGNATOR: |                                   |
|-----------------------|-----------------------------------|
| <b>A</b>              | AS50151 Series AS34001            |
|                       | MIL-DTL-26482 Series II           |
|                       | AS81703 Series III                |
|                       | MIL-DTL-83723 Series I & III      |
|                       | 40M39569, DEF 5326-3, EN 2997     |
|                       | EN 3646, ESC 10, ESC 11, LN 29504 |
|                       | NFC93422 Series HE302             |
|                       | PAN 6432-1, PAN 6432-2, PATT 602  |



STYLE 2



Basic Part Number      Dash Number (Table II)

**M85049/24 - 21 N**

**Finish / Material**  
*B = Black Cadmium / Stainless Steel*  
*N = Electroless Nickel / Aluminum*  
*S = Passivated / Stainless Steel*  
*W = 1,000 Hr. Cadmium Olive Drab over Electroless Nickel / Aluminum*  
*X = Aluminum, Nickel Fluorocarbon Polymer*  
*Z = Aluminum, Zinc-Nickel, Black*  
*XS = Stainless Steel, Nickel Fluorocarbon Polymer*  
*ZS = Stainless Steel, Zinc-Nickel, Black*

**Superseded Part Number**

**MS3188C 21 N**

|                |          |
|----------------|----------|
| Basic Part No. | Dash No. |
|----------------|----------|

**Finish**  
(Material is Aluminum Only)

**A** = Cadmium Olive Drab over Nickel  
**C** = Cadmium Olive Drab  
**N** = Electroless Nickel

| TABLE II: Dash Number, Cable Range and Dimensions |            |              |              |              |              |             |              |                |
|---|------------|--------------|--------------|--------------|--------------|-------------|--------------|----------------|
| Dash No.  | Shell Size | H Max        | J Max        | K Ref.       | L Max        | Cable Range |              | M85049/42 Ref. |
|   |            |              |              |              |              | Min         | Max          |                |
| 1   | 03         | .698 (17.7)  | 1.862 (47.3) | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)  | .250 (6.4)   | 04             |
| 2   | 03         | 1.448 (36.8) | 1.382 (35.1) | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)  | .437 (11.1)  | 04             |
| 3   | 08         | .603 (15.3)  | 1.262 (32.1) | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)  | .250 (6.4)   | 04             |
| 4   | 10         | .698 (17.7)  | 1.982 (50.3) | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)  | .312 (7.9)   | 04             |
| 5   | 10         | .698 (17.7)  | 1.382 (35.1) | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)  | .375 (9.5)   | 06             |
| 6   | 12         | .703 (17.9)  | 2.002 (50.9) | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)  | .312 (7.9)   | 04             |
| 7   | 12         | .703 (17.9)  | 2.002 (50.9) | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)  | .437 (11.1)  | 06             |
| 8   | 12         | .703 (17.9)  | 1.397 (35.5) | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)  | .500 (12.7)  | 10             |
| 9   | 14         | .803 (20.4)  | 2.072 (52.6) | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)  | .437 (11.1)  | 06             |
| 10  | 14         | .803 (20.4)  | 1.717 (43.6) | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)  | .575 (14.6)  | 10             |
| 11  | 16         | .988 (25.1)  | 2.162 (54.9) | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)  | .437 (11.1)  | 06             |
| 12  | 16         | .988 (25.1)  | 1.807 (45.9) | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7) | .700 (17.8)  | 12             |
| 13  | 18         | 1.078 (27.4) | 2.332 (59.2) | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)  | .625 (15.9)  | 10             |
| 14  | 18         | 1.078 (27.4) | 1.982 (50.3) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9) | .779 (19.8)  | 16             |
| 15  | 20         | 1.078 (27.4) | 2.332 (59.2) | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)  | .625 (15.9)  | 10             |
| 16  | 20         | 1.079 (27.4) | 1.982 (50.3) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9) | .904 (23.0)  | 16             |
| 17  | 22         | 1.228 (31.2) | 2.442 (62.0) | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7) | .750 (19.1)  | 12             |
| 18  | 22         | 1.228 (31.2) | 2.087 (53.0) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2) | 1.029 (26.1) | 20             |
| 19  | 24         | 1.228 (31.2) | 2.442 (62.0) | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7) | .750 (19.1)  | 12             |
| 20  | 24         | 1.228 (31.2) | 2.087 (53.0) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2) | 1.144 (29.1) | 20             |
| 21  | 28         | 1.328 (33.7) | 2.612 (66.3) | 1.156 (33.7) | 1.770 (45.0) | .625 (15.9) | .937 (23.8)  | 16             |

Continued on Page B-46 • Refer to the Mil-Spec for Complete Dimensions

Dimensions in inches (millimeters) and are subject to change without notice.

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## AS85049/24 and MS3188C 90° EMI/RFI Non-Environmental Backshell

**TABLE II: Continued from Page B-45 • Refer to the Mil-DSpec for Complete Dimensions**

| Dash No. | Shell Size | H Max        | K Max        | K Ref.       | L Max        | Cable Range  |              | M85049/42 Ref. |
|----------|------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|
|          |            |              |              |              |              | Min          | Max          |                |
| 22       | 28         | 1.328 (33.7) | 2.257 (57.3) | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 23       | 32         | 1.678 (42.6) | 2.862 (72.7) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 24       | 32         | 1.678 (42.6) | 2.862 (72.7) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 25       | 32         | 1.678 (42.6) | 2.507 (63.7) | 1.781 (45.2) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 26       | 36         | 1.878 (47.7) | 2.832 (71.9) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 27       | 36         | 1.878 (47.7) | 2.832 (71.9) | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 28       | 36         | 1.878 (47.7) | 2.477 (62.9) | 1.830 (46.5) | 3.020 (76.7) | 1.437 (36.5) | 1.840 (46.7) | 32             |
| 29       | 40         | 2.628 (66.8) | 2.832 (71.9) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 30       | 40         | 2.628 (66.8) | 2.832 (71.9) | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 31       | 40         | 2.628 (66.8) | 2.477 (62.9) | 1.830 (46.5) | 3.020 (76.7) | 1.437 (36.5) | 1.875 (47.6) | 32             |
| 32       | 44         | 2.628 (66.8) | 2.832 (71.9) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 33       | 44         | 2.628 (66.8) | 2.832 (71.9) | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 34       | 44         | 2.628 (66.8) | 2.477 (62.9) | 1.830 (46.5) | 3.020 (76.7) | 1.437 (36.5) | 1.875 (47.6) | 32             |
| 35       | 48         | 2.628 (66.8) | 2.832 (71.9) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 36       | 48         | 2.628 (66.8) | 2.832 (71.9) | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 37       | 48         | 2.628 (66.8) | 2.477 (62.9) | 1.830 (46.5) | 3.020 (76.7) | 1.437 (36.5) | 1.875 (47.6) | 32             |
| 38       | 61         | 1.228 (31.2) | 2.442 (62.0) | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 39       | 61         | 1.228 (31.2) | 2.087 (53.0) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.184 (30.1) | 20             |
| 40       | 16         | .988 (25.1)  | 2.162 (54.9) | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)   | .625 (15.9)  | 10             |
| 41       | 18         | 1.078 (27.4) | 2.332 (59.2) | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)   | .312 (7.9)   | 04             |
| 42       | 18         | 1.078 (27.4) | 2.332 (59.2) | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)   | .437 (11.1)  | 06             |
| 43       | 20         | 1.078 (27.4) | 2.332 (59.2) | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)   | .437 (11.1)  | 06             |
| 44       | 22         | 1.228 (31.2) | 2.442 (62.0) | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)   | .312 (7.9)   | 04             |
| 45       | 22         | 1.228 (31.2) | 2.442 (62.0) | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)   | .437 (11.1)  | 06             |
| 46       | 24         | 1.228 (31.2) | 2.442 (62.0) | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)   | .625 (15.9)  | 10             |
| 47       | 36         | 1.878 (47.7) | 2.832 (71.9) | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 48       | 40         | 1.878 (47.7) | 2.832 (71.9) | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 49*      | 10         | 1.453 (36.9) | 2.002 (50.9) | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)   | .437 (11.1)  | 06             |
| 50*      | 14         | 1.828 (46.4) | 2.334 (59.3) | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 51*      | 16         | 1.978 (50.2) | 2.442 (62.0) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 52       | 18         | 1.078 (27.4) | 2.332 (59.2) | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 53       | 61         | 1.228 (31.2) | 2.087 (53.0) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 54       | 20         | 1.078 (27.4) | 2.332 (59.2) | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 55*      | 20         | 2.078 (52.8) | 2.612 (66.3) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 56       | 22         | 1.228 (31.2) | 2.442 (62.0) | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)   | .625 (15.9)  | 10             |
| 57       | 22         | 1.228 (31.2) | 2.442 (62.0) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 58*      | 22         | 2.078 (52.8) | 2.612 (66.3) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 59       | 24         | 1.228 (31.2) | 2.442 (62.0) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 60       | 28         | 1.328 (33.7) | 2.612 (66.3) | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 61       | 28         | 1.328 (33.7) | 2.612 (66.3) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 62       | 32         | 1.678 (42.6) | 2.862 (72.7) | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 63       | 36         | 1.878 (47.7) | 2.832 (71.9) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 64       | 36         | 1.878 (47.7) | 2.832 (71.9) | 1.781 (45.2) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 65       | 40         | 2.628 (66.8) | 2.832 (71.9) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 66       | 40         | 2.628 (66.8) | 2.832 (71.9) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 28             |
| 67       | 44         | 2.628 (66.8) | 2.832 (71.9) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 68       | 44         | 2.628 (66.8) | 2.832 (71.9) | 1.781 (45.2) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 69       | 48         | 2.628 (66.8) | 2.832 (71.9) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 70       | 48         | 2.628 (66.8) | 2.832 (71.9) | 1.781 (45.2) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 71*      | 12         | 1.748 (44.4) | 2.162 (54.9) | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)   | .625 (15.9)  | 10             |
| 72*      | 18         | 1.988 (50.5) | 2.442 (62.0) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 73*      | 24         | 2.088 (53.0) | 2.612 (66.3) | 1.375 (34.9) | 2.116 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 74       | 14         | .803 (20.4)  | 2.072 (52.6) | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)   | .312 (7.9)   | 04             |
| 75       | 16         | .988 (25.1)  | 2.162 (54.9) | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)   | .312 (7.9)   | 04             |

Dimensions in inches (millimeters) and are subject to change without notice.

# AS85049/25 and MS3437C Straight EMI/RFI Non-Environmental Backshell



AS85049

B

### CONNECTOR DESIGNATOR:

|          |   |
|----------|---|
| <b>A</b> | AS50151 Series AS34001                                    |
|          | MIL-DTL-26482 Series II                                   |
|          | AS81703 Series III  |
|          | MIL-DTL-83723 Series I & III                              |
|          | 40M39569, DEF 5326-3, EN 2997                             |
|          | EN 3646, ESC 10, ESC 11, LN 29504                         |
|          | NFC93422 Series HE302<br>PAN 6432-1, PAN 6432-2, PATT 602 |

Basic Part Number

Dash Number (Table II)

**M85049/25 - 21 N**

Superseded Part Number

**MS3188C 21 N**

Basic Part No.

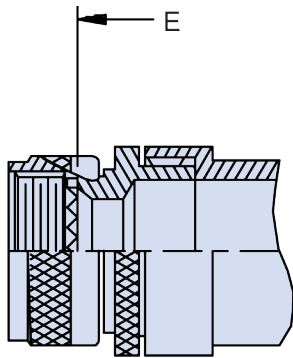
Dash No.

### Finish (Material is Aluminum Only)

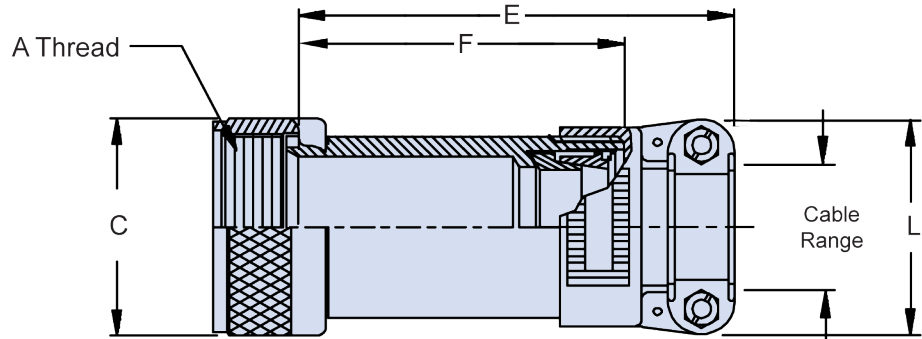
- A = Cadmium Olive Drab over Nickel
- C = Cadmium Olive Drab
- N = Electroless Nickel

### Finish / Material

- B** = Black Cadmium / Stainless Steel
- N** = Electroless Nickel / Aluminum
- S** = Passivated / Stainless Steel
- W** = 1,000 Hr. Cadmium Olive Drab over Electroless Nickel / Aluminum
- X** = Aluminum, Nickel Fluorocarbon Polymer
- Z** = Aluminum, Zinc-Nickel, Black
- XS** = Stainless Steel, Nickel Fluorocarbon Polymer
- ZS** = Stainless Steel, Zinc-Nickel, Black



STYLE 2



STYLE 1

### APPLICATION NOTES

1. For complete dimensions see the applicable Military Specification.
2. When maximum cable entry is exceeded, Style 2 will be supplied.
3. Metric dimensions (mm) are in parentheses.
4. Cable Range is defined as the accommodation range for the wire bundle or cable. Dimensions shown are not intended for inspection criteria.

Dimensions in inches (millimeters) and are subject to change without notice.



# AS85049/25 and MS3437C

## Straight EMI/RFI Non-Environmental Backshell

TABLE I: Shell Size

| Dash No. | A Thread Class 2B | C Dia Ref   |
|----------|-------------------|-------------|
| 03       | .562 - 24 UNEF    | .77 (19.6)  |
| 08       | .500 - 20 UNF     | .65 (16.5)  |
| 10       | .625 - 24 UNEF    | .77 (19.6)  |
| 12       | .750 - 20 UNEF    | .40 (10.2)  |
| 14       | .875 - 20 UNEF    | 1.02 (25.9) |
| 16       | 1.000 - 20 UNEF   | 1.21 (30.7) |
| 18       | 1.062 - 18 UNEF   | 1.23 (31.2) |
| 20       | 1.188 - 18 UNEF   | 1.36 (34.5) |
| 22       | 1.313 - 18 UNEF   | 1.48 (37.6) |
| 24       | 1.438 - 18 UNEF   | 1.73 (43.9) |
| 28       | 1.750 - 18 UNS    | 1.97 (50.0) |
| 32       | 2.000 - 18 UNS    | 2.22 (56.4) |
| 36       | 2.250 - 16 UN     | 2.47 (62.7) |
| 40       | 2.500 - 16 UN     | 2.72 (69.1) |
| 44       | 2.750 - 16 UN     | 2.97 (75.4) |
| 48       | 3.000 - 16 UN     | 3.22 (81.8) |
| 61       | 1.500 - 18 UNEF   | 1.67 (42.4) |

Refer to the  
Mil-Spec  
for  
Complete  
Dimensions

TABLE II: Dash Number, Dimensions and Cable Range

| Dash No. | Shell Size | Style | E Max         | F Ref.       | L Max        | Cable Range |              | M85049/42 Ref. |
|----------|------------|-------|---------------|--------------|--------------|-------------|--------------|----------------|
|          |            |       |               |              |              | Min         | Max          |                |
| 01       | 03         | 1     | 2.062 (52.4)  | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)  | .250 (6.4)   | 4              |
| 02       | 03         | 1     | 3.063 (77.8)  | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)  | .250 (6.4)   | 4              |
| 03       | 03         | 2     | 2.812 (71.4)  | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)  | .437 (11.1)  | 6              |
| 04       | 03         | 2     | 3.812 (96.8)  | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)  | .437 (11.1)  | 6              |
| 05       | 08         | 1     | 2.062 (52.4)  | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)  | .250 (6.4)   | 4              |
| 06       | 08         | 1     | 3.062 (77.8)  | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)  | .250 (6.4)   | 4              |
| 07       | 08         | 2     | 2.812 (71.4)  | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)  | .437 (11.1)  | 6              |
| 08       | 08         | 2     | 3.812 (96.8)  | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)  | .437 (11.1)  | 6              |
| 09       | 10         | 1     | 2.062 (52.4)  | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)  | .312 (7.9)   | 4              |
| 10       | 10         | 1     | 3.062 (77.8)  | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)  | .312 (7.9)   | 4              |
| 11       | 10         | 2     | 2.812 (71.4)  | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)  | .437 (11.1)  | 6              |
| 12       | 10         | 2     | 3.812 (96.8)  | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)  | .437 (11.1)  | 6              |
| 13       | 12         | 1     | 2.062 (52.4)  | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)  | .437 (11.1)  | 6              |
| 14       | 12         | 1     | 3.062 (77.8)  | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)  | .437 (11.1)  | 6              |
| 15       | 12         | 2     | 2.812 (71.4)  | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)  | .625 (15.9)  | 10             |
| 16       | 12         | 2     | 3.812 (96.8)  | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)  | .625 (15.9)  | 10             |
| 17       | 14         | 1     | 2.062 (52.4)  | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)  | .575 (14.6)  | 10             |
| 18       | 14         | 1     | 3.062 (77.8)  | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)  | .575 (14.6)  | 10             |
| 19       | 14         | 2     | 2.812 (71.4)  | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7) | .750 (19.1)  | 12             |
| 20       | 14         | 2     | 3.812 (96.8)  | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7) | .750 (19.1)  | 12             |
| 21       | 16         | 1     | 2.062 (52.4)  | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7) | .700 (17.8)  | 12             |
| 22       | 16         | 1     | 3.062 (77.8)  | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7) | .700 (17.8)  | 12             |
| 23       | 16         | 2     | 2.812 (71.4)  | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9) | .937 (23.8)  | 16             |
| 24       | 16         | 2     | 3.812 (96.8)  | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9) | .937 (23.8)  | 16             |
| 25       | 18         | 1     | 2.062 (52.4)  | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)  | .625 (15.9)  | 10             |
| 26       | 18         | 1     | 3.062 (77.8)  | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)  | .625 (15.9)  | 10             |
| 27       | 18         | 1     | 2.062 (52.4)  | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7) | .750 (19.1)  | 12             |
| 28       | 18         | 1     | 3.062 (77.8)  | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7) | .750 (19.1)  | 12             |
| 29       | 18         | 2     | 2.812 (71.4)  | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9) | .937 (23.8)  | 16             |
| 30       | 18         | 2     | 3.812 (96.8)  | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9) | .937 (23.8)  | 16             |
| 31       | 20         | 1     | 3.062 (77.8)  | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)  | .625 (15.9)  | 10             |
| 32       | 20         | 1     | 4.062 (103.2) | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)  | .625 (15.9)  | 10             |
| 33       | 20         | 1     | 3.062 (77.8)  | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7) | .750 (19.1)  | 12             |
| 34       | 20         | 1     | 4.062 (103.2) | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7) | .750 (19.1)  | 12             |
| 35       | 20         | 2     | 3.812 (96.8)  | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9) | .937 (23.8)  | 16             |
| 36       | 20         | 2     | 4.812 (122.2) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9) | .937 (23.8)  | 16             |
| 37       | 20         | 2     | 3.812 (96.8)  | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2) | 1.250 (31.8) | 20             |
| 38       | 20         | 2     | 4.812 (122.2) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2) | 1.250 (31.8) | 20             |
| 39       | 22         | 1     | 3.062 (77.8)  | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)  | .625 (15.9)  | 10             |
| 40       | 22         | 1     | 4.062 (103.2) | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)  | .625 (15.9)  | 10             |
| 41       | 22         | 1     | 3.062 (77.8)  | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7) | .750 (19.1)  | 12             |
| 42       | 22         | 1     | 4.062 (103.2) | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7) | .750 (19.1)  | 12             |
| 43       | 22         | 1     | 3.062 (77.8)  | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9) | .937 (23.8)  | 16             |
| 44       | 22         | 1     | 4.062 (103.2) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9) | .937 (23.8)  | 16             |
| 45       | 22         | 2     | 3.812 (96.8)  | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2) | 1.250 (31.8) | 20             |
| 46       | 22         | 2     | 4.812 (122.2) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2) | 1.250 (31.8) | 20             |
| 47       | 24         | 1     | 3.062 (77.8)  | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7) | .750 (19.1)  | 12             |
| 48       | 24         | 1     | 4.062 (103.2) | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7) | .750 (19.1)  | 12             |
| 49       | 24         | 1     | 3.062 (77.8)  | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9) | .812 (20.6)  | 16             |
| 50       | 24         | 1     | 4.062 (103.2) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9) | .812 (20.6)  | 16             |
| 51       | 24         | 1     | 3.062 (77.8)  | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9) | .937 (23.8)  | 16             |
| 52       | 24         | 1     | 4.062 (103.2) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9) | .937 (23.8)  | 16             |

Continued on Page B-49

Dimensions in inches (millimeters) and are subject to change without notice.

# AS85049/25 and MS3437C Straight EMI/RFI Non-Environmental Backshell



AS85049

B

**TABLE II: Continued from Page B-48**

| Dash No. | Shell Size | Style | E Max         | F Ref.       | L Max        | Cable Range  |              | M85049/42 Ref. |
|----------|------------|-------|---------------|--------------|--------------|--------------|--------------|----------------|
|          |            |       |               |              |              | Min          | Max          |                |
| 53       | 24         | 2     | 3.812 (96.8)  | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 54       | 24         | 2     | 4.812 (122.2) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 55       | 28         | 1     | 3.062 (77.8)  | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 56       | 28         | 1     | 4.062 (103.2) | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 57       | 28         | 1     | 3.062 (77.8)  | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 58       | 28         | 1     | 4.062 (103.2) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 59       | 28         | 1     | 3.062 (77.8)  | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 60       | 28         | 1     | 4.062 (103.2) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 61       | 28         | 1     | 3.062 (77.8)  | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 62       | 28         | 1     | 4.062 (103.2) | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 63       | 32         | 1     | 3.062 (77.8)  | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 64       | 32         | 1     | 4.062 (103.2) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 65       | 32         | 1     | 3.062 (77.8)  | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 66       | 32         | 1     | 4.062 (103.2) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 67       | 32         | 1     | 3.062 (77.8)  | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 68       | 32         | 1     | 4.062 (103.2) | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 69       | 32         | 1     | 3.062 (77.8)  | 1.781 (45.2) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 70       | 32         | 1     | 4.062 (103.2) | 1.781 (45.2) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 71       | 36         | 1     | 4.062 (103.2) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 72       | 36         | 1     | 5.062 (128.6) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 73       | 36         | 1     | 4.062 (103.2) | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 74       | 36         | 1     | 5.062 (128.6) | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 75       | 36         | 1     | 4.062 (103.2) | 1.781 (45.2) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 76       | 36         | 1     | 5.062 (128.6) | 1.781 (45.2) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 77       | 36         | 2     | 4.942 (125.5) | 1.830 (46.5) | 3.020 (76.7) | 1.437 (36.5) | 1.875 (47.6) | 32             |
| 78       | 36         | 2     | 5.942 (150.9) | 1.830 (46.5) | 3.020 (76.7) | 1.437 (36.5) | 1.875 (47.6) | 32             |
| 79       | 40         | 1     | 4.062 (103.2) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 80       | 40         | 1     | 5.062 (128.6) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 81       | 40         | 1     | 4.062 (103.2) | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 82       | 40         | 1     | 5.062 (128.6) | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 83       | 40         | 1     | 4.062 (103.2) | 1.781 (45.2) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 84       | 40         | 1     | 5.062 (128.6) | 1.781 (45.2) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 85       | 40         | 1     | 4.062 (103.2) | 1.830 (46.5) | 3.020 (76.7) | 1.437 (36.5) | 1.875 (47.6) | 32             |
| 86       | 40         | 1     | 5.062 (128.6) | 1.830 (46.5) | 3.020 (76.7) | 1.437 (36.5) | 1.875 (47.6) | 32             |
| 87       | 44         | 1     | 4.062 (103.2) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 88       | 44         | 1     | 5.062 (128.6) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 89       | 44         | 1     | 4.062 (103.2) | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 90       | 44         | 1     | 5.062 (128.6) | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 91       | 44         | 1     | 4.062 (103.2) | 1.781 (45.2) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 92       | 44         | 1     | 5.062 (128.6) | 1.781 (45.2) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 93       | 44         | 1     | 4.062 (103.2) | 1.830 (46.5) | 3.020 (76.7) | 1.437 (36.5) | 1.875 (47.6) | 32             |
| 94       | 44         | 1     | 5.062 (128.6) | 1.830 (46.5) | 3.020 (76.7) | 1.437 (36.5) | 1.875 (47.6) | 32             |
| 95       | 48         | 1     | 4.062 (103.2) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 96       | 48         | 1     | 5.062 (128.6) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 97       | 48         | 1     | 4.062 (103.2) | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 98       | 48         | 1     | 5.062 (128.6) | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 99       | 48         | 1     | 4.062 (103.2) | 1.781 (45.2) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 100      | 48         | 1     | 5.062 (128.6) | 1.781 (45.2) | 2.770 (70.4) | 1.250 (31.8) | 1.625 (41.3) | 28             |
| 101      | 48         | 1     | 4.062 (103.2) | 1.830 (46.5) | 3.020 (76.7) | 1.437 (36.5) | 1.875 (47.6) | 32             |
| 102      | 48         | 1     | 5.062 (128.6) | 1.830 (46.5) | 3.020 (76.7) | 1.437 (36.5) | 1.875 (47.6) | 32             |
| 103      | 61         | 1     | 3.062 (77.8)  | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 104      | 61         | 1     | 4.062 (103.2) | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |

Continued on Page B-50

Dimensions in inches (millimeters) and are subject to change without notice.





## AS85049/25 and MS3437C Straight EMI/RFI Non-Environmental Backshell

TABLE II: Continued from Page B-49

| Dash No. | Shell Size | Style | E Max         | F Ref.       | L Max        | Cable Range  |              | M85049/42 Ref. |
|----------|------------|-------|---------------|--------------|--------------|--------------|--------------|----------------|
|          |            |       |               |              |              | Min          | Max          |                |
| 105      | 61         | 1     | 3.062 (77.8)  | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 106      | 61         | 1     | 4.062 (103.2) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 107      | 61         | 2     | 3.812 (96.8)  | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 108      | 61         | 2     | 4.812 (122.2) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.250 (31.8) | 20             |
| 109      | 61         | 2     | 3.812 (96.8)  | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 110      | 61         | 2     | 4.812 (122.2) | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4) | 1.375 (34.9) | 24             |
| 111      | 12         | 1     | 2.062 (52.4)  | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)   | .500 (12.7)  | 10             |
| 112      | 16         | 1     | 2.062 (52.4)  | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)   | .437 (11.1)  | 06             |
| 113      | 16         | 1     | 3.062 (77.8)  | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)   | .437 (11.1)  | 06             |
| 114      | 12         | 1     | 2.062 (52.4)  | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)   | .312 (7.9)   | 04             |
| 115      | 12         | 1     | 3.062 (77.8)  | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)   | .312 (7.9)   | 04             |
| 116      | 14         | 1     | 2.062 (52.4)  | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)   | .437 (11.1)  | 06             |
| 117      | 14         | 1     | 3.062 (77.8)  | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)   | .437 (11.1)  | 06             |
| 118      | 16         | 1     | 2.062 (52.4)  | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)   | .625 (15.9)  | 10             |
| 119      | 16         | 1     | 3.062 (77.8)  | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)   | .625 (15.9)  | 10             |
| 120      | 18         | 1     | 2.062 (52.4)  | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)   | .312 (7.9)   | 04             |
| 121      | 18         | 1     | 3.062 (77.8)  | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)   | .312 (7.9)   | 04             |
| 122      | 18         | 1     | 2.062 (52.4)  | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)   | .437 (11.1)  | 06             |
| 123      | 18         | 1     | 3.062 (77.8)  | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)   | .437 (11.1)  | 06             |
| 124      | 20         | 1     | 3.062 (77.8)  | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)   | .437 (11.1)  | 06             |
| 125      | 20         | 1     | 4.062 (103.2) | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)   | .437 (11.1)  | 06             |
| 126      | 22         | 1     | 3.062 (77.8)  | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)   | .312 (7.9)   | 04             |
| 127      | 22         | 1     | 4.062 (103.2) | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)   | .312 (7.9)   | 04             |
| 128      | 22         | 1     | 3.062 (77.8)  | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)   | .437 (11.1)  | 06             |
| 129      | 22         | 1     | 4.062 (103.2) | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)   | .437 (11.1)  | 06             |
| 130      | 24         | 1     | 3.062 (77.8)  | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)   | .625 (15.9)  | 10             |
| 131      | 24         | 1     | 4.062 (103.2) | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)   | .625 (15.9)  | 10             |
| 132      | 36         | 1     | 4.062 (103.2) | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 133      | 36         | 1     | 5.062 (128.6) | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 134      | 40         | 1     | 4.062 (103.2) | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 135      | 40         | 1     | 5.062 (128.6) | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)  | .750 (19.1)  | 12             |
| 136      | 10         | 1     | 2.062 (52.4)  | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)   | .375 (9.5)   | 06             |
| 137      | 10         | 1     | 3.062 (77.8)  | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)   | .375 (9.5)   | 06             |
| 138      | 12         | 1     | 2.062 (52.4)  | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)   | .500 (12.7)  | 10             |
| 139      | 12         | 1     | 3.062 (77.8)  | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)   | .500 (12.7)  | 10             |
| 140      | 20         | 1     | 3.062 (77.8)  | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .904 (23.0)  | 16             |
| 141      | 20         | 1     | 4.062 (103.2) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .904 (23.0)  | 16             |
| 142      | 22         | 1     | 3.062 (77.8)  | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.029 (26.1) | 20             |
| 143      | 22         | 1     | 4.062 (103.2) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.029 (26.1) | 20             |
| 144      | 24         | 1     | 3.062 (77.8)  | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.144 (29.1) | 20             |
| 145      | 24         | 1     | 4.062 (103.2) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)  | 1.144 (29.1) | 20             |
| 146      | 36         | 1     | 4.062 (103.2) | 1.830 (46.5) | 3.020 (76.7) | 1.437 (36.5) | 1.840 (46.7) | 32             |
| 147      | 36         | 1     | 5.062 (128.6) | 1.830 (46.5) | 3.020 (76.7) | 1.437 (36.5) | 1.840 (46.7) | 32             |
| 148      | 36         | 1     | 4.062 (103.2) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 149      | 36         | 1     | 5.062 (128.6) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 150      | 14         | 1     | 2.062 (52.4)  | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)   | .312 (7.9)   | 04             |
| 151      | 14         | 1     | 3.062 (77.8)  | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)   | .312 (7.9)   | 04             |
| 152      | 16         | 1     | 2.062 (52.4)  | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)   | .312 (7.9)   | 04             |
| 153      | 16         | 1     | 3.062 (77.8)  | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)   | .312 (7.9)   | 04             |
| 154      | 44         | 1     | 4.062 (103.2) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 155      | 44         | 1     | 5.062 (128.6) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 156      | 40         | 1     | 4.062 (103.2) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |
| 157      | 40         | 1     | 5.062 (128.6) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)  | .937 (23.8)  | 16             |

Dimensions in inches (millimeters) and are subject to change without notice.

# AS85049/26-1 and MS3419 Straight Crimp Ring Backshell and Crimp Ring



AS85049

| CONNECTOR DESIGNATOR: |                              |
|-----------------------|------------------------------|
| <b>A</b>              | AS50151 Series AS34001       |
|                       | MIL-DTL-26482 Series II      |
|                       | AS81703 Series III           |
|                       | MIL-DTL-83723 Series I & III |

**Basic Part Number**  
**M85049/26-1** = Adapter Only  
**M85049/26-2** = Crimp Ring Only  
**M85049/26-3** = Adapter with Crimp Ring  
 (See Page B-52 for Crimp Ring)

**Shell Size**  
 (Table II)

**M85049/26-1 - 12 W**

**Superseded Part Number**

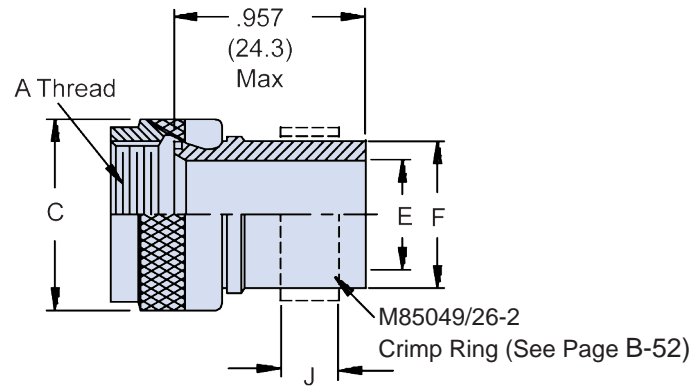
**MS3419-21 C**

|                |            |
|----------------|------------|
| Basic Part No. | Shell Size |
|----------------|------------|

**Finish**  
 (Material is Aluminum Only)  
**A** = Electroless Nickel  
**C** = 500 Hr. Cadmium Olive Drab over Electroless Nickel

**B**

**Finish**  
**N** = Electroless Nickel  
**W** = 1,000 Hr. Cadmium Olive Drab over Electroless Nickel  
**X** = Aluminum, Nickel Fluorocarbon Polymer  
**Z** = Aluminum, Zinc-Nickel, Black

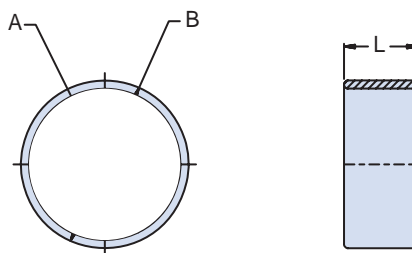
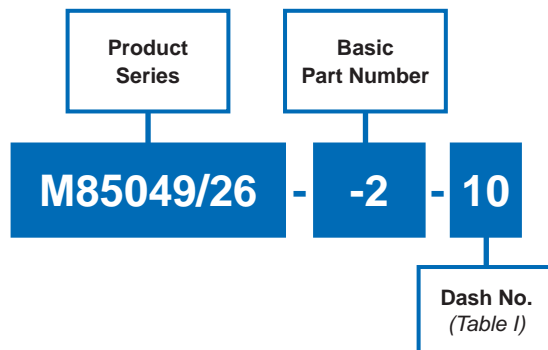


| TABLE I: Adapter Shell Size, Thread, and Dimensions |                   |              |              |              |
|---|-------------------|--------------|--------------|--------------|
| Shell Size  | A Thread Class 2B | C Dia Max    | E Dia        | F Dia        |
| 3   | .562 - 24 UNEF    | .670 (17.0)  | .250 (6.4)   | .337 (8.6)   |
| 8   | .500 - 20 UNF     | .620 (15.7)  | .250 (6.4)   | .337 (8.6)   |
| 10  | .625 - 24 UNEF    | .730 (18.5)  | .325 (8.3)   | .488 (12.4)  |
| 12  | .750 - 20 UNEF    | .860 (21.8)  | .420 (10.7)  | .500 (12.7)  |
| 14  | .875 - 20 UNEF    | .980 (24.9)  | .540 (13.7)  | .620 (15.7)  |
| 16  | 1.000 - 20 UNEF   | 1.110 (28.2) | .670 (17.0)  | .750 (19.1)  |
| 18  | 1.062 - 18 UNEF   | 1.220 (31.0) | .789 (20.0)  | .880 (22.4)  |
| 20  | 1.188 - 18 UNEF   | 1.350 (34.3) | .914 (23.2)  | 1.000 (25.4) |
| 22  | 1.313 - 18 UNEF   | 1.470 (37.3) | 1.039 (26.4) | 1.120 (28.4) |
| 24  | 1.438 - 18 UNEF   | 1.590 (40.4) | 1.112 (28.2) | 1.192 (30.3) |
| 28  | 1.750 - 18 UNS    | 1.970 (50.0) | 1.389 (35.3) | 1.545 (39.2) |
| 32  | 2.000 - 18 UNS    | 2.220 (56.4) | 1.635 (41.5) | 1.795 (45.6) |
| 36  | 2.250 - 16 UN     | 2.470 (62.7) | 1.850 (47.0) | 2.045 (51.9) |
| 40  | 2.500 - 16 UN     | 2.720 (69.1) | 2.065 (52.5) | 2.295 (58.3) |
| 44  | 2.750 - 16 UN     | 2.970 (75.4) | 2.320 (58.9) | 2.545 (64.6) |
| 48  | 3.000 - 16 UN     | 3.220 (81.8) | 2.570 (65.3) | 2.795 (71.0) |
| 61  | 1.500 - 18 UNEF   | 1.650 (41.9) | 1.210 (30.7) | 1.359 (34.5) |

- APPLICATION NOTES**
- For complete dimensions see the applicable Military Specification.
  - Metric dimensions (mm) are in parentheses.

See Page B-52 for AS85049/26-2 Crimp Ring

Dimensions in inches (millimeters) and are subject to change without notice.


**TABLE I: Shell Size, Thread, Cable Entry and Dimensions**

| Dash No. | Color Code | A Dia        |              | B Dia        |              | L Dim<br>±.020 (0.5) | For Use with<br>AS85049/26-1 | For Use with<br>AS85049/20 | For Use with<br>AS85049/33-2 | Installing<br>Die Cat. No.<br>(See Note 2) |
|----------|------------|--------------|--------------|--------------|--------------|----------------------|------------------------------|----------------------------|------------------------------|--|
|          |            | Min          | Max          | Min          | Max          |                      |                              |                            |                              |  |
| 8        | GREEN      | .400 (10.2)  | .410 (10.4)  | .448 (11.4)  | .458 (11.6)  | .250 (6.4)           | -3 & -8                      | -9                         | -8                           | GS405                                      |
| 10       | RED        | .585 (14.9)  | .595 (15.1)  | .660 (16.8)  | .680 (17.3)  | .440 (11.2)          | -10                          | -11                        | -10                          | GS590                                      |
| 12       | RED        | .585 (14.9)  | .595 (15.1)  | .660 (16.8)  | .680 (17.3)  | .440 (11.2)          | -12                          | -11                        | -10                          | GS590                                      |
| 14       | BLUE       | .705 (17.9)  | .715 (18.2)  | .780 (19.8)  | .800 (20.3)  | .440 (11.2)          | -14                          | -15                        | -14                          | GS710                                      |
| 16       | GREY       | .835 (21.2)  | .845 (21.5)  | .910 (23.1)  | .930 (23.6)  | .440 (11.2)          | -16                          | -17                        | -16                          | GS840                                      |
| 18       | BROWN      | 1.005 (25.5) | 1.015 (25.8) | 1.080 (27.4) | 1.100 (27.9) | .440 (11.2)          | -18                          | -19                        | -18                          | GS1010                                     |
| 20       | GREEN      | 1.125 (28.6) | 1.135 (28.8) | 1.200 (30.5) | 1.220 (31.0) | .440 (11.2)          | -20                          | -21                        | -20                          | GS1130                                     |
| 22       | PINK       | 1.245 (31.6) | 1.255 (31.9) | 1.320 (33.5) | 1.340 (34.0) | .440 (11.2)          | -22                          | -23                        | -22                          | GS1250                                     |
| 24       | ORANGE     | 1.327 (33.7) | 1.337 (34.0) | 1.402 (35.6) | 1.422 (36.1) | .440 (11.2)          | -24                          | -25                        | -24                          | GS1332                                     |
| 28       | RED        | 1.665 (42.3) | 1.675 (42.5) | 1.740 (44.2) | 1.760 (44.7) | .440 (11.2)          | -28                          |                            |                              | GS1670                                     |
| 32       | GREY       | 1.915 (48.6) | 1.925 (48.9) | 1.990 (50.5) | 2.010 (51.4) | .440 (11.2)          | -32                          |                            |                              | GS1920                                     |
| 36       | GREEN      | 2.165 (55.0) | 2.175 (55.2) | 2.240 (56.9) | 2.260 (57.4) | .440 (11.2)          | -36                          |                            |                              | GS2170                                     |
| 40       | ORANGE     | 2.415 (61.3) | 2.425 (61.6) | 2.490 (63.2) | 2.510 (63.8) | .440 (11.2)          | -40                          |                            |                              | GS2420                                     |
| 44       | YELLOW     | 2.665 (67.7) | 2.675 (67.9) | 2.740 (69.6) | 2.760 (70.1) | .440 (11.2)          | -44                          |                            |                              | GS2670                                     |
| 48       | BLUE       | 2.915 (74.0) | 2.925 (74.3) | 2.990 (75.9) | 3.010 (76.5) | .440 (11.2)          | -48                          |                            |                              | GS2920                                     |
| 61       | PURPLE     | 1.435 (36.4) | 1.445 (36.7) | 1.510 (38.4) | 1.530 (38.9) | .440 (11.2)          | -61                          |                            |                              | GS1440                                     |

### APPLICATION NOTES

1. Assembly identified with manufacturer's name and part number, space permitting.
2. Crimp tool shall be the Thomas and Betts Installing Head catalog number 13640 or equivalent (see Table I).
3. The installing dies (Thomas and Betts Cat. No.--See Table I) shall be used with the Thomas and Betts Installing head Catalog Number 13640 or an equivalent tool.
4. Material/Finish: Copper/Tin Plate.
5. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.

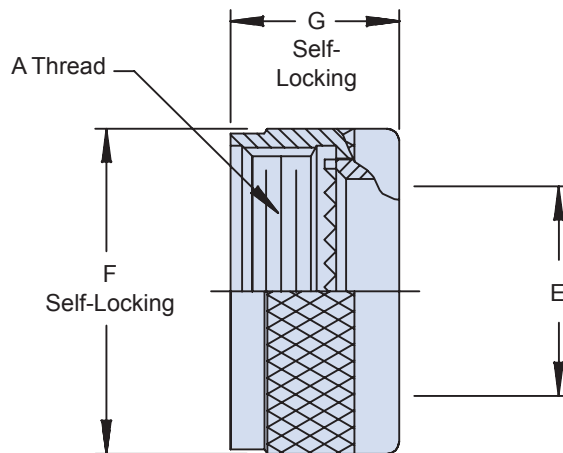
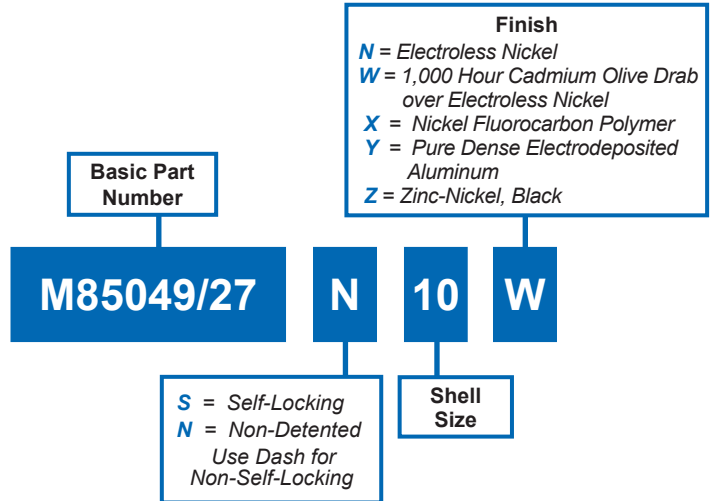
# AS85049/27 and M38999/1 Self-Locking and Non-Self-Locking E-Nut



AS85049

B

| CONNECTOR DESIGNATOR: |  |
|-----------------------|--|
| <b>F</b>              | MIL-DTL-27599, MIL-DTL-38999 Series I & II |



| Shell Size | A Thread Class 2B | Ø E Max      | Ø F Max      | G Max       |
|------------|-------------------|--------------|--------------|-------------|
| 08         | .438 - 28 UNEF    | .274 (7.0)   | .859 (21.8)  | .590 (15.0) |
| 10         | .562 - 24 UNEF    | .412 (10.5)  | .984 (25.0)  | .590 (15.0) |
| 12         | .688 - 24 UNEF    | .526 (13.4)  | 1.156 (29.4) | .590 (15.0) |
| 14         | .813 - 20 UNEF    | .651 (16.5)  | 1.281 (32.5) | .590 (15.0) |
| 16         | .938 - 20 UNEF    | .776 (19.7)  | 1.406 (35.7) | .590 (15.0) |
| 18         | 1.063 - 18 UNEF   | .882 (22.4)  | 1.516 (38.5) | .590 (15.0) |
| 20         | 1.188 - 18 UNEF   | 1.006 (25.6) | 1.641 (41.7) | .590 (15.0) |
| 22         | 1.313 - 18 UNEF   | 1.132 (28.8) | 1.766 (44.9) | .590 (15.0) |
| 24         | 1.438 - 18 UNEF   | 1.257 (31.9) | 1.891 (48.0) | .590 (15.0) |

- APPLICATION NOTES**
- For complete dimensions, see the applicable Military Specification.
  - Metric dimensions (mm) are indicated in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.

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Mil-Spec Backshells

U.S. CAGE Code 06324

Rev. 8.29.14

Printed in U.S.A.

Basic  
Part Number

Dash Number  
(Table II)

**M85049/28 - 1**

Superseded  
Part Number

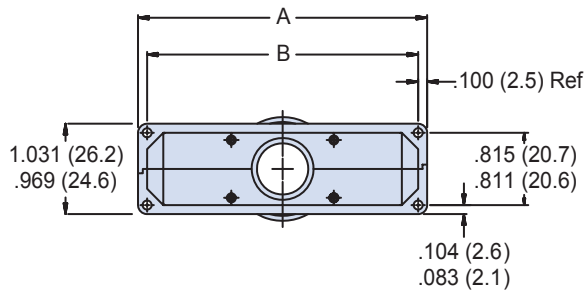
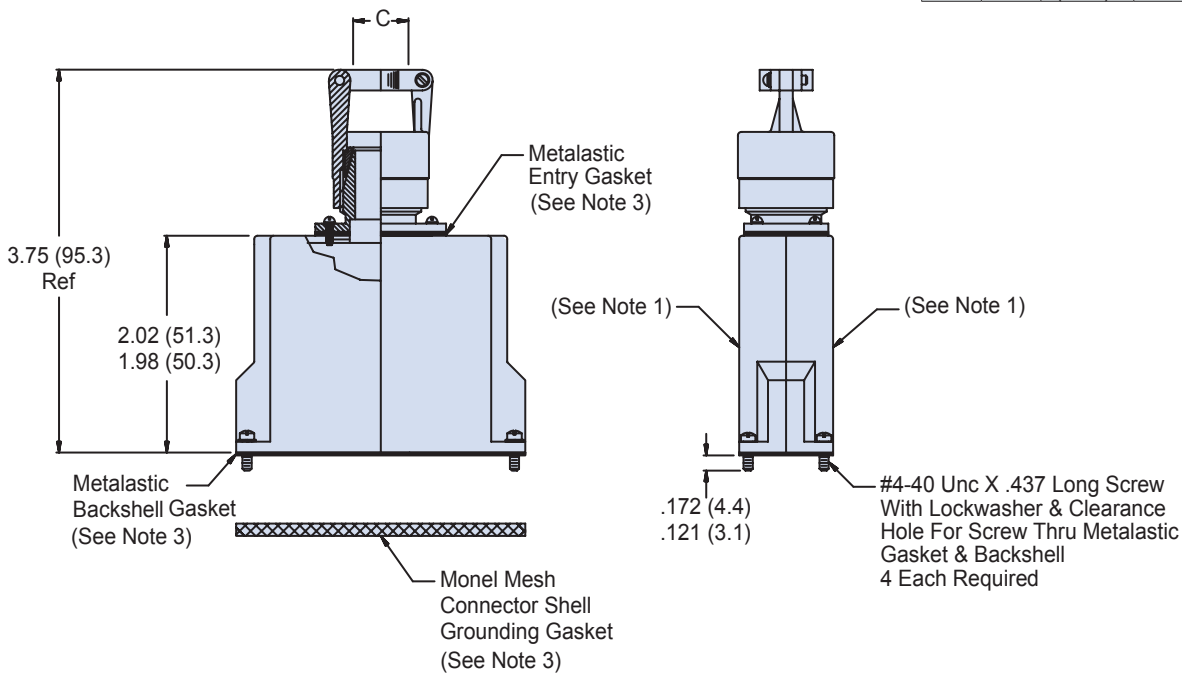
**M83733/15 1**

Basic  
Part No.

Dash No.  
(Table II)

**TABLE I:  
Shell Size and Dimensions**

| Dash No. | Shell Size | A Max Dim    | B Dim                        | C Cable Range (See Note 4) |
|----------|------------|--------------|------------------------------|----------------------------|
| 1        | A          | 2.126 (54.0) | 1.900 (48.3)<br>1.890 (48.0) | .625 (15.9)<br>.500 (12.7) |
| 2        | A          | 2.126 (54.0) | 1.900 (48.3)<br>1.890 (48.0) | .750 (19.1)<br>.625 (15.9) |
| 3        | B          | 3.426 (87.0) | 3.200 (81.3)<br>3.190 (81.0) | .625 (15.9)<br>.500 (12.7) |
| 4        | B          | 3.426 (87.0) | 3.200 (81.3)<br>3.190 (81.0) | .750 (19.1)<br>.625 (15.9) |



## APPLICATION NOTES

1. Assembly identified with manufacturer's name and part number, space permitting, location optional.
2. Glenair Series 600 Backshell Assembly Tools are recommended for assembly and installation.
3. Gasket may be ordered as a kit (Glenair G61659), shell size A or B.
4. Dash numbers 1 and 3 = Standard cable entry.  
Dash numbers 2 and 4 = Oversize cable entry.
5. Material/finish:  
Backshell, adapter, clamp, ferrule - Al alloy/Electroless nickel.  
Screws and washers -CRES/Passivate  
Backshell and entry gaskets = Metalastic/N.A.  
Interface gasket - Monel mesh/N.A.
6. Metric dimensions (mm) are indicated in parentheses

Dimensions in inches (millimeters) and are subject to change without notice.



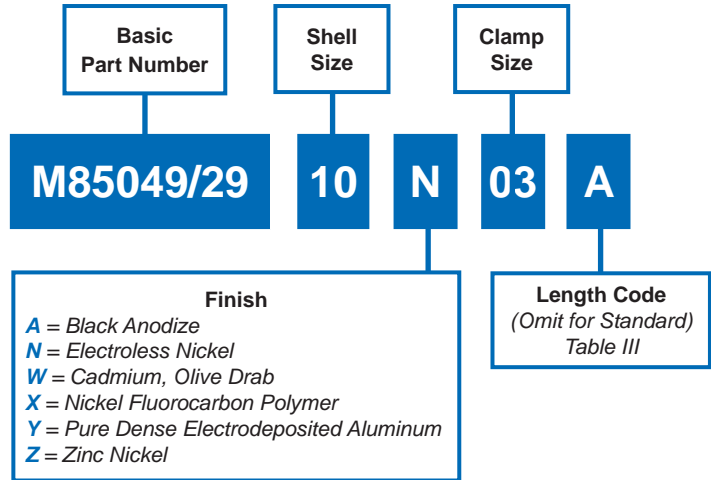
# AS85049/29 (M38999/6) Straight Non-Environmental Strain Relief Backshell



AS85049

B

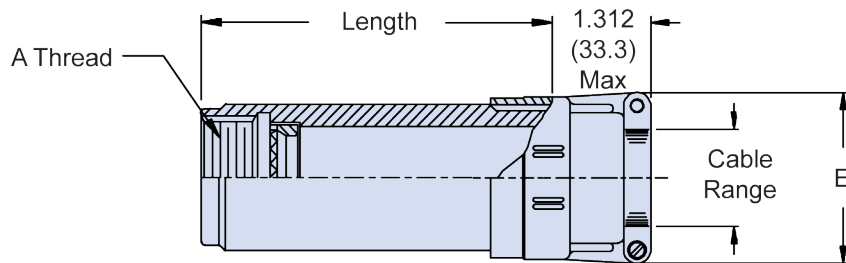
|                              |                               |
|------------------------------|-------------------------------|
| <b>CONNECTOR DESIGNATOR:</b> |                               |
| <b>F</b>                     | MIL-DTL-38999 Series I and II |



**TABLE III: Length Code**

| Code     | Length<br>± .032 (0.8) |
|----------|------------------------|
| Standard | 1.00 (25.4)            |
| A        | 2.00 (50.8)            |
| B        | 3.00 (76.2)            |
| C        | 4.00 (101.6)           |

| APPLICATION NOTES |  |
|-------------------|--|
| 1.                | For complete dimensions see the applicable Military Specification.   |
| 2.                | Metric dimensions (mm) are in parentheses.   |
| 3.                | Cable Range is defined as the accommodation range for the wire bundle or cable. Dimensions shown are not intended for inspection criteria. |



| Shell Size | Series I Ref. | Clamp Size* |     | A Thread Class 2B |
|------------|---------------|-------------|-----|-------------------|
|            |               | Min         | Max |                   |
| 08         | 09            | 01          | 02  | .438 - 28 UNEF    |
| 10         | 11            | 01          | 03  | .562 - 24 UNEF    |
| 12         | 13            | 02          | 04  | .688 - 24 UNEF    |
| 14         | 15            | 02          | 05  | .813 - 20 UNEF    |
| 16         | 17            | 02          | 06  | .938 - 20 UNEF    |
| 18         | 19            | 03          | 07  | 1.063 - 18 UNEF   |
| 20         | 21            | 03          | 08  | 1.188 - 18 UNEF   |
| 22         | 23            | 03          | 09  | 1.313 - 18 UNEF   |
| 24         | 25            | 04          | 10  | 1.438 - 18 UNEF   |

\*Clamp Size from Table II, AS85049/29 Specifications.

| Clamp Size | Cable Range  |              | E Max        |
|------------|--------------|--------------|--------------|
|            | Min          | Max          |              |
| 01         | .062 (1.6)   | .125 (3.2)   | .781 (19.8)  |
| 02         | .125 (3.2)   | .250 (6.4)   | .969 (24.6)  |
| 03         | .250 (6.4)   | .375 (9.5)   | 1.062 (27.0) |
| 04         | .312 (7.9)   | .500 (12.7)  | 1.156 (29.4) |
| 05         | .437 (11.1)  | .625 (15.9)  | 1.250 (31.8) |
| 06         | .562 (14.3)  | .750 (19.1)  | 1.375 (34.9) |
| 07         | .687 (17.4)  | .875 (22.2)  | 1.500 (38.1) |
| 08         | .812 (20.6)  | 1.000 (25.4) | 1.625 (41.3) |
| 09         | .937 (23.8)  | 1.125 (28.6) | 1.750 (44.5) |
| 10         | 1.062 (27.0) | 1.250 (31.8) | 1.875 (47.6) |

Dimensions in inches (millimeters) and are subject to change without notice.



# AS85049/30 and M38999/4 Straight TAG® Ring Backshell

## CONNECTOR DESIGNATOR:

**F** MIL-DTL-38999 Series I and II

Basic  
Part Number

Shell Size  
(Table II)

**M85049/30 - 10 W**

### Finish

**N** = Electroless Nickel  
**W** = 1,000 Hr. Cadmium Olive Drab over Electroless Nickel  
**X** = Aluminum, Nickel Fluorocarbon Polymer  
**Z** = Aluminum, Zinc-Nickel, Black

Superseded  
Part Number

**M38999/4 12 B**

Basic  
Part No.

Shell  
Size

### Finish (Material is Aluminum Only)

**B** = Cadmium Olive Drab over Nickel  
**F** = Electroless Nickel

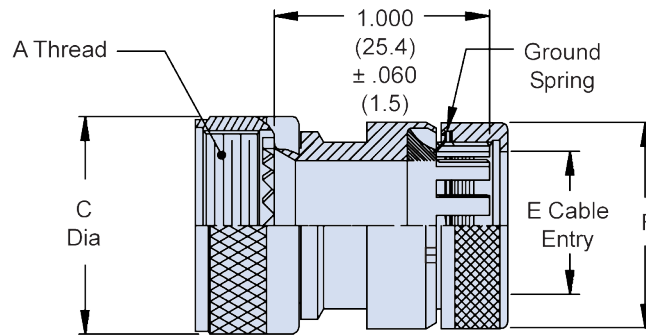


TABLE I: Clamp Size, Cable Range and Dimensions

| Shell Size | Shell Size Series I Ref | A Thread Class 2B | C Dia Max   | E Cable Entry Max | F Dia Max    |
|------------|-------------------------|-------------------|-------------|-------------------|--------------|
| 08         | 9                       | .438 - 28 UNEF    | .75 (19.1)  | .250 (6.4)        | .545 (13.8)  |
| 10         | 11                      | .562 - 24 UNEF    | .85 (21.6)  | .375 (9.5)        | .670 (17.0)  |
| 12         | 13                      | .688 - 24 UNEF    | 1.00 (25.4) | .500 (12.7)       | .795 (20.2)  |
| 14         | 15                      | .813 - 20 UNEF    | 1.10 (27.9) | .625 (15.9)       | .920 (23.4)  |
| 16         | 17                      | .938 - 20 UNEF    | 1.25 (31.8) | .750 (19.1)       | 1.045 (26.5) |
| 18         | 19                      | 1.063 - 18 UNEF   | 1.40 (35.6) | .844 (21.4)       | 1.170 (29.7) |
| 20         | 21                      | 1.188 - 18 UNEF   | 1.50 (38.1) | .970 (24.6)       | 1.295 (32.9) |
| 22         | 23                      | 1.313 - 18 UNEF   | 1.65 (41.9) | 1.094 (27.8)      | 1.420 (36.1) |
| 24         | 25                      | 1.438 - 18 UNEF   | 1.75 (44.5) | 1.219 (31.0)      | 1.670 (42.4) |

## APPLICATION NOTES

- For complete dimensions see the applicable Military Specification.
- Metric dimensions (mm) are in parentheses.
- Cable Entry is defined as the accommodation range for the wire bundle or cable. Dimensions shown are not intended for inspection criteria.

Dimensions in inches (millimeters) and are subject to change without notice.

# AS85049/31, MS3416 and MIL-DTL-85723/15N Self-Locking and Non-Self-Locking E-Nut



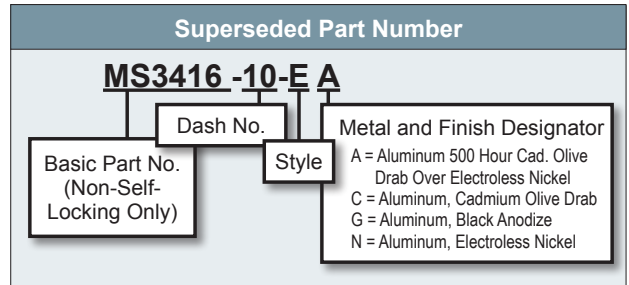
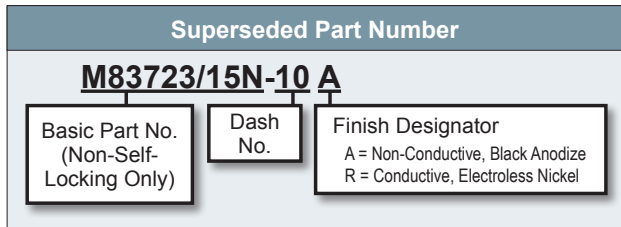
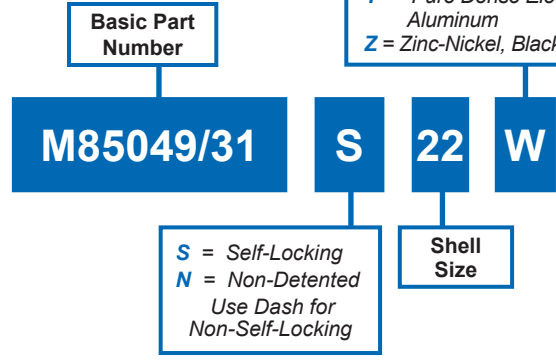
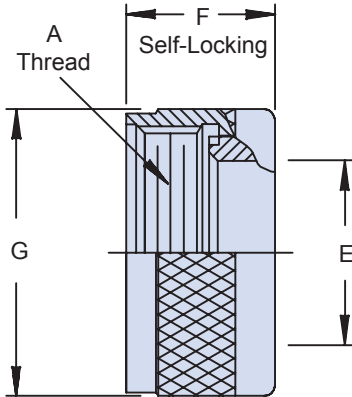
AS85049

B

### CONNECTOR DESIGNATOR:

**A** AS50151 Series AS34001 Crimp,  
MIL-DTL-26482 Series II,  
SAE AS81703 Crimp Series III,  
MIL-DTL-83723 Series I,  
MIL-DTL-83723 Series III

**Finish**  
**A** = Anodize, Black  
**N** = Electroless Nickel  
**W** = 1,000 Hour Cadmium Olive Drab over Electroless Nickel  
**X** = Nickel Fluorocarbon Polymer  
**Y** = Pure Dense Electrodeposited Aluminum  
**Z** = Zinc-Nickel, Black



**TABLE I: Shell Size, Thread and Dimensions**

| Shell Size | A Thread Class 2B | Ø E Max      | F Max       | Ø G Max      |
|------------|-------------------|--------------|-------------|--------------|
| 3          | .562 - 24 UNEF    | .270 (6.9)   | --          | --           |
| 8          | .500 - 20 UNF     | .270 (6.9)   | .710 (18.0) | .885 (22.5)  |
| 10         | .625 - 24 UNEF    | .375 (9.5)   | .710 (18.0) | 1.010 (25.7) |
| 12         | .750 - 20 UNEF    | .511 (13.0)  | .710 (18.0) | 1.135 (28.8) |
| 14         | .875 - 20 UNEF    | .585 (14.9)  | .710 (18.0) | 1.260 (32.0) |
| 16         | 1.000 - 20 UNEF   | .710 (18.0)  | .710 (18.0) | 1.385 (35.2) |
| 18         | 1.062 - 18 UNEF   | .789 (20.0)  | .710 (18.0) | 1.510 (38.4) |
| 20         | 1.188 - 18 UNEF   | .914 (23.2)  | .710 (18.0) | 1.635 (41.5) |
| 22         | 1.313 - 18 UNEF   | 1.039 (26.4) | .710 (18.0) | 1.760 (44.7) |
| 24         | 1.438 - 18 UNEF   | 1.154 (29.3) | .710 (18.0) | 1.885 (47.9) |
| 28         | 1.750 - 18 UNS    | 1.389 (35.3) | .890 (22.6) | 2.135 (54.2) |
| 32         | 2.000 - 18 UNS    | 1.635 (41.5) | .890 (22.6) | 2.395 (60.8) |
| 36         | 2.250 - 16 UN     | 1.850 (47.0) | .890 (22.6) | 2.635 (66.9) |
| 40         | 2.500 - 16 UN     | 2.065 (52.5) | .890 (22.6) | 2.885 (73.3) |
| 44         | 2.750 - 16 UN     | 2.320 (58.9) | .890 (22.6) | 3.135 (79.6) |
| 48         | 3.000 - 16 UN     | 2.570 (65.3) | .890 (22.6) | 3.385 (86.0) |
| 61         | 1.500 - 18 UNEF   | 1.194 (30.3) | --          | --           |

### APPLICATION NOTES

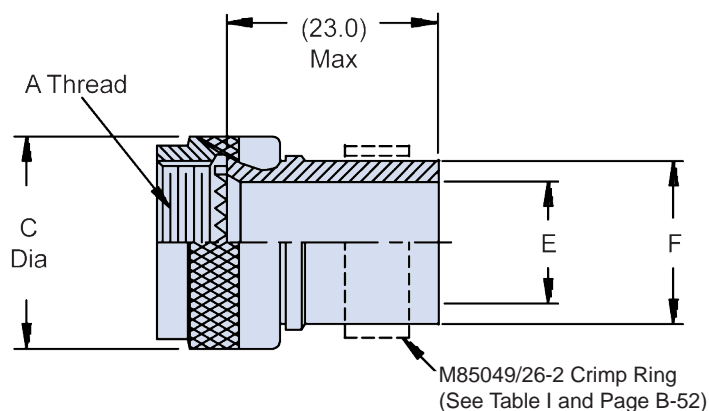
- For complete dimensions, see the applicable Military Specification.
- Metric dimensions (mm) are indicated in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.



# AS85049/33-2 Straight RFI/EMI Non-Environmental Backshell

**CONNECTOR DESIGNATOR:**
**F** MIL-DTL-38999 Series I and II

**Basic  
Part Number**
**Shell Size  
(Table I)**
**M85049/33-2**
**10**
**W**
**Finish**
*N = Electroless Nickel*
*W = 1,000 Hr. Cadmium Olive Drab over Electroless Nickel*
*X = Aluminum, Nickel Fluorocarbon Polymer*
*Z = Aluminum, Zinc-Nickel, Black*

**TABLE I: Adapter Shell Size, Thread, Dimensions and Crimp Ring Ref.**

| Shell Size | A Thread Class 2B | C Dia Max    | E Dia        | F Dia Max    | AS85049/26-2 Crimp Ring Ref |
|------------|-------------------|--------------|--------------|--------------|-----------------------------|
| 08         | .438 - 28 UNEF    | .750 (19.1)  | .250 (6.4)   | .347 (8.8)   | 8                           |
| 10         | .562 - 24 UNEF    | .850 (21.6)  | .325 (8.3)   | .498 (12.6)  | 10                          |
| 12         | .688 - 24 UNEF    | 1.000 (25.4) | .420 (10.7)  | .510 (13.0)  | 12                          |
| 14         | .813 - 20 UNEF    | 1.100 (27.9) | .540 (13.7)  | .630 (16.0)  | 14                          |
| 16         | .938 - 20 UNEF    | 1.250 (31.8) | .670 (17.0)  | .760 (19.3)  | 16                          |
| 18         | 1.063 - 18 UNEF   | 1.400 (35.6) | .789 (20.0)  | .890 (22.6)  | 18                          |
| 20         | 1.188 - 18 UNEF   | 1.500 (38.1) | .914 (23.2)  | 1.010 (25.7) | 20                          |
| 22         | 1.313 - 18 UNEF   | 1.650 (41.9) | 1.039 (26.4) | 1.130 (28.7) | 22                          |
| 24         | 1.438 - 18 UNEF   | 1.750 (44.5) | 1.112 (28.2) | 1.202 (30.5) | 24                          |

**APPLICATION NOTES**

- For complete dimensions see the applicable Military Specification.
- Metric dimensions (mm) are in parentheses.

**See Page B-52 for  
AS85049/26-2 Crimp Ring**

Dimensions in inches (millimeters) and are subject to change without notice.

**AS85049/34**  
**Straight Adapter and Extender**  
 for Use with MS3114 and MS3124 Connectors



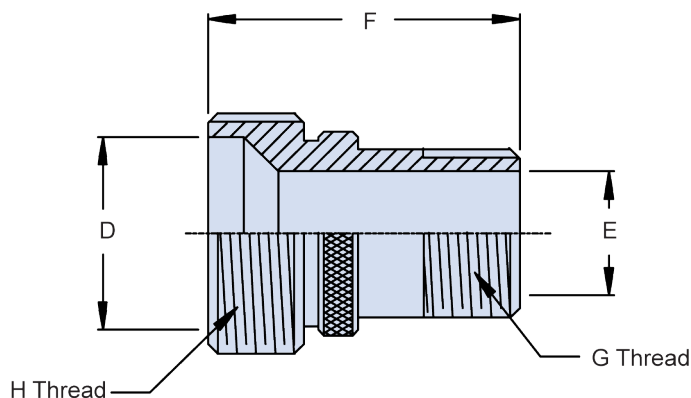
AS85049

| CONNECTOR DESIGNATOR: |                        |
|-----------------------|------------------------|
| <b>D</b>              | MIL-DTL-26482 Series I |

For Use With  
 MS3114 and MS3124  
 Connectors Only

|   |                         |
|---|-------------------------|
| Basic<br>Part Number  | Shell Size<br>(Table I) |
| <b>M85049/34</b>  | <b>- 12 W</b>           |
| <b>Finish</b><br><i>W = 1000 Hr. Cadmium Olive Drab</i><br><i>X = Nickel Fluorocarbon Polymer</i><br><i>Y = Pure Dense Electrodeposited Aluminum</i><br><i>Z = Zinc Nickel, Black</i> |                         |

**B**



| Shell Size | G Thread<br>UNEF Class 2A | H Thread<br>UNEF Class 2A | D Dia        | E Dia        | F Max       |
|------------|---------------------------|---------------------------|--------------|--------------|-------------|
| 8          | .4375 - 28                | .625 - 24                 | .500 (12.7)  | .327 (8.3)   | .812 (20.6) |
| 10         | .5625 - 24                | .750 - 20                 | .609 (15.5)  | .444 (11.3)  | .812 (20.6) |
| 12         | .6875 - 24                | .875 - 20                 | .734 (18.6)  | .569 (14.5)  | .812 (20.6) |
| 14         | .8125 - 20                | 1.000 - 20                | .859 (21.8)  | .673 (17.1)  | .812 (20.6) |
| 16         | .9375 - 20                | 1.125 - 18                | .969 (24.6)  | .798 (20.3)  | .812 (20.6) |
| 18         | 1.0625 - 18               | 1.250 - 18                | 1.109 (28.2) | .915 (23.2)  | .812 (20.6) |
| 20         | 1.1875 - 18               | 1.375 - 18                | 1.219 (31.0) | 1.030 (26.2) | .906 (23.0) |
| 22         | 1.3125 - 18               | 1.500 - 18                | 1.344 (34.1) | 1.155 (29.3) | .906 (23.0) |
| 24         | 1.4375 - 18               | 1.625 - 18                | 1.469 (37.3) | 1.280 (32.5) | .937 (23.8) |

- APPLICATION NOTES**
- For complete dimensions see the applicable Military Specification.
  - Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.



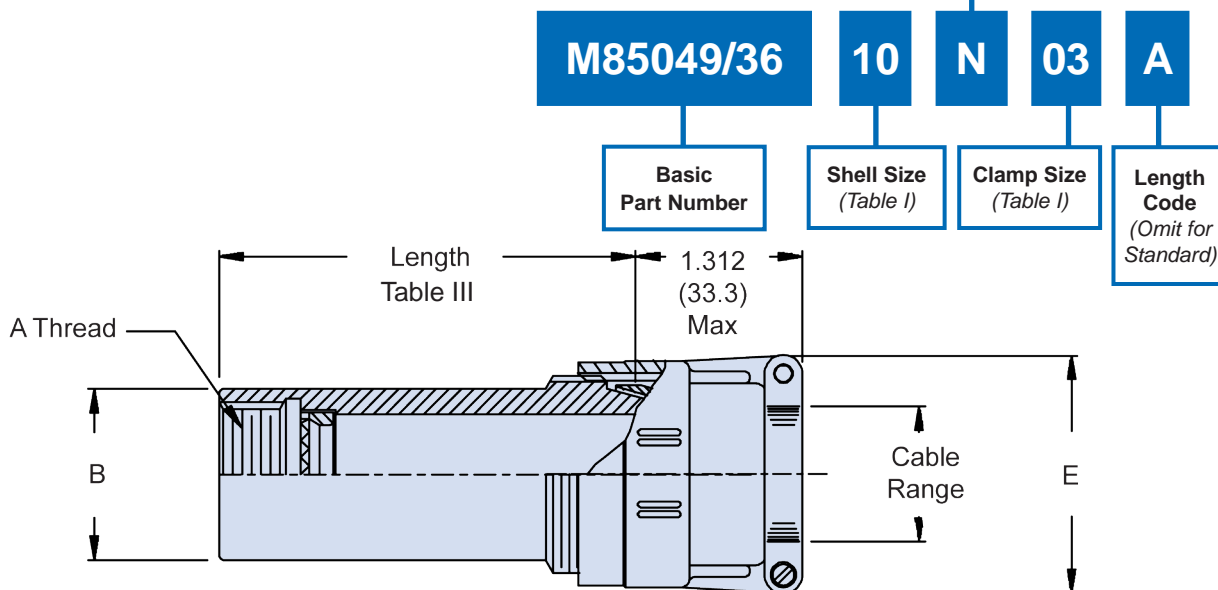


# AS85049/36 and M38999/7 Straight EMI/RFI Non-Environmental Backshell

**CONNECTOR DESIGNATOR:**
**F** MIL-DTL-38999 Series I and II

**Finish**

**N** = Electroless Nickel      **X** = Nickel Fluorocarbon Polymer  
**W** = 1,000 Hr. Cadmium Olive Drab over Electroless Nickel      **Z** = Zinc-Nickel, Black

**B**

**TABLE I: Shell Size and Clamp Size**

| Shell Size | Series I Shell Size Ref. | Clamp Size (Table II) |     | A Thread Class 2B | B Dia Max   |
|------------|--------------------------|-----------------------|-----|-------------------|-------------|
|            |                          | Min                   | Max |                   |             |
| 08         | 09                       | 01                    | 02  | .438 - 28 UNEF    | .65 (16.5)  |
| 10         | 11                       | 01                    | 03  | .562 - 24 UNEF    | .77 (19.6)  |
| 12         | 13                       | 02                    | 04  | .688 - 24 UNEF    | .89 (22.6)  |
| 14         | 15                       | 02                    | 05  | .813 - 20 UNEF    | 1.02 (25.9) |
| 16         | 17                       | 02                    | 06  | .938 - 20 UNEF    | 1.15 (29.2) |
| 18         | 19                       | 03                    | 07  | 1.063 - 18 UNEF   | 1.23 (31.2) |
| 20         | 21                       | 03                    | 08  | 1.188 - 18 UNEF   | 1.36 (34.5) |
| 22         | 23                       | 03                    | 09  | 1.313 - 18 UNEF   | 1.48 (37.6) |
| 24         | 25                       | 04                    | 10  | 1.438 - 18 UNEF   | 1.73 (43.9) |

**TABLE II: Cable Range and Dimensions**

| Clamp Size | Cable Range  |              | E Max        |
|------------|--------------|--------------|--------------|
|            | Min          | Max          |              |
| 01         | .062 (1.6)   | .125 (3.2)   | .781 (19.8)  |
| 02         | .125 (3.2)   | .250 (6.4)   | .969 (24.6)  |
| 03         | .250 (6.4)   | .375 (9.5)   | 1.062 (27.0) |
| 04         | .312 (7.9)   | .500 (12.7)  | 1.156 (29.4) |
| 05         | .437 (11.1)  | .625 (15.9)  | 1.250 (31.8) |
| 06         | .562 (14.3)  | .750 (19.1)  | 1.375 (34.9) |
| 07         | .687 (17.4)  | .875 (22.2)  | 1.500 (38.1) |
| 08         | .812 (20.6)  | 1.000 (25.4) | 1.625 (41.3) |
| 09         | .937 (23.8)  | 1.125 (28.6) | 1.750 (44.5) |
| 10         | 1.062 (27.0) | 1.250 (31.8) | 1.875 (47.6) |

**TABLE III: Length Code**

| Length Code | Available Shell Sizes | Length        |
|-------------|-----------------------|---------------|
| Std.        | 08 - 24               | 1.500 (38.1)  |
| A           | 08 - 24               | 2.500 (63.5)  |
| B           | 14 - 24               | 3.500 (88.9)  |
| C           | 20 - 24               | 4.500 (114.3) |

**APPLICATION NOTES**

- For complete dimensions see the applicable Military Specification.
- Metric dimensions (mm) are in parentheses.
- Cable Range is defined as the accommodation range for the wire bundle or cable. Dimensions shown are not intended for inspection criteria.

Dimensions in inches (millimeters) and are subject to change without notice.

# AS85049/37 and M38999/8 90° EMI/RFI Non-Environmental Backshell



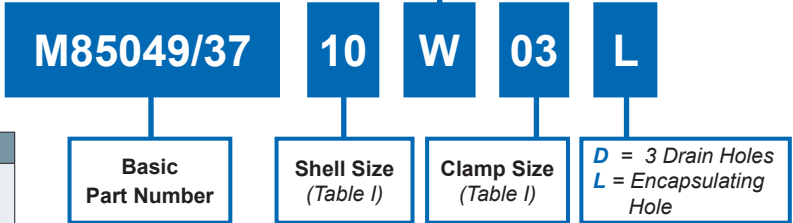
AS85049

B

### CONNECTOR DESIGNATOR:

**F** MIL-DTL-38999 Series I and II

**Finish**  
*N* = Electroless Nickel      *X* = Nickel Fluorocarbon Polymer  
*W* = 1,000 Hr. Cadmium Olive Drab over Electroless Nickel      *Z* = Zinc-Nickel, Black



**TABLE I: Shell Size**

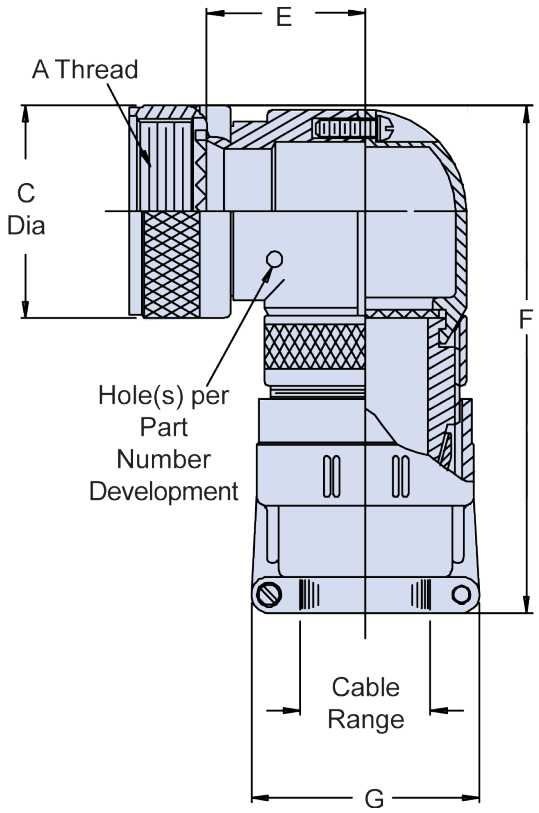
| Shell Size Series II | Series I Shell Size Ref. | A Thread Class 2B | C Dia Max    |
|----------------------|--------------------------|-------------------|--------------|
| 08                   | 09                       | .438 - 28 UNEF    | .750 (19.1)  |
| 10                   | 11                       | .562 - 24 UNEF    | .850 (21.6)  |
| 12                   | 13                       | .688 - 24 UNEF    | 1.000 (25.4) |
| 14                   | 15                       | .813 - 20 UNEF    | 1.100 (27.9) |
| 16                   | 17                       | .938 - 20 UNEF    | 1.250 (31.8) |
| 18                   | 19                       | 1.063 - 18 UNEF   | 1.400 (35.6) |
| 20                   | 21                       | 1.188 - 18 UNEF   | 1.500 (38.1) |
| 22                   | 23                       | 1.313 - 18 UNEF   | 1.650 (41.9) |
| 24                   | 25                       | 1.438 - 18 UNEF   | 1.750 (44.5) |

**TABLE II: Clamp Size and Dimensions**

| Shell Size Series II | Series I Shell Size Ref. | E Max        | F Max       | Clamp Size Min | Clamp Size Max |
|----------------------|--------------------------|--------------|-------------|----------------|----------------|
| 8                    | 09                       | .720 (18.3)  | 2.50 (63.5) | 01             | 02             |
| 10                   | 11                       | .720 (18.3)  | 2.50 (63.5) | 01             | 03             |
| 12                   | 13                       | .800 (20.3)  | 2.56 (65.0) | 02             | 04             |
| 14                   | 15                       | .850 (21.6)  | 2.69 (68.3) | 02             | 05             |
| 16                   | 17                       | .910 (23.1)  | 2.81 (71.4) | 02             | 06             |
| 18                   | 19                       | 1.000 (25.4) | 3.03 (77.0) | 03             | 06             |
| 20                   | 21                       | 1.050 (26.7) | 3.19 (81.0) | 03             | 07             |
| 22                   | 23                       | 1.100 (27.9) | 3.31 (84.1) | 03             | 08             |
| 24                   | 25                       | 1.200 (30.5) | 3.31 (84.1) | 04             | 09             |

**TABLE II: Clamp Size and Dimensions**

| Clamp Size | Cable Range |              | G Max        |
|------------|-------------|--------------|--------------|
|            | Min         | Max          |              |
| 01         | .062 (1.6)  | .125 (3.2)   | .781 (19.8)  |
| 02         | .125 (3.2)  | .250 (6.4)   | .969 (24.6)  |
| 03         | .250 (6.4)  | .375 (9.5)   | 1.062 (27.0) |
| 04         | .312 (7.9)  | .500 (12.7)  | 1.156 (29.4) |
| 05         | .437 (11.1) | .625 (15.9)  | 1.250 (31.8) |
| 06         | .562 (14.3) | .750 (19.1)  | 1.375 (34.9) |
| 07         | .687 (17.4) | .875 (22.2)  | 1.500 (38.1) |
| 08         | .812 (20.6) | 1.000 (25.4) | 1.625 (41.3) |
| 09         | .937 (23.8) | 1.125 (28.6) | 1.750 (44.5) |



**APPLICATION NOTES**

- For complete dimensions see the applicable Military Specification.
- Metric dimensions (mm) are in parentheses.
- Cable Range is defined as the accommodation range for the wire bundle or cable. Dimensions shown are not intended for inspection criteria.

Dimensions in inches (millimeters) and are subject to change without notice.



# AS85049/38 Straight Strain Relief Self-Locking or Non-Self-Locking

## CONNECTOR DESIGNATOR:

**H** MIL-DTL-38999 Series III & IV  
EN3645

**FOR NEW DESIGN  
USE AS85049/124**

Basic  
Part Number

**M85049/38**

Shell Size

**S**

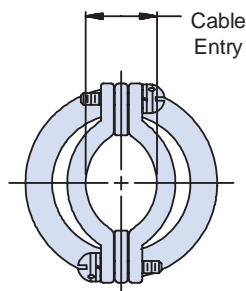
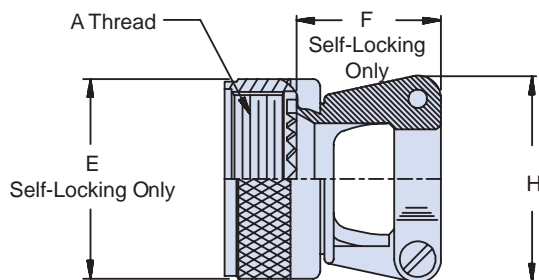
**11**

**W**

**S** = Self-Locking  
Use Dash for Non-Self-Locking  
**N** = Non-Detented

### Material and Finish Designator

**A** = Aluminum, Black Anodize  
**N** = Aluminum, Electroless Nickel  
**S** = 300 Series Steel, Passivated  
**W** = Aluminum, 500 Hour Cadmium  
Olive Drab over Electroless Nickel



Note: Screw orientation shown is for non-self-locking configuration. Screws on self-locking configurations are on the same side/face of the clamp.

**TABLE I: Shell Size, Cable Entry and Backshell Dimensions**

| Shell Size | Shell Size Ref. | A Thread Class 2B | Ø E Max           |                   | F Max             |                   | H Max |        | Cable Entry |        |      |        |
|------------|-----------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------|--------|-------------|--------|------|--------|
|            |                 |                   | Self-Locking Only | Self-Locking Only | Self-Locking Only | Self-Locking Only | Min   | Max    | Min         | Max    |      |        |
| 9          | A               | M12 X 1 - 6H      | .858              | (21.8)            | .91               | (23.1)            | .85   | (21.6) | .098        | (2.5)  | .234 | (5.9)  |
| 11         | B               | M15 X 1 - 6H      | .984              | (25.0)            | .91               | (23.1)            | .90   | (22.9) | .153        | (3.9)  | .234 | (5.9)  |
| 13         | C               | M18 X 1 - 6H      | 1.157             | (29.4)            | 1.01              | (25.7)            | 1.10  | (27.9) | .190        | (4.8)  | .328 | (8.3)  |
| 15         | D               | M22 X 1 - 6H      | 1.279             | (32.5)            | 1.06              | (26.9)            | 1.15  | (29.2) | .260        | (6.6)  | .457 | (11.6) |
| 17         | E               | M25 X 1 - 6H      | 1.406             | (35.7)            | 1.16              | (29.5)            | 1.30  | (33.0) | .283        | (7.2)  | .614 | (15.6) |
| 19         | F               | M28 X 1 - 6H      | 1.516             | (38.5)            | 1.41              | (35.8)            | 1.50  | (38.1) | .325        | (8.3)  | .634 | (16.1) |
| 21         | G               | M31 X 1 - 6H      | 1.642             | (41.7)            | 1.51              | (38.4)            | 1.60  | (40.6) | .343        | (8.7)  | .698 | (17.7) |
| 23         | H               | M34 X 1 - 6H      | 1.768             | (44.9)            | 1.66              | (42.2)            | 1.70  | (43.2) | .381        | (9.7)  | .823 | (20.9) |
| 25         | J               | M37 X 1 - 6H      | 1.889             | (48.0)            | 2.76              | (44.7)            | 1.80  | (45.7) | .418        | (10.6) | .853 | (21.7) |

## APPLICATION NOTES

1. Assembly to be identified with manufacturer's name and part number, space permitting.
2. Cable Entry is defined as the accommodation entry for the wire bundle or cable. Dimensions are not intended for inspection criteria.
3. For complete dimensions, see the applicable Military Specification.
4. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.

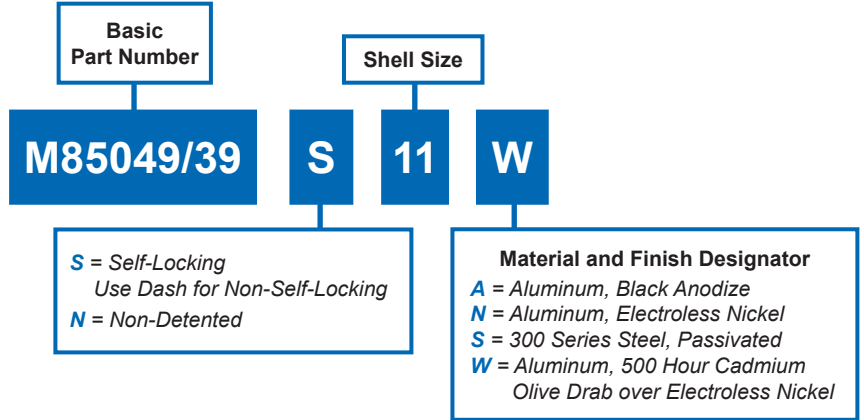
AS85049/39  
90° Strain Relief  
Self-Locking or Non-Self-Locking



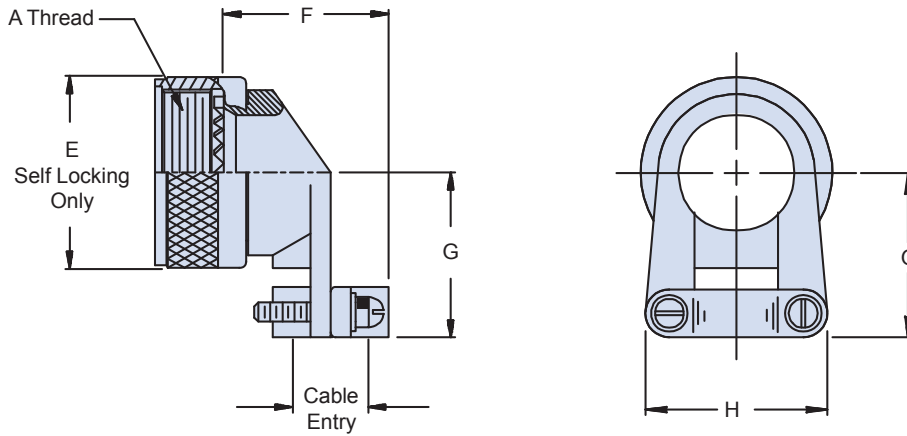
AS85049

| CONNECTOR DESIGNATOR: |   |
|-----------------------|---|
| <b>H</b>              | MIL-DTL-38999 Series III & IV<br>EN3645 |

**FOR NEW DESIGN  
USE AS85049/126**



**B**



**TABLE I: Shell Size, Cable Entry and Backshell Dimensions**

| Shell Size | Shell Size Ref. | A Thread Class 2B | Ø E Max           |        | F Max |        | G Max |        | H Max |        | Cable Entry |        |      |        |
|------------|-----------------|-------------------|-------------------|--------|-------|--------|-------|--------|-------|--------|-------------|--------|------|--------|
|            |                 |                   | Self-Locking Only |        |       |        |       |        | Min   | Max    |             |        |      |        |
| 9          | A               | M12 X 1 - 6H      | .858              | (21.8) | 1.01  | (25.7) | 1.00  | (25.4) | .85   | (21.6) | .098        | (2.5)  | .234 | (5.9)  |
| 11         | B               | M15 X 1 - 6H      | .984              | (25.0) | 1.01  | (25.7) | 1.10  | (27.9) | .90   | (22.9) | .153        | (3.9)  | .234 | (5.9)  |
| 13         | C               | M18 X 1 - 6H      | 1.157             | (29.4) | 1.21  | (30.7) | 1.10  | (27.9) | 1.10  | (27.9) | .190        | (4.8)  | .328 | (8.3)  |
| 15         | D               | M22 X 1 - 6H      | 1.279             | (32.5) | 1.26  | (32.0) | 1.25  | (31.8) | 1.15  | (29.2) | .260        | (6.6)  | .457 | (11.6) |
| 17         | E               | M25 X 1 - 6H      | 1.406             | (35.7) | 1.41  | (35.8) | 1.30  | (33.0) | 1.30  | (33.0) | .283        | (7.2)  | .614 | (15.6) |
| 19         | F               | M28 X 1 - 6H      | 1.516             | (38.5) | 1.51  | (38.4) | 1.35  | (34.3) | 1.50  | (38.1) | .325        | (8.3)  | .634 | (16.1) |
| 21         | G               | M31 X 1 - 6H      | 1.642             | (41.7) | 1.66  | (42.2) | 1.60  | (40.6) | 1.60  | (40.6) | .343        | (8.7)  | .698 | (17.7) |
| 23         | H               | M34 X 1 - 6H      | 1.768             | (44.9) | 1.76  | (44.7) | 1.75  | (44.5) | 1.70  | (43.2) | .381        | (9.7)  | .823 | (20.9) |
| 25         | J               | M37 X 1 - 6H      | 1.889             | (48.0) | 2.91  | (73.9) | 1.85  | (47.0) | 1.80  | (45.7) | .418        | (10.6) | .853 | (21.7) |

**APPLICATION NOTES**

1. Assembly to be identified with manufacturer's name and part number, space permitting.
2. Cable Entry is defined as the accommodation entry for the wire bundle or cable. Dimensions are not intended for inspection criteria.
3. For complete dimensions, see the applicable Military Specification.
4. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.

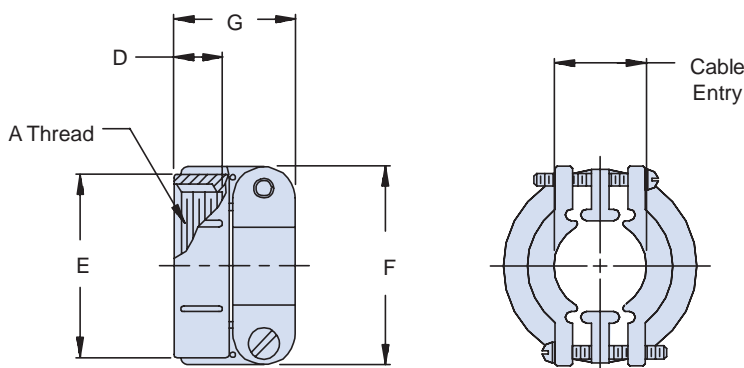


## AS85049/41 and MS3057A Straight Non-Self-Locking Strain Relief for Use with MS "V" Thread General Duty "A" End Bell

Basic  
Part Number

Dash No.

**M85049/41 - 3A**



Superseded  
Part Number

**MS3057-16A**

Basic  
Part No.

Dash  
No.

TABLE I: Shell Size, Cable Entry and Backshell Dimensions

| Dash No. | Conn. Shell Ref.(s) | A Thread Class 2B | Cable Entry Max |        | D Ref. |        | Ø E   |        | F     |        | G     |        |
|----------|---------------------|-------------------|-----------------|--------|--------|--------|-------|--------|-------|--------|-------|--------|
|          |                     |                   |                 |        |        |        | ±.031 | (0.8)  | ±.031 | (0.8)  | ±.031 | (0.8)  |
| 3A       | 8S, 10S             | 1/2 - 28 UNEF     | .250            | (6.4)  | .406   | (10.3) | .688  | (17.5) | .812  | (20.6) | .812  | (20.6) |
| 4A       | 10SL, 12S, 12       | 5/8 - 24 UNEF     | .312            | (7.9)  | .406   | (10.3) | .812  | (20.6) | .875  | (22.2) | .812  | (20.6) |
| 6A       | 14S, 14             | 3/4 - 20 UNEF     | .438            | (11.1) | .406   | (10.3) | .969  | (24.6) | 1.062 | (27.0) | .875  | (22.2) |
| 8A       | 16S, 16             | 7/8 - 20 UNEF     | .562            | (14.3) | .406   | (10.3) | 1.094 | (27.8) | 1.156 | (29.4) | .938  | (23.8) |
| 10A      | 18                  | 1 - 20 UNEF       | .625            | (15.9) | .406   | (10.3) | 1.188 | (30.2) | 1.250 | (31.8) | .938  | (23.8) |
| 12A      | 20, 22              | 1 3/16 - 18 UNEF  | .750            | (19.1) | .406   | (10.3) | 1.375 | (34.9) | 1.469 | (37.3) | .938  | (23.8) |
| 16A      | 24, 28              | 1 7/16 - 18 UNEF  | .938            | (23.8) | .406   | (10.3) | 1.656 | (42.1) | 1.688 | (42.9) | 1.031 | (26.2) |
| 20A      | 32                  | 1 3/4 - 18 UNS    | 1.250           | (31.8) | .469   | (11.9) | 2.031 | (51.6) | 2.031 | (51.6) | 1.094 | (27.8) |
| 24A      | 36                  | 2 - 18 UNS        | 1.375           | (34.9) | .531   | (13.5) | 2.219 | (56.4) | 2.281 | (57.9) | 1.156 | (29.4) |
| 28A      | 40                  | 2 1/4 - 16 UN     | 1.625           | (41.3) | .531   | (13.5) | 2.500 | (63.5) | 2.688 | (68.3) | 1.688 | (42.9) |
| 32A      | 44                  | 2 1/2 - 16 UN     | 1.875           | (47.6) | .594   | (15.1) | 2.781 | (70.6) | 2.938 | (74.6) | 1.750 | (44.5) |
| 40A      | 48                  | 3 - 16 UN         | 2.375           | (60.3) | .656   | (16.7) | 3.281 | (83.3) | 3.500 | (88.9) | 1.750 | (44.5) |

### APPLICATION NOTES

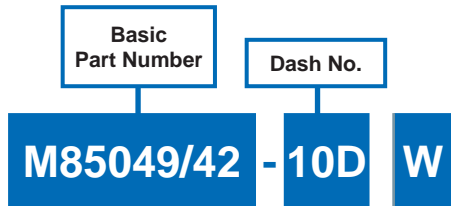
1. Finish on M85049/41 is Cadmium Olive Drab over Electroless Nickel, 1,000 hour salt spray.
2. Assembly to be identified with manufacturer's name and part number, space permitting.
3. Cable Entry is defined as the accommodation entry for the wire bundle or cable. Dimensions are not intended for inspection criteria.
4. For complete dimensions, see the applicable Military Specification.
5. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.

AS85049/42 and MS3057D  
 Straight Non-Self-Locking Strain Relief  
 for Use with MS "V" Thread General Duty "A" End Bell



AS85049



**Superseded Part Number**

**MS3057 -10D A**

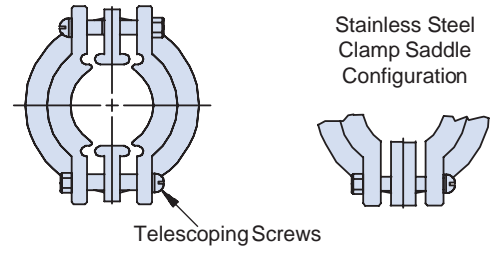
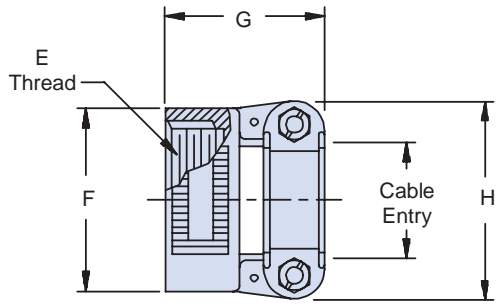
Basic Part No. | Dash No. | Metal and Finish Designator

A = Aluminum Cadmium Olive Drab over Electroless Nickel  
 C = Aluminum, Cadmium Olive Drab  
 N = Aluminum, Electroless Nickel  
 D = 300 Series Steel, Cadmium Black Plate  
 S = 300 Series Steel, Passivate

**Material/Finish**

N = Aluminum/Electroless Nickel  
 W = Aluminum/1,000 Hour Cadmium over Electroless Nickel  
 X = Aluminum/Nickel Fluorocarbon Polymer  
 Y = Aluminum/Pure Dense Electrodeposited Aluminum  
 Z = Aluminum/Zinc Nickel Black  
 B = Stainless Steel/Cadmium Black  
 S = Stainless Steel/Passivated  
 XS = Stainless Steel/Nickel Fluorocarbon Polymer  
 YS = Stainless Steel/Pure Dense Electrodeposited Aluminum  
 ZS = Stainless Steel/Zinc Nickel Black

**B**



**TABLE I: Shell Size, Cable Entry and Backshell Dimensions**

| Dash No. | E Thread Class 2B | Ø F Max      | Ø G          |              | H            |              | Cable Entry  |              |              |              |
|----------|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
|          |                   |              | ±.020        | (.5)         | ±.020        | (.5)         | Max          |              | Min          |              |
| 4D       | 5/8 - 24 UNEF     | .937 (23.8)  | 1.281 (32.5) | 1.281 (32.5) | .937 (23.8)  | .312 (7.9)   | .125 (3.2)   | .125 (3.2)   | .125 (3.2)   | .125 (3.2)   |
| 6D       | 3/4 - 20 UNEF     | 1.031 (26.2) | 1.281 (32.5) | 1.281 (32.5) | 1.125 (28.6) | .437 (11.1)  | .250 (6.4)   | .250 (6.4)   | .250 (6.4)   | .250 (6.4)   |
| 8D       | 7/8 - 20 UNEF     | 1.250 (31.8) | 1.281 (32.5) | 1.281 (32.5) | 1.312 (33.3) | .562 (14.3)  | .312 (7.9)   | .312 (7.9)   | .312 (7.9)   | .312 (7.9)   |
| 10D      | 1 - 20 UNEF       | 1.250 (31.8) | 1.281 (32.5) | 1.281 (32.5) | 1.312 (33.3) | .625 (15.9)  | .350 (8.9)   | .350 (8.9)   | .350 (8.9)   | .350 (8.9)   |
| 12D      | 1 3/16 - 18 UNEF  | 1.437 (36.5) | 1.312 (33.3) | 1.312 (33.3) | 1.531 (38.9) | .750 (19.1)  | .500 (12.7)  | .500 (12.7)  | .500 (12.7)  | .500 (12.7)  |
| 16D      | 1 7/16 - 18 UNEF  | 1.688 (42.9) | 1.406 (35.7) | 1.406 (35.7) | 1.750 (44.5) | .937 (23.8)  | .625 (15.9)  | .625 (15.9)  | .625 (15.9)  | .625 (15.9)  |
| 20D      | 1 3/4 - 18 UNS    | 2.000 (50.8) | 1.563 (39.7) | 1.563 (39.7) | 2.093 (53.2) | 1.250 (31.8) | .875 (22.2)  | .875 (22.2)  | .875 (22.2)  | .875 (22.2)  |
| 24D      | 2 - 18 UNS        | 2.250 (57.2) | 1.625 (41.3) | 1.625 (41.3) | 2.343 (59.5) | 1.375 (34.9) | 1.000 (25.4) | 1.000 (25.4) | 1.000 (25.4) | 1.000 (25.4) |
| 28D      | 2 1/4 - 16 UN     | 2.500 (63.5) | 1.900 (48.3) | 1.900 (48.3) | 2.750 (69.9) | 1.625 (41.3) | 1.250 (31.8) | 1.250 (31.8) | 1.250 (31.8) | 1.250 (31.8) |
| 32D      | 2 1/2 - 16 UN     | 2.750 (69.9) | 1.900 (48.3) | 1.900 (48.3) | 3.000 (76.2) | 1.875 (47.6) | 1.437 (36.5) | 1.437 (36.5) | 1.437 (36.5) | 1.437 (36.5) |

- APPLICATION NOTES**
1. Assembly to be identified with manufacturer's name and part number, space permitting.
  2. Cable Entry is defined as the accommodation entry for the wire bundle or cable. Dimensions are not intended for inspection criteria.
  3. For complete dimensions, see the applicable Military Specification.
  4. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.





# AS85049/43 and MS3415 Strain Relief 45° Self-Locking or Non-Self-Locking

## CONNECTOR DESIGNATOR:

A

AS5015 Series AS34001 Crimp,  
MIL-DTL-26482 Series II,  
AS81703 Crimp Series III,  
MIL-DTL-83723 Series I & III

Basic  
Part Number

M85049/43

Dash No.

S

10

W

S = Self-Locking  
Use Dash for Non-Self-Locking  
N = Non-Detented

### Finish

A = Anodize, Black  
N = Electroless Nickel  
W = 1,000 Hour Cadmium Olive Drab  
over Electroless Nickel  
X = Nickel Fluorocarbon Polymer  
Y = Pure Dense Electrodeposited  
Aluminum  
Z = Zinc-Nickel, Black

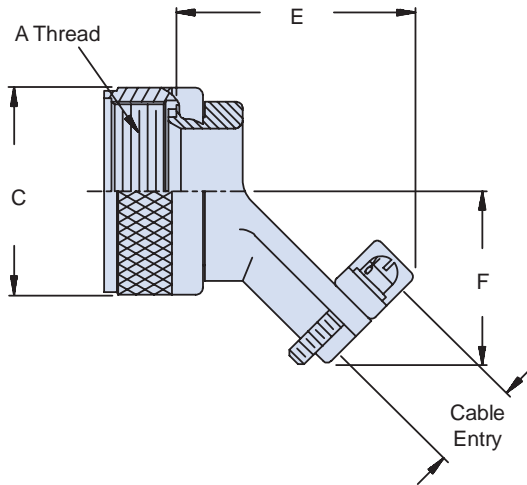


TABLE I: Shell Size, Cable Entry and Backshell Dimensions

| Dash No. | A Thread Class 2B | C Max        | E Closed     |              | F Max        |              | Cable Entry  |              |              |              |
|----------|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
|          |                   |              |              |              |              |              | Min          |              | Max          |              |
| 3*       | .562 - 24 UNEF    | .669 (17.0)  | 1.160 (29.5) | .772 (19.6)  | .125 (3.2)   | .204 (5.2)   | .125 (3.2)   | .204 (5.2)   | .204 (5.2)   | .204 (5.2)   |
| 8        | .500 - 20 UNF     | .885 (22.5)  | 1.650 (29.5) | .772 (19.6)  | .125 (3.2)   | .204 (5.2)   | .125 (3.2)   | .204 (5.2)   | .204 (5.2)   | .204 (5.2)   |
| 10       | .625 - 24 UNEF    | 1.010 (25.7) | 1.694 (30.6) | .803 (20.4)  | .187 (4.7)   | .286 (7.3)   | .187 (4.7)   | .286 (7.3)   | .286 (7.3)   | .286 (7.3)   |
| 12       | .750 - 20 UNEF    | 1.135 (28.8) | 1.768 (32.5) | .866 (22.0)  | .291 (7.4)   | .416 (10.6)  | .291 (7.4)   | .416 (10.6)  | .416 (10.6)  | .416 (10.6)  |
| 14       | .875 - 20 UNEF    | 1.260 (32.0) | 1.840 (33.5) | .928 (23.6)  | .351 (8.9)   | .476 (12.1)  | .351 (8.9)   | .476 (12.1)  | .476 (12.1)  | .476 (12.1)  |
| 16       | 1.000 - 20 UNEF   | 1.385 (35.2) | 1.916 (36.2) | .991 (25.2)  | .501 (12.7)  | .625 (15.9)  | .501 (12.7)  | .625 (15.9)  | .625 (15.9)  | .625 (15.9)  |
| 18       | 1.062 - 18 UNEF   | 1.570 (39.9) | 2.034 (39.2) | 1.110 (28.2) | .518 (13.2)  | .706 (17.9)  | .518 (13.2)  | .706 (17.9)  | .706 (17.9)  | .706 (17.9)  |
| 20       | 1.188 - 18 UNEF   | 1.635 (41.5) | 2.078 (40.3) | 1.172 (29.8) | .581 (14.8)  | .831 (21.1)  | .581 (14.8)  | .831 (21.1)  | .831 (21.1)  | .831 (21.1)  |
| 22       | 1.313 - 18 UNEF   | 1.760 (44.7) | 2.122 (41.5) | 1.235 (31.4) | .644 (16.4)  | .956 (24.3)  | .644 (16.4)  | .956 (24.3)  | .956 (24.3)  | .956 (24.3)  |
| 24       | 1.438 - 18 UNEF   | 1.885 (47.9) | 2.166 (42.6) | 1.297 (32.9) | .706 (17.9)  | 1.081 (27.5) | .706 (17.9)  | 1.081 (27.5) | 1.081 (27.5) | 1.081 (27.5) |
| 28       | 1.750 - 18 UNS    | 2.135 (54.2) | 2.461 (45.7) | 1.543 (39.2) | .750 (19.1)  | 1.187 (30.1) | .750 (19.1)  | 1.187 (30.1) | 1.187 (30.1) | 1.187 (30.1) |
| 32       | 2.000 - 18 UNS    | 2.315 (58.8) | 2.549 (48.0) | 1.668 (42.4) | .875 (22.2)  | 1.250 (31.8) | .875 (22.2)  | 1.250 (31.8) | 1.250 (31.8) | 1.250 (31.8) |
| 36       | 2.250 - 16 UN     | 2.635 (66.9) | 2.595 (49.1) | 1.793 (45.5) | .938 (23.8)  | 1.375 (34.9) | .938 (23.8)  | 1.375 (34.9) | 1.375 (34.9) | 1.375 (34.9) |
| 40       | 2.500 - 16 UN     | 2.885 (73.3) | 2.599 (49.1) | 1.918 (48.7) | .938 (23.8)  | 1.500 (38.1) | .938 (23.8)  | 1.500 (38.1) | 1.500 (38.1) | 1.500 (38.1) |
| 44       | 2.750 - 16 UN     | 3.135 (79.6) | 2.860 (55.9) | 2.132 (54.2) | 1.188 (30.2) | 1.750 (44.5) | 1.188 (30.2) | 1.750 (44.5) | 1.750 (44.5) | 1.750 (44.5) |
| 48       | 3.000 - 16 UN     | 3.385 (86.0) | 2.918 (58.1) | 2.257 (57.3) | 1.312 (33.3) | 1.875 (47.6) | 1.312 (33.3) | 1.875 (47.6) | 1.875 (47.6) | 1.875 (47.6) |
| 61*      | 1.500 - 18 UNEF   | 1.653 (41.5) | 1.676 (42.6) | 1.204 (30.6) | .706 (17.9)  | 1.081 (27.5) | .706 (17.9)  | 1.081 (27.5) | 1.081 (27.5) | 1.081 (27.5) |

\* See Note 5

## APPLICATION NOTES

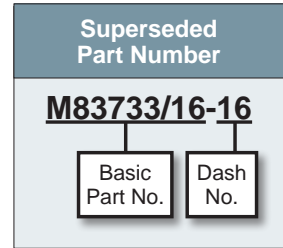
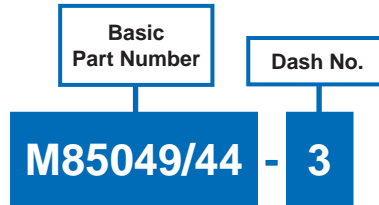
1. Assembly to be identified with manufacturer's name and part number, space permitting.
2. Cable Entry is defined as the accommodation entry for the wire bundle or cable. Dimensions are not intended for inspection criteria.
3. For complete dimensions, see the applicable Military Specification.
4. Metric dimensions (mm) are in parentheses.
5. Non-Self-Locking only.

Dimensions in inches (millimeters) and are subject to change without notice.

# AS85049/44 and M83733/16 Straight Non-Self-Locking Strain Relief

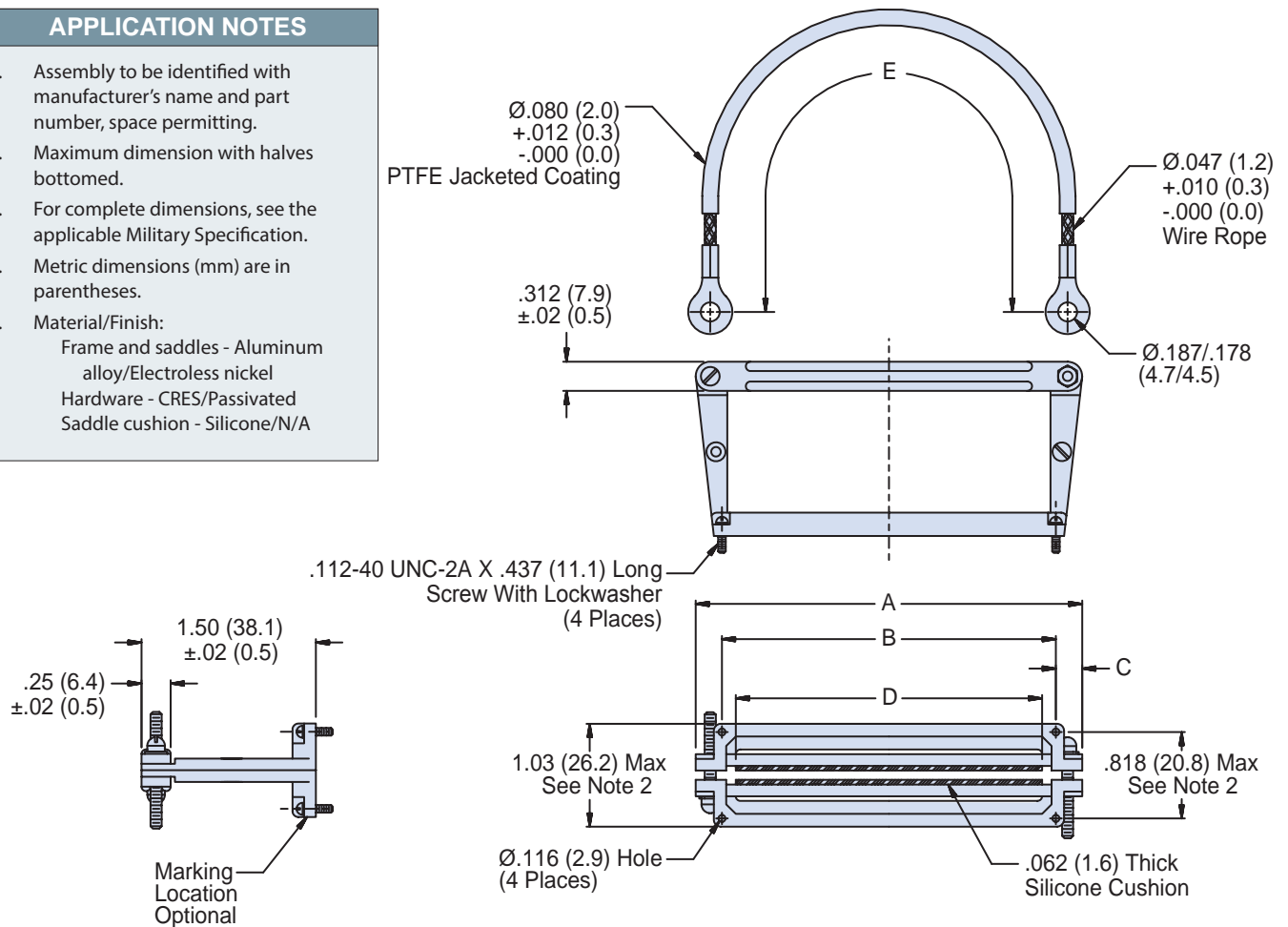


AS85049



**B**

- ### APPLICATION NOTES
1. Assembly to be identified with manufacturer's name and part number, space permitting.
  2. Maximum dimension with halves bottomed.
  3. For complete dimensions, see the applicable Military Specification.
  4. Metric dimensions (mm) are in parentheses.
  5. Material/Finish:  
Frame and saddles - Aluminum alloy/Electroless nickel  
Hardware - CRES/Passivated  
Saddle cushion - Silicone/N/A



| Dash No. | Shell Size | A Dim<br>$\pm.062$ (1.6) | B Dim<br>$\pm.005$ (0.1) | C Dim<br>$\pm.032$ (0.8) | D Dim<br>$\pm.062$ (1.6) | E Dim<br>$\pm.062$ (1.6) | Lanyard |
|----------|------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|---------|
| 1        | A          | 2.437 (61.9)             | 1.895 (48.1)             | .271 (6.9)               | 1.70 (43.2)              | N/A                      | Without |
| 2        | B          | 3.750 (95.3)             | 3.195 (81.2)             | .277 (7.0)               | 3.00 (76.2)              | N/A                      |         |
| 3        | A          | 2.437 (61.9)             | 1.895 (48.1)             | .271 (6.9)               | 1.70 (43.2)              | 10.375 (263.5)           | With    |
| 4        | B          | 3.750 (95.3)             | 3.195 (81.2)             | .277 (7.0)               | 3.00 (76.2)              | 10.375 (263.5)           |         |

Dimensions in inches (millimeters) and are subject to change without notice.

## CONNECTOR DESIGNATOR:

**F** MIL-DTL-38999 Series I and II
Basic  
Part Number

M85049/45

Dash No.

W

10

Superseded  
Part Number**MS27663-1**Basic  
Part No.Dash  
No.

## Finish

A = Anodize, Black  
 W = 1,000 Hour Cadmium Olive Drab  
 over Electroless Nickel  
 X = Nickel Fluorocarbon Polymer  
 Y = Pure Dense Electrodeposited  
 Aluminum  
 Z = Zinc-Nickel, Black

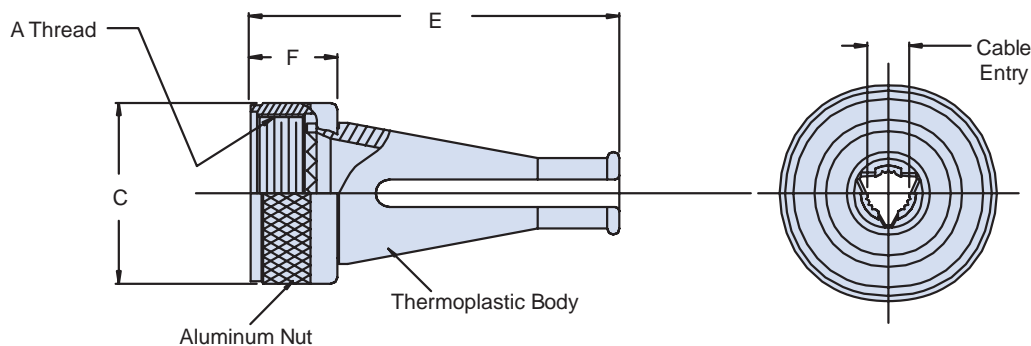


TABLE I: Shell Size, Cable Entry and Backshell Dimensions

| Dash No. | Shell Size Ref. | A Thread Class 2B | Ø C Max      | E Max        |             | F Max      |             | Cable Entry |  |     |  |
|----------|-----------------|-------------------|--------------|--------------|-------------|------------|-------------|-------------|--|-----|--|
|          |                 |                   |              |              |             |            |             | Min         |  | Max |  |
| 8        | 8/9             | .438 - 28 UNEF    | .578 (14.7)  | 1.344 (34.1) | .422 (10.7) | .094 (2.4) | .203 (5.2)  |             |  |     |  |
| 10       | 10/11           | .562 - 24 UNEF    | .703 (17.9)  | 1.344 (34.1) | .422 (10.7) | .141 (3.6) | .250 (6.4)  |             |  |     |  |
| 12       | 12/13           | .688 - 24 UNEF    | .828 (21.0)  | 1.344 (34.1) | .422 (10.7) | .172 (4.4) | .323 (8.2)  |             |  |     |  |
| 14       | 14/15           | .813 - 20 UNEF    | .953 (24.2)  | 1.344 (34.1) | .422 (10.7) | .203 (5.2) | .422 (10.7) |             |  |     |  |
| 16       | 16/17           | .938 - 20 UNEF    | 1.078 (27.4) | 1.344 (34.1) | .422 (10.7) | .234 (5.9) | .500 (12.7) |             |  |     |  |
| 18       | 18/19           | 1.063 - 18 UNEF   | 1.203 (30.6) | 1.344 (34.1) | .422 (10.7) | .265 (6.7) | .562 (14.3) |             |  |     |  |
| 20       | 20/21           | 1.188 - 18 UNEF   | 1.328 (33.7) | 1.422 (36.1) | .422 (10.7) | .297 (7.5) | .625 (15.9) |             |  |     |  |
| 22       | 22/23           | 1.313 - 18 UNEF   | 1.453 (36.9) | 1.422 (36.1) | .422 (10.7) | .328 (8.3) | .703 (17.9) |             |  |     |  |
| 24       | 24/25           | 1.438 - 18 UNEF   | 1.578 (40.1) | 1.422 (36.1) | .344 (8.7)  | .359 (9.1) | .765 (19.4) |             |  |     |  |

## APPLICATION NOTES

1. Assembly to be identified with manufacturer's name and part number, space permitting.
2. Cable Entry is defined as the accommodation entry for the wire bundle or cable. Dimensions are not intended for inspection criteria.
3. For complete dimensions, see the applicable Military Specification.
4. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.





# AS85049/47 and MS27507 90° Strain Relief Self-Locking or Non-Self-Locking

## CONNECTOR DESIGNATOR:

**F** MIL-DTL-38999 Series I and II

**FOR NEW DESIGN  
USE AS85049/123**

### Basic Part Number

**M85049/47**

### Material and Finish Designator

**N** = Aluminum, Electroless Nickel  
**S** = 300 Series Steel, Passivated  
**W** = Aluminum, 1000 Hour Cadmium  
Olive Drab over Electroless Nickel

**S**

**W**

**10**

**S** = Self-Locking  
Omit for Non-Self-Locking  
**N** = Non-Detented, Self-Locking

**Dash No.**

### Superseded Part Number

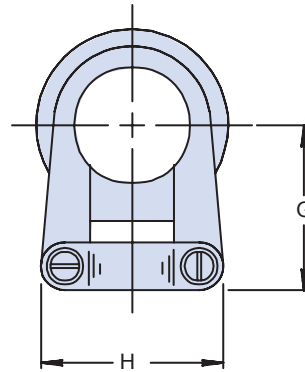
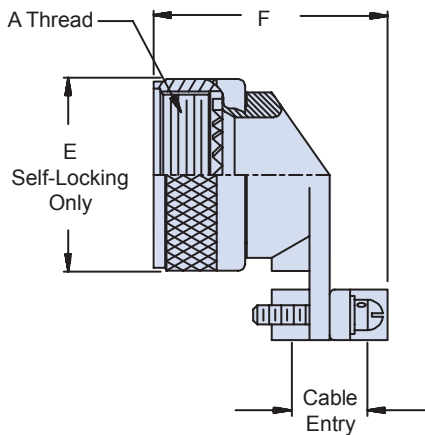
**MS27507-B 10**

Basic Part No.  
(Non-Self-Locking)

Dash No.

### Metal and Finish Designator

**A** = Aluminum Cadmium Olive Drab over Electroless Nickel  
**C** = Aluminum, Cadmium Olive Drab  
**N** = Aluminum, Electroless Nickel  
**D** = 300 Series Steel, Cadmium Black Plate  
**S** = 300 Series Steel, Passivate



### APPLICATION NOTES

1. Assembly to be identified with manufacturer's name and part number, space permitting.
2. Cable Entry is defined as the accommodation entry for the wire bundle or cable.
3. Dimensions are not intended for inspection criteria.
4. For complete dimensions, see the applicable Military Specification.
5. Metric dimensions (mm) are in parentheses.

**TABLE I: Shell Size, Cable Entry and Backshell Dimensions**

| Dash No. | Shell Size Ref. | A Thread Class 2B | Ø E Max |        | F Max |        | G Max |        | H Max |        | Cable Entry |        |      |        |
|----------|-----------------|-------------------|---------|--------|-------|--------|-------|--------|-------|--------|-------------|--------|------|--------|
|          |                 |                   |         |        |       |        |       |        |       |        | Min         | Max    |      |        |
| 8        | 8/9             | .438 - 28 UNEF    | .86     | (21.8) | 1.38  | (35.1) | 1.00  | (25.4) | .85   | (21.6) | .098        | (2.5)  | .234 | (5.9)  |
| 10       | 10/11           | .562 - 24 UNEF    | .98     | (24.9) | 1.38  | (35.1) | 1.10  | (27.9) | .90   | (22.9) | .153        | (3.9)  | .234 | (5.9)  |
| 12       | 12/13           | .688 - 24 UNEF    | 1.16    | (29.5) | 1.46  | (37.1) | 1.10  | (27.9) | 1.10  | (27.9) | .190        | (4.8)  | .328 | (8.3)  |
| 14       | 14/15           | .813 - 20 UNEF    | 1.28    | (32.5) | 1.63  | (41.4) | 1.25  | (31.8) | 1.15  | (29.2) | .260        | (6.6)  | .457 | (11.6) |
| 16       | 16/17           | .938 - 20 UNEF    | 1.41    | (35.8) | 1.80  | (45.7) | 1.30  | (33.0) | 1.30  | (33.0) | .283        | (7.2)  | .614 | (15.6) |
| 18       | 18/19           | 1.063 - 18 UNEF   | 1.52    | (38.6) | 1.82  | (46.2) | 1.35  | (34.3) | 1.50  | (38.1) | .325        | (8.3)  | .634 | (16.1) |
| 20       | 20/21           | 1.188 - 18 UNEF   | 1.64    | (41.7) | 1.90  | (48.3) | 1.60  | (40.6) | 1.60  | (40.6) | .343        | (8.7)  | .698 | (17.7) |
| 22       | 22/23           | 1.313 - 18 UNEF   | 1.77    | (45.0) | 2.04  | (51.8) | 1.75  | (44.5) | 1.70  | (43.2) | .381        | (9.7)  | .823 | (20.9) |
| 24       | 24/25           | 1.438 - 18 UNEF   | 1.89    | (48.0) | 2.15  | (54.6) | 1.85  | (47.0) | 1.80  | (45.7) | .418        | (10.6) | .853 | (21.7) |

Dimensions in inches (millimeters) and are subject to change without notice.

AS85049/48-1  
Rectangular Backshells  
MIL-DTL-24308



AS85049

B

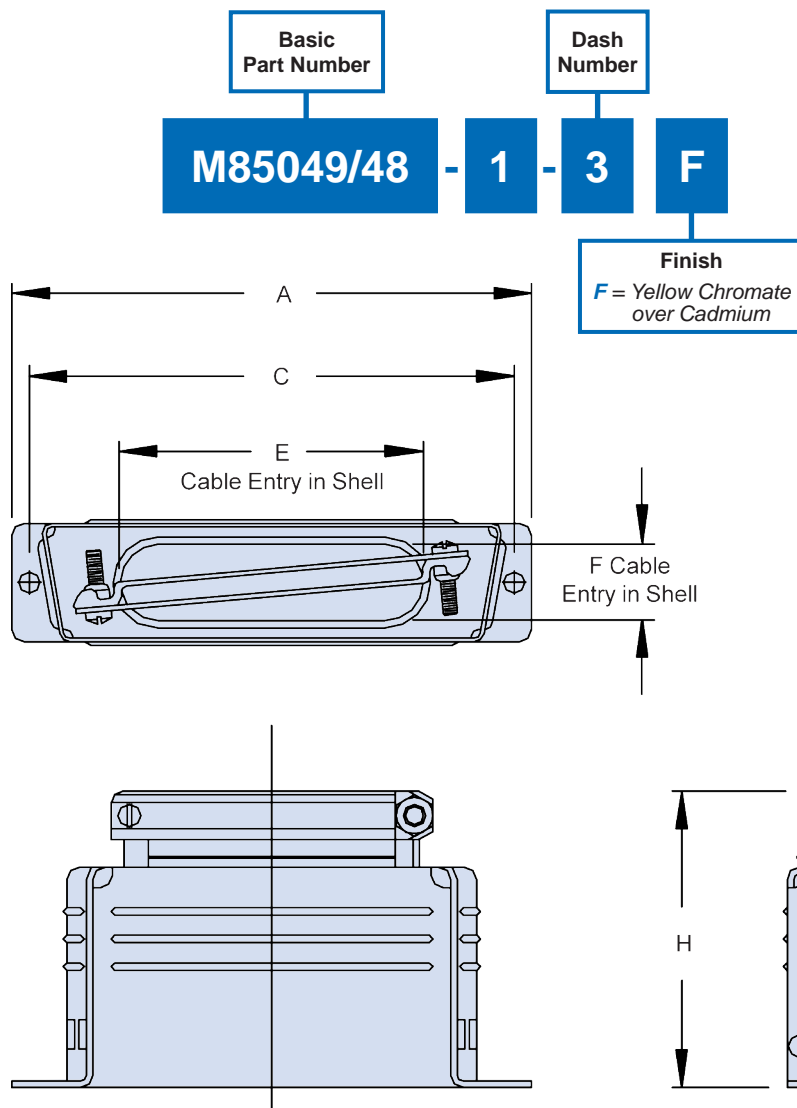


TABLE I: Dash Number and Backshell Dimensions

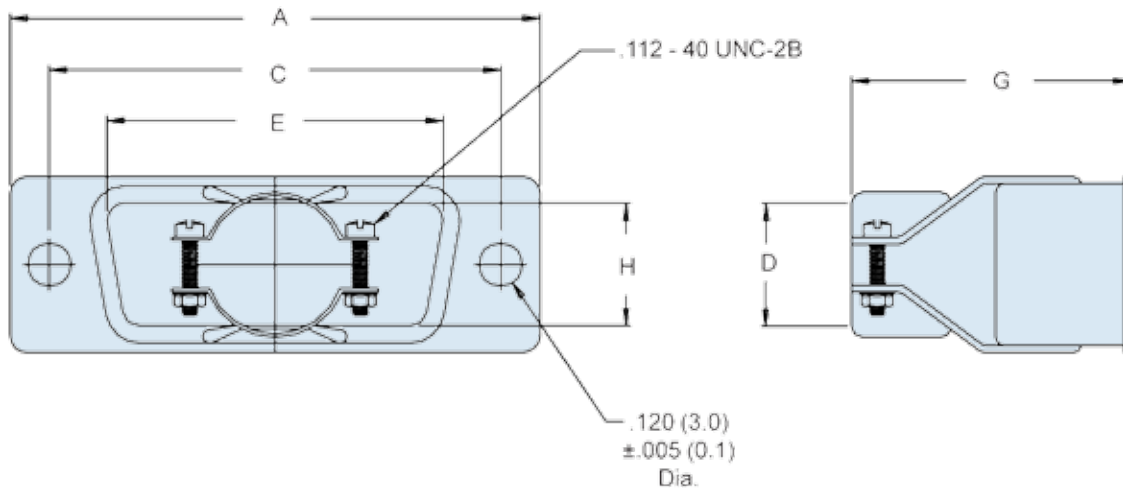
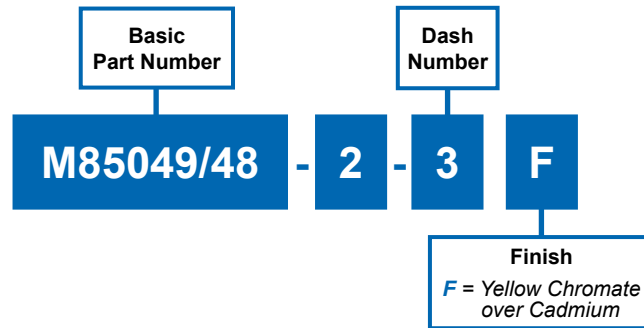
| Dash No. | A<br>± .015 (0.4) | C<br>± .005 (.13) | E<br>± .015 (0.4) | F<br>± .015 (0.4) | G<br>± .015 (0.4) | H<br>Max     |
|----------|-------------------|-------------------|-------------------|-------------------|-------------------|--------------|
| 1        | 1.203 (30.6)      | .984 (25.0)       | .375 (9.5)        | .375 (9.5)        | .750 (19.1)       | 1.250 (31.8) |
| 2        | 1.531 (38.9)      | 1.312 (33.3)      | .713 (18.1)       | .312 (7.9)        | .750 (19.1)       | 1.250 (31.8) |
| 3        | 2.078 (52.8)      | 1.852 (47.0)      | 1.000 (25.4)      | .312 (7.9)        | 1.000 (25.4)      | 1.563 (39.7) |
| 4        | 2.718 (69.0)      | 2.500 (63.5)      | 1.375 (34.9)      | .312 (7.9)        | 1.000 (25.4)      | 1.563 (39.7) |
| 5        | 2.625 (66.7)      | 2.406 (61.1)      | 1.406 (35.7)      | .406 (10.3)       | 1.125 (28.6)      | 1.688 (42.9) |

APPLICATION NOTES

1. Assembly identified with manufacturer's name and part number, space permitting.
2. For complete dimensions, see the applicable Military Specification.
3. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.




**APPLICATION NOTES**

1. Assembly identified with manufacturer's name and part number, space permitting.
2. For complete dimensions, see the applicable Military Specification.
3. Metric dimensions (mm) are in parentheses.

**TABLE I: Dash Number and Backshell Dimensions**

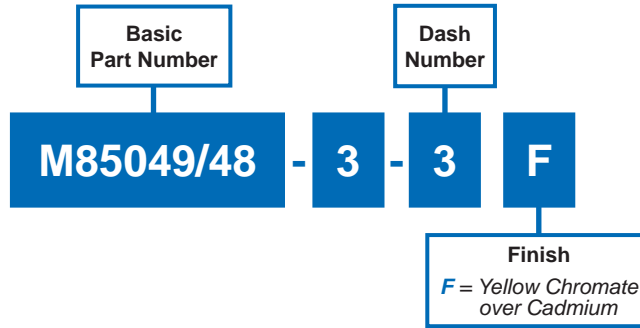
| Dash No. | Nonmagnetic (Brass) | A<br>± .015 (0.4) | C<br>± .005 (.13) | D           | E<br>± .015 (0.4) | G<br>± .030 (0.8) | H<br>± .015 (0.4) |
|----------|---------------------|-------------------|-------------------|-------------|-------------------|-------------------|-------------------|
| 1        | 6                   | 1.208 (30.7)      | .984 (25.0)       | .406 (10.3) | .661 (16.8)       | 1.031 (26.2)      | .344 (8.7)        |
| 2        | 7                   | 1.531 (38.9)      | 1.312 (33.3)      | .406 (10.3) | .984 (25.0)       | 1.031 (26.2)      | .344 (8.7)        |
| 3        | 8                   | 2.078 (52.8)      | 1.852 (47.0)      | .593 (15.1) | 1.515 (38.5)      | 1.062 (27.0)      | .344 (8.7)        |
| 4        | 9                   | 2.718 (69.0)      | 2.500 (63.5)      | .718 (18.2) | 2.171 (55.1)      | 1.062 (27.0)      | .344 (8.7)        |
| 5        | 10                  | 2.625 (66.7)      | 2.406 (61.1)      | .812 (20.6) | 2.093 (53.2)      | 1.062 (27.0)      | .438 (11.1)       |

Dimensions in inches (millimeters) and are subject to change without notice.

AS85049/48-3  
Rectangular Backshell  
MIL-DTL-24308



AS85049



B

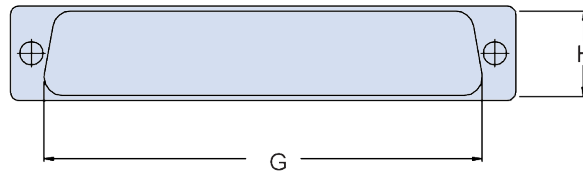
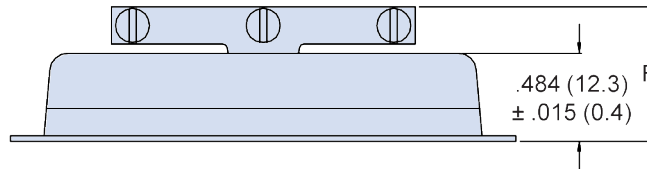
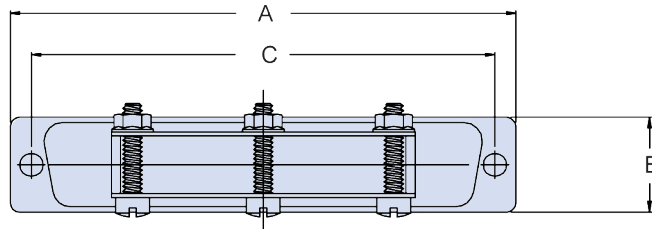


TABLE I: Dash Number and Backshell Dimensions

| Dash No. | No. of Screws | A<br>± .015 (0.4) | B<br>± .015 (0.4) | C<br>± .005 (0.1) | F<br>Max    | G<br>± .015 (0.4) | H<br>± .015 (0.4) |
|----------|---------------|-------------------|-------------------|-------------------|-------------|-------------------|-------------------|
| 2        | 2             | 1.531 (38.9)      | .500 (12.7)       | 1.312 (33.3)      | .679 (17.2) | 1.091 (27.7)      | .442 (11.2)       |
| 3        | 2             | 2.078 (52.8)      | .500 (12.7)       | 1.852 (47.0)      | .679 (17.2) | 1.631 (41.4)      | .442 (11.2)       |
| 4        | 3             | 2.718 (69.0)      | .500 (12.7)       | 2.500 (63.5)      | .679 (17.2) | 2.282 (58.0)      | .442 (11.2)       |
| 5        | 3             | 2.625 (66.7)      | .609 (15.5)       | 2.406 (61.1)      | .724 (18.4) | 2.205 (56.0)      | .565 (14.4)       |

APPLICATION NOTES

1. Assembly identified with manufacturer's name and part number, space permitting.
2. For complete dimensions, see the applicable Military Specification.
3. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.



# AS85049/49-2 and MS27506

## Straight Strain Relief

### Self-Locking or Non-Self-Locking

#### CONNECTOR DESIGNATOR:

**F** MIL-DTL-27599,  
MIL-DTL-38999 Series I & II

**FOR NEW DESIGN  
USE AS85049/121**

Basic  
Part Number

**M85049/49-2**

Dash No.

**S**

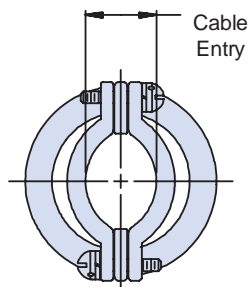
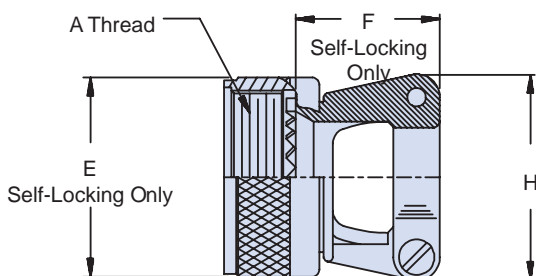
**10**

**W**

**S** = Self-Locking  
Use Dash for Non-Self-Locking  
**N** = Non-Detented

#### Material and Finish Designator

**A** = Aluminum, Black Anodize  
**N** = Aluminum, Electroless Nickel  
**S** = 300 Series Steel, Passivated  
**W** = Aluminum, 1000 Hour Cadmium  
Olive Drab over Electroless Nickel



Note: Screw orientation shown is for non-self-locking configuration. Screws on self-locking configurations are on the same side/face of the clamp.

**TABLE I: Shell Size, Cable Entry and Backshell Dimensions**

| Shell Size | Shell Size Ref. | A Thread Class 2B | Ø E Max           |        | F Max             |        | H Max |        | Cable Entry |        |      |        |
|------------|-----------------|-------------------|-------------------|--------|-------------------|--------|-------|--------|-------------|--------|------|--------|
|            |                 |                   | Self-Locking Only |        | Self-Locking Only |        |       |        | Min         | Max    |      |        |
| 8          | 8/9             | .438 - 28 UNEF    | .86               | (21.8) | .91               | (23.1) | .85   | (21.6) | .098        | (2.5)  | .234 | (5.9)  |
| 10         | 10/11           | .562 - 24 UNEF    | .98               | (24.9) | .91               | (23.1) | .90   | (22.9) | .153        | (3.9)  | .234 | (5.9)  |
| 12         | 12/13           | .688 - 24 UNEF    | 1.16              | (29.5) | 1.01              | (25.7) | 1.10  | (27.9) | .190        | (4.8)  | .328 | (8.3)  |
| 14         | 14/15           | .813 - 20 UNEF    | 1.28              | (32.5) | 1.06              | (26.9) | 1.15  | (29.2) | .260        | (6.6)  | .457 | (11.6) |
| 16         | 16/17           | .938 - 20 UNEF    | 1.41              | (35.8) | 1.16              | (29.5) | 1.30  | (33.0) | .283        | (7.2)  | .614 | (15.6) |
| 18         | 18/19           | 1.063 - 18 UNEF   | 1.52              | (38.6) | 1.41              | (35.8) | 1.50  | (38.1) | .325        | (8.3)  | .634 | (16.1) |
| 20         | 20/21           | 1.188 - 18 UNEF   | 1.64              | (41.7) | 1.51              | (38.4) | 1.60  | (40.6) | .343        | (8.7)  | .698 | (17.7) |
| 22         | 22/23           | 1.313 - 18 UNEF   | 1.77              | (45.0) | 1.66              | (42.2) | 1.70  | (43.2) | .381        | (9.7)  | .823 | (20.9) |
| 24         | 24/25           | 1.438 - 18 UNEF   | 1.89              | (48.0) | 1.76              | (44.7) | 1.80  | (45.7) | .418        | (10.6) | .853 | (21.7) |

#### APPLICATION NOTES

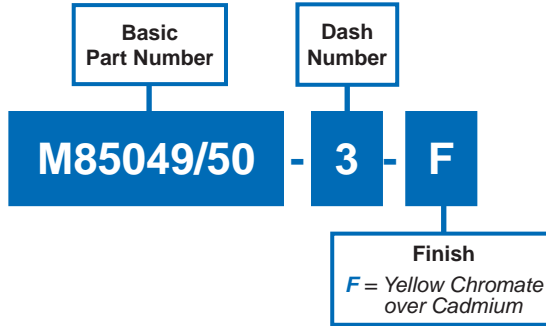
1. Assembly to be identified with manufacturer's name and part number, space permitting.
2. Cable Entry is defined as the accommodation entry for the wire bundle or cable. Dimensions are not intended for inspection criteria.
3. For complete dimensions, see the applicable Military Specification.
4. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.

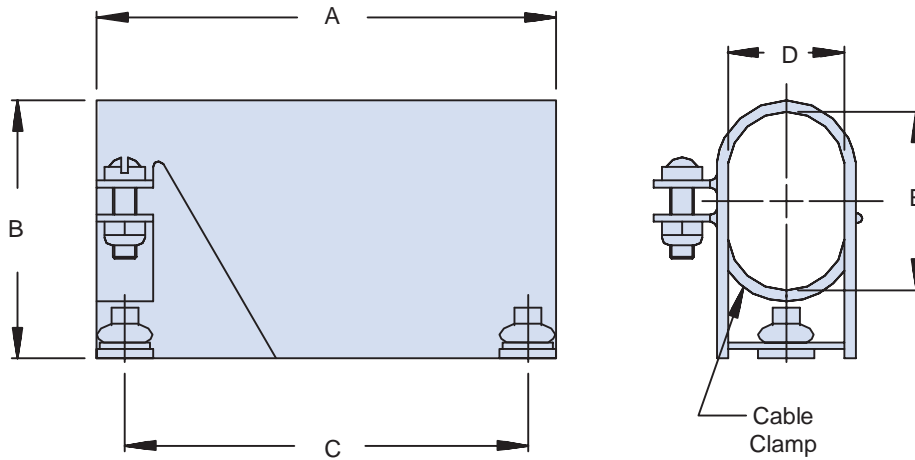
AS85049/50  
Rectangular Backshell  
MIL-DTL-24308



AS85049



B



**TABLE I: Dash Number and Backshell Dimensions**

| Dash No. | A<br>± .015 (0.4) | B<br>± .030 (0.8) | C<br>± .005 (0.1) | D<br>Max    | E<br>.030 (0.8) |
|----------|-------------------|-------------------|-------------------|-------------|-----------------|
| 1        | 1.203 (30.6)      | .718 (18.2)       | .984 (25.0)       | .467 (11.9) | .437 (11.1)     |
| 2        | 1.531 (38.9)      | .718 (18.2)       | 1.312 (33.3)      | .467 (11.9) | .437 (11.1)     |
| 3        | 2.078 (52.8)      | .968 (24.6)       | 1.852 (47.0)      | .467 (11.9) | .625 (15.9)     |
| 4        | 2.718 (69.0)      | 1.187 (30.1)      | 2.500 (63.5)      | .467 (11.9) | .812 (20.6)     |
| 5        | 2.625 (66.7)      | 1.250 (31.8)      | 2.406 (61.1)      | .592 (15.0) | .906 (23.0)     |

- APPLICATION NOTES**
1. Assembly identified with manufacturer's name and part number, space permitting.
  2. For complete dimensions, see the applicable Military Specification.
  3. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.



# AS85049/51 and MS3418

## 90° Strain Relief

### Self-Locking or Non-Self-Locking

#### CONNECTOR DESIGNATOR:

A

AS50151 Series AS34001 Crimp,  
MIL-DTL-26482 Series II,  
SAE-AS1703 Crimp Series III,  
MIL-DTL-83723 Series I & III

Basic  
Part Number

M85049/51

Dash No.

S

10

W

FOR NEW DESIGN  
USE AS85049/120

#### Superseded Part Number

**MS3418-10 C**

Basic  
Part No.  
(Non-Self-  
Locking)

Dash  
No.

#### Metal and Finish Designator

A = Aluminum 1000 Hour Cadmium Olive  
Drab over Electroless Nickel  
C = Aluminum, Cadmium Olive Drab  
G = Aluminum Black Anodize  
N = Aluminum, Electroless Nickel

S = Self-Locking  
-1 = Non-Self-Locking  
N = Non-Detented

**Material and Finish Designator**  
A = Aluminum, Black Anodize  
N = Aluminum, Electroless Nickel  
S = Stainless Steel, Passivate  
W = Aluminum, 1000 Hr. Cadmium O.D.  
over Electroless Nickel

#### APPLICATION NOTES

1. Assembly to be identified with manufacturer's name and part number, space permitting.
2. Cable Entry is defined as the accommodation entry for the wire bundle or cable.
3. Dimensions are not intended for inspection criteria.
4. For complete dimensions, see the applicable Military Specification.
5. Metric dimensions (mm) are in parentheses.

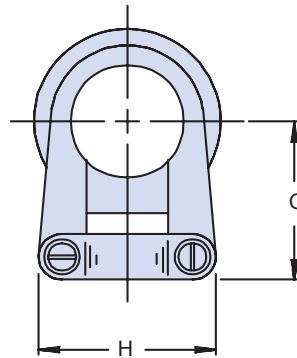
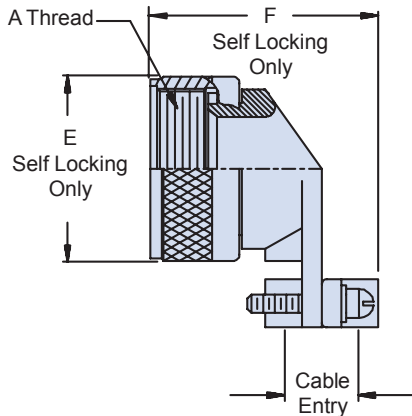


TABLE I: Shell Size, Cable Entry and Backshell Dimensions

| Dash No. | A Thread Class 2B | Ø E Max      |        | F Max        |        | G     |        | H Max | Cable Entry |       |        |       |        |
|----------|-------------------|--------------|--------|--------------|--------|-------|--------|-------|-------------|-------|--------|-------|--------|
|          |                   | Self-Locking |        | Self-Locking |        | ±.062 | (1.6)  |       | Min         | Max   |        |       |        |
| 3*+      | .562 - 24 UNEF    | -            | -      | -            | -      | .777  | (19.7) | .782  | (19.9)      | .125  | (3.2)  | .204  | (5.2)  |
| 8        | .500 - 20 UNF     | .885         | (22.5) | 1.257        | (31.9) | .746  | (18.9) | .782  | (19.9)      | .125  | (3.2)  | .204  | (5.2)  |
| 10       | .625 - 24 UNEF    | 1.010        | (25.7) | 1.339        | (34.0) | .805  | (20.4) | .862  | (21.9)      | .187  | (4.7)  | .286  | (7.3)  |
| 12       | .750 - 20 UNEF    | 1.135        | (28.8) | 1.532        | (38.9) | .867  | (22.0) | 1.003 | (25.5)      | .291  | (7.4)  | .416  | (10.6) |
| 14       | .875 - 20 UNEF    | 1.260        | (32.0) | 1.592        | (40.4) | .930  | (23.6) | 1.061 | (26.9)      | .351  | (8.9)  | .476  | (12.1) |
| 16       | 1.000 - 20 UNEF   | 1.385        | (35.2) | 1.741        | (44.2) | .994  | (25.2) | 1.334 | (33.9)      | .501  | (12.7) | .626  | (15.9) |
| 18       | 1.062 - 18 UNEF   | 1.510        | (38.4) | 1.853        | (47.1) | 1.171 | (29.7) | 1.466 | (37.2)      | .518  | (13.2) | .706  | (17.9) |
| 20       | 1.188 - 18 UNEF   | 1.635        | (41.5) | 1.978        | (50.2) | 1.234 | (31.2) | 1.572 | (39.9)      | .581  | (14.8) | .831  | (21.1) |
| 22       | 1.313 - 18 UNEF   | 1.760        | (44.7) | 2.108        | (53.5) | 1.296 | (32.9) | 1.688 | (42.9)      | .644  | (16.4) | .956  | (24.3) |
| 24       | 1.438 - 18 UNEF   | 1.885        | (47.9) | 2.228        | (56.6) | 1.358 | (34.5) | 1.790 | (45.5)      | .706  | (17.9) | 1.081 | (27.5) |
| 28+      | 1.750 - 18 UNS    | 2.135        | (54.2) | 2.528        | (64.2) | 1.572 | (39.9) | 2.035 | (51.7)      | .750  | (19.1) | 1.187 | (30.1) |
| 32+      | 2.000 - 18 UNS    | 2.395        | (60.8) | 2.591        | (65.8) | 1.797 | (45.6) | 2.386 | (60.6)      | .875  | (22.2) | 1.250 | (31.8) |
| 36+      | 2.250 - 16 UN     | 2.635        | (66.9) | 2.716        | (69.0) | 1.922 | (48.8) | 2.496 | (63.4)      | .938  | (23.8) | 1.375 | (34.9) |
| 40+      | 2.500 - 16 UN     | 2.885        | (73.3) | 2.841        | (72.2) | 2.047 | (52.0) | 2.566 | (65.2)      | .938  | (23.8) | 1.500 | (38.1) |
| 44+      | 2.750 - 16 UN     | 3.135        | (79.6) | 3.091        | (78.5) | 2.296 | (58.3) | 2.860 | (72.6)      | 1.188 | (30.2) | 1.750 | (44.5) |
| 48+      | 3.000 - 16 UN     | 3.385        | (86.0) | 3.216        | (81.7) | 2.421 | (61.5) | 3.344 | (84.9)      | 1.312 | (33.3) | 1.875 | (47.6) |
| 61*+     | 1.500 - 18 UNEF   | -            | -      | -            | -      | 1.388 | (35.3) | 1.775 | (45.1)      | .706  | (17.9) | 1.081 | (27.5) |

\* Not Available in Self Locking + Not Available under M83723/15A

Dimensions in inches (millimeters) and are subject to change without notice.

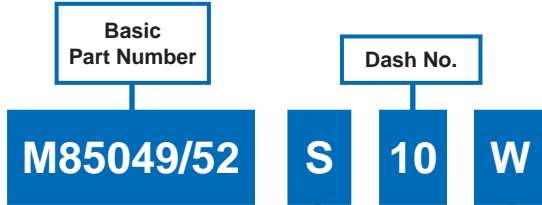
# AS85049/52 and MS3417 Straight Strain Relief Self-Locking or Non-Self-Locking



AS85049

B

| CONNECTOR DESIGNATOR: |  |
|-----------------------|--|
| <b>A</b>              | AS50151 Series AS34001 Crimp, MIL-DTL-26482 Series II, SAE-AS1703 Crimp Series III, MIL-DTL-83723 Series I & III |



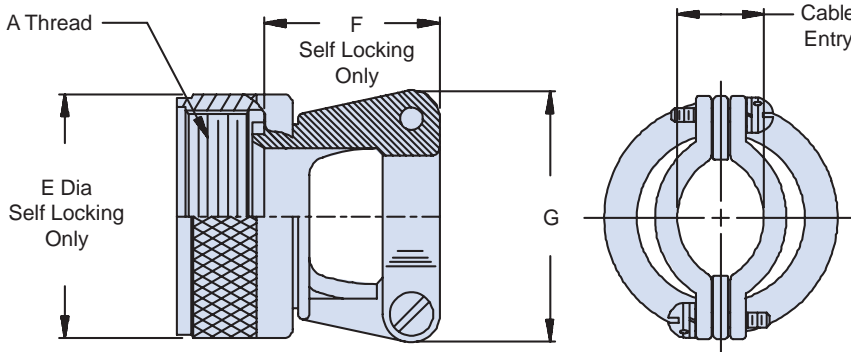
**FOR NEW DESIGN USE AS85049/118**

| Superseded Part Number            |          |   |
|-----------------------------------|----------|---|
| <b>MS3417-10 A</b>                |          |   |
| Basic Part No. (Non-Self-Locking) | Dash No. | Metal and Finish Designator   |
|                                   |          | A = Aluminum 1000 Hour Cadmium Olive Drab over Electroless Nickel<br>C = Aluminum, Cadmium Olive Drab<br>G = Aluminum Black Anodize<br>N = Aluminum, Electroless Nickel |

**S** = Self-Locking  
**-1** = Non-Self-Locking  
**N** = Non-Detented

**Material and Finish Designator**  
**A** = Aluminum, Black Anodize  
**N** = Aluminum, Electroless Nickel  
**S** = Stainless Steel, Passivate  
**W** = Aluminum, 1000 Hr. Cadmium O.D. over Electroless Nickel

- ### APPLICATION NOTES
1. Assembly to be identified with manufacturer's name and part number, space permitting.
  2. Cable Entry is defined as the accommodation entry for the wire bundle or cable.
  3. Dimensions are not intended for inspection criteria.
  4. For complete dimensions, see the applicable Military Specification.
  5. Metric dimensions (mm) are in parentheses.



| Dash No. | A Thread Class 2B | Ø E Max      |   | F Max        |   | G Max        | Cable Entry  |              |  |  |
|----------|-------------------|--------------|---|--------------|---|--------------|--------------|--------------|--|--|
|          |                   | Self-Locking |   | Self-Locking |   |              | Min          | Max          |  |  |
| 3*+      | .562 - 24 UNEF    | -            | - | -            | - | .782 (19.9)  | .125 (3.2)   | .204 (5.2)   |  |  |
| 8        | .500 - 20 UNF     | .885 (22.5)  |   | .73 (18.5)   |   | .782 (19.9)  | .125 (3.2)   | .204 (5.2)   |  |  |
| 10       | .625 - 24 UNEF    | 1.010 (25.7) |   | .85 (21.6)   |   | .862 (21.9)  | .187 (4.7)   | .286 (7.3)   |  |  |
| 12       | .750 - 20 UNEF    | 1.135 (28.8) |   | .98 (24.9)   |   | 1.003 (24.6) | .291 (7.4)   | .416 (10.6)  |  |  |
| 14       | .875 - 20 UNEF    | 1.260 (32.0) |   | .98 (24.9)   |   | 1.061 (25.5) | .351 (8.9)   | .476 (12.1)  |  |  |
| 16       | 1.000 - 20 UNEF   | 1.385 (35.2) |   | 1.10 (27.9)  |   | 1.234 (26.9) | .501 (12.7)  | .626 (15.9)  |  |  |
| 18       | 1.062 - 18 UNEF   | 1.510 (38.4) |   | 1.35 (34.3)  |   | 1.466 (35.4) | .518 (13.2)  | .706 (17.9)  |  |  |
| 20       | 1.188 - 18 UNEF   | 1.635 (41.5) |   | 1.98 (50.3)  |   | 1.572 (37.2) | .581 (14.8)  | .831 (21.1)  |  |  |
| 22       | 1.313 - 18 UNEF   | 1.760 (44.7) |   | 2.73 (69.3)  |   | 1.688 (39.9) | .644 (16.4)  | .956 (24.3)  |  |  |
| 24       | 1.438 - 18 UNEF   | 1.885 (47.9) |   | 2.88 (73.2)  |   | 1.790 (43.1) | .706 (17.9)  | 1.081 (27.5) |  |  |
| 28+      | 1.750 - 18 UNS    | 2.135 (54.2) |   | 2.528 (64.2) |   | 2.035 (45.5) | .750 (19.1)  | 1.187 (30.1) |  |  |
| 32+      | 2.000 - 18 UNS    | 2.395 (60.8) |   | 2.591 (65.8) |   | 2.386 (51.7) | .875 (22.2)  | 1.250 (31.8) |  |  |
| 36+      | 2.250 - 16 UN     | 2.635 (66.9) |   | 2.13 (54.1)  |   | 2.446 (60.6) | .938 (23.8)  | 1.375 (34.9) |  |  |
| 40+      | 2.500 - 16 UN     | 2.885 (73.3) |   | 2.44 (62.0)  |   | 2.566 (65.2) | .938 (23.8)  | 1.500 (38.1) |  |  |
| 44+      | 2.750 - 16 UN     | 3.135 (79.6) |   | 3.00 (76.2)  |   | 2.860 (72.6) | 1.188 (30.2) | 1.750 (44.5) |  |  |
| 48+      | 3.000 - 16 UN     | 3.385 (86.0) |   | 3.40 (86.4)  |   | 3.344 (84.9) | 1.312 (33.3) | 1.875 (47.6) |  |  |
| 61*+     | 1.500 - 18 UNEF   | -            | - | -            | - | 1.775 (45.1) | .706 (17.9)  | 1.081 (27.5) |  |  |

\* Not Available in Self Locking + Not Available under M83723/15S

Dimensions in inches (millimeters) and are subject to change without notice.





# AS85049/53, AS85049/54 and AS85049/55 Straight, 45° and 90° Qwik-Ty Strain Reliefs Optional Self-Locking • Optional Ground Lug

## CONNECTOR DESIGNATOR:

A

AS50151 Series AS34001  
MIL-DTL-26482 Series II  
AS81703 Series III  
MIL-DTL-83723 Series I and III  
40M39569, DEF 5326-3, EN2997  
EN3646, ESC 10, ESC 11, LN 29504  
NFC93422 Series HE302  
PAN 6432-1, PAN 6432-2, PATT 602

## Configuration

— = Non-Self-Locking  
G = Non-Self-Locking with Ground Lug\*  
S = Detented, Self-Locking\*  
T = Detented, Self-Locking with Ground Lug  
N = Non-Detented, Self-Locking  
H = Non-Detented, Self-Locking with Ground Lug  
\*Configuration Options G and S are available only with AS85049/55

## Finish

A = Anodize, Black  
N = Electroless Nickel  
W = 1,000 Hour Cadmium Olive Drab over Electroless Nickel  
X = Nickel Fluorocarbon Polymer  
Y = Pure Dense Electrodeposited Aluminum  
Z = Zinc-Nickel, Black

Shell Size

M85049/55

G

22

N

## OPTIONAL SELF-LOCKING COUPLING

### Basic Part Number

M85049/53 = Straight  
M85049/54 = 45°  
M85049/55 = 90°

### FOR NEW DESIGN APPLICATIONS USE

M85049/43 (45°), M85049/51 (90°) and M85049/52 (Straight)

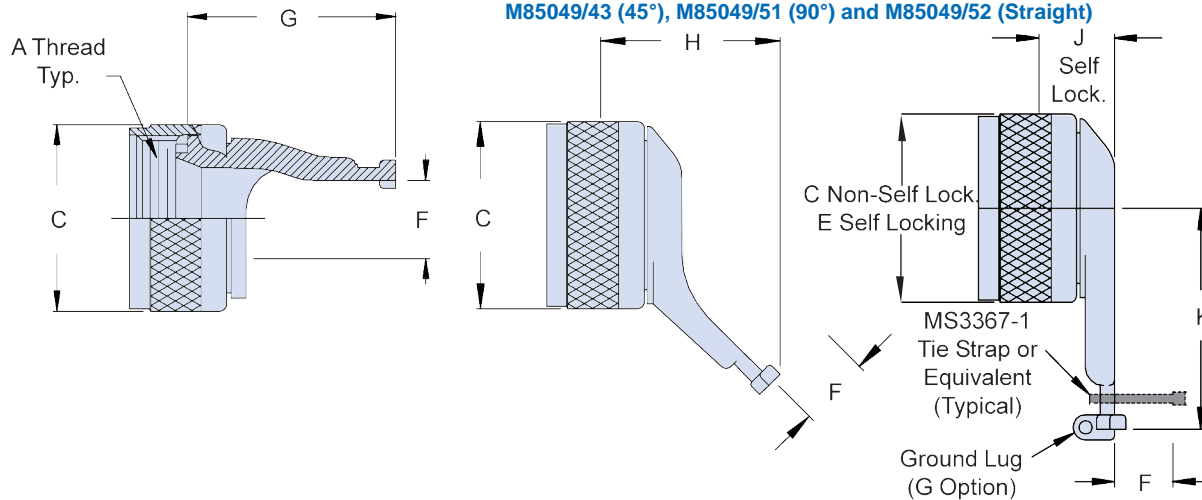


TABLE I: Shell Size, Thread, Cable Entry and Backshell Dimensions

| Shell Size | A Thread Class 2B | C Dia Max    | E Dia Max    | F Cable Entry | G Max        | H Max        | J Max       | K Max        |
|------------|-------------------|--------------|--------------|---------------|--------------|--------------|-------------|--------------|
| 03         | 562 - 24 UNEF     | .780 (19.8)  | 1.010 (25.7) | .260 (6.6)    | .954 (24.0)  | 1.232 (31.3) | .730 (18.5) | 1.290 (32.8) |
| 08         | .500 - 20 UNF     | .660 (16.8)  | .890 (22.6)  | .260 (6.6)    | .954 (24.0)  | 1.232 (31.3) | .730 (18.5) | 1.290 (31.0) |
| 10         | .625 - 24 UNEF    | .780 (19.8)  | 1.010 (25.7) | .365 (9.3)    | .954 (24.0)  | 1.232 (31.3) | .730 (18.5) | 1.290 (32.8) |
| 12         | .750 - 20 UNEF    | .940 (23.9)  | 1.140 (29.0) | .501 (12.7)   | .954 (24.0)  | 1.232 (31.3) | .730 (18.5) | 1.620 (41.1) |
| 14         | .875 - 20 UNEF    | 1.050 (26.7) | 1.260 (32.0) | .575 (14.6)   | 1.204 (30.6) | 1.232 (31.3) | .730 (18.5) | 1.660 (42.2) |
| 16         | 1.000 - 20 UNEF   | 1.240 (31.5) | 1.390 (35.3) | .700 (17.8)   | 1.204 (30.6) | 1.232 (31.3) | .730 (18.5) | 1.720 (43.7) |
| 18         | 1.062 - 18 UNEF   | 1.380 (35.1) | 1.510 (38.4) | .779 (19.8)   | 1.204 (30.6) | 1.232 (31.3) | .730 (18.5) | 1.720 (43.7) |
| 20         | 1.188 - 18 UNEF   | 1.500 (38.1) | 1.640 (41.7) | .904 (23.0)   | 1.310 (33.3) | 1.482 (37.6) | .750 (19.1) | 1.790 (45.5) |
| 22         | 1.313 - 18 UNEF   | 1.630 (41.4) | 1.760 (44.7) | 1.029 (26.1)  | 1.430 (36.3) | 1.482 (37.6) | .750 (19.1) | 1.850 (47.0) |
| 24         | 1.438 - 18 UNEF   | 1.750 (44.5) | 1.890 (48.0) | 1.144 (29.1)  | 1.560 (39.6) | 1.482 (37.6) | .750 (19.1) | 1.910 (48.5) |
| 28         | 1.750 - 18 UNS    | 1.970 (50.0) | 2.140 (54.4) | 1.379 (35.0)  | 1.560 (39.6) | 1.469 (37.3) | .750 (19.1) | 2.060 (52.3) |

## APPLICATION NOTES

1. Assembly identified with manufacturer's name and part number, space permitting.
2. For complete dimensions, see the applicable Military Specification.
3. Cable entry is defined as the accommodation range for the wire bundle or cable. Dimensions shown are not intended for inspection criteria.
4. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.

AS85049/56 and AS85049/57  
Straight and 45° Qwik-Ty Strain Reliefs  
Optional Self-Locking • Optional Ground Lug



AS85049

B

**CONNECTOR DESIGNATOR:**  
**F** MIL-DTL-38999 Series I and II

**Configuration**  
**N** = Non-Detented  
**G** = Self-Locking with Ground Lug  
**H** = Non-Detented with Ground Lug  
**S** = Self-Locking without Ground Lug  
**—** = Non Self-Locking

**Finish**  
**A** = Anodize, Black  
**N** = Electroless Nickel  
**W** = 1,000 Hour Cadmium Olive Drab over Electroless Nickel  
**X** = Nickel Fluorocarbon Polymer  
**Y** = Pure Dense Electrodeposited Aluminum  
**Z** = Zinc-Nickel, Black

**Basic Part Number**  
**M85049/56** = Straight  
**M85049/57** = 45°

**M85049/57**

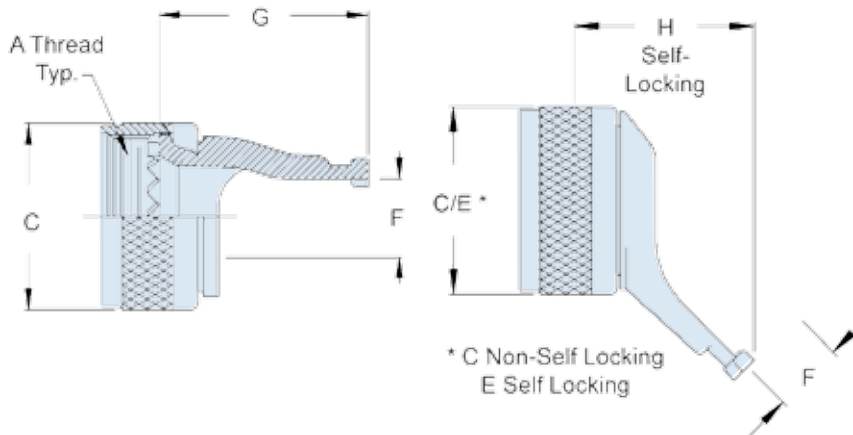
**G**

**16**

**W**

**OPTIONAL SELF-LOCKING COUPLING**

**Shell Size**



**TABLE I: Shell Size, Thread, Cable Entry and Backshell Dimensions**

| Shell Size Series II | Series I Shell Size Ref. | A Thread Class 2B | C Dia Max    | E Dia Max    | F Cable Entry | G Max        | H Max        |
|----------------------|--------------------------|-------------------|--------------|--------------|---------------|--------------|--------------|
| 8                    | 9                        | .438-28 UNEF      | .750 (19.1)  | .860 (21.8)  | .264 (6.7)    | .895 (22.7)  | 1.210 (30.7) |
| 10                   | 11                       | .562-24 UNEF      | .850 (21.6)  | .980 (24.9)  | .392 (10.0)   | .895 (22.7)  | 1.210 (30.7) |
| 12                   | 13                       | .688-24 UNEF      | 1.000 (25.4) | 1.160 (29.5) | .506 (12.9)   | .955 (24.3)  | 1.390 (35.3) |
| 14                   | 15                       | .813-20 UNEF      | 1.100 (27.9) | 1.280 (32.5) | .631 (16.0)   | 1.135 (28.8) | 1.390 (35.3) |
| 16                   | 17                       | .938-20 UNEF      | 1.250 (31.8) | 1.410 (35.8) | .756 (19.2)   | 1.135 (28.8) | 1.390 (35.3) |
| 18                   | 19                       | 1.063-18 UNEF     | 1.400 (35.6) | 1.520 (38.6) | .845 (21.5)   | 1.195 (30.4) | 1.390 (35.3) |
| 20                   | 21                       | 1.188-18 UNEF     | 1.500 (38.1) | 1.640 (41.7) | .970 (24.6)   | 1.325 (33.7) | 1.390 (35.3) |
| 22                   | 23                       | 1.313-18 UNEF     | 1.650 (41.9) | 1.770 (45.0) | 1.095 (27.8)  | 1.445 (36.7) | 1.390 (35.3) |
| 24                   | 25                       | 1.438-18 UNEF     | 1.750 (44.5) | 1.890 (48.0) | 1.220 (31.0)  | 1.585 (40.3) | 1.390 (35.3) |

- APPLICATION NOTES**
1. Assembly identified with manufacturer's name and part number, space permitting.
  2. For complete dimensions, see the applicable Military Specification.
  3. Cable entry is defined as the accommodation range for the wire bundle or cable. Dimensions shown are not intended for inspection criteria.
  4. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.

## CONNECTOR DESIGNATOR:

**F** MIL-DTL-38999 Series I and II

Basic Part Number

Dash Number

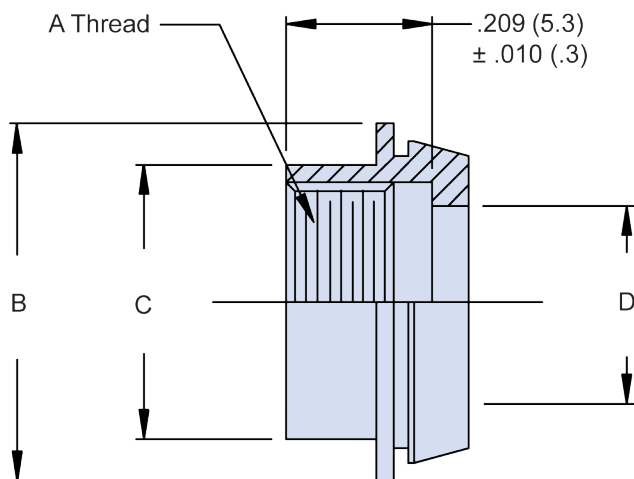
**M85049/58 - 10**


TABLE I: Dash Number, Shell Size and Dimensions

| Dash No. | Shell Size (Ref) | A Thread UNEF-2B | B Dia Max    | C Dia Max    | D Dia ±.005 (.1) |
|----------|------------------|------------------|--------------|--------------|------------------|
| 8        | 8/9              | .4375-28         | .600 (15.2)  | .506 (12.9)  | .344 (8.7)       |
| 10       | 10/11            | .5625-24         | .726 (18.4)  | .631 (16.0)  | .472 (12.0)      |
| 12       | 12/13            | .6875-24         | .850 (21.6)  | .756 (19.2)  | .586 (14.9)      |
| 14       | 14/15            | .8125-20         | .976 (24.8)  | .881 (22.4)  | .711 (18.1)      |
| 16       | 16/17            | .9375-20         | 1.012 (25.7) | 1.006 (25.6) | .836 (21.2)      |
| 18       | 18/19            | 1.0625-18        | 1.226 (31.1) | 1.131 (28.7) | .942 (23.9)      |
| 20       | 20/21            | 1.1875-18        | 1.352 (34.3) | 1.256 (31.9) | 1.067 (27.1)     |
| 22       | 22/23            | 1.3125-18        | 1.476 (37.5) | 1.381 (35.1) | 1.192 (30.3)     |
| 24       | 24/25            | 1.4375-18        | 1.602 (40.7) | 1.506 (38.3) | 1.317 (33.5)     |

## APPLICATION NOTES

- For complete dimensions see the applicable Military Specification.
- Finish: 500-Hour Cadmium Olive Drab over Electroless Nickel.
- See Pages 30-5 and 68-14 or the AS85049/75 Potting Boot which can be used with this potting ring.
- Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.

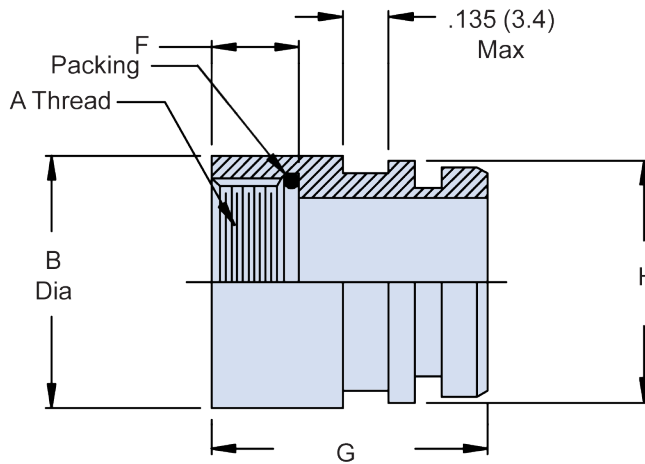
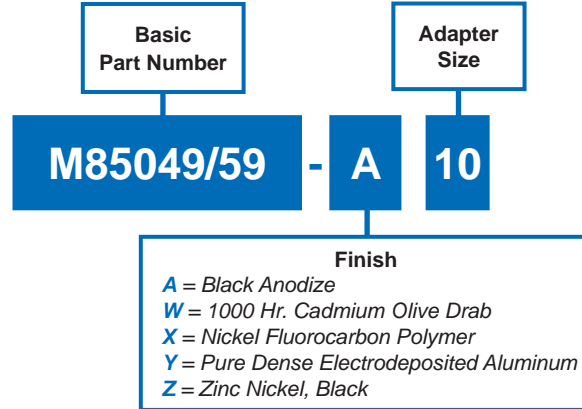
# AS85049/59 Straight Shrink Boot Adapter



AS85049

B

| CONNECTOR DESIGNATOR: |               |
|-----------------------|---------------|
| <b>C</b>              | MIL-DTL-22992 |



| Adapter Size | A Thread Class 2B-LH | B Max        | F ±.016 (0.4) | G ±.031 (0.8) | H Dia ±.010 (0.3) |
|--------------|----------------------|--------------|---------------|---------------|-------------------|
| 12           | .750 - 20 UNEF       | .933 (23.7)  | .479 (6.4)    | 1.175 (29.8)  | .798 (20.3)       |
| 14           | .875 - 20 UNEF       | 1.057 (26.8) | .479 (6.4)    | 1.175 (29.8)  | .922 (23.4)       |
| 16           | 1.000 - 20 UNEF      | 1.182 (30.0) | .479 (6.4)    | 1.175 (29.8)  | 1.048 (26.6)      |
| 18           | 1.125 - 18 UNEF      | 1.307 (33.2) | .479 (6.4)    | 1.175 (29.8)  | 1.172 (29.8)      |
| 20           | 1.250 - 18 UNEF      | 1.432 (36.4) | .479 (6.4)    | 1.175 (29.8)  | 1.297 (32.9)      |
| 22           | 1.375 - 18 UNEF      | 1.557 (39.5) | .479 (6.4)    | 1.175 (29.8)  | 1.423 (36.1)      |
| 24           | 1.625 - 18 UNEF      | 1.797 (45.6) | .479 (6.4)    | 1.175 (29.8)  | 1.662 (42.2)      |
| 28           | 1.875 - 16 UN        | 2.057 (52.2) | .479 (6.4)    | 1.175 (29.8)  | 1.922 (48.8)      |
| 32           | 2.062 - 16 UN        | 2.307 (58.6) | .479 (6.4)    | 1.175 (29.8)  | 2.172 (55.2)      |
| 36           | 2.312 - 16 UN        | 2.557 (64.9) | .479 (6.4)    | 1.175 (29.8)  | 2.422 (61.5)      |
| 40           | 2.625 - 16 UN        | 2.869 (72.9) | .667 (16.9)   | 1.375 (44.9)  | 2.734 (69.4)      |
| 44           | 2.875 - 16 UN        | 3.120 (79.2) | .667 (16.9)   | 1.375 (44.9)  | 2.982 (75.7)      |

|    |  |
|----|--|
| 1. | For complete dimensions see the applicable Military Specification. |
| 2. | Metric dimensions (mm) are in parentheses.                         |

Dimensions in inches (millimeters) and are subject to change without notice.

**CONNECTOR DESIGNATOR:**
**A**

AS50151 Series AS34001  
MIL-DTL-26482 Series II  
AS81703 Series III  
MIL-DTL-83723 Series I & III  
40M39569, DEF 5326-3  
EN 2997, EN 3646  
ESC 10, ESC 11, LN 29504  
NFC93422 Series HE302  
PAN 6432-1, PAN 6432-2  
PATT 602

**B**
**Basic Part Number**
**M85049/60-1**
**Shell Size**
**W**
**22**
**Finish**

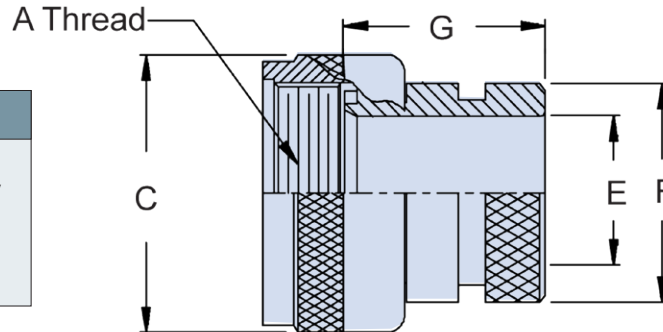
*A = Black Anodize*  
*N = Electroless Nickel*  
*W = 1000 Hr. Cadmium Olive Drab*  
*X = Nickel Fluorocarbon Polymer*  
*Y = Pure Dense Electrodeposited Aluminum*  
*Z = Zinc Nickel, Black*

**Superseded Part Number**
**Basic Part Number**
**MS3158**
**Shell Size**
**- 22 C**

**Finish**  
*C = Cadmium Olive Drab over Electroless Nickel*  
*N = Electroless Nickel*

**APPLICATION NOTES**

- For complete dimensions see the applicable Military Specification.
- Metric dimensions (mm) are in parentheses.


**TABLE I: Shell Size, Thread and Dimensions**

| Shell Size | A Thread Class 2B | C Dia Max<br>+.000 (0.0)<br>-.045 (1.14) | E Min Dia    | F Dia<br>+.000 (0.0)<br>-.020 (0.5) | G Max       |
|------------|-------------------|--|--------------|-------------------------------------|-------------|
| 3          | .562 - 24 UNEF    | .670 (17.0)                              | .250 (6.4)   | .533 (13.5)                         | .832 (21.1) |
| 8          | .500 - 20 UNF     | .620 (15.7)                              | .250 (6.4)   | .533 (13.5)                         | .832 (21.1) |
| 10         | .625 - 24 UNEF    | .740 (18.8)                              | .355 (9.0)   | .605 (15.4)                         | .832 (21.1) |
| 12         | .750 - 20 UNEF    | .860 (21.8)                              | .491 (12.5)  | .774 (19.7)                         | .832 (21.1) |
| 14         | .875 - 20 UNEF    | .980 (24.9)                              | .565 (14.4)  | .838 (21.3)                         | .832 (21.1) |
| 16         | 1.000 - 20 UNEF   | 1.110 (28.2)                             | .690 (17.5)  | .963 (24.5)                         | .832 (21.1) |
| 18         | 1.062 - 18 UNEF   | 1.220 (31.0)                             | .769 (19.5)  | 1.042 (26.5)                        | .832 (21.1) |
| 20         | 1.188 - 18 UNEF   | 1.350 (34.3)                             | .894 (22.7)  | 1.217 (30.9)                        | .832 (21.1) |
| 22         | 1.313 - 18 UNEF   | 1.470 (37.3)                             | 1.019 (25.9) | 1.355 (34.4)                        | .832 (21.1) |
| 24         | 1.438 - 18 UNEF   | 1.590 (40.4)                             | 1.134 (28.8) | 1.443 (36.7)                        | .832 (21.1) |
| 28         | 1.750 - 18 UNS    | 1.970 (50.0)                             | 1.369 (34.8) | 1.709 (43.4)                        | .994 (25.3) |
| 32         | 2.000 - 18 UNS    | 2.220 (56.4)                             | 1.615 (41.0) | 1.919 (48.7)                        | .994 (25.3) |
| 36         | 2.250 - 16 UN     | 2.470 (62.7)                             | 1.830 (46.5) | 2.169 (55.1)                        | .994 (25.3) |
| 40         | 2.500 - 16 UN     | 2.720 (69.1)                             | 2.045 (51.9) | 2.402 (61.0)                        | .994 (25.3) |
| 44         | 2.750 - 16 UN     | 2.970 (75.4)                             | 2.300 (58.4) | 2.657 (67.5)                        | .994 (25.3) |
| 48         | 3.000 - 16 UN     | 3.220 (81.8)                             | 2.550 (64.8) | 2.907 (73.8)                        | .994 (25.3) |
| 61         | 1.500 - 18 UNEF   | 1.650 (41.9)                             | 1.174 (29.8) | 1.529 (38.8)                        | .832 (21.1) |

Dimensions in inches (millimeters) and are subject to change without notice.

# AS85049/60-2G and MS3416-G Straight Shrink Boot Adapter



AS85049

## CONNECTOR DESIGNATOR:

**A**

AS50151 Series AS34001  
MIL-DTL-26482 Series II  
AS81703 Series III  
MIL-DTL-83723 Series I & III  
40M39569, DEF 5326-3  
EN 2997, EN 3646  
ESC 10, ESC 11, LN 29504  
NFC93422 Series HE302  
PAN 6432-1, PAN 6432-2  
PATT 602

Basic Part Number

Shell Size

**M85049/60-2G**

**22**

**W**

### Finish

*A = Black Anodize*  
*W = 1000 Hr. Cadmium Olive Drab*  
*X = Nickel Fluorocarbon Polymer*  
*Y = Pure Dense Electrodeposited Aluminum*  
*Z = Zinc Nickel, Black*

## Superseded Part Number

Basic Part Number

Shell Size

Style

**MS3416**

**-22**

**G**

**C**

### Finish

*A = 1,000 Hr. Cadmium Olive Drab*  
*C = Cadmium Olive Drab*  
*N = Electroless Nickel*

**B**

## APPLICATION NOTES

- For complete dimensions see the applicable Military Specification.
- Metric dimensions (mm) are in parentheses.

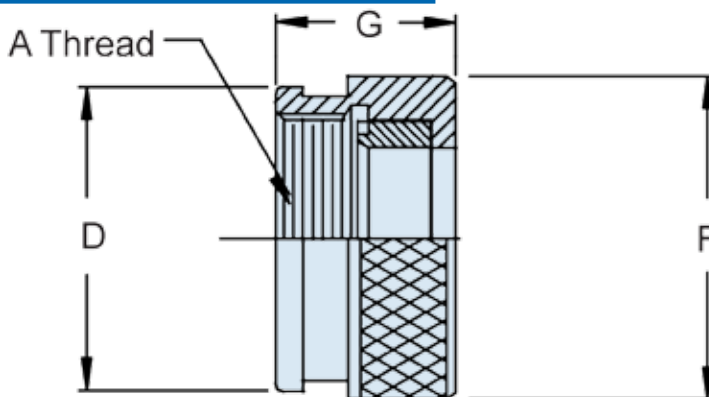


TABLE I: Shell Size, Thread and Dimensions

| Shell Size | A Thread Class 2B | D Dia +.000 (0.0) -.020 (0.5) | F Dia +.000 (0.0) -.045 (1.1) | G Max       |
|------------|-------------------|-------------------------------|-------------------------------|-------------|
| 3          | .562 - 24 UNEF    | .709 (18.0)                   | .750 (19.1)                   | .540 (13.7) |
| 8          | .500 - 20 UNF     | .657 (16.7)                   | .688 (17.5)                   | .540 (13.7) |
| 10         | .625 - 24 UNEF    | .774 (19.7)                   | .803 (20.4)                   | .540 (13.7) |
| 12         | .750 - 20 UNEF    | .898 (22.8)                   | .938 (23.8)                   | .540 (13.7) |
| 14         | .875 - 20 UNEF    | 1.024 (26.0)                  | 1.063 (27.0)                  | .540 (13.7) |
| 16         | 1.000 - 20 UNEF   | 1.152 (29.3)                  | 1.238 (31.4)                  | .540 (13.7) |
| 18         | 1.062 - 18 UNEF   | 1.243 (31.6)                  | 1.310 (33.3)                  | .540 (13.7) |
| 20         | 1.188 - 18 UNEF   | 1.370 (34.8)                  | 1.436 (36.5)                  | .540 (13.7) |
| 22         | 1.313 - 18 UNEF   | 1.443 (36.7)                  | 1.560 (39.6)                  | .540 (13.7) |
| 24         | 1.438 - 18 UNEF   | 1.618 (41.1)                  | 1.686 (42.8)                  | .540 (13.7) |
| 28         | 1.750 - 18 UNS    | 1.969 (50.0)                  | 2.062 (52.4)                  | .702 (17.8) |
| 32         | 2.000 - 18 UNS    | 2.219 (56.4)                  | 2.312 (58.7)                  | .702 (17.8) |
| 36         | 2.250 - 16 UN     | 2.469 (62.7)                  | 2.562 (65.1)                  | .702 (17.8) |
| 40         | 2.500 - 16 UN     | 2.719 (69.1)                  | 2.812 (71.4)                  | .702 (17.8) |
| 44         | 2.750 - 16 UN     | 2.969 (75.4)                  | 3.062 (77.8)                  | .702 (17.8) |
| 48         | 3.000 - 16 UN     | 3.219 (81.8)                  | 3.312 (84.1)                  | .702 (17.8) |
| 61         | 1.500 - 18 UNEF   | 1.653 (42.0)                  | 1.748 (44.4)                  | .540 (13.7) |

Dimensions in inches (millimeters) and are subject to change without notice.



## CONNECTOR DESIGNATOR:

**F** MIL-DTL-27599

Basic Part Number

Dash Number

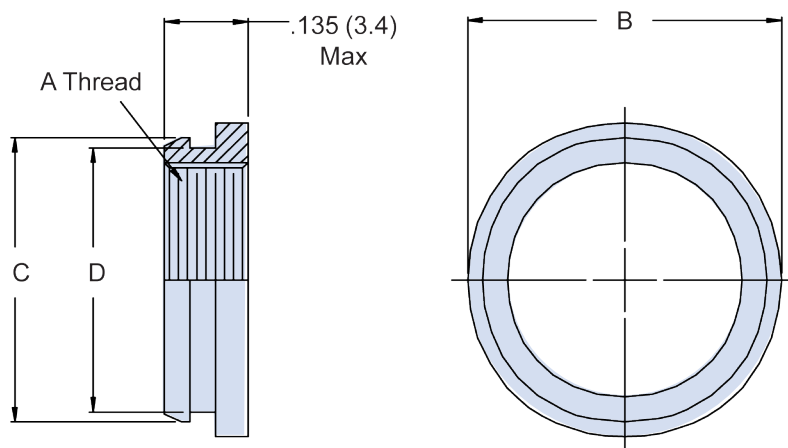
**M85049/61 - 10**


TABLE I: Dash Number and Dimensions

| Dash No. | Shell Size (Ref) | A Thread UNEF-2B | B Dia Max    | C Dia Max    | D Dia $\pm .005 (.1)$ |
|----------|------------------|------------------|--------------|--------------|-----------------------|
| 8        | 8/9              | .4375-28         | .594 (15.1)  | .521 (13.2)  | .476 (12.1)           |
| 10       | 10/11            | .5625-24         | .734 (18.6)  | .647(16.4)   | .602 (15.3)           |
| 12       | 12/13            | .6875-24         | .844 (21.4)  | .771 (19.6)  | .726 (18.4)           |
| 14       | 14/15            | .8125-20         | .969 (24.6)  | .897 (22.8)  | .852 (21.6)           |
| 16       | 16/17            | .9375-20         | 1.094 (27.8) | 1.023 (26.0) | .978 (24.8)           |
| 18       | 18/19            | 1.0625-18        | 1.234 (31.3) | 1.147 (29.1) | 1.102 (28.0)          |
| 20       | 20/21            | 1.1875-18        | 1.344 (34.1) | 1.273 (32.3) | 1.228 (31.2)          |
| 22       | 22/23            | 1.3125-18        | 1.469 (37.3) | 1.397 (35.5) | 1.352 (34.3)          |
| 24       | 24/25            | 1.4375-18        | 1.594 (40.5) | 1.524 (38.7) | 1.478 (37.5)          |

## APPLICATION NOTES

- For complete dimensions see the applicable Military Specification.
- Finish: 500-Hour Cadmium Olive Drab over Electroless Nickel.
- See Pages 30-4 and 68-13 for the AS85049/75 Potting Boot which can be used with this potting ring and Page 88-13
- Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.

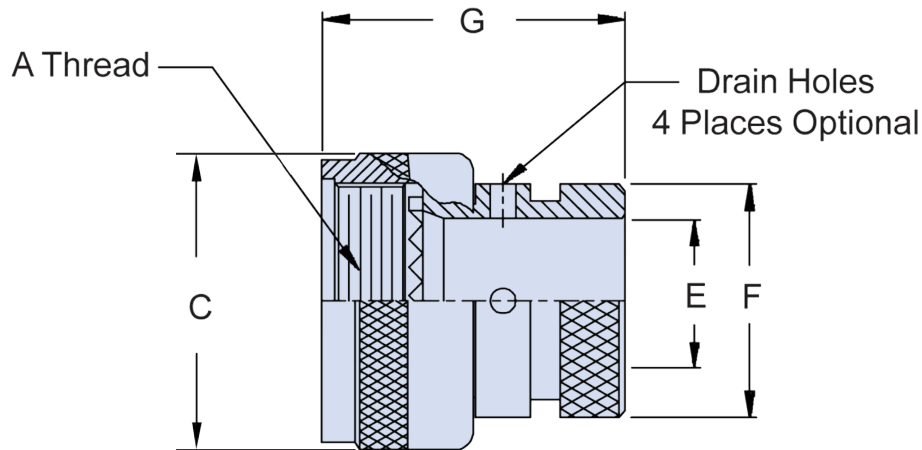
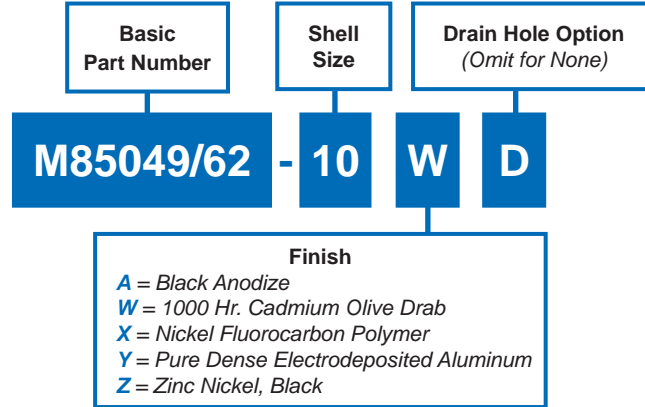
# AS85049/62 and M38999/2 Straight Shrink Boot Adapter



AS85049

B

| CONNECTOR DESIGNATOR: |   |
|-----------------------|---|
| <b>F</b>              | MIL-DTL-38999 Series I & II<br>40M38277, PAN 6433-1<br>PATT 614, PATT 616<br>NFC93422 Series HE308 &<br>HE309 |



| TABLE I: Shell Size, Thread and Dimensions |                   |              |              |              |              |
|--|-------------------|--------------|--------------|--------------|--------------|
| Shell Size                                 | A Thread Class 2B | C Max        | E Dia Min    | F Dia Min    | G Max        |
| 08   | .438 - 28 UNEF    | .750 (19.1)  | .250 (6.4)   | .533 (13.5)  | 1.000 (25.4) |
| 10   | .562 - 24 UNEF    | .850 (21.6)  | .375 (9.5)   | .605 (15.4)  | 1.000 (25.4) |
| 12   | .688 - 24 UNEF    | 1.000 (25.4) | .500 (12.7)  | .774 (19.7)  | 1.000 (25.4) |
| 14   | .813 - 20 UNEF    | 1.100 (27.9) | .625 (15.9)  | .838 (21.3)  | 1.000 (25.4) |
| 16   | .938 - 20 UNEF    | 1.250 (31.8) | .750 (19.1)  | .963 (24.5)  | 1.000 (25.4) |
| 18   | 1.063 - 18 UNEF   | 1.400 (35.6) | .812 (20.6)  | 1.042 (26.5) | 1.000 (25.4) |
| 20   | 1.188 - 18 UNEF   | 1.500 (38.1) | .937 (23.8)  | 1.217 (30.9) | 1.000 (25.4) |
| 22   | 1.313 - 18 UNEF   | 1.650 (41.9) | 1.062 (27.0) | 1.355 (34.4) | 1.000 (25.4) |
| 24   | 1.438 - 18 UNEF   | 1.750 (44.5) | 1.188 (30.2) | 1.443 (36.7) | 1.000 (25.4) |

| APPLICATION NOTES   |
|---|
| 1. For complete dimensions see the applicable Military Specification. |
| 2. Metric dimensions (mm) are in parentheses.                         |

Dimensions in inches (millimeters) and are subject to change without notice.



# AS85049/63

## 90° Qwik-Ty Strain Relief

Optional Self-Locking • Optional Ground Lug

**CONNECTOR DESIGNATOR:**
**F** MIL-DTL-38999 Series I and II

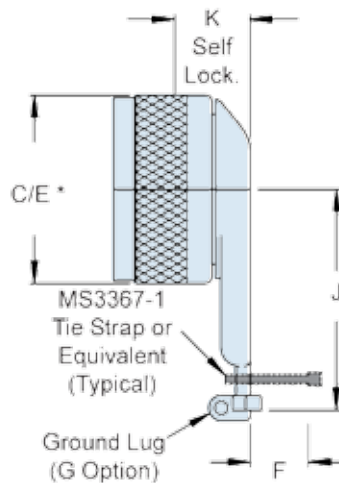
**Configuration**

*N* = Non-Detented  
*G* = Self-Locking with Ground Lug  
*H* = Non-Detented with Ground Lug  
*S* = Self-Locking without Ground Lug  
 — = Non Self-Locking

**Finish**

*A* = Anodize, Black  
*N* = Electroless Nickel  
*W* = 1,000 Hour Cadmium Olive Drab over Electroless Nickel  
*X* = Nickel Fluorocarbon Polymer  
*Y* = Pure Dense Electrodeposited Aluminum  
*Z* = Zinc-Nickel, Black

**Basic Part Number**  
 M85049/63 = 90°

**M85049/63**
**G**
**16**
**W**
**OPTIONAL  
 SELF-LOCKING  
 COUPLING**
**Shell  
 Size**

**TABLE I: Shell Size, Thread, Cable Entry and Backshell Dimensions**

| Shell Size Series II | Series I Shell Size Ref. | A Thread Class 2B | C Dia Max    | E Dia Max    | F Cable Entry | J Max        | K Self-Locking |
|----------------------|--------------------------|-------------------|--------------|--------------|---------------|--------------|----------------|
| 8                    | 9                        | .438-28 UNEF      | .750 (19.1)  | .860 (21.8)  | .264 (6.7)    | 1.220 (31.0) | .630 (16.0)    |
| 10                   | 11                       | .562-24 UNEF      | .850 (21.6)  | .980 (24.9)  | .392 (10.0)   | 1.290 (32.8) | .630 (16.0)    |
| 12                   | 13                       | .688-24 UNEF      | 1.000 (25.4) | 1.160 (29.5) | .506 (12.9)   | 1.620 (41.1) | .630 (16.0)    |
| 14                   | 15                       | .813-20 UNEF      | 1.100 (27.9) | 1.280 (32.5) | .631 (16.0)   | 1.660 (42.2) | .700 (17.8)    |
| 16                   | 17                       | .938-20 UNEF      | 1.250 (31.8) | 1.410 (35.8) | .756 (19.2)   | 1.720 (43.7) | .700 (17.8)    |
| 18                   | 19                       | 1.063-18 UNEF     | 1.400 (35.6) | 1.520 (38.6) | .845 (21.5)   | 1.720 (43.7) | .730 (18.5)    |
| 20                   | 21                       | 1.188-18 UNEF     | 1.500 (38.1) | 1.640 (41.7) | .970 (24.6)   | 1.790 (45.5) | .730 (18.5)    |
| 22                   | 23                       | 1.313-18 UNEF     | 1.650 (41.9) | 1.770 (45.0) | 1.095 (27.8)  | 1.850 (47.0) | .730 (18.5)    |
| 24                   | 25                       | 1.438-18 UNEF     | 1.750 (44.5) | 1.890 (48.0) | 1.220 (31.0)  | 1.910 (48.5) | .730 (18.5)    |

**APPLICATION NOTES**

1. Assembly identified with manufacturer's name and part number, space permitting.
2. For complete dimensions, see the applicable Military Specification.
3. Cable entry is defined as the accommodation range for the wire bundle or cable. Dimensions shown are not intended for inspection criteria.
4. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.

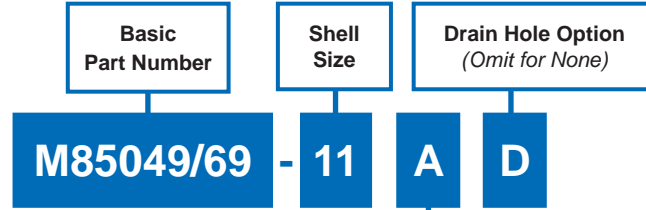
# AS85049/69 Straight Shrink Boot Adapter



AS85049

B

| CONNECTOR DESIGNATOR: |   |
|-----------------------|---|
| <b>H</b>              | MIL-DTL-38999 Series III & IV<br>EN3645 |



| Finish  |
|---|
| <i>A = Black Anodize</i>                        |
| <i>N = Electroless Nickel</i>                   |
| <i>W = 1000 Hr. Cadmium Olive Drab</i>          |
| <i>X = Nickel Fluorocarbon Polymer</i>          |
| <i>Y = Pure Dense Electrodeposited Aluminum</i> |
| <i>Z = Zinc Nickel, Black</i>                   |

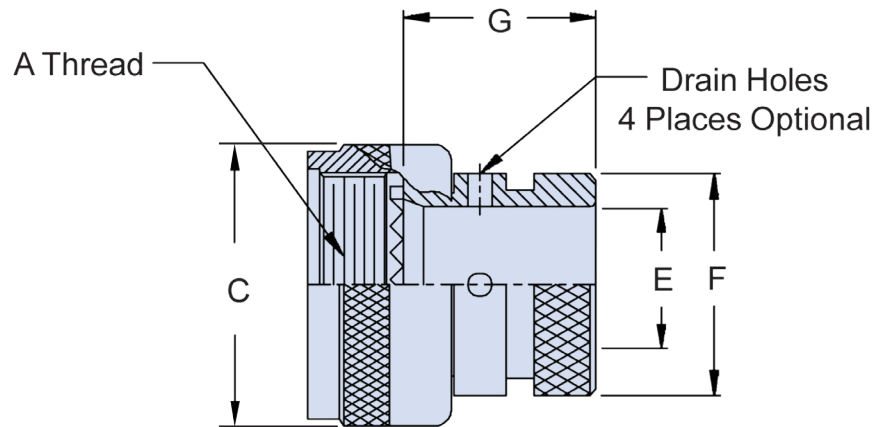


TABLE I: Shell Size, Thread and Dimensions

| Shell Size | A Thread Class 6H | C Max        | E Dia Min    | F Dia Max    | G Max       |
|------------|-------------------|--------------|--------------|--------------|-------------|
| 9          | M12 X 1 - 6H      | .750 (19.1)  | .250 (6.4)   | .533 (13.5)  | .710 (18.0) |
| 11         | M15 X 1 - 6H      | .850 (21.6)  | .375 (9.5)   | .605 (15.4)  | .710 (18.0) |
| 13         | M18 X 1 - 6H      | 1.000 (25.4) | .500 (12.7)  | .774 (19.7)  | .710 (18.0) |
| 15         | M22 X 1 - 6H      | 1.150 (29.2) | .625 (15.9)  | .838 (21.3)  | .710 (18.0) |
| 17         | M25 X 1 - 6H      | 1.250 (31.8) | .750 (19.1)  | .963 (24.5)  | .710 (18.0) |
| 19         | M28 X 1 - 6H      | 1.400 (35.6) | .812 (20.6)  | 1.042 (26.5) | .710 (18.0) |
| 21         | M31 X 1 - 6H      | 1.550 (39.4) | .938 (23.8)  | 1.217 (30.9) | .710 (18.0) |
| 23         | M34 X 1 - 6H      | 1.650 (41.9) | 1.062 (27.0) | 1.355 (34.4) | .710 (18.0) |
| 25         | M37 X 1 - 6H      | 1.785 (47.0) | 1.188 (30.2) | 1.443 (36.7) | .710 (18.0) |

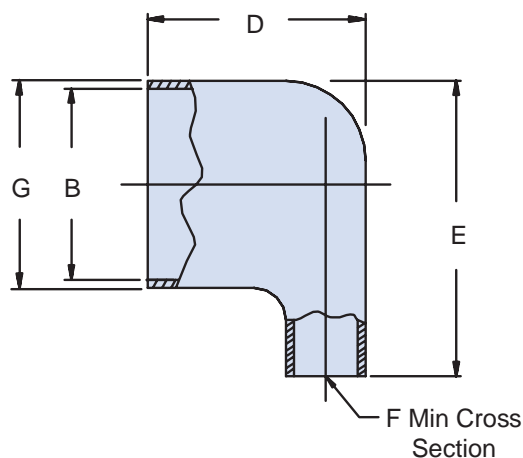
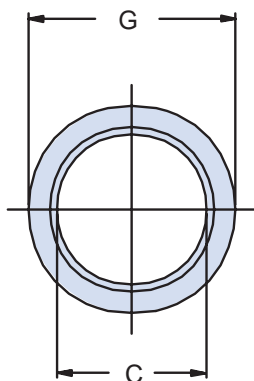
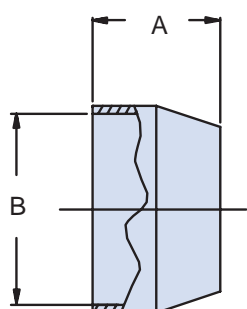
### APPLICATION NOTES

1. For complete dimensions see the applicable Military Specification.
2. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.

For Use with  
AS85049/61  
Potting Boot Ring  
(Page B-84)

Basic Part Number

Shell  
SizeGeometry  
1 - Straight  
2 = 90°**M85049/74****- 10 -****1**
**TABLE I: Shell Size and Dimensions**

| Shell Size | A Min       | A Max       | B Dia<br>± .005 (.1) | G Max        | C Min ID     | D Max        | E Max        | F Min        |
|------------|-------------|-------------|----------------------|--------------|--------------|--------------|--------------|--------------|
| 8          | .450 (11.4) | .500 (12.7) | .511 (13.0)          | .608 (15.4)  | .317 (8.1)   | .766 (19.5)  | 1.000 (25.4) | .110 (2.8)   |
| 10         | .450 (11.4) | .500 (12.7) | .637 (16.2)          | .734 (18.6)  | .434 (11.0)  | .922 (23.4)  | 1.125 (28.6) | .200 (5.1)   |
| 12         | .450 (11.4) | .500 (12.7) | .761 (19.3)          | .858 (21.8)  | .548 (13.9)  | 1.031 (26.2) | 1.125 (28.6) | .290 (7.4)   |
| 14         | .450 (11.4) | .500 (12.7) | .887 (22.5)          | .984 (25.0)  | .673 (17.1)  | 1.016 (25.8) | 1.297 (32.9) | .400 (10.2)  |
| 16         | .450 (11.4) | .500 (12.7) | 1.013 (25.7)         | 1.110 (28.2) | .798 (20.3)  | 1.016 (25.8) | 1.375 (34.9) | .490 (12.4)  |
| 18         | .450 (11.4) | .500 (12.7) | 1.137 (28.9)         | 1.234 (31.3) | .899 (22.8)  | 1.078 (27.4) | 1.469 (37.3) | .590 (15.0)  |
| 20         | .550 (14.0) | .594 (15.1) | 1.263 (32.1)         | 1.360 (34.5) | 1.024 (26.0) | 1.094 (27.8) | 1.625 (41.3) | .730 (18.5)  |
| 22         | .550 (14.0) | .594 (15.1) | 1.387 (35.2)         | 1.484 (37.7) | 1.149 (29.2) | 1.094 (27.8) | 1.703 (43.3) | .860 (21.8)  |
| 24         | .550 (14.0) | .594 (15.1) | 1.513 (38.4)         | 1.610 (40.9) | 1.274 (32.4) | 1.281 (32.5) | 2.047 (52.0) | 1.070 (27.2) |

**APPLICATION NOTES**

1. For complete dimensions see the applicable Military Specification.
2. Material: Translucent nylon, minimum wall thickness .020 (.51).
3. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.

# AS85049/75 Potting Boot

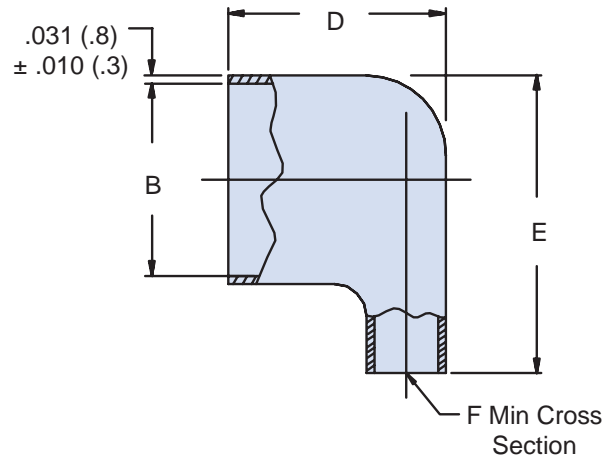
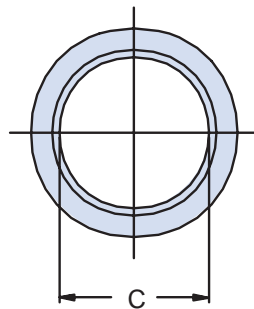
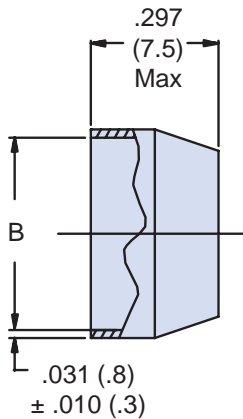


AS85049

B

**For Use with  
AS85049/58  
Potting Boot Ring  
(Page B-80)**

|                   |               |                                     |
|-------------------|---------------|-------------------------------------|
| Basic Part Number | Shell Size    | Geometry<br>1 - Straight<br>2 = 90° |
| <b>M85049/75</b>  | <b>- 10 -</b> | <b>1</b>                            |



| Shell Size | B Dia<br>± .005 (.1) | C<br>Min ID  | D<br>Max     | E<br>Max     | F<br>Min    |
|------------|----------------------|--------------|--------------|--------------|-------------|
| 8          | .527 (13.4)          | .434 (11.0)  | .438 (11.1)  | .766 (19.5)  | .073 (1.9)  |
| 10         | .652 (16.6)          | .548 (13.9)  | .469 (11.9)  | .891 (22.6)  | .117 (3.0)  |
| 12         | .776 (19.7)          | .673 (17.1)  | .562 (14.3)  | 1.031 (26.2) | .206 (5.2)  |
| 14         | .898 (22.8)          | .798 (20.3)  | .719 (18.3)  | 1.156 (29.4) | .384 (9.8)  |
| 16         | 1.016 (25.8)         | .899 (22.8)  | .781 (19.8)  | 1.287 (32.7) | .443 (11.3) |
| 18         | 1.140 (29.0)         | 1.024 (26.0) | .844 (21.4)  | 1.406 (35.7) | .561 (14.2) |
| 20         | 1.265 (32.1)         | 1.149 (29.2) | .906 (23.0)  | 1.531 (38.9) | .693 (17.6) |
| 22         | 1.390 (35.3)         | 1.274 (32.4) | .938 (23.8)  | 1.656 (42.1) | .840 (21.3) |
| 24         | 1.515 (38.5)         | 1.399 (35.5) | 1.031 (26.2) | 1.781 (45.2) | .999 (25.4) |

### APPLICATION NOTES

1. For complete dimensions see the applicable Military Specification.
2. Material: Translucent nylon, minimum wall thickness .020 (.51).
3. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.





# AS85049/76 90° EMI/RFI Environmental Backshell

## CONNECTOR DESIGNATOR:

**F** MIL-DTL-38999 Series I and II

## Finish

**N** = Electroless Nickel

**X** = Aluminum, Nickel Fluorocarbon Polymer

**W** = 1,000 Hr. Cadmium Olive Drab  
over Electroless Nickel

**Z** = Aluminum, Zinc-Nickel, Black

**M85049/76**

**- 10**

**W**

**01**

Basic  
Part Number

Dash Number  
(Table I)

Clamp Size  
(Tables II & III)

**TABLE I: Shell Size,  
Thread and Dimensions**

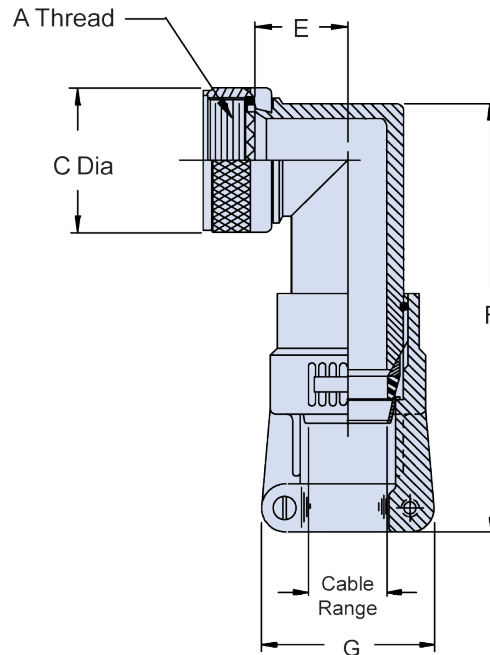
| Dash No. | Shell Size Series I | Shell Size Series II | A Thread Class 2B | C Dia Max    |
|----------|---------------------|----------------------|-------------------|--------------|
| 08       | 09                  | 08                   | .438 - 28 UNEF    | .750 (19.1)  |
| 10       | 11                  | 10                   | .562 - 24 UNEF    | .850 (21.6)  |
| 12       | 13                  | 12                   | .688 - 24 UNEF    | 1.000 (25.4) |
| 14       | 15                  | 14                   | .813 - 20 UNEF    | 1.150 (29.2) |
| 16       | 17                  | 16                   | .938 - 20 UNEF    | 1.250 (31.8) |
| 18       | 19                  | 18                   | 1.063 - 18 UNEF   | 1.400 (35.6) |
| 20       | 21                  | 20                   | 1.188 - 18 UNEF   | 1.550 (39.4) |
| 22       | 23                  | 22                   | 1.313 - 18 UNEF   | 1.650 (41.9) |
| 24       | 25                  | 24                   | 1.438 - 18 UNEF   | 1.850 (47.0) |

**TABLE II: Shell Size, Series 1 Reference,  
Clamp Size and Dimensions**

| Dash No. | Shell Size Series I | Shell Size Series II | Clamp Size |     | E<br>± .156 (4.0) | F<br>± .188 (4.8) |
|----------|---------------------|----------------------|------------|-----|-------------------|-------------------|
|          |                     |                      | Min        | Max |                   |                   |
| 08       | 09                  | 08                   | 01         | 02  | .532 (13.5)       | 3.267 (83.0)      |
| 10       | 11                  | 10                   | 01         | 03  | .627 (15.9)       | 3.387 (86.0)      |
| 12       | 13                  | 12                   | 02         | 04  | .642 (16.3)       | 3.407 (86.5)      |
| 14       | 15                  | 14                   | 02         | 05  | .719 (18.3)       | 3.477 (88.3)      |
| 16       | 17                  | 16                   | 02         | 06  | .774 (19.7)       | 3.567 (90.6)      |
| 18       | 19                  | 18                   | 03         | 07  | .854 (21.7)       | 3.737 (94.9)      |
| 20       | 21                  | 20                   | 03         | 08  | .899 (22.8)       | 3.737 (94.9)      |
| 22       | 23                  | 22                   | 03         | 09  | 1.009 (25.6)      | 3.847 (97.7)      |
| 24       | 25                  | 24                   | 04         | 10  | 1.024 (26.0)      | 3.847 (97.7)      |

## APPLICATION NOTES

- For complete dimensions see the applicable Military Specification.
- Metric dimensions (mm) are in parentheses.
- Cable Range is defined as the accommodation range for the wire bundle or cable. Dimensions shown are not intended for inspection criteria.



**TABLE III: Clamp Size,  
Cable Range and Dimensions**

| Clamp Size | Cable Range  |              | G Max        |
|------------|--------------|--------------|--------------|
|            | Min          | Max          |              |
| 01         | .062 (1.6)   | .125 (3.2)   | .800 (20.3)  |
| 02         | .125 (3.2)   | .250 (6.4)   | 1.000 (25.4) |
| 03         | .250 (6.4)   | .375 (9.5)   | 1.100 (27.9) |
| 04         | .375 (9.5)   | .500 (12.7)  | 1.200 (30.5) |
| 05         | .500 (12.7)  | .625 (15.9)  | 1.250 (31.8) |
| 06         | .625 (15.9)  | .750 (19.1)  | 1.400 (35.6) |
| 07         | .750 (19.1)  | .875 (22.2)  | 1.500 (38.1) |
| 08         | .875 (22.2)  | 1.000 (25.4) | 1.650 (41.9) |
| 09         | 1.000 (25.4) | 1.125 (28.6) | 1.750 (44.5) |
| 10         | 1.125 (28.6) | 1.250 (31.8) | 1.900 (48.3) |

Dimensions in inches (millimeters) and are subject to change without notice.

# AS85049/77 45° EMI/RFI Environmental Backshell



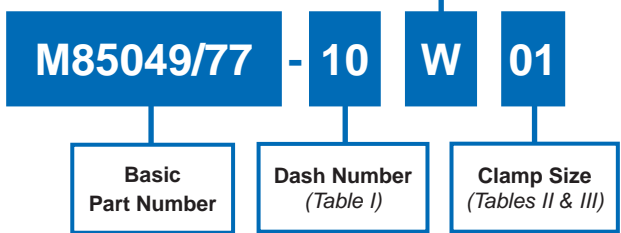
AS85049

B

**CONNECTOR DESIGNATOR:**

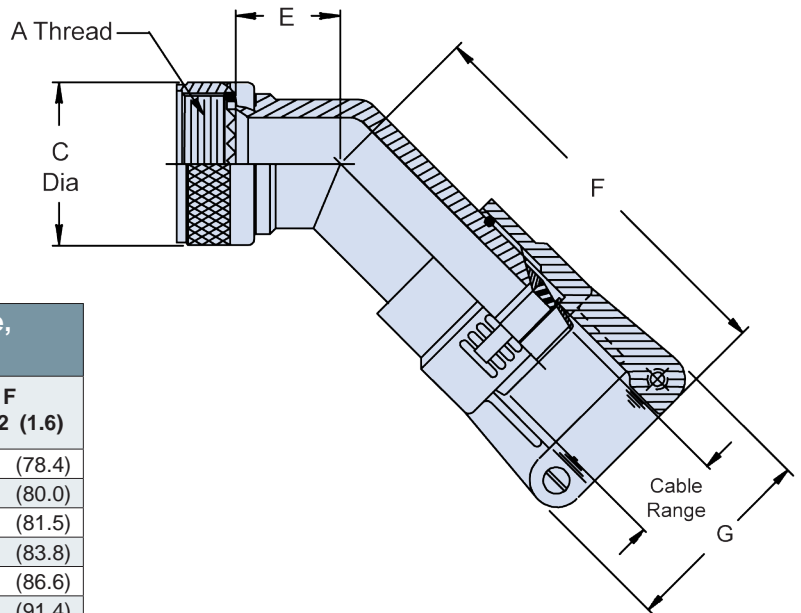
**F** MIL-DTL-38999 Series I and II

**Finish**  
**N** = Electroless Nickel      **X** = Aluminum, Nickel Fluorocarbon Polymer  
**W** = 1,000 Hr. Cadmium Olive Drab      **Z** = Aluminum, Zinc-Nickel, Black over Electroless Nickel



**TABLE I: Shell Size, Thread and Dimensions**

| Dash No. | Shell Size Series I | Shell Size Series II | A Thread Class 2B | C Dia Max    |
|----------|---------------------|----------------------|-------------------|--------------|
| 08       | 09                  | 08                   | .438 - 28 UNEF    | .750 (19.1)  |
| 10       | 11                  | 10                   | .562 - 24 UNEF    | .850 (21.6)  |
| 12       | 13                  | 12                   | .688 - 24 UNEF    | 1.000 (25.4) |
| 14       | 15                  | 14                   | .813 - 20 UNEF    | 1.150 (29.2) |
| 16       | 17                  | 16                   | .938 - 20 UNEF    | 1.250 (31.8) |
| 18       | 19                  | 18                   | 1.063 - 18 UNEF   | 1.400 (35.6) |
| 20       | 21                  | 20                   | 1.188 - 18 UNEF   | 1.550 (39.4) |
| 22       | 23                  | 22                   | 1.313 - 18 UNEF   | 1.650 (41.9) |
| 24       | 25                  | 24                   | 1.438 - 18 UNEF   | 1.850 (47.0) |



**TABLE II: Shell Size, Series 1 Reference, Clamp Size and Dimensions**

| Dash No. | Shell Size Series I | Shell Size Series II | Clamp Size |     | E ±.062 (1.6) | F ±.062 (1.6) |
|----------|---------------------|----------------------|------------|-----|---------------|---------------|
|          |                     |                      | Min        | Max |               |               |
| 08       | 09                  | 08                   | 01         | 02  | .398 (10.1)   | 3.088 (78.4)  |
| 10       | 11                  | 10                   | 01         | 03  | .458 (11.6)   | 3.148 (80.0)  |
| 12       | 13                  | 12                   | 02         | 04  | .518 (13.2)   | 3.208 (81.5)  |
| 14       | 15                  | 14                   | 02         | 05  | .588 (14.9)   | 3.298 (83.8)  |
| 16       | 17                  | 16                   | 02         | 06  | .678 (17.2)   | 3.408 (86.6)  |
| 18       | 19                  | 18                   | 03         | 07  | .868 (22.0)   | 3.598 (91.4)  |
| 20       | 21                  | 20                   | 03         | 08  | .868 (22.0)   | 3.598 (91.4)  |
| 22       | 23                  | 22                   | 03         | 09  | .958 (24.3)   | 3.748 (95.2)  |
| 24       | 25                  | 24                   | 04         | 10  | .958 (24.3)   | 3.748 (95.2)  |

- APPLICATION NOTES**
- For complete dimensions see the applicable Military Specification.
  - Metric dimensions (mm) are in parentheses.
  - Cable Range is defined as the accommodation range for the wire bundle or cable. Dimensions shown are not intended for inspection criteria.

**TABLE III: Clamp Size, Cable Range and Dimensions**

| Clamp Size | Cable Range  |              | G Max        |
|------------|--------------|--------------|--------------|
|            | Min          | Max          |              |
| 01         | .062 (1.6)   | .125 (3.2)   | .800 (20.3)  |
| 02         | .125 (3.2)   | .250 (6.4)   | 1.000 (25.4) |
| 03         | .250 (6.4)   | .375 (9.5)   | 1.100 (27.9) |
| 04         | .375 (9.5)   | .500 (12.7)  | 1.200 (30.5) |
| 05         | .500 (12.7)  | .625 (15.9)  | 1.250 (31.8) |
| 06         | .625 (15.9)  | .750 (19.1)  | 1.400 (35.6) |
| 07         | .750 (19.1)  | .875 (22.2)  | 1.500 (38.1) |
| 08         | .875 (22.2)  | 1.000 (25.4) | 1.650 (41.9) |
| 09         | 1.000 (25.4) | 1.125 (28.6) | 1.750 (44.5) |
| 10         | 1.125 (28.6) | 1.250 (31.8) | 1.900 (48.3) |

Dimensions in inches (millimeters) and are subject to change without notice.

**CONNECTOR DESIGNATOR:**
**H** MIL-DTL-38999, Series III and IV  
EN3645

**Finish**
*N* = Electroless Nickel

*W* = 1,000 Hr. Cadmium Olive Drab  
over Electroless Nickel

*X* = Aluminum, Nickel Fluorocarbon Polymer

*Z* = Aluminum, Zinc-Nickel, Black

**M85049/78 - 10 W 01**
**Basic  
Part Number**
**Shell Size  
(Tables I & II)**
**Clamp Size  
(Tables II & III)**
**TABLE I: Shell Size,  
Thread and Dimensions**

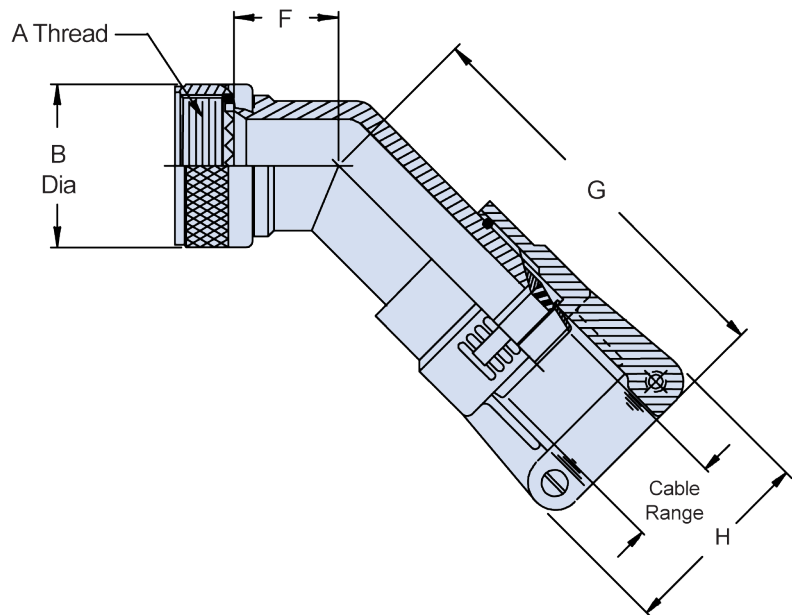
| Shell Size | A Thread Class 2B | B Dia Max    |
|------------|-------------------|--------------|
| 09         | M12 X 1 - 6H      | .750 (19.1)  |
| 11         | M15 X 1 - 6H      | .850 (21.6)  |
| 13         | M18 X 1 - 6H      | 1.000 (25.4) |
| 15         | M22 X 1 - 6H      | 1.150 (29.2) |
| 17         | M25 X 1 - 6H      | 1.250 (31.8) |
| 19         | M28 X 1 - 6H      | 1.400 (35.6) |
| 21         | M31 X 1 - 6H      | 1.550 (39.4) |
| 23         | M34 X 1 - 6H      | 1.650 (41.9) |
| 25         | M37 X 1 - 6H      | 1.850 (47.0) |

**TABLE II: Shell Size,  
Clamp Size and Dimensions**

| Shell Size | Clamp Size |     | F<br>±.062 (1.6) | G<br>±.062 (1.6) |
|------------|------------|-----|------------------|------------------|
|            | Min        | Max |                  |                  |
| 09         | 01         | 02  | .398 (10.1)      | 3.088 (78.4)     |
| 11         | 01         | 03  | .458 (11.6)      | 3.148 (80.0)     |
| 13         | 02         | 04  | .518 (13.2)      | 3.208 (81.5)     |
| 15         | 02         | 05  | .588 (14.9)      | 3.298 (83.8)     |
| 17         | 02         | 06  | .678 (17.2)      | 3.408 (86.6)     |
| 19         | 03         | 07  | .868 (22.0)      | 3.598 (91.4)     |
| 21         | 03         | 08  | .868 (22.0)      | 3.598 (91.4)     |
| 23         | 03         | 09  | .958 (24.3)      | 3.748 (95.2)     |
| 25         | 04         | 10  | .958 (24.3)      | 3.748 (95.2)     |

**APPLICATION NOTES**

- For complete dimensions see the applicable Military Specification.
- Metric dimensions (mm) are in parentheses.
- Cable Range is defined as the accommodation range for the wire bundle or cable. Dimensions shown are not intended for inspection criteria.


**TABLE III: Clamp Size,  
Cable Range and Dimensions**

| Clamp Size | Cable Range  |              | H<br>Max     |
|------------|--------------|--------------|--------------|
|            | Min          | Max          |              |
| 01         | .062 (1.6)   | .125 (3.2)   | .800 (20.3)  |
| 02         | .125 (3.2)   | .250 (6.4)   | 1.000 (25.4) |
| 03         | .250 (6.4)   | .375 (9.5)   | 1.100 (27.9) |
| 04         | .375 (9.5)   | .500 (12.7)  | 1.200 (30.5) |
| 05         | .500 (12.7)  | .625 (15.9)  | 1.250 (31.8) |
| 06         | .625 (15.9)  | .750 (19.1)  | 1.400 (35.6) |
| 07         | .750 (19.1)  | .875 (22.2)  | 1.500 (38.1) |
| 08         | .875 (22.2)  | 1.000 (25.4) | 1.650 (41.9) |
| 09         | 1.000 (25.4) | 1.125 (28.6) | 1.750 (44.5) |
| 10         | 1.125 (28.6) | 1.250 (31.8) | 1.900 (48.3) |

Dimensions in inches (millimeters) and are subject to change without notice.

# AS85049/79 90° EMI/RFI Environmental Backshell

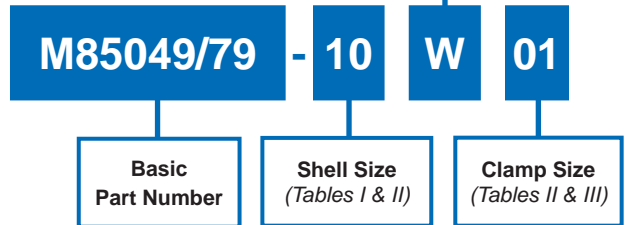


AS85049

### CONNECTOR DESIGNATOR:

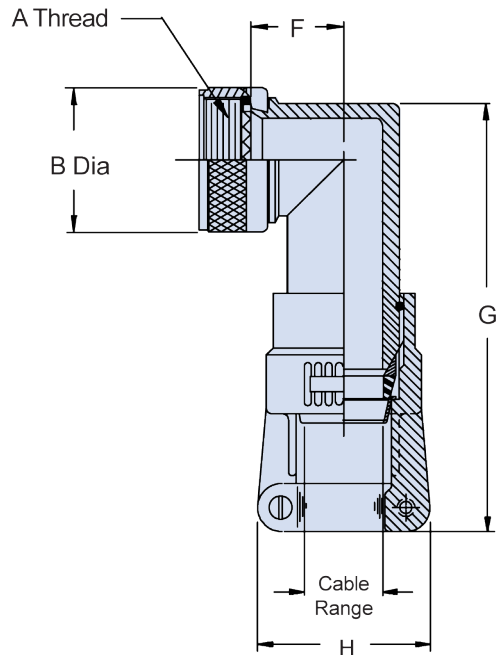
|          |  |
|----------|--|
| <b>H</b> | MIL-DTL-38999, Series III and IV<br>EN3645 |
|----------|--|

**Finish**  
*N* = Electroless Nickel      *X* = Aluminum, Nickel Fluorocarbon Polymer  
*W* = 1,000 Hr. Cadmium Olive Drab      *Z* = Aluminum, Zinc-Nickel, Black over Electroless Nickel



| TABLE I: Shell Size, Thread and Dimensions |                   |              |
|--|-------------------|--------------|
| Shell Size                                 | A Thread Class 2B | B Dia Max    |
| 09   | M12 X 1 - 6H      | .750 (19.1)  |
| 11   | M15 X 1 - 6H      | .850 (21.6)  |
| 13   | M18 X 1 - 6H      | 1.000 (25.4) |
| 15   | M22 X 1 - 6H      | 1.150 (29.2) |
| 17   | M25 X 1 - 6H      | 1.250 (31.8) |
| 19   | M28 X 1 - 6H      | 1.400 (35.6) |
| 21   | M31 X 1 - 6H      | 1.550 (39.4) |
| 23   | M34 X 1 - 6H      | 1.650 (41.9) |
| 25   | M37 X 1 - 6H      | 1.850 (47.0) |

| TABLE II: Shell Size, Clamp Size and Dimensions |            |     |                  |                  |
|---|------------|-----|------------------|------------------|
| Shell Size                                      | Clamp Size |     | F<br>±.156 (4.0) | G<br>±.188 (4.8) |
|   | Min        | Max |                  |                  |
| 09  | 01         | 02  | .532 (13.5)      | 3.267 (83.0)     |
| 11  | 01         | 03  | .627 (15.9)      | 3.387 (86.0)     |
| 13  | 02         | 04  | .642 (16.3)      | 3.407 (86.5)     |
| 15  | 02         | 05  | .719 (18.3)      | 3.477 (88.3)     |
| 17  | 02         | 06  | .774 (19.7)      | 3.567 (90.6)     |
| 19  | 03         | 07  | .854 (21.7)      | 3.737 (94.9)     |
| 21  | 03         | 08  | .899 (22.8)      | 3.737 (94.9)     |
| 23  | 03         | 09  | 1.009 (25.6)     | 3.847 (97.7)     |
| 25  | 04         | 10  | 1.024 (26.0)     | 3.847 (97.7)     |



- ### APPLICATION NOTES
- For complete dimensions see the applicable Military Specification.
  - Metric dimensions (mm) are in parentheses.
  - Cable Range is defined as the accommodation range for the wire bundle or cable. Dimensions shown are not intended for inspection criteria.

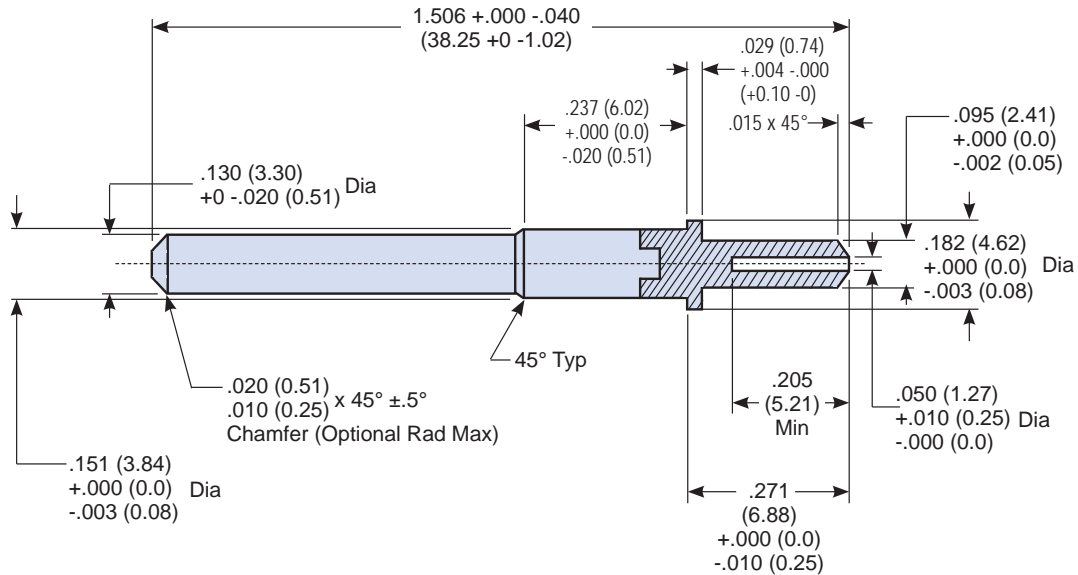
| TABLE III: Clamp Size, Cable Range and Dimensions |              |              |              |
|---|--------------|--------------|--------------|
| Clamp Size  | Cable Range  |              | H Max        |
|   | Min          | Max          |              |
| 01  | .062 (1.6)   | .125 (3.2)   | .800 (20.3)  |
| 02  | .125 (3.2)   | .250 (6.4)   | 1.000 (25.4) |
| 03  | .250 (6.4)   | .375 (9.5)   | 1.100 (27.9) |
| 04  | .375 (9.5)   | .500 (12.7)  | 1.200 (30.5) |
| 05  | .500 (12.7)  | .625 (15.9)  | 1.250 (31.8) |
| 06  | .625 (15.9)  | .750 (19.1)  | 1.400 (35.6) |
| 07  | .750 (19.1)  | .875 (22.2)  | 1.500 (38.1) |
| 08  | .875 (22.2)  | 1.000 (25.4) | 1.650 (41.9) |
| 09  | 1.000 (25.4) | 1.125 (28.6) | 1.750 (44.5) |
| 10  | 1.125 (28.6) | 1.250 (31.8) | 1.900 (48.3) |

Dimensions in inches (millimeters) and are subject to change without notice.

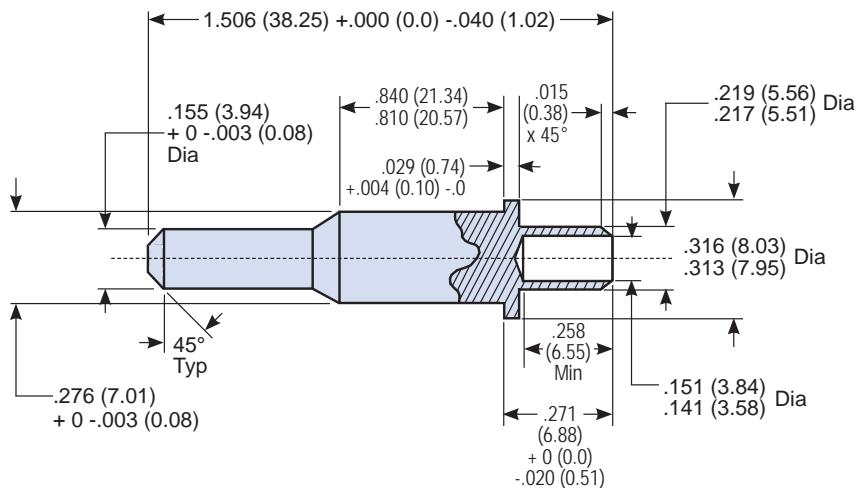
Basic  
Part Number

Dash  
Number

**M85049/80 - 16**



Dimensions and Configuration for Size 12 Contacts



Dimensions and Configuration for Size 8 Contacts

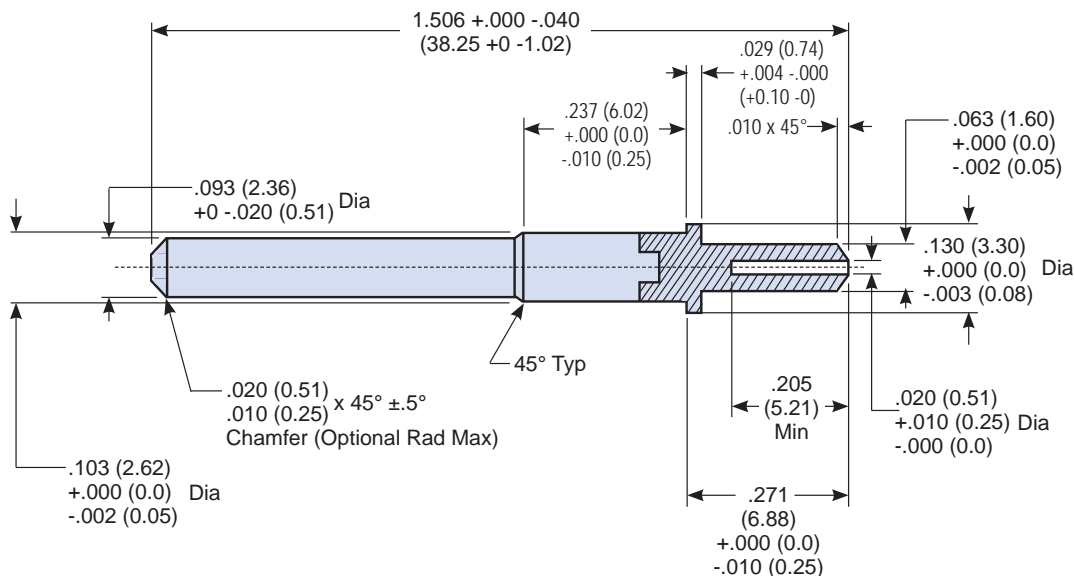
Dimensions in inches (millimeters) and are subject to change without notice.

# AS85049/80 Sealing Plug for MIL-DTL-38999 Connectors Contact Sizes 8, 12 and 16



AS85049

B



## Dimensions and Configuration for Size 16 Contacts



Figure 1



Figure 2



Figure 3

Table I: Insertion and Removal Tools

| Figure | Size | Type                 | Glenair Part Number | Military Part Number |
|--------|------|----------------------|---------------------|----------------------|
| 1      | #16  | Insertion/Extraction | <b>809-131</b>      | M81969/14-03         |
| 2      | #12  | Insertion/extraction | <b>809-132</b>      | M81969/14-04         |
| 3      | #8   | Extraction only      | <b>859-022</b>      | M81969/14-06         |

## APPLICATION NOTES

1. Assembly identified with manufacturer's name and part number, space permitting.
2. Color:  
Size 16 - Blue, IAW EIA RS359  
Size 12 - Yellow, IAW EIA RS359  
Size 8 - Green, IAW EIA RS359
3. Insulation resistance: 100 megaohms minimum at 500V DC when tested IAW EIA 364-21, using flat probes placed on opposite ends of the dummy contact.
4. Size 16 is for use in MIL-DTL-Series I, III or IV connectors in size 16 contact cavities. Size 12 is for use in MIL-DTL-38999 Series I, III or IV connectors in size 12 contact cavities. Size 8 is for use in MIL-DTL-38999 Series I, III or IV connectors in size 8 cavities.
5. Sizes 16, 12 and 8 dummy contacts are to be used in lieu of contacts and sealing plugs in unwired contact cavities for both pin and socket inserts.
6. The size 8 dummy contact requires an additional boot (to be provided by the connector manufacturer) for insert arrangements 17-2, 19-18, 21-75, 25-7, 25-8, 25-46 and 25-90 to seal the cavity.
7. For complete dimensions, see the applicable Military Specification.
8. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.



Basic  
Part NumberDash  
Number
**M85049/81 - 10**

B

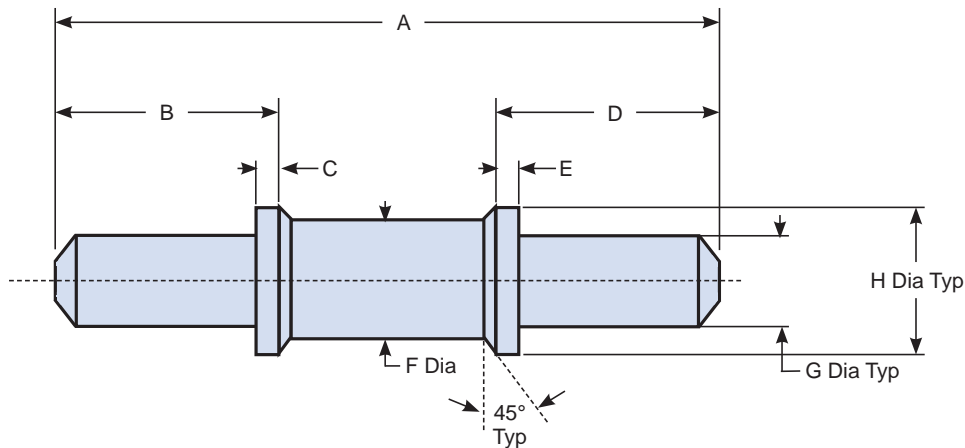


TABLE I: Dimensions

| Dash No. | A Dim                        | B Dim                      | C Dim                      | D Dim                      | E Dim                      | F Dia                      | G Dia                      | H Dia                      |
|----------|------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| 10       | .702 (17.83)<br>.672 (17.07) | .255 (6.48)<br>.245 (6.22) | .034 (0.86)<br>.028 (0.71) | .255 (6.48)<br>.245 (6.22) | .034 (0.86)<br>.028 (0.71) | .155 (3.94)<br>.149 (3.78) | .130 (3.30)<br>.120 (3.05) | .185 (4.70)<br>.179 (4.55) |

## APPLICATION NOTES

1. Assembly identified with manufacturer's name and part number, space permitting.
2. Material and color:  
Green polytetrafluoroethylene, perfluoroalkoxy (PFA) or fluorinated ethylene propylene (FEP) rod, molded or extruded, temperature limit 200°C minimum.
3. Insulation resistance: 100 megaohms minimum at 500V DC when tested IAW EIA 364-21, using flat probes placed on opposite ends of the sealing plug.
4. Tool: Size 10 insertion and removal tool, military part number M81969/14-05.
5. Designed for use with MIL-DTL-38999 connectors utilizing size 10 contact cavities for AS39029/56 and /58 contacts. Sealing plug to be used in both pin and socket cavities.
6. For complete dimensions, see the applicable Military Specification.
7. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.

# AS85049/82, AS85049/83 and AS85049/84 Straight, 45° and 90° Banding Backshells with Self-Locking Coupling



AS85049

B

## CONNECTOR DESIGNATOR:

**A**

AS50151 Series AS34001  
MIL-DTL-26482 Series II  
AS81703 Series III  
MIL-DTL-83723 Series I and III  
40M39569, DEF 5326-3, EN 2997,  
EN 3646  
ESC 10, ESC 11, LN 29504  
NFC93422 Series HE302  
PAN 6432-1, PAN 6432-2, PATT 602

## Basic Part Number

**M85049/82** = Straight  
**M85049/83** = 45°  
**M85049/84** = 90°

— = Detented  
**N** = Non-Detented

**Shell Size**  
(Table I)

**Entry Size**  
(Table I)

**M85049/82**

**N**

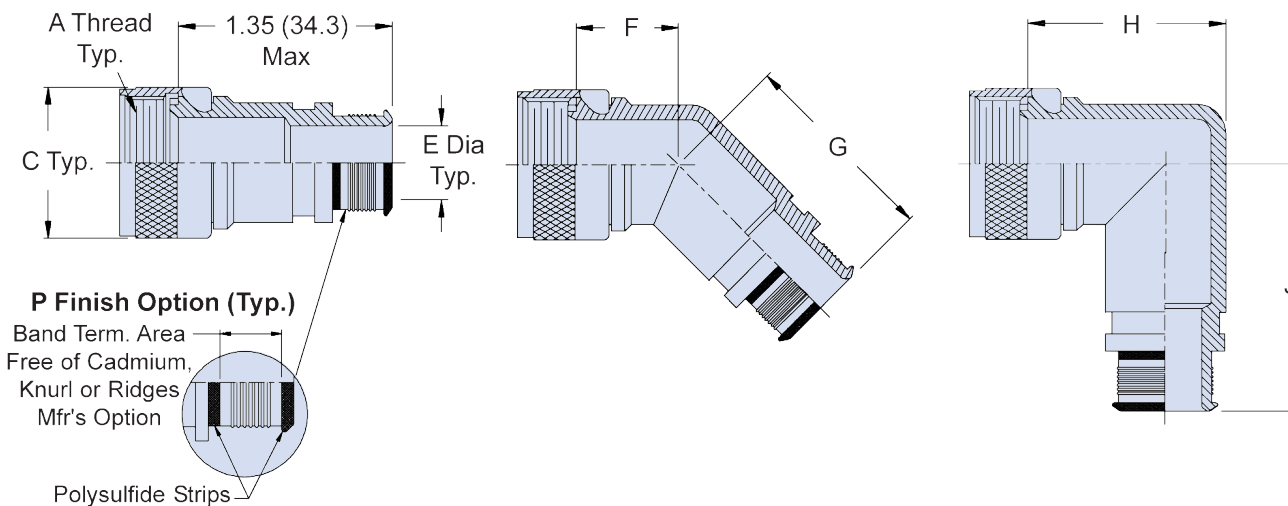
**16**

**P**

**02**

## Finish

**N** = Electroless Nickel  
**P** = Cadmium, Olive Drab over Electroless Nickel with Polysulfide Sealant Strips  
**W** = 1,000 Hr. Cadmium Olive Drab over Electroless Nickel  
**X** = Aluminum, Nickel Fluorocarbon Polymer  
**YP** = Aluminum, Pure Dense Electrodeposited Aluminum with Polysulfide Sealant Strips  
**Z** = Aluminum, Zinc-Nickel, Black  
**ZP** = Aluminum, Zinc Nickel with Polysulfide Sealant Strips



## APPLICATION NOTES

1. Assembly identified with manufacturer's name and part number, space permitting.
2. For complete dimensions, see the applicable Military Specification.
3. Metric dimensions (mm) are in parentheses.
4. For use with AS85049/128 Bands.

Dimensions in inches (millimeters) and are subject to change without notice.



## AS85049/82, AS85049/83 and AS85049/84 Straight, 45° and 90° Banding Backshells with Self-Locking Coupling

**TABLE I: Shell Size, Cable Entry and Backshell Dimensions**

| Shell Size | A Thread Class 2B | C Dia Max    | E Dia Cable Entry Size 02<br>±.010 (0.30) | E Dia Cable Entry Size 03<br>±.010 (0.30) | F Max        | G Max        | H Max        | J Max        |
|------------|-------------------|--------------|---|---|--------------|--------------|--------------|--------------|
| 08         | .500 - 20 UNF     | .886 (22.4)  | N/A                                       | .250 (6.4)                                | .870 (22.1)  | 1.160 (29.5) | 1.188 (30.2) | 1.417 (36.0) |
| 10         | .625 - 24 UNEF    | 1.010 (25.7) | N/A                                       | .312 (7.9)                                | .890 (22.6)  | 1.180 (30.0) | 1.281 (32.5) | 1.480 (37.6) |
| 12         | .750 - 20 UNEF    | 1.130 (28.7) | .312 (7.9)                                | .438 (11.1)                               | .920 (23.4)  | 1.200 (30.5) | 1.406 (35.7) | 1.542 (39.2) |
| 14         | .875 - 20 UNEF    | 1.260 (32.0) | .438 (11.1)                               | .562 (14.3)                               | .940 (23.9)  | 1.220 (31.0) | 1.531 (38.9) | 1.605 (40.8) |
| 16         | 1.000 - 20 UNEF   | 1.386 (35.1) | .500 (12.7)                               | .625 (15.9)                               | .960 (24.4)  | 1.250 (31.8) | 1.656 (42.1) | 1.667 (42.3) |
| 18         | 1.062 - 18 UNEF   | 1.510 (38.4) | .625 (15.9)                               | .750 (19.1)                               | .980 (24.9)  | 1.260 (32.0) | 1.718 (43.6) | 1.730 (43.9) |
| 20         | 1.188 - 18 UNEF   | 1.636 (41.4) | .625 (15.9)                               | .812 (20.6)                               | 1.00 (25.4)  | 1.290 (32.8) | 1.844 (46.8) | 1.792 (45.5) |
| 22         | 1.313 - 18 UNEF   | 1.760 (44.7) | .688 (17.5)                               | .938 (23.8)                               | 1.030 (26.2) | 1.310 (33.3) | 1.938 (49.2) | 1.850 (47.0) |
| 24         | 1.438 - 18 UNEF   | 1.886 (47.8) | .750 (19.1)                               | 1.000 (25.4)                              | 1.050 (26.7) | 1.340 (34.0) | 2.093 (53.2) | 1.917 (48.7) |
| 28         | 1.750 - 18 UNS    | 2.136 (54.1) | .875 (22.2)                               | 1.125 (28.6)                              | 1.100 (27.9) | 1.380 (35.1) | 2.531 (64.3) | 2.042 (51.9) |

Dimensions in inches (millimeters) and are subject to change without notice.

# AS85049/85, AS85049/86 and AS85049/87 Straight, 45° and 90° Banding Backshells with Self-Locking Coupling

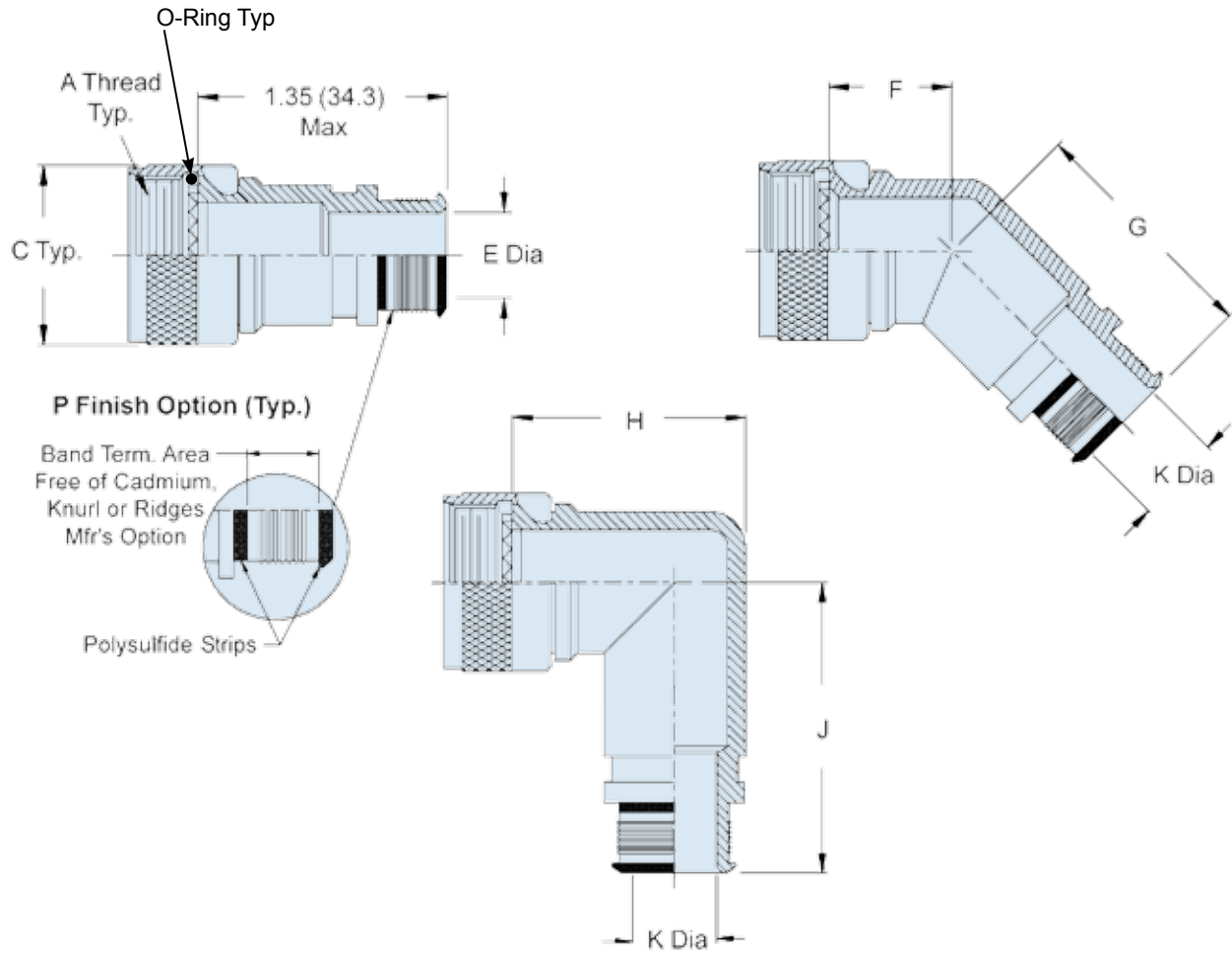


AS85049

| CONNECTOR DESIGNATOR: |                               |
|-----------------------|-------------------------------|
| <b>F</b>              | MIL-DTL-38999 Series I and II |

|   |  |                                |                                |
|---|--|--------------------------------|--------------------------------|
| <b>Basic Part Number</b><br><i>M85049/85 = Straight</i><br><i>M85049/86 = 45°</i><br><i>M85049/87 = 90°</i> | <i>— = Detented</i><br><i>N = Non-Detented</i> | <b>Shell Size</b><br>(Table I) | <b>Entry Size</b><br>(Table I) |
| <b>M85049/85</b>  | <b>N</b>                                       | <b>16</b>                      | <b>P 02</b>                    |

| Finish   |
|--|
| <i>N = Electroless Nickel</i>  |
| <i>P = Cadmium, Olive Drab over Electroless Nickel with Polysulfide Sealant Strips</i>     |
| <i>W = 1,000 Hr. Cadmium Olive Drab over Electroless Nickel</i>                            |
| <i>X = Aluminum, Nickel Fluorocarbon Polymer</i>   |
| <i>YP = Aluminum, Pure Dense Electrodeposited Aluminum with Polysulfide Sealant Strips</i> |
| <i>Z = Aluminum, Zinc-Nickel, Black</i>  |
| <i>ZP = Aluminum, Zinc Nickel with Polysulphide Sealant Strips</i>                         |



Dimensions in inches (millimeters) and are subject to change without notice.

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**B**



## AS85049/85, AS85049/86 and AS85049/87 Straight, 45° and 90° Banding Backshells with Self-Locking Coupling

**TABLE I: Shell Size, Cable Entry and Backshell Dimensions**

| Shell Size | A Thread Class 2B | C Dia Max    | F Max        | G Max        | H Max        | J Max        |
|------------|-------------------|--------------|--------------|--------------|--------------|--------------|
| 08         | .438 - 28 UNEF    | .860 (21.8)  | .870 (22.1)  | 1.160 (29.5) | 1.375 (34.9) | 1.375 (34.9) |
| 10         | .562 - 24 UNEF    | .990 (25.1)  | .900 (22.9)  | 1.190 (30.2) | 1.437 (36.5) | 1.437 (36.5) |
| 12         | .688 - 24 UNEF    | 1.160 (29.5) | .920 (23.4)  | 1.210 (30.7) | 1.562 (39.7) | 1.562 (39.7) |
| 14         | .813 - 20 UNEF    | 1.280 (32.5) | .950 (24.1)  | 1.240 (31.5) | 1.687 (42.8) | 1.687 (42.8) |
| 16         | .938 - 20 UNEF    | 1.410 (35.8) | .980 (24.9)  | 1.260 (32.0) | 1.750 (44.5) | 1.750 (44.5) |
| 18         | 1.063 - 18 UNEF   | 1.520 (38.6) | .980 (24.9)  | 1.270 (32.3) | 1.875 (47.6) | 1.875 (47.6) |
| 20         | 1.188 - 18 UNEF   | 1.640 (41.7) | 1.010 (25.7) | 1.300 (33.0) | 1.938 (49.2) | 1.938 (49.2) |
| 22         | 1.313 - 18 UNEF   | 1.770 (45.0) | 1.040 (26.4) | 1.330 (33.8) | 2.062 (52.4) | 2.062 (52.4) |
| 24         | 1.438 - 18 UNEF   | 1.890 (48.0) | 1.070 (27.2) | 1.350 (34.3) | 2.125 (54.0) | 2.125 (54.0) |

**TABLE II: Shell Size and Cable Entry for Straight Configuration Only**

| Shell Size | E Dia Cable Entry Size 01<br>±.010 (0.30) | E Dia Cable Entry Size 02<br>±.010 (0.30) |
|------------|---|---|
| 08         | N/A                                       | .250 (6.4)                                |
| 10         | N/A                                       | .312 (7.9)                                |
| 12         | .312 (7.9)                                | .438 (11.1)                               |
| 14         | .438 (11.1)                               | .562 (14.3)                               |
| 16         | .500 (12.7)                               | .625 (15.9)                               |
| 18         | .625 (15.9)                               | .750 (19.1)                               |
| 20         | .625 (15.9)                               | .812 (20.6)                               |
| 22         | .688 (17.5)                               | .938 (23.8)                               |
| 24         | .750 (19.1)                               | 1.000 (25.4)                              |

**TABLE III: Shell Size and Cable Entry for 45° and 90° Configurations Only**

| Shell Size | K Dia Cable Entry Size 02<br>±.010 (0.30) | K Dia Cable Entry Size 03<br>±.010 (0.30) |
|------------|---|---|
| 08         | N/A                                       | .250 (6.4)                                |
| 10         | N/A                                       | .312 (7.9)                                |
| 12         | .312 (7.9)                                | .438 (11.1)                               |
| 14         | .438 (11.1)                               | .562 (14.3)                               |
| 16         | .500 (12.7)                               | .625 (15.9)                               |
| 18         | .625 (15.9)                               | .750 (19.1)                               |
| 20         | .625 (15.9)                               | .812 (20.6)                               |
| 22         | .688 (17.5)                               | .938 (23.8)                               |
| 24         | .750 (19.1)                               | 1.000 (25.4)                              |

### APPLICATION NOTES

1. Assembly identified with manufacturer's name and part number, space permitting.
2. For complete dimensions, see the applicable Military Specification.
3. Metric dimensions (mm) are in parentheses.
4. For use with AS85049/128 Bands.

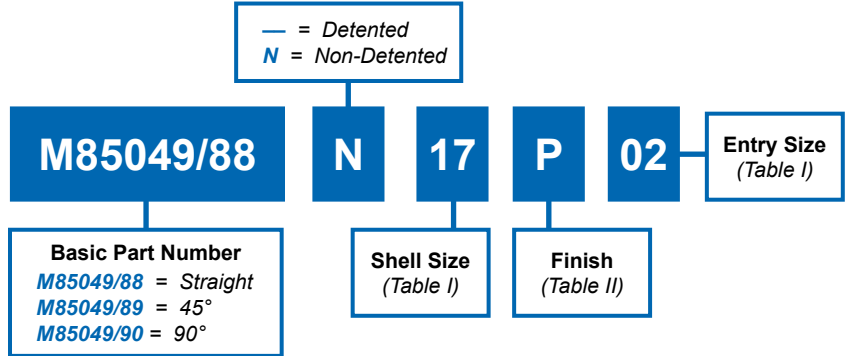
Dimensions in inches (millimeters) and are subject to change without notice.

# AS85049/88, AS85049/89 and AS85049/90 Straight, 45° and 90° Banding Backshells with Self-Locking Coupling

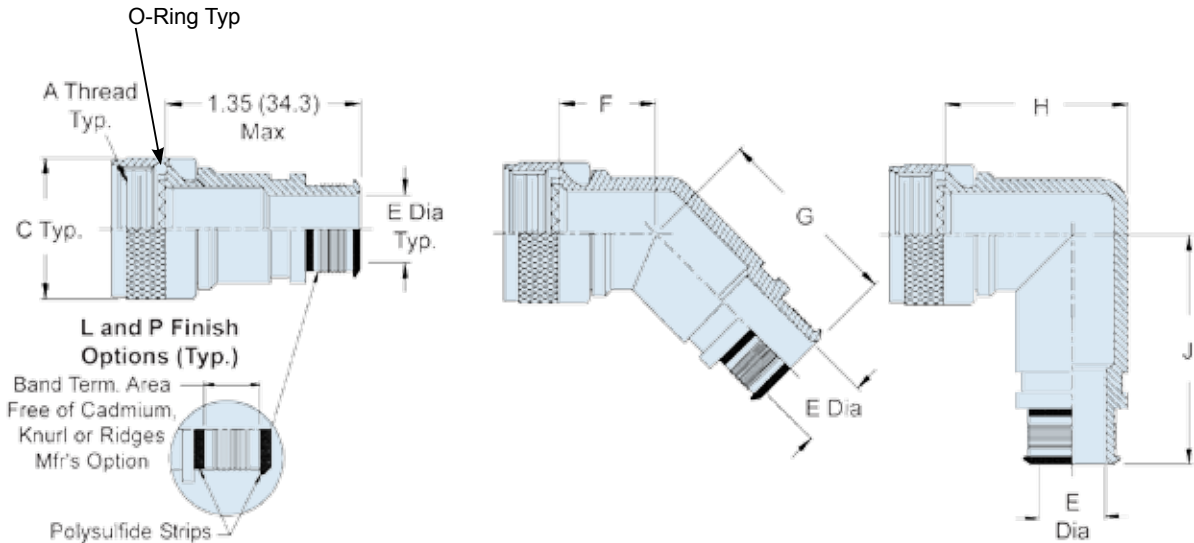


AS85049

| CONNECTOR DESIGNATOR: |   |
|-----------------------|---|
| <b>H</b>              | MIL-DTL-38999 Series III and IV<br>EN3645 |



B



| APPLICATION NOTES  |
|--|
| 1. Assembly identified with manufacturer's name and part number, space permitting. |
| 2. For complete dimensions, see the applicable Military Specification.             |
| 3. Metric dimensions (mm) are in parentheses.                                      |
| 4. For use with AS85049/128 Bands.   |

Dimensions in inches (millimeters) and are subject to change without notice.





## AS85049/88, AS85049/89 and AS85049/90 Straight, 45° and 90° Banding Backshells with Self-Locking Coupling

**TABLE I: Shell Size, Cable Entry and Backshell Dimensions**

| Shell Size | A Thread Class 2B | C Dia Max    | E Dia Cable Entry Size 02<br>±.010 (0.30) | E Dia Cable Entry Size 03<br>±.010 (0.30) | F Max        | G Max        | H Max        | J Max        |
|------------|-------------------|--------------|---|---|--------------|--------------|--------------|--------------|
| 9          | M12 X 1 - 6H      | .860 (21.8)  | N/A                                       | .250 (6.4)                                | 1.010 (25.7) | 1.160 (29.5) | 1.375 (34.9) | 1.417 (36.0) |
| 11         | M15 X 1 - 6H      | .990 (25.1)  | N/A                                       | .312 (7.9)                                | 1.030 (26.2) | 1.190 (30.2) | 1.437 (36.5) | 1.480 (37.6) |
| 13         | M18 X 1 - 6H      | 1.160 (29.5) | .312 (7.9)                                | .438 (11.1)                               | 1.060 (26.9) | 1.210 (30.7) | 1.562 (39.7) | 1.553 (39.4) |
| 15         | M22 X 1 - 6H      | 1.280 (32.5) | .438 (11.1)                               | .562 (14.3)                               | 1.080 (27.4) | 1.240 (31.5) | 1.687 (42.8) | 1.614 (41.0) |
| 17         | M25 X 1 - 6H      | 1.410 (35.8) | .500 (12.7)                               | .625 (15.9)                               | 1.110 (28.2) | 1.260 (32.0) | 1.750 (44.5) | 1.678 (42.6) |
| 19         | M28 X 1 - 6H      | 1.520 (38.6) | .625 (15.9)                               | .750 (19.1)                               | 1.120 (28.4) | 1.270 (32.3) | 1.875 (47.6) | 1.733 (44.0) |
| 21         | M31 X 1 - 6H      | 1.640 (41.7) | .625 (15.9)                               | .812 (20.6)                               | 1.150 (29.2) | 1.300 (33.0) | 1.938 (49.2) | 1.796 (45.6) |
| 23         | M34 X 1 - 6H      | 1.770 (45.0) | .688 (17.5)                               | .938 (23.8)                               | 1.170 (29.7) | 1.330 (33.8) | 2.062 (52.4) | 1.859 (47.2) |
| 25         | M37 X 1 - 6H      | 1.890 (48.0) | .750 (19.1)                               | 1.000 (25.4)                              | 1.200 (30.5) | 1.350 (34.3) | 2.125 (54.0) | 1.919 (48.7) |

**TABLE II: Finish and Material**

| Aluminum | Composite     | Finish Description  |
|----------|---------------|---|
| G        | Not Available | Electroless Nickel (Space Grade)                              |
| N        | M             | Electroless Nickel  |
| P        | L             | Cadmium Olive Drab over Electroless Nickel, Selective Plating |
| W        | J             | Cadmium Olive Drab  |
| X        | XC            | Nickel Fluorocarbon Polymer                                   |
| YP       | YL            | Pure Dense Electrodeposited Aluminum, Selective Plating       |
| Z        | ZC            | Zinc Nickel   |
| ZP       | ZL            | Zinc Nickel, Selective Plating                                |

Dimensions in inches (millimeters) and are subject to change without notice.

# AS85049/91 and AS85049/92 Composite Strain Reliefs Self-Locking



AS85049

B

### CONNECTOR DESIGNATOR:

**H** MIL-DTL-38999 Series III & IV,  
EN3645

### Material and Finish Designator

*J* = Composite (Conductive), Cadmium Olive Drab over Electroless Nickel  
*M* = Composite (Conductive) Electroless Nickel  
*T* = Composite (Non-Conductive) without Plating  
*XC* = Composite (Conductive) Nickel Fluorocarbon Polymer  
*YC* = Composite (Conductive) Pure Dense Electrodeposited Aluminum  
*ZC* = Composite (Conductive) Zinc-Nickel, Black

**Basic Part Number**  
M85049/91 = Straight  
M85049/92 = 90°

**M85049/92**

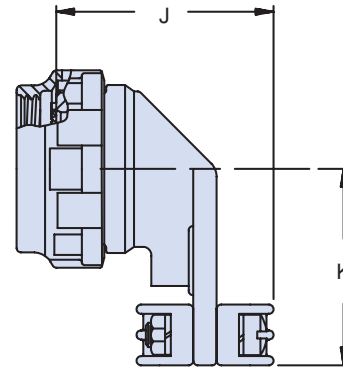
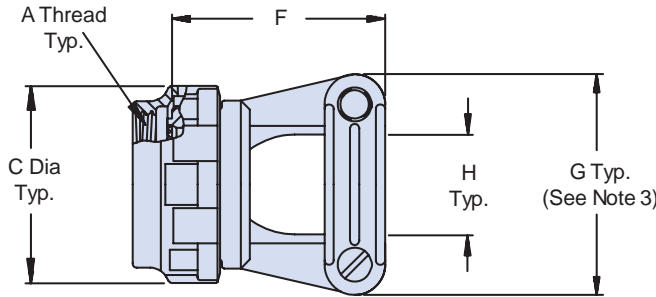
**N**

**11**

**T**

-- = Detented  
**N** = Non-Detented

**Shell Size**



**TABLE I: Shell Size, Cable Entry and Backshell Dimensions**

| Shell Size | A Thread Class 2B | Ø C Max |        | F Max |        | G Max |        | Ø H +.031 |        | J Max |        | K     |        |
|------------|-------------------|---------|--------|-------|--------|-------|--------|-----------|--------|-------|--------|-------|--------|
|            |                   |         |        |       |        |       |        |           |        |       | ±.062  | (1.6) |        |
| 09         | M12 X 1 - 6H      | .858    | (21.8) | .840  | (21.3) | .98   | (24.9) | .219      | (5.6)  | 1.06  | (26.9) | .875  | (22.2) |
| 11         | M15 X 1 - 6H      | .984    | (25.0) | .960  | (24.4) | 1.05  | (26.7) | .264      | (6.7)  | 1.10  | (27.9) | .937  | (23.8) |
| 13         | M18 X 1 - 6H      | 1.157   | (29.4) | 1.100 | (27.9) | 1.20  | (30.5) | .344      | (8.7)  | 1.18  | (30.0) | 1.031 | (26.2) |
| 15         | M22 X 1 - 6H      | 1.280   | (32.5) | 1.100 | (27.9) | 1.30  | (33.0) | .460      | (11.7) | 1.30  | (33.0) | 1.125 | (28.6) |
| 17         | M25 X 1 - 6H      | 1.406   | (35.7) | 1.230 | (31.2) | 1.42  | (36.1) | .545      | (13.8) | 1.38  | (35.1) | 1.312 | (33.3) |
| 19         | M28 X 1 - 6H      | 1.516   | (38.5) | 1.410 | (35.8) | 1.52  | (38.6) | .615      | (15.6) | 1.45  | (36.8) | 1.375 | (34.9) |
| 21         | M31 X 1 - 6H      | 1.642   | (41.7) | 1.510 | (38.4) | 1.64  | (41.7) | .698      | (17.7) | 1.54  | (39.1) | 1.500 | (38.1) |
| 23         | M34 X 1 - 6H      | 1.768   | (44.9) | 1.660 | (42.2) | 1.77  | (45.0) | .700      | (17.8) | 1.62  | (41.1) | 1.625 | (41.3) |
| 25         | M37 X 1 - 6H      | 1.890   | (48.0) | 1.760 | (44.7) | 1.89  | (48.0) | .850      | (21.6) | 1.69  | (42.9) | 1.750 | (44.5) |

### APPLICATION NOTES

1. Assembly to be identified with manufacturer's name and part number, space permitting.
2. Cable Entry is measured with saddle bars closed and bottomed on clamp ears.
3. For complete dimensions, see the applicable Military Specification.
4. Metric dimensions (mm) are in parentheses.

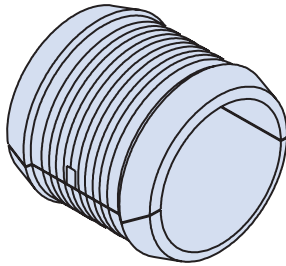
Dimensions in inches (millimeters) and are subject to change without notice.

Basic  
Part Number

Dash No.

**M85049/93 - 10**

**B**



## SAMPLE APPLICATION

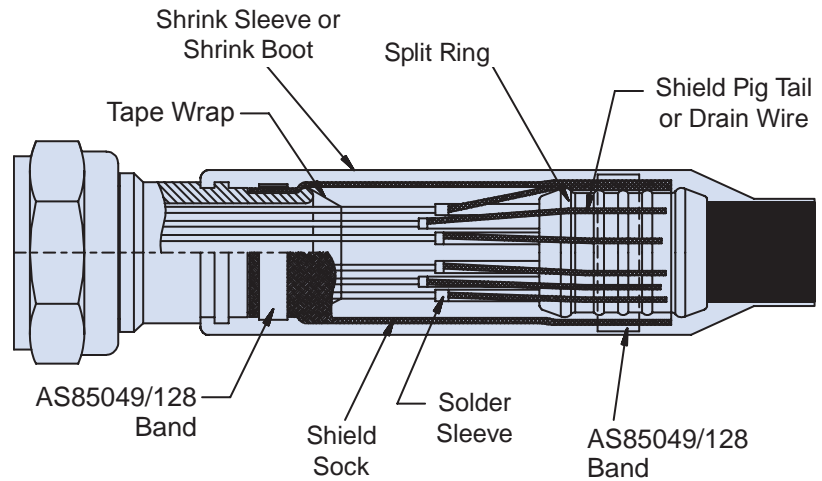
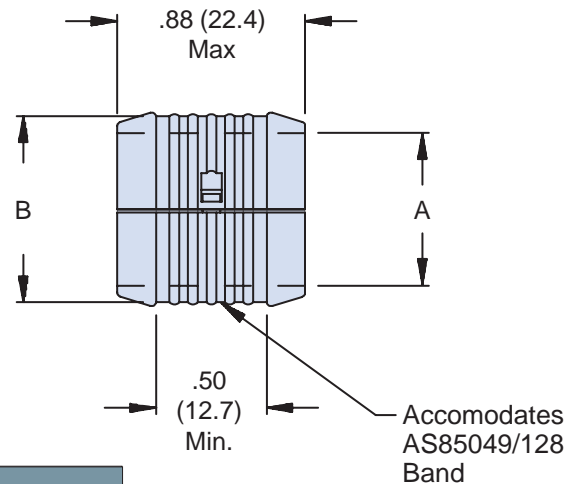


TABLE I: Reference for Connector Shell Size

| Dash No. | Ø A   |        | Ø B   |        |
|----------|-------|--------|-------|--------|
|          | ±.010 | (0.3)  | ±.030 | (0.8)  |
| 04       | .25   | (6.4)  | .36   | (9.1)  |
| 06       | .38   | (9.7)  | .49   | (12.4) |
| 08       | .50   | (12.7) | .61   | (15.5) |
| 10       | .63   | (16.0) | .74   | (18.8) |
| 12       | .75   | (19.1) | .86   | (21.8) |
| 14       | .88   | (22.4) | .99   | (25.1) |
| 16       | 1.00  | (25.4) | 1.11  | (28.2) |
| 18       | 1.13  | (28.7) | 1.24  | (31.5) |
| 20       | 1.25  | (31.8) | 1.36  | (34.5) |
| 22       | 1.38  | (35.1) | 1.49  | (37.8) |
| 24       | 1.50  | (38.1) | 1.61  | (40.9) |
| 26       | 1.63  | (41.4) | 1.74  | (44.2) |
| 28       | 1.75  | (44.5) | 1.86  | (47.2) |



## APPLICATION NOTES

1. Assembly identified with manufacturer's name and part number, space permitting.
2. For complete dimensions, see the applicable Military Specification.
3. Use with Glenair Banding Backshells and Braid Socks. Consult factory for specific application part numbers.
4. Metric dimensions (mm) are in parentheses.
5. Material - high grade engineering thermoplastic.

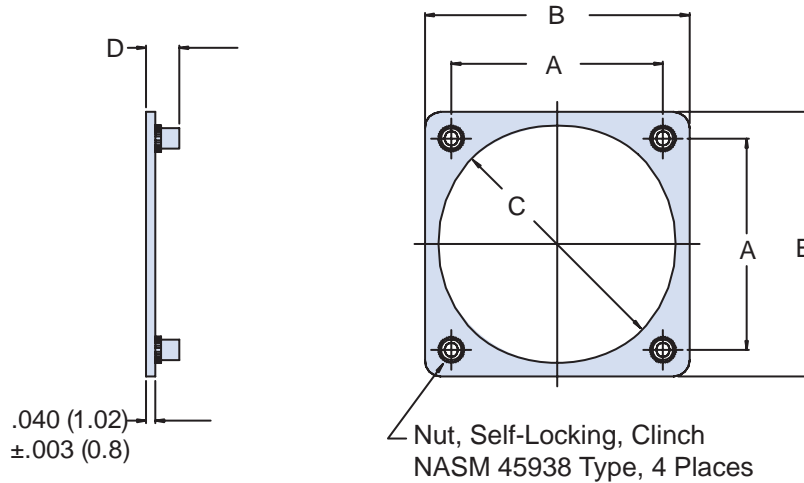
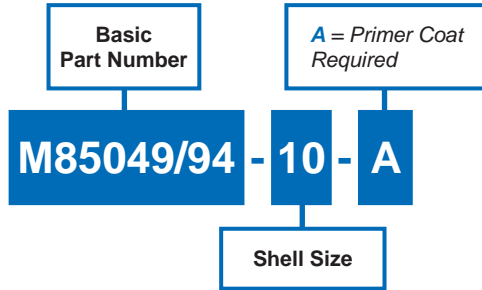
Dimensions in inches (millimeters) and are subject to change without notice.

# AS85049/94 Mounting Flange, Full Perimeter



AS85049

B



**TABLE I: Reference for Connector Shell Size**

| Shell Size | Thread UNJC-3B | A     |        | B Max |        | C     |        | D Max |       |
|------------|----------------|-------|--------|-------|--------|-------|--------|-------|-------|
|            |                | ±.015 | (.38)  |       |        | ±.015 | (.4)   |       |       |
| 8          | 4-40           | .594  | (15.1) | .900  | (22.9) | .570  | (14.5) | .166  | (4.2) |
| 10         | 4-40           | .719  | (18.3) | 1.034 | (26.3) | .720  | (18.3) | .166  | (4.2) |
| 12         | 4-40           | .812  | (20.6) | 1.119 | (28.4) | .845  | (21.5) | .166  | (4.2) |
| 14         | 4-40           | .906  | (23.0) | 1.213 | (30.8) | .975  | (24.8) | .166  | (4.2) |
| 16         | 4-40           | .969  | (24.6) | 1.295 | (32.9) | 1.085 | (27.6) | .166  | (4.2) |
| 18         | 4-40           | 1.062 | (27.0) | 1.421 | (36.1) | 1.210 | (30.7) | .166  | (4.2) |
| 20         | 4-40           | 1.156 | (29.4) | 1.550 | (39.4) | 1.335 | (33.9) | .166  | (4.2) |
| 22         | 4-40           | 1.250 | (31.8) | 1.680 | (42.7) | 1.470 | (37.3) | .166  | (4.2) |
| 24         | 6-32           | 1.375 | (34.9) | 1.800 | (45.7) | 1.585 | (40.3) | .183  | (4.6) |
| 25         | 6-32           | 1.500 | (38.1) | 1.910 | (48.5) | 1.658 | (42.1) | .183  | (4.6) |

- APPLICATION NOTES**
1. Assembly identified with manufacturer's name and part number, space permitting.
  2. For complete dimensions, see the applicable Military Specification.
  3. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.

Basic  
Part Number

A = Primer Coat  
Required

**M85049/95 - 10A - A**

Shell Size  
and Class

### APPLICATION NOTES

1. Assembly identified with manufacturer's name and part number, space permitting.
2. For complete dimensions, see the applicable Military Specification.
3. Metric dimensions (mm) are in parentheses.

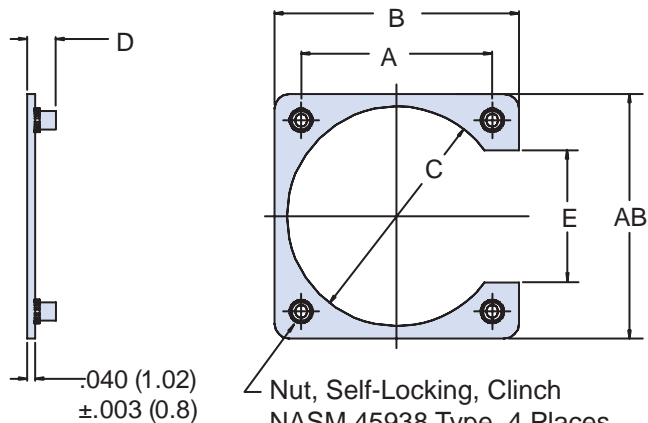


TABLE I: Reference for Connector Shell Size

| Shell Size<br>& Class | Thread<br>UNJC-3B | A<br>±.003 (0.1) |        | B<br>±.015 (0.4) |        | C<br>±.015 (0.4) |        | D<br>Max |       | E<br>±.030 (0.8) |        |
|-----------------------|-------------------|------------------|--------|------------------|--------|------------------|--------|----------|-------|------------------|--------|
|                       |                   |                  |        |                  |        |                  |        |          |       |                  |        |
| 3A                    | 4-40              | .625             | (15.9) | .925             | (23.5) | .641             | (16.3) | .166     | (4.2) | .325             | (8.3)  |
| 7A                    | 4-40              | .719             | (18.3) | 1.019            | (25.9) | .688             | (17.5) | .166     | (4.2) | .433             | (11.0) |
| 8A                    | 4-40              | .594             | (15.1) | .880             | (22.4) | .570             | (14.5) | .166     | (4.2) | .308             | (7.8)  |
| 10A                   | 4-40              | .719             | (18.3) | 1.019            | (25.9) | .720             | (18.3) | .166     | (4.2) | .433             | (11.0) |
| 10B                   | 6-32              | .812             | (20.6) | 1.312            | (33.3) | .749             | (19.0) | .183     | (4.6) | .433             | (11.0) |
| 12A                   | 4-40              | .812             | (20.6) | 1.104            | (28.0) | .855             | (21.7) | .166     | (4.2) | .530             | (13.5) |
| 12B                   | 6-32              | .938             | (23.8) | 1.312            | (33.3) | .938             | (23.8) | .183     | (4.6) | .530             | (13.5) |
| 14A                   | 4-40              | .906             | (23.0) | 1.198            | (30.4) | .984             | (25.0) | .166     | (4.2) | .624             | (15.8) |
| 14B                   | 6-32              | 1.031            | (26.2) | 1.406            | (35.7) | 1.031            | (26.2) | .183     | (4.6) | .624             | (15.8) |
| 16A                   | 4-40              | .969             | (24.6) | 1.280            | (32.5) | 1.094            | (27.8) | .166     | (4.2) | .687             | (17.4) |
| 16B                   | 6-32              | 1.125            | (28.6) | 1.500            | (38.1) | 1.125            | (28.6) | .183     | (4.6) | .687             | (17.4) |
| 18A                   | 4-40              | 1.062            | (27.0) | 1.406            | (35.7) | 1.220            | (31.0) | .166     | (4.2) | .780             | (19.8) |
| 18B                   | 6-32              | 1.203            | (30.6) | 1.578            | (40.1) | 1.234            | (31.3) | .183     | (4.6) | .780             | (19.8) |
| 19A                   | 4-40              | .906             | (23.0) | 1.192            | (30.3) | .953             | (24.2) | .166     | (4.2) | .620             | (15.7) |
| 20A                   | 4-40              | 1.156            | (29.4) | 1.535            | (39.0) | 1.345            | (34.2) | .166     | (4.2) | .874             | (22.2) |
| 20B                   | 6-32              | 1.297            | (32.9) | 1.688            | (42.9) | 1.359            | (34.5) | .183     | (4.6) | .865             | (22.0) |
| 22A                   | 4-40              | 1.250            | (31.8) | 1.665            | (42.3) | 1.478            | (37.5) | .166     | (4.2) | .968             | (24.6) |
| 22B                   | 6-32              | 1.375            | (34.9) | 1.738            | (44.1) | 1.483            | (37.7) | .183     | (4.6) | .907             | (23.0) |
| 24A                   | 6-32              | 1.500            | (38.1) | 1.891            | (48.0) | 1.560            | (39.6) | .183     | (4.6) | 1.000            | (25.4) |
| 24B                   | 6-32              | 1.375            | (34.9) | 1.785            | (45.3) | 1.595            | (40.5) | .183     | (4.6) | 1.031            | (26.2) |
| 25A                   | 6-32              | 1.500            | (38.1) | 1.891            | (48.0) | 1.658            | (42.1) | .183     | (4.6) | 1.125            | (28.6) |
| 27A                   | 4-40              | .969             | (24.6) | 1.255            | (31.9) | 1.094            | (27.8) | .166     | (4.2) | .683             | (17.3) |
| 28A                   | 6-32              | 1.562            | (39.7) | 2.000            | (50.8) | 1.820            | (46.2) | .183     | (4.6) | 1.125            | (28.6) |
| 32A                   | 6-32              | 1.750            | (44.5) | 2.312            | (58.7) | 2.062            | (52.4) | .183     | (4.6) | 1.188            | (30.2) |
| 36A                   | 6-32              | 1.938            | (49.2) | 2.500            | (63.5) | 2.312            | (58.7) | .183     | (4.6) | 1.375            | (34.9) |
| 37A                   | 4-40              | 1.187            | (30.1) | 1.500            | (38.1) | 1.281            | (32.5) | .166     | (4.2) | .874             | (22.2) |
| 61A                   | 4-40              | 1.437            | (36.5) | 1.812            | (46.0) | 1.594            | (40.5) | .166     | (4.2) | 1.602            | (40.7) |

Dimensions in inches (millimeters) and are subject to change without notice.

# AS85049/96 Mounting Flange, 1/4 Perimeter



AS85049

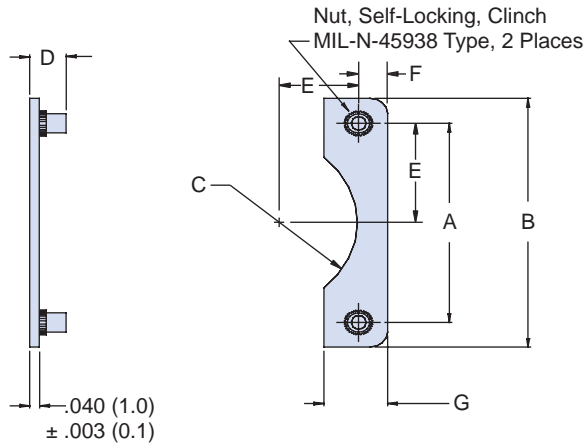
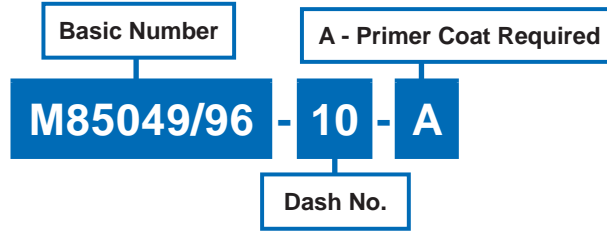


TABLE I

| Dash No. | Thread UNJC-3B | A ± .003 (0.1) | B ± .015 (0.4) | C + .015 (.4) - .000 (.0) | D ± .030 (0.8) | E ± .005 (0.1) | F (Ref)     | G Max        |
|----------|----------------|----------------|----------------|---------------------------|----------------|----------------|-------------|--------------|
| 3        | 4-40           | .625 (15.9)    | .925 (23.5)    | .300 (7.6)                | .136 (3.5)     | .312 (7.92)    | .150 (3.81) | .310 (7.87)  |
| 7        | 4-40           | .719 (18.3)    | 1.016 (25.8)   | .298 (7.6)                | .136 (3.5)     | .359 (9.12)    | .149 (3.78) | .308 (7.82)  |
| 8        | 4-40           | .594 (15.1)    | .891 (22.6)    | .296 (7.5)                | .136 (3.5)     | .297 (7.54)    | .148 (3.76) | .306 (7.77)  |
| 10       | 4-40           | .719 (18.3)    | 1.016 (25.8)   | .298 (7.6)                | .136 (3.5)     | .359 (9.12)    | .149 (3.78) | .308 (7.82)  |
| 12       | 4-40           | .812 (20.6)    | 1.109 (28.2)   | .296 (7.5)                | .136 (3.5)     | .406 (10.31)   | .148 (3.76) | .306 (7.77)  |
| 14       | 4-40           | .906 (23.0)    | 1.203 (30.6)   | .296 (7.5)                | .136 (3.5)     | .453 (11.51)   | .148 (3.76) | .306 (7.77)  |
| 16       | 4-40           | .969 (24.6)    | 1.266 (32.2)   | .298 (7.6)                | .136 (3.5)     | .484 (12.29)   | .149 (3.78) | .308 (7.82)  |
| 18       | 4-40           | 1.062 (27.0)   | 1.390 (35.3)   | .328 (8.3)                | .136 (3.5)     | .531 (13.49)   | .164 (4.17) | .338 (8.59)  |
| 19       | 4-40           | .906 (23.0)    | 1.203 (30.6)   | .296 (7.5)                | .136 (3.5)     | .453 (11.51)   | .148 (3.76) | .306 (7.77)  |
| 20       | 4-40           | 1.156 (29.4)   | 1.510 (38.4)   | .354 (9.0)                | .136 (3.5)     | .578 (14.68)   | .177 (4.50) | .364 (9.25)  |
| 22       | 4-40           | 1.250 (31.8)   | 1.640 (41.7)   | .390 (9.9)                | .136 (3.5)     | .625 (15.88)   | .195 (4.95) | .400 (10.16) |
| 24       | 6-32           | 1.375 (34.9)   | 1.760 (44.7)   | .386 (9.8)                | .153 (3.9)     | .687 (17.45)   | .193 (4.90) | .396 (10.06) |
| 25       | 6-32           | 1.500 (38.1)   | 1.859 (47.2)   | .358 (9.1)                | .153 (3.9)     | .750 (19.05)   | .179 (4.55) | .368 (9.35)  |
| 27       | 4-40           | .969 (24.6)    | 1.266 (32.2)   | .298 (7.6)                | .136 (3.5)     | .484 (12.29)   | .149 (3.78) | .308 (7.82)  |
| 28       | 6-32           | 1.562 (39.7)   | 2.000 (50.8)   | .438 (11.1)               | .153 (3.9)     | .781 (19.84)   | .219 (5.56) | .448 (11.38) |
| 32       | 6-32           | 1.750 (44.5)   | 2.312 (58.7)   | .562 (14.3)               | .153 (3.9)     | .875 (22.23)   | .281 (7.14) | .572 (14.53) |
| 36       | 6-32           | 1.938 (49.2)   | 2.500 (63.5)   | .562 (14.3)               | .153 (3.9)     | .969 (24.61)   | .281 (7.14) | .572 (14.53) |
| 37       | 4-40           | 1.187 (30.1)   | 1.500 (38.1)   | .314 (8.0)                | .136 (3.5)     | .593 (15.06)   | .157 (3.99) | .324 (8.23)  |
| 61       | 4-40           | 1.437 (36.5)   | 1.812 (46.0)   | .376 (9.6)                | .136 (3.5)     | .718 (18.24)   | .188 (4.78) | .386 (9.80)  |

Dimensions in inches (millimeters) and are subject to change without notice.

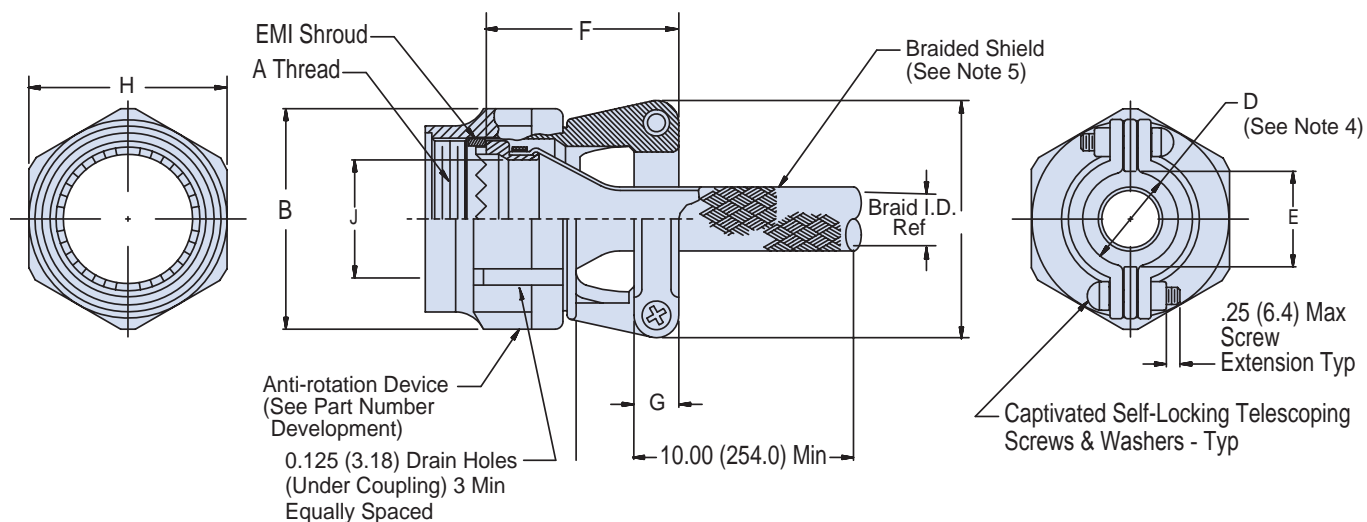
B



# AS85049/103

## Composite Straight RFI/EMI Shield-Sock Adapter with Detented or Non-Detented Self-Locking Coupling Nut

**CONNECTOR DESIGNATOR:**
**H** MIL-DTL-38999 Series III and IV  
EN3645

**Product Series and  
Basic Part Number**
**Shell Size  
(Table I)**
**M85049/103 - 11 N**
**N = Non-Detented Self-Locking  
(Omit for Detented Self-Locking)  
(See Note 6)**

**APPLICATION NOTES**

- For complete dimensions see the applicable Military Specification.
- Metric dimensions (mm) are in parentheses.
- Glenair 600 Series backshell assembly tools are recommended for assembly and installation.
- Cable entry is measured with saddle bars closed and bottomed on clamp ears.
- For shield/splice termination use AS85049/93 split support ring.
- Detented self-locking has a positive audible detented coupling.
- Material/Finish:  
Clamp body, coupling nut, saddles - High grade engineering thermoplastic/N.A.  
Clamp hardware - CRES/passivated, silver plated, mfg option  
Anti-rotation device - Corrosion resistant material  
Braid - Copper/nickel plated  
Interface ring and shroud - Brass/nickel plated  
Braid retention device - See Table II

Dimensions in inches (millimeters) and are subject to change without notice.

**AS85049/103**  
**Composite Straight RFI/EMI Shield-Sock Adapter**  
**with Detented or Non-Detented Self-Locking Coupling Nut**



AS85049

**B**

**TABLE I: Shell Size and Dimensions**

| Shell Size | A Thread Class 2B | B Max         | C Max        | D ± .031 (0.79)<br>See Note 4 | E Min        | F Max         | G ± .030 (0.76) | H Hex                        | J Min         | Braid I.D. Ref | Screw Size |
|------------|-------------------|---------------|--------------|-------------------------------|--------------|---------------|-----------------|------------------------------|---------------|----------------|------------|
| 09         | M12 X 1 - 6H      | .858 (21.79)  | .98 (24.89)  | .265 (6.73)                   | .229 (5.82)  | .939 (23.85)  | .375 (9.53)     | .750/.736<br>(19.05/18.69)   | .264 (6.71)   | .375 (9.53)    | 4-40       |
| 11         | M15 X 1 - 6H      | .984 (24.99)  | 1.05 (26.67) | .310 (7.87)                   | .274 (6.96)  | 1.059 (26.90) | .375 (9.53)     | .875/.860<br>(22.23/21.84)   | .390 (9.91)   | .375 (9.53)    | 4-40       |
| 13         | M18 X 1 - 6H      | 1.157 (29.39) | 1.20 (30.48) | .390 (9.91)                   | .354 (8.99)  | 1.199 (30.45) | .406 (10.31)    | 1.000/.980<br>(25.40/24.89)  | .504 (12.80)  | .500 (12.70)   | 6-32       |
| 15         | M22 X 1 - 6H      | 1.280 (32.51) | 1.30 (33.02) | .506 (12.85)                  | .470 (11.94) | 1.199 (30.45) | .406 (10.31)    | 1.125/1.100<br>(31.75/31.09) | .630 (16.00)  | .500 (12.70)   | 6-32       |
| 17         | M25 X 1 - 6H      | 1.406 (35.71) | 1.44 (36.58) | .591 (15.01)                  | .555 (14.10) | 1.329 (33.76) | .406 (10.31)    | 1.250/1.224<br>(31.75/31.09) | .756 (19.20)  | .781 (19.84)   | 6-32       |
| 19         | M28 X 1 - 6H      | 1.516 (38.51) | 1.56 (39.62) | .661 (16.79)                  | .625 (15.88) | 1.509 (38.33) | .406 (10.31)    | 1.375/1.348<br>(34.93/34.24) | .843 (21.41)  | .781 (19.84)   | 6-32       |
| 21         | M31 X 1 - 6H      | 1.642 (41.71) | 1.69 (42.93) | .744 (18.90)                  | .708 (17.98) | 1.609 (40.87) | .406 (10.31)    | 1.500/1.469<br>(38.10/37.31) | .969 (24.61)  | 1.000 (25.40)  | 6-32       |
| 23         | M34 X 1 - 6H      | 1.768 (44.91) | 1.77 (44.96) | .826 (20.98)                  | .790 (20.07) | 1.759 (44.68) | .406 (10.31)    | 1.625/1.581<br>(41.28/40.16) | 1.091 (27.71) | 1.000 (25.40)  | 6-32       |
| 25         | M37 X 1 - 6H      | 1.890 (48.01) | 1.89 (48.01) | .896 (22.76)                  | .860 (21.84) | 1.859 (47.22) | .406 (10.31)    | 1.750/1.690<br>(44.45/42.93) | 1.217 (30.91) | 1.250 (31.75)  | 6-32       |

**Table II (Manufacturer's Option)**

| Material        | Finish                 |
|-----------------|------------------------|
| Aluminum Alloy  | Iridite per AMS-C-5541 |
| Stainless Steel | Passivated             |
| Copper          | Tin Plate              |

Dimensions in inches (millimeters) and are subject to change without notice.

# AS85049/104

## Composite 45° RFI/EMI Shield-Sock Adapter with Detented or Non-Detented Self-Locking Coupling Nut

### CONNECTOR DESIGNATOR:

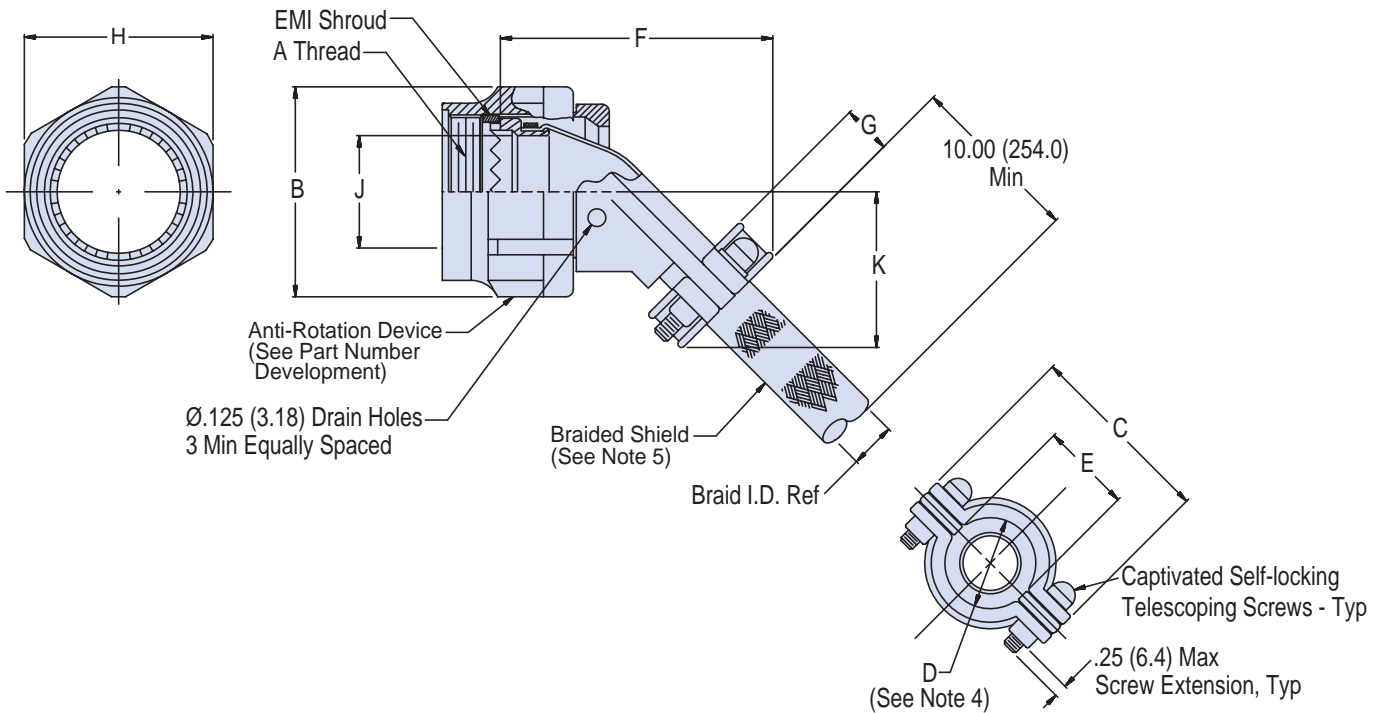
**H** MIL-DTL-38999 Series III and IV  
EN3645

Product Series and  
Basic Part Number

Shell Size  
(Table I)

**M85049/104 - 11 N**

*N = Non-Detented Self-Locking  
(Omit for Detented Self-Locking)  
(See Note 6)*



### APPLICATION NOTES

- For complete dimensions see the applicable Military Specification.
- Metric dimensions (mm) are in parentheses.
- Glenair 600 Series backshell assembly tools are recommended for assembly and installation.
- Cable entry is measured with saddle bars closed and bottomed on clamp ears.
- For shield/splice termination use AS85049/93 split support ring.
- Detented self-locking has a positive audible detented coupling.
- Material/Finish:  
Clamp body, coupling nut, saddles - High grade engineering thermoplastic/N.A.  
Clamp hardware - CRES/passivated, silver plated, mfg option  
Anti-rotation device - Corrosion resistant material  
Braid - Copper/nickel plated  
Interface ring and shroud - Brass/nickel plated  
Braid retention device - See Table II

Dimensions in inches (millimeters) and are subject to change without notice.

**AS85049/104**  
**Composite 45° RFI/EMI Shield-Sock Adapter**  
**with Detented or Non-Detented Self-Locking Coupling Nut**



AS85049

**B**

**TABLE I: Shell Size and Dimensions**

| Shell Size | A Thread Class 2B | B Max         | C Max        | D ± .031 (0.79)<br>See Note 4 | E Min        | F Max         | G ± .030 (0.76) | H Hex                        | J Min         | K Max         | Braid I.D. Ref | Screw Size |
|------------|-------------------|---------------|--------------|-------------------------------|--------------|---------------|-----------------|------------------------------|---------------|---------------|----------------|------------|
| 09         | M12 X 1 - 6H      | .858 (21.79)  | .98 (24.89)  | .265 (6.73)                   | .229 (5.82)  | 1.388 (35.26) | .375 (9.53)     | .750/.736<br>(19.05/18.69)   | .264 (6.71)   | .901 (22.89)  | .375 (9.53)    | 4-40       |
| 11         | M15 X 1 - 6H      | .984 (24.99)  | 1.05 (26.67) | .310 (7.87)                   | .274 (6.96)  | 1.428 (36.27) | .375 (9.53)     | .875/.860<br>(22.23/21.84)   | .390 (9.91)   | .964 (24.39)  | .375 (9.53)    | 4-40       |
| 13         | M18 X 1 - 6H      | 1.157 (29.39) | 1.20 (30.48) | .390 (9.91)                   | .354 (8.99)  | 1.498 (38.05) | .406 (10.31)    | 1.000/.980<br>(25.40/24.89)  | .504 (12.80)  | 1.050 (26.67) | .500 (12.70)   | 6-32       |
| 15         | M22 X 1 - 6H      | 1.280 (32.51) | 1.30 (33.02) | .506 (12.85)                  | .470 (11.94) | 1.548 (39.32) | .406 (10.31)    | 1.125/1.100<br>(31.75/31.09) | .630 (16.00)  | 1.112 (28.24) | .500 (12.70)   | 6-32       |
| 17         | M25 X 1 - 6H      | 1.406 (35.71) | 1.44 (36.58) | .591 (15.01)                  | .555 (14.10) | 1.648 (41.86) | .406 (10.31)    | 1.250/1.224<br>(31.75/31.09) | .756 (19.20)  | 1.175 (29.85) | .781 (19.84)   | 6-32       |
| 19         | M28 X 1 - 6H      | 1.516 (38.51) | 1.56 (39.62) | .661 (16.79)                  | .625 (15.88) | 1.768 (44.91) | .406 (10.31)    | 1.375/1.348<br>(34.93/34.24) | .843 (21.41)  | 1.230 (31.24) | .781 (19.84)   | 6-32       |
| 21         | M31 X 1 - 6H      | 1.642 (41.71) | 1.69 (42.93) | .744 (18.90)                  | .708 (17.98) | 1.808 (45.92) | .406 (10.31)    | 1.500/1.469<br>(38.10/37.31) | .969 (24.61)  | 1.293 (32.84) | 1.000 (25.40)  | 6-32       |
| 23         | M34 X 1 - 6H      | 1.768 (44.91) | 1.77 (44.96) | .826 (20.98)                  | .790 (20.07) | 1.858 (47.19) | .406 (10.31)    | 1.625/1.581<br>(41.28/40.16) | 1.091 (27.71) | 1.365 (34.67) | 1.000 (25.40)  | 6-32       |
| 25         | M37 X 1 - 6H      | 1.890 (48.01) | 1.89 (48.01) | .896 (22.76)                  | .860 (21.84) | 1.898 (48.21) | .406 (10.31)    | 1.750/1.690<br>(44.45/42.93) | 1.217 (30.91) | 1.417 (35.99) | 1.250 (31.75)  | 6-32       |

**Table II (Manufacturer's Option)**

| Material        | Finish                 |
|-----------------|------------------------|
| Aluminum Alloy  | Iridite per AMS-C-5541 |
| Stainless Steel | Passivated             |
| Copper          | Tin Plate              |

Dimensions in inches (millimeters) and are subject to change without notice.

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Printed in U.S.A.

# AS85049/105

## Composite 90° RFI/EMI Shield-Sock Adapter with Detented or Non-Detented Self-Locking Coupling Nut

## CONNECTOR DESIGNATOR:

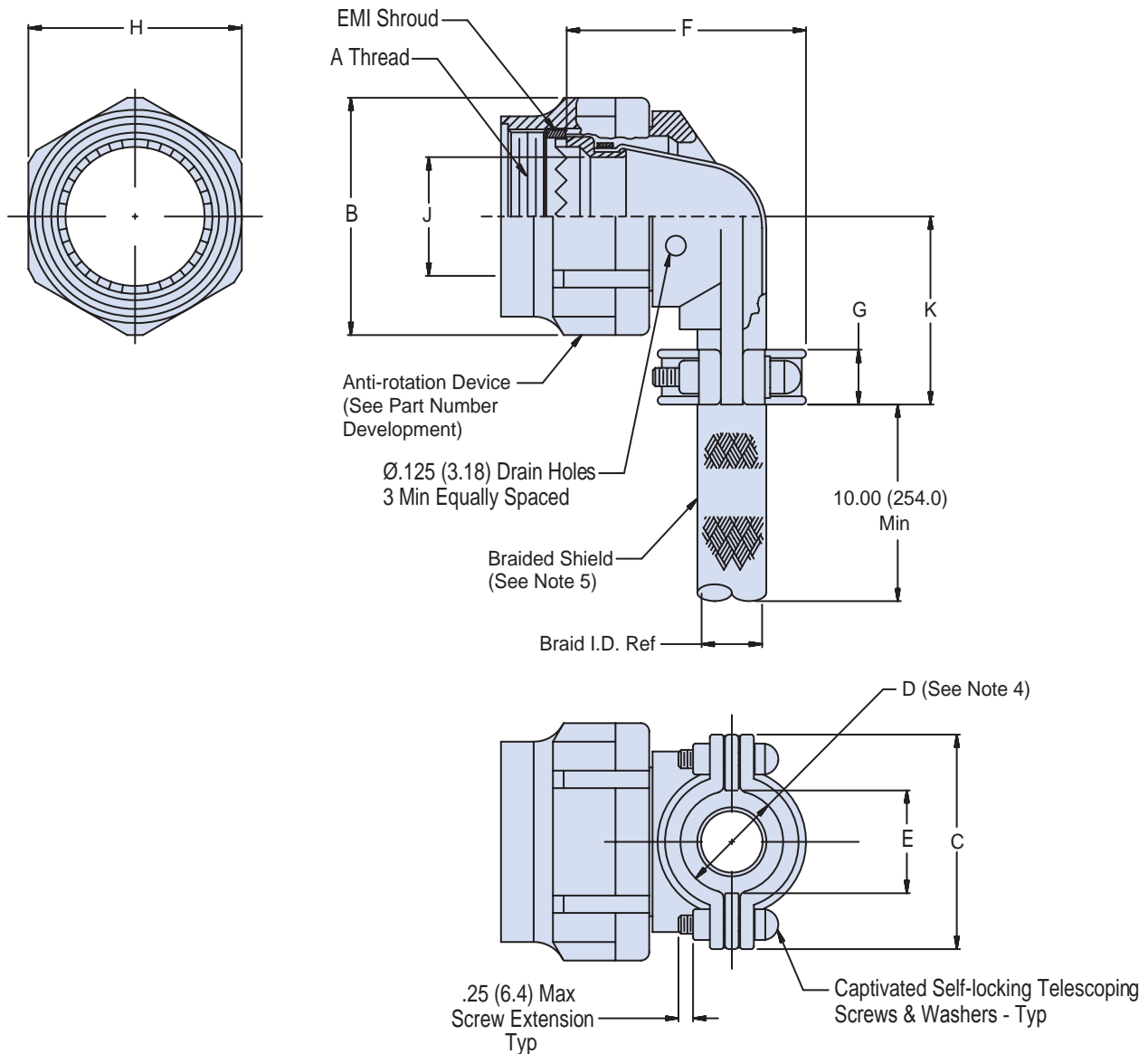
**H** MIL-DTL-38999 Series III and IV  
EN3645

Product Series and  
Basic Part Number

Shell Size  
(Table I)

**M85049/105 - 11 N**

*N = Non-Detented Self-Locking  
(Omit for Detented Self-Locking)  
(See Note 6)*



Dimensions in inches (millimeters) and are subject to change without notice.

**AS85049/105**  
**Composite 90° RFI/EMI Shield-Sock Adapter**  
**with Detented or Non-Detented Self-Locking Coupling Nut**



AS85049

B

**TABLE I: Shell Size and Dimensions**

| Shell Size | A Thread Class 2B | B Max         | C Max        | D ± .031 (0.79)<br>See Note 4 | E Min        | F Max         | G ± .030 (0.76) | H Hex                        | J Min         | K Max        | Braid I.D. Ref | Screw Size |
|------------|-------------------|---------------|--------------|-------------------------------|--------------|---------------|-----------------|------------------------------|---------------|--------------|----------------|------------|
| 09         | M12 X 1 - 6H      | .858 (21.79)  | .98 (24.89)  | .265 (6.73)                   | .229 (5.82)  | 1.128 (28.65) | .375 (9.53)     | .750/.736<br>(19.05/18.69)   | .264 (6.71)   | .94 (23.88)  | .375 (9.53)    | 4-40       |
| 11         | M15 X 1 - 6H      | .984 (24.99)  | 1.05 (26.67) | .310 (7.87)                   | .274 (6.96)  | 1.168 (29.67) | .375 (9.53)     | .875/.860<br>(22.23/21.84)   | .390 (9.91)   | 1.00 (25.40) | .375 (9.53)    | 4-40       |
| 13         | M18 X 1 - 6H      | 1.157 (29.39) | 1.20 (30.48) | .390 (9.91)                   | .354 (8.99)  | 1.248 (31.70) | .406 (10.31)    | 1.000/.980<br>(25.40/24.89)  | .504 (12.80)  | 1.12 (28.45) | .500 (12.70)   | 6-32       |
| 15         | M22 X 1 - 6H      | 1.280 (32.51) | 1.30 (33.02) | .506 (12.85)                  | .470 (11.94) | 1.368 (34.75) | .406 (10.31)    | 1.125/1.100<br>(31.75/31.09) | .630 (16.00)  | 1.19 (30.23) | .500 (12.70)   | 6-32       |
| 17         | M25 X 1 - 6H      | 1.406 (35.71) | 1.44 (36.58) | .591 (15.01)                  | .555 (14.10) | 1.448 (36.78) | .406 (10.31)    | 1.250/1.224<br>(31.75/31.09) | .756 (19.20)  | 1.37 (34.80) | .781 (19.84)   | 6-32       |
| 19         | M28 X 1 - 6H      | 1.516 (38.51) | 1.56 (39.62) | .661 (16.79)                  | .625 (15.88) | 1.528 (38.81) | .406 (10.31)    | 1.375/1.348<br>(34.93/34.24) | .843 (21.41)  | 1.44 (36.58) | .781 (19.84)   | 6-32       |
| 21         | M31 X 1 - 6H      | 1.642 (41.71) | 1.69 (42.93) | .744 (18.90)                  | .708 (17.98) | 1.648 (41.86) | .406 (10.31)    | 1.500/1.469<br>(38.10/37.31) | .969 (24.61)  | 1.56 (39.62) | 1.000 (25.40)  | 6-32       |
| 23         | M34 X 1 - 6H      | 1.768 (44.91) | 1.77 (44.96) | .826 (20.98)                  | .790 (20.07) | 1.688 (42.88) | .406 (10.31)    | 1.625/1.581<br>(41.28/40.16) | 1.091 (27.71) | 1.69 (42.93) | 1.000 (25.40)  | 6-32       |
| 25         | M37 X 1 - 6H      | 1.890 (48.01) | 1.89 (48.01) | .896 (22.76)                  | .860 (21.84) | 1.758 (44.65) | .406 (10.31)    | 1.750/1.690<br>(44.45/42.93) | 1.217 (30.91) | 1.81 (45.97) | 1.250 (31.75)  | 6-32       |

**Table II (Manufacturer's Option)**

| Material        | Finish                 |
|-----------------|------------------------|
| Aluminum Alloy  | Iridite per AMS-C-5541 |
| Stainless Steel | Passivated             |
| Copper          | Tin Plate              |

**APPLICATION NOTES**

- |  |   |
|--|---|
| <ol style="list-style-type: none"> <li>1. For complete dimensions see the applicable Military Specification.</li> <li>2. Metric dimensions (mm) are in parentheses.</li> <li>3. Glenair 600 Series backshell assembly tools are recommended for assembly and installation.</li> <li>4. Cable entry is measured with saddle bars closed and bottomed on clamp ears.</li> <li>5. For shield/splice termination use AS85049/93 split support ring.</li> </ol> | <ol style="list-style-type: none"> <li>6. Detented self-locking has a positive audible detented coupling.</li> <li>7. Material/Finish:<br/>                     Clamp body, coupling nut, saddles - High grade engineering thermoplastic/N.A.<br/>                     Clamp hardware - CRES/passivated, silver plated, mfg option<br/>                     Anti-rotation device - Corrosion resistant material<br/>                     Braid - Copper/nickel plated<br/>                     Interface ring and shroud - Brass/nickel plated<br/>                     Braid retention device - See Table II                 </li> </ol> |
|--|---|

Dimensions in inches (millimeters) and are subject to change without notice.





# AS85049/109

## Straight RFI/EMI Shield-Sock Metal Shrink Boot Adapter with Optional Detented or Non-Detented Self-Locking or Non-Self-Locking Coupling Nut

### CONNECTOR DESIGNATOR:

A

AS50151 Series AS34001  
 MIL-DTL-26482 Series II  
 AS81703 Series III  
 MIL-DTL-83723 Series I & III  
 40M39569, DEF 5326-3  
 EN 2997, EN 3646  
 ESC 10, ESC 11, LN 29504  
 NFC93422 Series HE302  
 PAN 6432-1, PAN 6432-2  
 PATT 602

B

Product Series and  
Basic Part Number

M85049/109

Shell Size  
(Table I)

S

Shield Finish  
(Table IV)

10

Entry Size  
(Table II)

T

Drain Hole  
(Omit for None)

W

Entry Size  
(Table II)

03

Drain Hole  
(Omit for None)

6

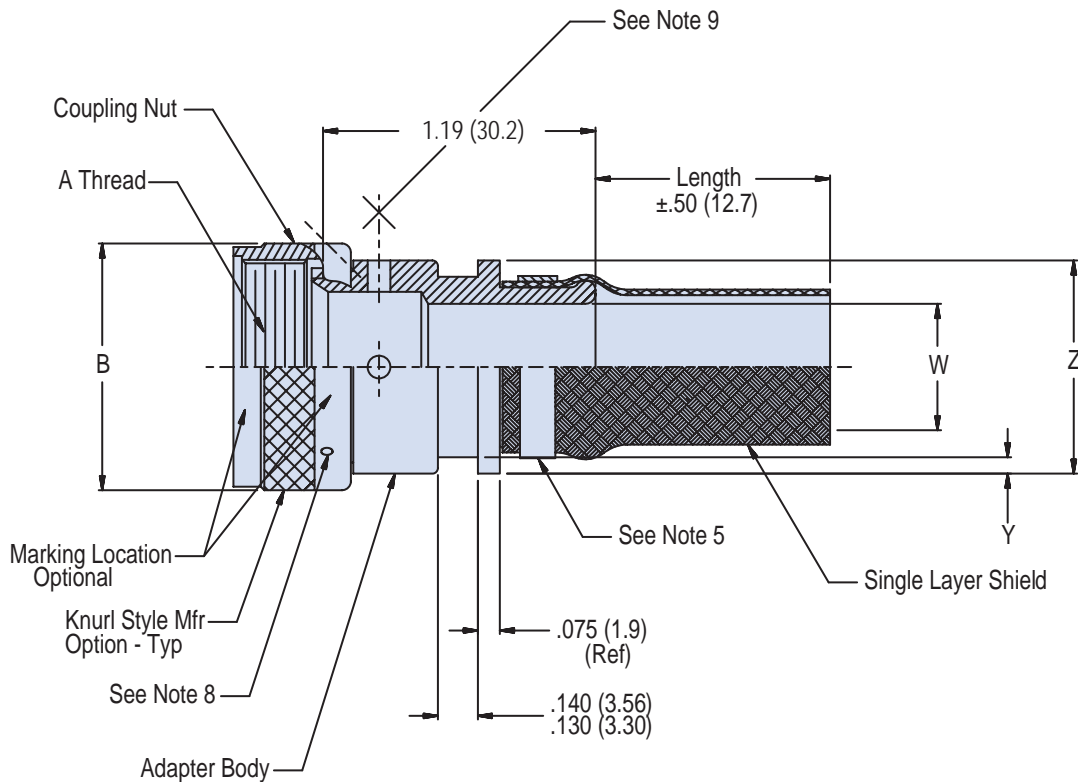
Drain Hole  
(Omit for None)

D

S = Detented, Self-Locking  
 - = Non-Self-Locking (Use Dash)  
 N = Non-Detented, Self-Locking

Finish  
(Table III)

Braid Length  
1 Inch Increments,  
6" Min., 18" Max



Dimensions in inches (millimeters) and are subject to change without notice.

**AS85049/109**  
**Straight RF/EMI Shield-Sock Metal**  
**Shrink Boot Adapter with Optional Detented or Non-Detented**  
**Self-Locking or Non-Self-Locking Coupling Nut**



AS85049

B

**TABLE I: Shell Size, Entry Size, Thread and Dimensions**

| Accessory Shell Size Code | Allowable Cable Entry Size | Shell Size AS81703, Series III (Ref) | Shell Size MIL-DTL-26482, Series II MIL-DTL-83723, Series III (Ref) | Shell Size MIL-DTL-5015, Series I and II (Ref) | A Thread Class 2B | B Max Diameter |
|---------------------------|----------------------------|--------------------------------------|---|--|-------------------|----------------|
| 03                        | 01                         | 3                                    | -   | -  | 9/16-24 UNEF      | .855 (22.48)   |
| 08                        | 01                         | -                                    | 8   | 8S   | 1/2-20 UNF        | .885 (22.48)   |
| 10                        | 01-03                      | -                                    | 10  | 10S & 10SL                                     | 5/8-24 UNEF       | 1.010 (25.65)  |
| 12                        | 01-05                      | 7                                    | 12  | 12S & 12                                       | 3/4-20 UNEF       | 1.135 (28.83)  |
| 14                        | 02-06                      | 12                                   | 14  | 14S & 14                                       | 7/8-20 UNEF       | 1.260 (32.00)  |
| 16                        | 04-08                      | 19                                   | 16  | 16S & 16                                       | 1-20 UNEF         | 1.385 (35.18)  |
| 18                        | 05-09                      | 27                                   | 18  | 18   | 1 1/16-18 UNEF    | 1.510 (38.35)  |
| 20                        | 07-11                      | 37                                   | 20  | 20   | 1 3/16-18 UNEF    | 1.635 (41.53)  |
| 22                        | 09-13                      | -                                    | 22  | 22   | 1 5/16-18 UNEF    | 1.760 (44.70)  |
| 24                        | 11-14                      | -                                    | 24  | 24   | 1 7/16-18 UNEF    | 1.885 (47.88)  |
| 28                        | 14-16                      | -                                    | -   | 28   | 1 3/4-18 UNS      | 2.135 (54.23)  |
| 32                        | 16-17                      | -                                    | -   | 32   | 2-18 UNS          | 2.395 (60.83)  |
| 36                        | 17-19                      | -                                    | -   | 36   | 2 1/4-16 UN       | 2.635 (66.93)  |
| 40                        | 19-21                      | -                                    | -   | 40   | 2 1/2-16 UN       | 2.885 (73.28)  |
| 44                        | 21-23                      | -                                    | -   | 44   | 2 3/4-16 UN       | 3.135 (76.63)  |
| 48                        | 23-25                      | -                                    | -   | 48   | 3-16 UN           | 3.385 (85.98)  |
| 61                        | 12-14                      | 61                                   | -   | -  | 1 1/2-18 UNEF     | 1.885 (47.88)  |

**TABLE II: Entry Size and Dimensions**

| Entry Size | W ± .020 (.51) | Y +.008 (.20) - .000 (.00) | Z Max        |
|------------|----------------|----------------------------|--------------|
| 01         | .250 (6.4)     | .044 (1.12)                | .560 (14.2)  |
| 02         | .312 (7.9)     | .044 (1.12)                | .630 (16.0)  |
| 03         | .375 (9.5)     | .044 (1.12)                | .690 (17.5)  |
| 04         | .438 (11.1)    | .044 (1.12)                | .750 (19.1)  |
| 05         | .500 (12.7)    | .044 (1.12)                | .820 (20.8)  |
| 06         | .562 (14.3)    | .044 (1.12)                | .890 (22.6)  |
| 07         | .625 (15.9)    | .044 (1.12)                | .950 (24.1)  |
| 08         | .688 (17.5)    | .044 (1.12)                | 1.020 (25.9) |
| 09         | .750 (19.1)    | .069 (1.75)                | 1.120 (28.4) |
| 10         | .812 (20.6)    | .069 (1.75)                | 1.200 (30.5) |
| 11         | .875 (22.2)    | .069 (1.75)                | 1.270 (32.3) |
| 12         | .938 (23.8)    | .069 (1.75)                | 1.260 (32.0) |
| 13         | 1.000 (25.4)   | .069 (1.75)                | 1.370 (34.8) |
| 14         | 1.125 (28.6)   | .069 (1.75)                | 1.470 (37.3) |
| 15         | 1.250 (31.8)   | .069 (1.75)                | 1.600 (40.6) |
| 16         | 1.375 (34.9)   | .069 (1.75)                | 1.710 (43.4) |
| 17         | 1.500 (38.1)   | .086 (2.18)                | 1.840 (46.7) |
| 18         | 1.625 (41.3)   | .086 (2.18)                | 2.000 (50.8) |
| 19         | 1.750 (44.5)   | .086 (2.18)                | 2.120 (53.8) |
| 20         | 1.875 (47.6)   | .086 (2.18)                | 2.270 (57.7) |
| 21         | 2.000 (50.8)   | .086 (2.18)                | 2.440 (62.0) |
| 22         | 2.125 (54.0)   | .086 (2.18)                | 2.600 (66.0) |
| 23         | 2.250 (57.2)   | .086 (2.18)                | 2.750 (69.9) |
| 24         | 2.375 (60.3)   | .086 (2.18)                | 2.900 (73.7) |
| 25         | 2.500 (63.5)   | .086 (2.18)                | 3.060 (77.7) |

**Table III: Symbol and Finish**

| Symbol | Finish  |
|--------|---|
| N      | Electroless Nickel  |
| W      | Cadmium/Olive Drab over Electroless Nickel (1000 Hour Salt Spray) |
| X      | Nickel Fluorocarbon Polymer                                       |
| Z      | Zinc Nickel   |

**Table IV: Symbol and Finish**

| Symbol | Finish       |
|--------|--------------|
| K      | Nickel Plate |
| T      | Tin Plate    |

**Table V: (Manufacturer's Option)**

| Material        | Finish     |
|-----------------|------------|
| Copper          | Tin Plate  |
| Stainless Steel | Passivated |

**APPLICATION NOTES**

- Metric equivalents are given for general information only and are based on 1.000 inch (25.40 mm).
- Dimensions are in inches and apply after plating. Accessory configuration is optional within the specified dimension envelope.
- Adapter length is measured from the bottom of the accessory teeth to the adapter that is covered by the braid. The adapter surface under the braid shall be ribbed knurled or have a surface roughness of .125 R minimum in accordance with ANSI B46.1.
- Pig tail terminated braid material shall be in accordance with Table IV. Braid length is defined by Note 1 as shown in the part or identifying number (PIN).
- Termination band configuration is not controlled. Band with buckle may exceed the "Z" dimension (See Table II) provided the band does not interfere with boot attachment, band material shall be specified as in Table V.
- Shrink boot (when required) shall be as specified in AS5258.
- Termination of the accessory shield with harness shield may be performed with a AS85049/93 shield support ring or similar split ring accessory types.
- Three (3) holes equally spaced shall be provided and accommodate .020 (.51) maximum safety wire for the non-self-locking coupling configuration.
- Drain holes will be provided with a .125 (3.2 mm) diameter, 4 places equally spaces (optional, see part number development).
- Material/Finish:  
 Adapter, coupling nut - Al alloy/See Table III  
 Band - See Table V, manufacturer's option  
 Braid - Copper/See Table IV

Dimensions in inches (millimeters) and are subject to change without notice.

# AS85049/111

## 90° RF/EMI Shield-Sock Shrink Boot Adapter with Optional Self-Locking Coupling Nut

### CONNECTOR DESIGNATOR:

**A**

AS50151 Series AS34001  
MIL-DTL-26482 Series II  
AS81703 Series III  
MIL-DTL-83723 Series I & III  
40M39569, DEF 5326-3  
EN 2997, EN 3646  
ESC 10, ESC 11, LN 29504  
NFC93422 Series HE302  
PAN 6432-1, PAN 6432-2  
PATT 602

Product Series and  
Specification Sheet

Shell Size  
(Table I)

Shield Finish  
(Table IV)

Entry Size  
(Table II)

Drain Hole  
(Omit for None)

**M85049/111**

**S**

**10**

**T**

**W**

**03**

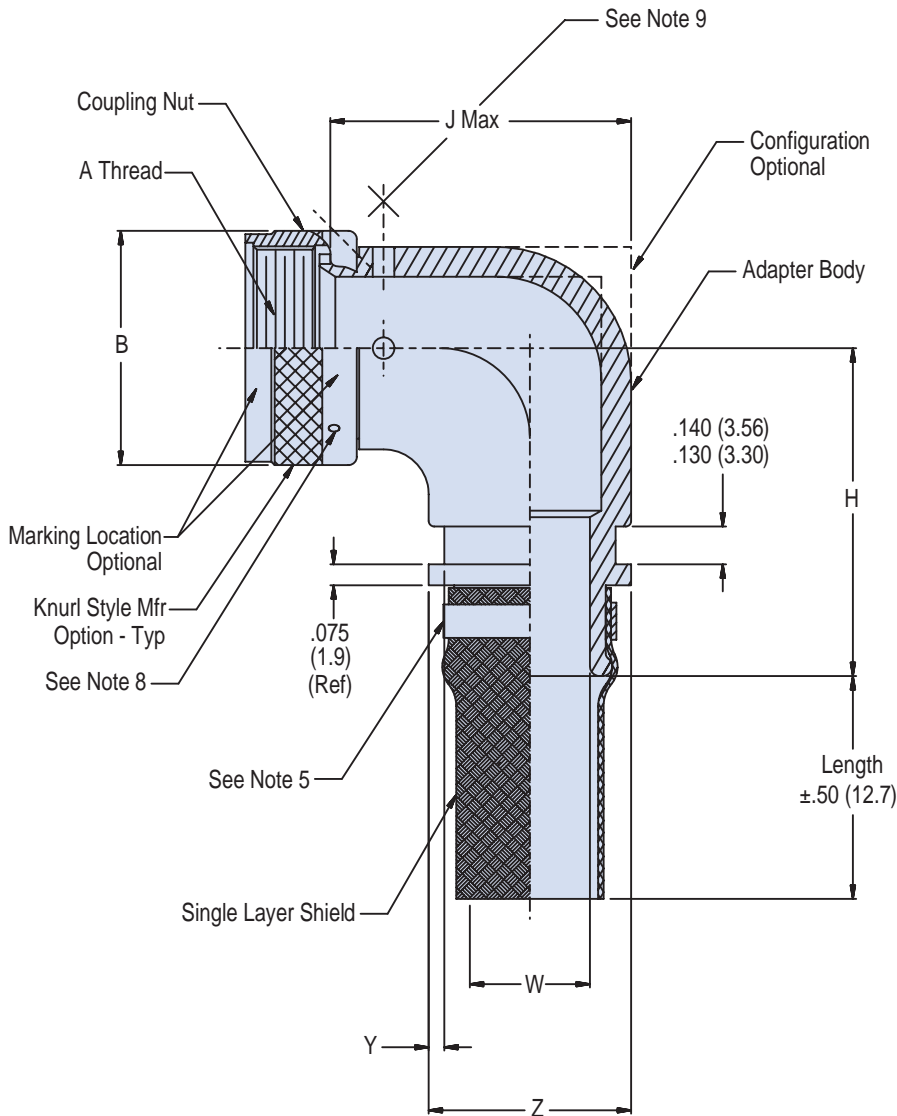
**- 6**

**D**

**S** = Detented, Self-Locking  
- = Non-Self-Locking (Use Dash)  
**N** = Non-Detented, Self-Locking

**Finish**  
(Table III)

**Braid Length**  
1 Inch Increments,  
6" Min., 18" Max



**TABLE II: Entry Size and Dimensions**

| Entry Size | W<br>± .020 (.51) | Y<br>+.008 (.20)<br>-.000 (.00) | Z<br>Max     |
|------------|-------------------|---------------------------------|--------------|
| 01         | .250 (6.4)        | .044 (1.12)                     | .560 (14.2)  |
| 02         | .312 (7.9)        | .044 (1.12)                     | .630 (16.0)  |
| 03         | .375 (9.5)        | .044 (1.12)                     | .690 (17.5)  |
| 04         | .438 (11.1)       | .044 (1.12)                     | .750 (19.1)  |
| 05         | .500 (12.7)       | .044 (1.12)                     | .820 (20.8)  |
| 06         | .562 (14.3)       | .044 (1.12)                     | .890 (22.6)  |
| 07         | .625 (15.9)       | .044 (1.12)                     | .950 (24.1)  |
| 08         | .688 (17.5)       | .044 (1.12)                     | 1.020 (25.9) |
| 09         | .750 (19.1)       | .069 (1.75)                     | 1.120 (28.4) |
| 10         | .812 (20.6)       | .069 (1.75)                     | 1.200 (30.5) |
| 11         | .875 (22.2)       | .069 (1.75)                     | 1.270 (32.3) |
| 12         | .938 (23.8)       | .069 (1.75)                     | 1.260 (32.0) |
| 13         | 1.000 (25.4)      | .069 (1.75)                     | 1.370 (34.8) |
| 14         | 1.125 (28.6)      | .069 (1.75)                     | 1.470 (37.3) |
| 15         | 1.250 (31.8)      | .069 (1.75)                     | 1.600 (40.6) |
| 16         | 1.375 (34.9)      | .069 (1.75)                     | 1.710 (43.4) |
| 17         | 1.500 (38.1)      | .086 (2.18)                     | 1.840 (46.7) |
| 18         | 1.625 (41.3)      | .086 (2.18)                     | 2.000 (50.8) |
| 19         | 1.750 (44.5)      | .086 (2.18)                     | 2.120 (53.8) |
| 20         | 1.875 (47.6)      | .086 (2.18)                     | 2.270 (57.7) |
| 21         | 2.000 (50.8)      | .086 (2.18)                     | 2.440 (62.0) |
| 22         | 2.125 (54.0)      | .086 (2.18)                     | 2.600 (66.0) |
| 23         | 2.250 (57.2)      | .086 (2.18)                     | 2.750 (69.9) |
| 24         | 2.375 (60.3)      | .086 (2.18)                     | 2.900 (73.7) |
| 25         | 2.500 (63.5)      | .086 (2.18)                     | 3.060 (77.7) |

Dimensions in inches (millimeters) and are subject to change without notice.

**AS85049/111**  
**90° RFI/EMI Shield-Sock Shrink Boot Adapter**  
**with Optional Self-Locking Coupling Nut**



AS85049

B

**TABLE I: Shell Size, Entry Size, Thread and Dimensions**

| Accessory Shell Size Code | Allowable Cable Entry Size | Shell Size AS81703, Series III (Ref) | Shell Size MIL-DTL-26482, Series II MIL-DTL-83723, Series III (Ref) | Shell Size MIL-DTL-5015, Series I and II (Ref) | A Thread Class 2B | B Max Diameter | H Max         | J Max          |
|---------------------------|----------------------------|--------------------------------------|---|--|-------------------|----------------|---------------|----------------|
| 03                        | 01                         | 3                                    | -   | -  | 9/16-24 UNEF      | .855 (22.48)   | 1.730 (43.94) | 1.120 (28.45)  |
| 08                        | 01                         | -                                    | 8   | 8S   | 1/2-20 UNF        | .885 (22.48)   | 1.730 (43.94) | 1.120 (28.45)  |
| 10                        | 01-03                      | -                                    | 10  | 10S & 10SL                                     | 5/8-24 UNEF       | 1.010 (25.65)  | 1.850 (46.99) | 1.250 (31.75)  |
| 12                        | 01-05                      | 7                                    | 12  | 12S & 12                                       | 3/4-20 UNEF       | 1.135 (28.83)  | 1.870 (47.50) | 1.380 (35.05)  |
| 14                        | 02-06                      | 12                                   | 14  | 14S & 14                                       | 7/8-20 UNEF       | 1.260 (32.00)  | 1.940 (49.28) | 1.440 (36.58)  |
| 16                        | 04-08                      | 19                                   | 16  | 16S & 16                                       | 1-20 UNEF         | 1.385 (35.18)  | 2.030 (51.56) | 1.560 (39.62)  |
| 18                        | 05-09                      | 27                                   | 18  | 18   | 1 1/16-18 UNEF    | 1.510 (38.35)  | 2.200 (55.88) | 1.750 (44.45)  |
| 20                        | 07-11                      | 37                                   | 20  | 20   | 1 3/16-18 UNEF    | 1.635 (41.53)  | 2.200 (55.88) | 1.750 (44.45)  |
| 22                        | 09-13                      | -                                    | 22  | 22   | 1 5/16-18 UNEF    | 1.760 (44.70)  | 2.310 (58.67) | 2.000 (50.80)  |
| 24                        | 11-14                      | -                                    | 24  | 24   | 1 7/16-18 UNEF    | 1.885 (47.88)  | 2.310 (58.67) | 2.000 (50.80)  |
| 28                        | 14-16                      | -                                    | -   | 28   | 1 3/4-18 UNS      | 2.135 (54.23)  | 2.480 (62.99) | 2.250 (57.15)  |
| 32                        | 16-17                      | -                                    | -   | 32   | 2-18 UNS          | 2.395 (60.83)  | 2.730 (69.34) | 2.750 (69.85)  |
| 36                        | 17-19                      | -                                    | -   | 36   | 2 1/4-16 UN       | 2.635 (66.93)  | 2.730 (69.34) | 3.125 (79.38)  |
| 40                        | 19-21                      | -                                    | -   | 40   | 2 1/2-16 UN       | 2.885 (73.28)  | 2.880 (73.15) | 4.125 (104.77) |
| 44                        | 21-23                      | -                                    | -   | 44   | 2 3/4-16 UN       | 3.135 (76.63)  | 3.000 (76.20) | 4.125 (104.77) |
| 48                        | 23-25                      | -                                    | -   | 48   | 3-16 UN           | 3.385 (85.98)  | 3.120 (79.25) | 4.125 (104.77) |
| 61                        | 12-14                      | 61                                   | -   | -  | 1 1/2-18 UNEF     | 1.885 (47.88)  | 2.380 (60.45) | 2.250 (57.15)  |

**Table III: Symbol and Finish**

| Symbol | Finish  |
|--------|---|
| N      | Electroless Nickel  |
| W      | Cadmium/Olive Drab over Electroless Nickel (1000 Hour Salt Spray) |
| X      | Nickel Fluorocarbon Polymer                                       |
| Z      | Zinc Nickel   |

**Table IV: Symbol and Finish**

| Symbol | Finish       |
|--------|--------------|
| K      | Nickel Plate |
| T      | Tin Plate    |

**Table V: (Manufacturer's Option)**

| Material        | Finish     |
|-----------------|------------|
| Copper          | Tin Plate  |
| Stainless Steel | Passivated |

**APPLICATION NOTES**

- |   |  |
|---|--|
| <ol style="list-style-type: none"> <li>Metric equivalents are given for general information only and are based on 1.000 inch (25.40 mm).</li> <li>Dimensions are in inches and apply after plating. Accessory configuration is optional within the specified dimension envelope.</li> <li>Adapter length is measured from the bottom of the accessory teeth to the adapter that is covered by the braid. The adapter surface under the braid shall be ribbed knurled or have a surface roughness of .125 R minimum in accordance with ANSI B46.1.</li> <li>Pig tail terminated braid material shall be in accordance with Table IV. Braid length is defined by Note 1 as shown in the part or identifying number (PIN).</li> <li>Termination band configuration is not controlled. Band with buckle may exceed the "Z" dimension (See Table II) provided the band does not interfere with boot attachment, band material</li> </ol> | <ol style="list-style-type: none"> <li>shall be specified as in Table V.</li> <li>Shrink boot (when required) shall be as specified in AS5258.</li> <li>Termination of the accessory shield with harness shield may be performed with a AS85049/93 shield support ring or similar split ring accessory types.</li> <li>Three (3) holes equally spaced shall be provided and accommodate .020 (.51) maximum safety wire for the non-self-locking coupling configuration.</li> <li>Drain holes will be provided with a .125 (3.2 mm) diameter, 4 places equally spaces (optional, see part number development).</li> <li>Material/Finish:<br/>                     Adapter, coupling nut - Al alloy/See Table III<br/>                     Band - See Table V, manufacturer's option<br/>                     Braid - Copper/See Table IV</li> </ol> |
|---|--|

Dimensions in inches (millimeters) and are subject to change without notice.

# AS85049/112

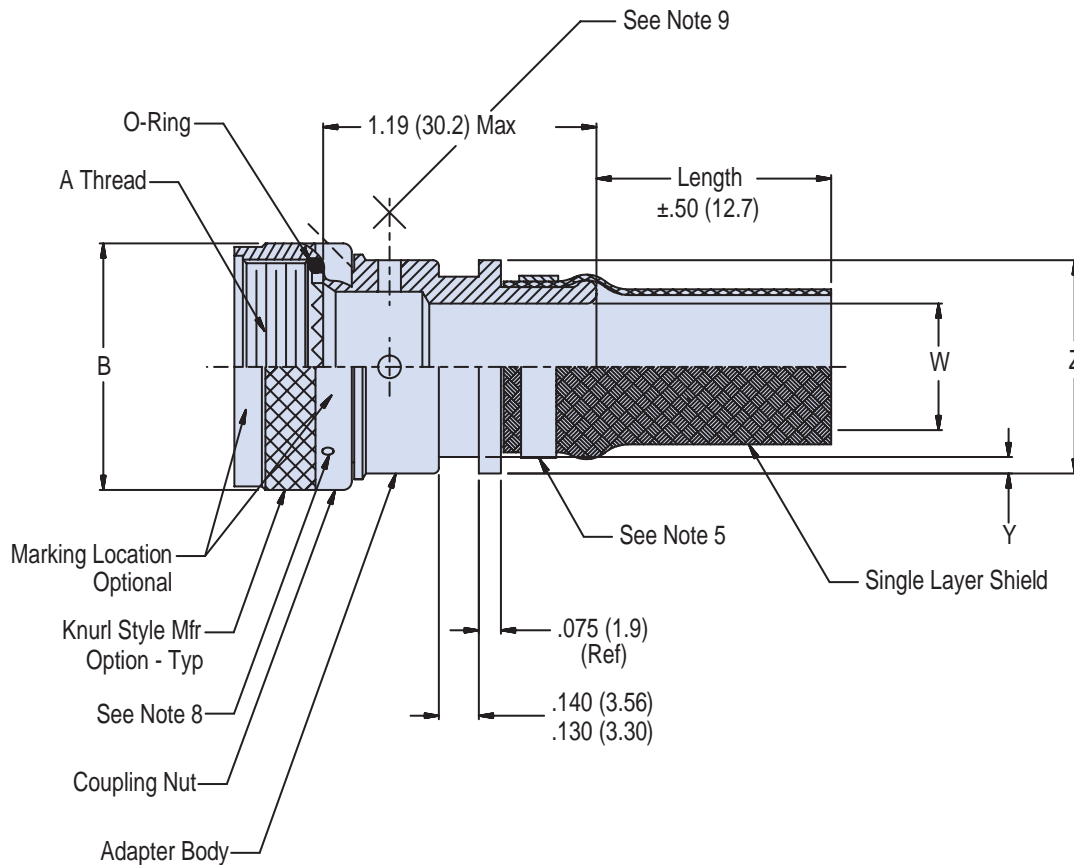
## Straight RFI/EMI Shield-Sock Shrink Boot Adapter with Optional Self-Locking Coupling Nut

## CONNECTOR DESIGNATOR:

**F** MIL-DTL-38999 Series I and II

**Product Series and  
Specification Sheet**
**Shell Size  
(Table I)**
**Shield Finish  
(Table IV)**
**Entry Size  
(Table II)**
**Drain Hole  
(Omit for None)**
**M85049/112**
**S**
**10**
**T**
**W**
**03**
**- 6**
**D**

**S** = Detented, Self-Locking  
**-** = Non-Self-Locking (Use Dash)  
**N** = Non-Detented, Self-Locking

**Finish  
(Table III)**
**Braid Length  
1 Inch Increments,  
6" Min., 18" Max**


Dimensions in inches (millimeters) and are subject to change without notice.

# AS85049/112

## Straight RFI/EMI Shield-Sock Shrink Boot Adapter with Optional Self-Locking Coupling Nut



AS85049

B

**TABLE I: Shell Size, Entry Size, Thread and Dimensions**

| Accessory Shell Size Code | Series I Shell Size (Ref) | Series II Shell Size (Ref) | A Thread Class 2B | B Max Diameter | Allowable Cable Entry Size |
|---------------------------|---------------------------|----------------------------|-------------------|----------------|----------------------------|
| 08                        | 9                         | 8                          | 7/16-28 UNEF      | .858 (21.79)   | 01                         |
| 10                        | 11                        | 10                         | 9/16-24 UNEF      | .984 (24.99)   | 01-03                      |
| 12                        | 13                        | 12                         | 11/16-24 UNEF     | 1.157 (29.39)  | 01-05                      |
| 14                        | 15                        | 14                         | 13/16-20 UNEF     | 1.279 (32.49)  | 03-07                      |
| 16                        | 17                        | 16                         | 15/16-20 UNEF     | 1.406 (35.71)  | 05-09                      |
| 18                        | 19                        | 18                         | 1 1/16-18 UNEF    | 1.516 (38.51)  | 06-10                      |
| 20                        | 21                        | 20                         | 1 3/16-18 UNEF    | 1.642 (41.71)  | 08-12                      |
| 22                        | 23                        | 22                         | 1 5/16-18 UNEF    | 1.768 (44.91)  | 09-13                      |
| 24                        | 25                        | 24                         | 1 7/16-18 UNEF    | 1.889 (47.98)  | 10-14                      |

**TABLE II: Entry Size and Dimensions**

| Entry Size | W<br>± .020 (.51) | Y<br>+.008 (.20)<br>-.000 (.00) | Z<br>Max     |
|------------|-------------------|---------------------------------|--------------|
| 01         | .250 (6.4)        | .044 (1.12)                     | .560 (14.2)  |
| 02         | .312 (7.9)        | .044 (1.12)                     | .630 (16.0)  |
| 03         | .375 (9.5)        | .044 (1.12)                     | .690 (17.5)  |
| 04         | .438 (11.1)       | .044 (1.12)                     | .750 (19.1)  |
| 05         | .500 (12.7)       | .044 (1.12)                     | .820 (20.8)  |
| 06         | .562 (14.3)       | .044 (1.12)                     | .890 (22.6)  |
| 07         | .625 (15.9)       | .044 (1.12)                     | .950 (24.1)  |
| 08         | .688 (17.5)       | .044 (1.12)                     | 1.020 (25.9) |
| 09         | .750 (19.1)       | .069 (1.75)                     | 1.120 (28.4) |
| 10         | .812 (20.6)       | .069 (1.75)                     | 1.200 (30.5) |
| 11         | .875 (22.2)       | .069 (1.75)                     | 1.270 (32.3) |
| 12         | .938 (23.8)       | .069 (1.75)                     | 1.260 (32.0) |
| 13         | 1.000 (25.4)      | .069 (1.75)                     | 1.370 (34.8) |
| 14         | 1.125 (28.6)      | .069 (1.75)                     | 1.470 (37.3) |

**Table III: Symbol and Finish**

| Symbol | Finish  |
|--------|---|
| N      | Electroless Nickel  |
| W      | Cadmium/Olive Drab over Electroless Nickel (1000 Hour Salt Spray) |
| X      | Nickel Fluorocarbon Polymer                                       |
| Z      | Zinc Nickel   |

**Table IV: Symbol and Finish**

| Symbol | Finish       |
|--------|--------------|
| K      | Nickel Plate |
| T      | Tin Plate    |

**Table V: (Manufacturer's Option)**

| Material        | Finish     |
|-----------------|------------|
| Copper          | Tin Plate  |
| Stainless Steel | Passivated |

### APPLICATION NOTES

- Metric equivalents are given for general information only and are based on 1.000 inch (25.40 mm).
- Dimensions are in inches and apply after plating. Accessory configuration is optional within the specified dimension envelope.
- Adapter length is measured from the bottom of the accessory teeth to the adapter that is covered by the braid. The adapter surface under the braid shall be ribbed knurled or have a surface roughness of .125 R minimum in accordance with ANSI B46.1.
- Pig tail terminated braid material shall be in accordance with Table IV. Braid length is defined by Note 1 as shown in the part or identifying number (PIN).
- Termination band configuration is not controlled. Band with buckle may exceed the "Z" dimension (See Table II) provided the band does not interfere with boot attachment, band material shall be specified as in Table V.
- Shrink boot (when required) shall be as specified in AS5258.
- Termination of the accessory shield with harness shield may be performed with a AS85049/93 shield support ring or similar split ring accessory types.
- Three (3) holes equally spaced shall be provided and accommodate .020 (.51) maximum safety wire for the non-self-locking coupling configuration.
- Drain holes will be provided with a .125 (3.2 mm) diameter, 4 places equally spaces (optional, see part number development). O-Ring not required when drain hole option is specified.
- Material/Finish:  
 Adapter, coupling nut - Al alloy/See Table III  
 Band - See Table V, manufacturer's option  
 Braid - Copper/See Table IV

Dimensions in inches (millimeters) and are subject to change without notice.



# AS85049/114

## 90° RF/EMI Shield-Sock Shrink Boot Adapter with Detented or Non-Detented Self-Locking or Non Self-Locking Coupling Nut

## CONNECTOR DESIGNATOR:

F

MIL-DTL-38999 Series I & II  
40M38277, PAN 6433-1  
PATT 614, PATT 616  
NFC93422 Series HE308 &  
HE309

Product Series and  
Specification Sheet

Shield Finish  
(Table IV)

Entry Size  
(Table II)

Drain Hole  
(Omit for None)

M85049/114

S

10

T

W

03

- 6

D

S = Detented, Self-Locking  
- = Non-Self-Locking (Use Dash)  
N = Non-Detented, Self-Locking

Shell Size  
(Table I)

Finish  
(Table III)

Braid Length  
1 Inch Increments,  
6" Min., 18" Max

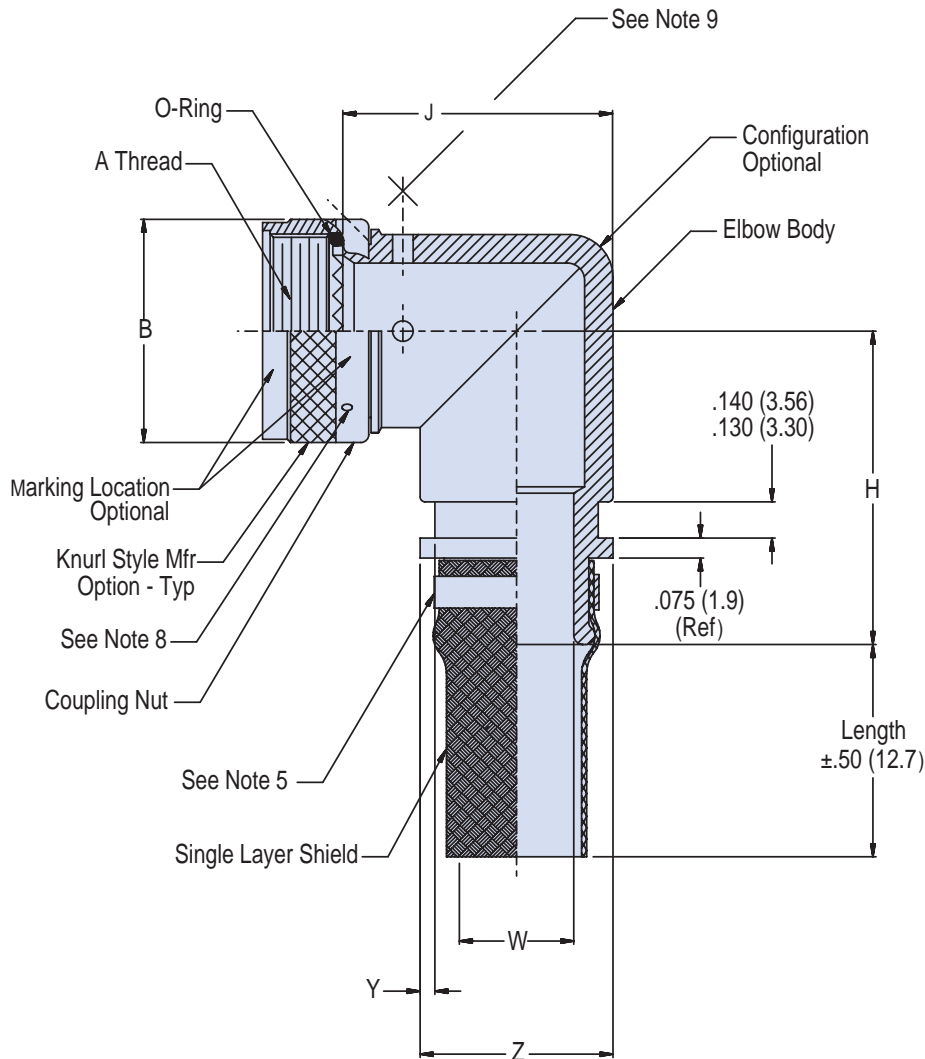


TABLE II: Entry Size and Dimensions

| Entry Size | W<br>± .020 (.51) | Y<br>+.008 (.20)<br>-.000 (.00) | Z<br>Max     |
|------------|-------------------|---------------------------------|--------------|
| 01         | .250 (6.4)        | .044 (1.12)                     | .560 (14.2)  |
| 02         | .312 (7.9)        | .044 (1.12)                     | .630 (16.0)  |
| 03         | .375 (9.5)        | .044 (1.12)                     | .690 (17.5)  |
| 04         | .438 (11.1)       | .044 (1.12)                     | .750 (19.1)  |
| 05         | .500 (12.7)       | .044 (1.12)                     | .820 (20.8)  |
| 06         | .562 (14.3)       | .044 (1.12)                     | .890 (22.6)  |
| 07         | .625 (15.9)       | .044 (1.12)                     | .950 (24.1)  |
| 08         | .688 (17.5)       | .044 (1.12)                     | 1.020 (25.9) |
| 09         | .750 (19.1)       | .069 (1.75)                     | 1.120 (28.4) |
| 10         | .812 (20.6)       | .069 (1.75)                     | 1.200 (30.5) |
| 11         | .875 (22.2)       | .069 (1.75)                     | 1.270 (32.3) |
| 12         | .938 (23.8)       | .069 (1.75)                     | 1.260 (32.0) |
| 13         | 1.000 (25.4)      | .069 (1.75)                     | 1.370 (34.8) |
| 14         | 1.125 (28.6)      | .069 (1.75)                     | 1.470 (37.3) |

Dimensions in inches (millimeters) and are subject to change without notice.

**AS85049/114**  
**90° RF/EMI Shield-Sock Shrink Boot Adapter**  
**with Detented or Non-Detented Self-Locking**  
**or Non Self-Locking Coupling Nut**



AS85049

**B**

**TABLE I: Shell Size, Entry Size, Thread and Dimensions**

| Accessory Shell Size Code | Series I Shell Size (Ref) | Series II Shell Size (Ref) | A Thread Class 2B | B Max Diameter | H Max         | J Max         | Allowable Cable Entry Size |
|---------------------------|---------------------------|----------------------------|-------------------|----------------|---------------|---------------|----------------------------|
| 08                        | 9                         | 8                          | 7/16-28 UNEF      | .858 (21.79)   | 1.730 (43.94) | 1.070 (27.18) | 01                         |
| 10                        | 11                        | 10                         | 9/16-24 UNEF      | .984 (24.99)   | 1.850 (46.99) | 1.190 (30.23) | 01-03                      |
| 12                        | 13                        | 12                         | 11/16-24 UNEF     | 1.157 (29.39)  | 1.870 (47.50) | 1.320 (33.53) | 01-05                      |
| 14                        | 15                        | 14                         | 13/16-20 UNEF     | 1.279 (32.49)  | 1.940 (49.28) | 1.440 (36.58) | 03-07                      |
| 16                        | 17                        | 16                         | 15/16-20 UNEF     | 1.406 (35.71)  | 2.030 (51.56) | 1.570 (39.88) | 05-09                      |
| 18                        | 19                        | 18                         | 1 1/16-18 UNEF    | 1.516 (38.51)  | 2.200 (55.88) | 1.750 (44.45) | 06-10                      |
| 20                        | 21                        | 20                         | 1 3/16-18 UNEF    | 1.642 (41.71)  | 2.200 (55.88) | 1.750 (44.45) | 08-12                      |
| 22                        | 23                        | 22                         | 1 5/16-18 UNEF    | 1.768 (44.91)  | 2.310 (58.67) | 2.000 (50.80) | 09-13                      |
| 24                        | 25                        | 24                         | 1 7/16-18 UNEF    | 1.889 (47.98)  | 2.310 (58.67) | 2.000 (50.80) | 10-14                      |

**Table III: Symbol and Finish**

| Symbol | Finish  |
|--------|---|
| N      | Electroless Nickel  |
| W      | Cadmium/Olive Drab over Electroless Nickel (1000 Hour Salt Spray) |
| X      | Nickel Fluorocarbon Polymer                                       |
| Z      | Zinc Nickel   |

**Table IV: Symbol and Finish**

| Symbol | Finish       |
|--------|--------------|
| K      | Nickel Plate |
| T      | Tin Plate    |

**Table V: (Manufacturer's Option)**

| Material        | Finish     |
|-----------------|------------|
| Copper          | Tin Plate  |
| Stainless Steel | Passivated |

**APPLICATION NOTES**

- Metric equivalents are given for general information only and are based on 1.000 inch (25.40 mm).
- Dimensions are in inches and apply after plating. Accessory configuration is optional within the specified dimension envelope.
- Adapter length is measured from the bottom of the accessory teeth to the adapter that is covered by the braid. The adapter surface under the braid shall be ribbed knurled or have a surface roughness of .125 R minimum in accordance with ANSI B46.1.
- Pig tail terminated braid material shall be in accordance with Table IV. Braid length is defined by Note 1 as shown in the part or identifying number (PIN).
- Termination band configuration is not controlled. Band with buckle may exceed the "Z" dimension (See Table II) provided the band does not interfere with boot attachment, band material shall be specified as in Table V.
- Shrink boot (when required) shall be as specified in AS5258.
- Termination of the accessory shield with harness shield may be performed with a AS85049/93 shield support ring or similar split ring accessory types.
- Three (3) holes equally spaced shall be provided and accommodate .020 (.51) maximum safety wire for the non-self-locking coupling configuration.
- Drain holes will be provided with a .125 (3.2 mm) diameter, 4 places equally spaces (optional, see part number development). O-Ring not required when drain hole option is specified.
- Material/Finish:  
 Adapter, coupling nut - Al alloy/See Table III  
 Band - See Table V, manufacturer's option  
 Braid - Copper/See Table IV

Dimensions in inches (millimeters) and are subject to change without notice.

# AS85049/115

## Straight RFI/EMI Shield-Sock Shrink Boot Adapter with Optional Self-Locking Coupling Nut

## CONNECTOR DESIGNATOR:

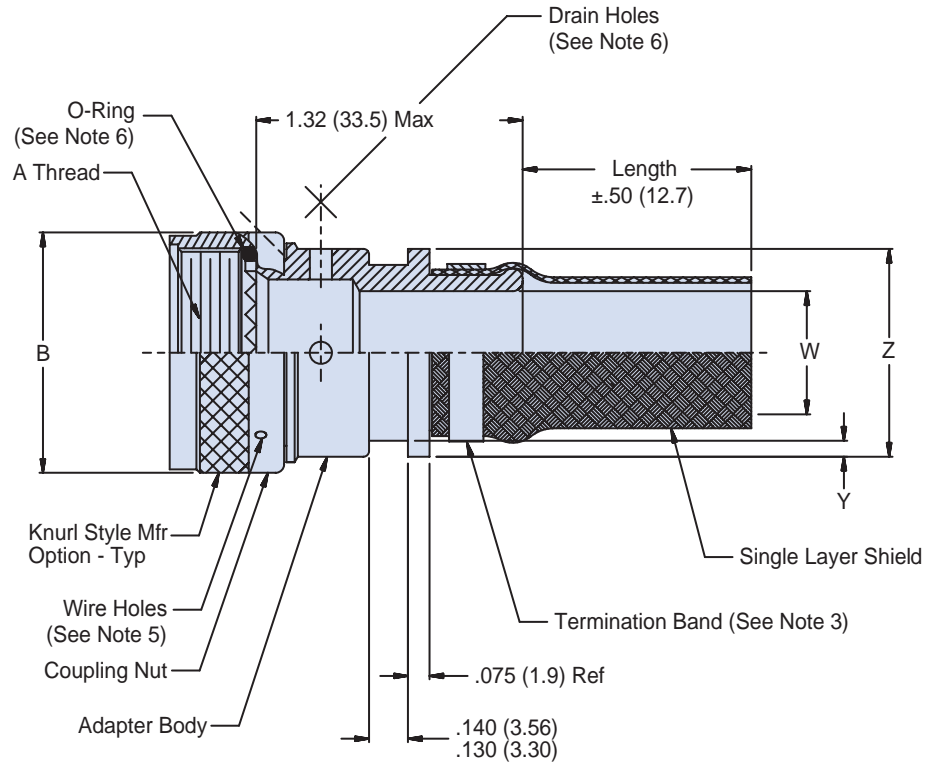
**H** MIL-DTL-38999 Series III and IV  
EN3645

Product Series and  
Basic Part NumberShell Size  
(Table I)Shield Finish  
(Table IV)Entry Size  
(Table II)Drain Hole  
(Omit for None)**M85049/115****S****11****T****W****03****- 6****D**

**S** = Detented, Self-Locking  
**-** = Non-Self-Locking (Use Dash)  
**N** = Non-Detented, Self-Locking

**Finish**  
(Table III)

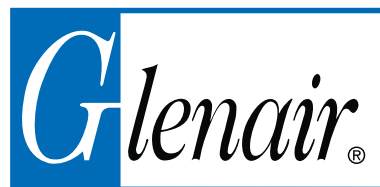
**Braid Length**  
1 Inch Increments,  
6" Min., 18" Max



Dimensions in inches (millimeters) and are subject to change without notice.

# AS85049/115

## Straight RFI/EMI Shield-Sock Shrink Boot Adapter with Optional Self-Locking Coupling Nut



AS85049

B

| TABLE I: Shell Size and Dimensions |                   |                |                            |
|------------------------------------|-------------------|----------------|----------------------------|
| Shell Size                         | A Thread Class 2B | B Max Diameter | Allowable Cable Entry Size |
| 09                                 | M12 X 1 - 6H      | .858 (21.79)   | 01                         |
| 11                                 | M15 X 1 - 6H      | .984 (24.99)   | 01-03                      |
| 13                                 | M18 X 1 - 6H      | 1.157 (29.39)  | 01-05                      |
| 15                                 | M22 X 1 - 6H      | 1.279 (32.49)  | 03-07                      |
| 17                                 | M25 X 1 - 6H      | 1.406 (35.71)  | 05-09                      |
| 19                                 | M28 X 1 - 6H      | 1.516 (38.51)  | 06-10                      |
| 21                                 | M31 X 1 - 6H      | 1.642 (41.71)  | 08-12                      |
| 23                                 | M34 X 1 - 6H      | 1.768 (44.91)  | 09-13                      |
| 25                                 | M37 X 1 - 6H      | 1.889 (47.98)  | 10-14                      |

| TABLE II: Entry Size and Dimensions |                   |                                 |              |
|-------------------------------------|-------------------|---------------------------------|--------------|
| Entry Size                          | W<br>± .020 (.51) | Y<br>+.008 (.20)<br>-.000 (.00) | Z<br>Max     |
| 01                                  | .250 (6.4)        | .044 (1.12)                     | .560 (14.2)  |
| 02                                  | .312 (7.9)        | .044 (1.12)                     | .630 (16.0)  |
| 03                                  | .375 (9.5)        | .044 (1.12)                     | .690 (17.5)  |
| 04                                  | .438 (11.1)       | .044 (1.12)                     | .750 (19.1)  |
| 05                                  | .500 (12.7)       | .044 (1.12)                     | .820 (20.8)  |
| 06                                  | .562 (14.3)       | .044 (1.12)                     | .890 (22.6)  |
| 07                                  | .625 (15.9)       | .044 (1.12)                     | .950 (24.1)  |
| 08                                  | .688 (17.5)       | .044 (1.12)                     | 1.020 (25.9) |
| 09                                  | .750 (19.1)       | .069 (1.75)                     | 1.120 (28.4) |
| 10                                  | .812 (20.6)       | .069 (1.75)                     | 1.200 (30.5) |
| 11                                  | .875 (22.2)       | .069 (1.75)                     | 1.270 (32.3) |
| 12                                  | .938 (23.8)       | .069 (1.75)                     | 1.260 (32.0) |
| 13                                  | 1.000 (25.4)      | .069 (1.75)                     | 1.370 (34.8) |
| 14                                  | 1.125 (28.6)      | .069 (1.75)                     | 1.470 (37.3) |

| Table III: Symbol and Finish |   |
|------------------------------|---|
| Symbol                       | Finish  |
| N                            | Electroless Nickel  |
| W                            | Cadmium/Olive Drab over Electroless Nickel (1000 Hour Salt Spray) |
| X                            | Nickel Fluorocarbon Polymer                                       |
| Z                            | Zinc Nickel   |

| Table IV: Symbol and Finish |              |
|-----------------------------|--------------|
| Symbol                      | Finish       |
| K                           | Nickel Plate |
| T                           | Tin Plate    |

| Table V: (Manufacturer's Option) |            |
|----------------------------------|------------|
| Material                         | Finish     |
| Copper                           | Tin Plate  |
| Stainless Steel                  | Passivated |

### APPLICATION NOTES

- Assembly identification with manufacturer's name and part number, space permitting.
- Metric equivalents are given for general information only and are based on 1.00 inch = 25.4 mm.
- Termination band configuration is not controlled. Band with buckle may exceed the "Z" dimensions (see Table II) provided the band does not interfere with boot attachment. Band material shall be as specified in Table V.
- Termination of the accessory shield with harness shield may be performed with a GS85049/93 shield support ring or similar split ring accessory types.
- Three (3) holes equally spaced shall be provided and accommodate .020 (0.51) maximum safety wire for the non-self-locking coupling configuration.
- .125 (3.2 mm) diameter drain holes will be provided, 4 places, equally spaced (Optional, see part number development). O-Ring not required when drain hole option is specified.
- Material/Finish:  
 Adapter, coupling nut - Al alloy/see Table III.  
 Termination band - See Table V (manufacturer's option).  
 Braid - Copper/see Table IV.  
 O-Ring - Silicone/N.A.

Dimensions in inches (millimeters) and are subject to change without notice.

# AS85049/117

## 90° RFI/EMI Shield-Sock Shrink Boot Adapter With Optional Self-Locking Coupling Nut

## CONNECTOR DESIGNATOR:

**H** MIL-DTL-38999 Series III and IV  
EN3645

Product Series and  
Specification Sheet

Shield Finish  
(Table IV)

Entry Size  
(Table II)

Drain Hole  
(Omit for None)

**M85049/117**

**S**

**11**

**T**

**W**

**03**

**- 6**

**D**

**S** = Detented, Self-Locking  
- = Non-Self-Locking (Use Dash)  
**N** = Non-Detented, Self-Locking

Shell Size  
(Table I)

Finish  
(Table III)

Braid Length  
1 Inch Increments,  
6" Min., 18" Max

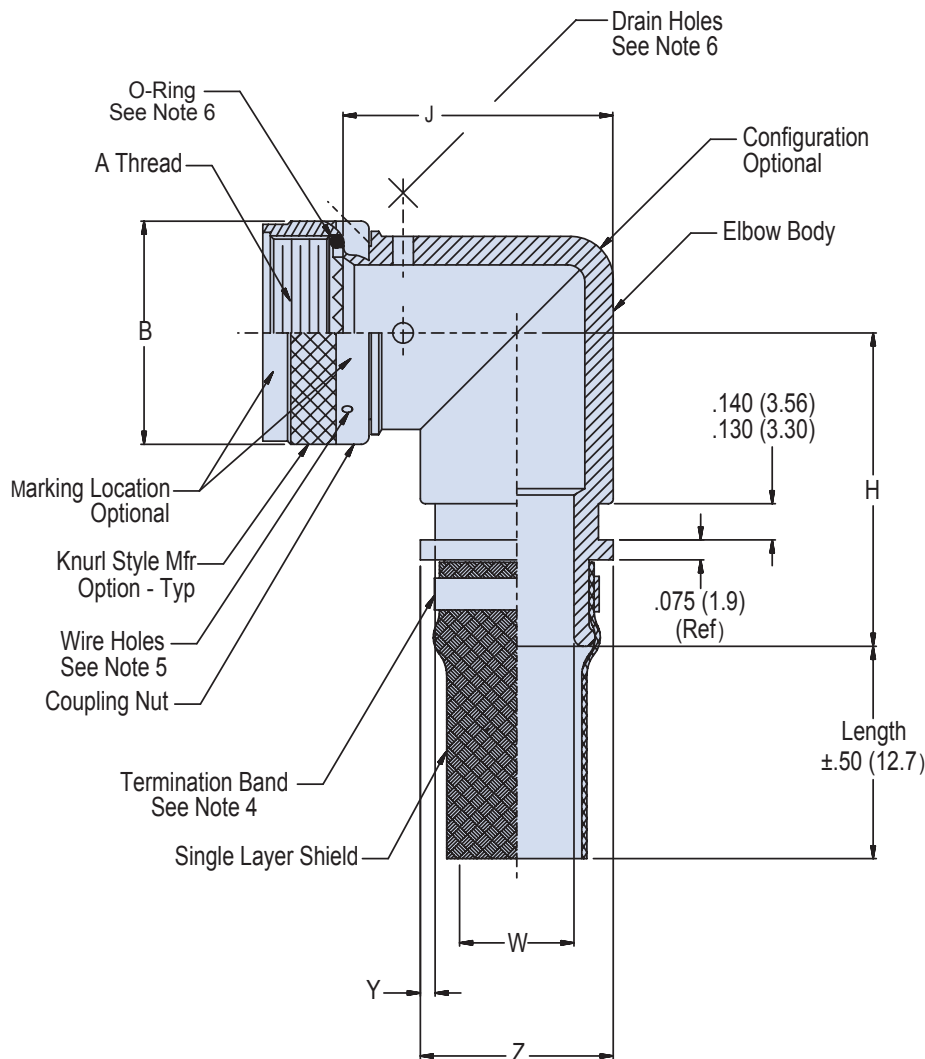


TABLE II: Entry Size and Dimensions

| Entry Size | W<br>± .020 (.51) | Y<br>+.008 (.20)<br>-.000 (.00) | Z<br>Max     |
|------------|-------------------|---------------------------------|--------------|
| 01         | .250 (6.4)        | .044 (1.12)                     | .560 (14.2)  |
| 02         | .312 (7.9)        | .044 (1.12)                     | .630 (16.0)  |
| 03         | .375 (9.5)        | .044 (1.12)                     | .690 (17.5)  |
| 04         | .438 (11.1)       | .044 (1.12)                     | .750 (19.1)  |
| 05         | .500 (12.7)       | .044 (1.12)                     | .820 (20.8)  |
| 06         | .562 (14.3)       | .044 (1.12)                     | .890 (22.6)  |
| 07         | .625 (15.9)       | .044 (1.12)                     | .950 (24.1)  |
| 08         | .688 (17.5)       | .044 (1.12)                     | 1.020 (25.9) |
| 09         | .750 (19.1)       | .069 (1.75)                     | 1.070 (27.2) |
| 10         | .812 (20.6)       | .069 (1.75)                     | 1.130 (28.7) |
| 11         | .875 (22.2)       | .069 (1.75)                     | 1.190 (30.2) |
| 12         | .938 (23.8)       | .069 (1.75)                     | 1.260 (32.0) |
| 13         | 1.000 (25.4)      | .069 (1.75)                     | 1.320 (33.5) |
| 14         | 1.125 (28.6)      | .069 (1.75)                     | 1.470 (37.3) |

Dimensions in inches (millimeters) and are subject to change without notice.

**AS85049/117**  
**90° RFI/EMI Shield-Sock Shrink Boot Adapter**  
**With Optional Self-Locking Coupling Nut**



AS85049

**B**

**TABLE I: Shell Size, Entry Size, Thread and Dimensions**

| Accessory Shell Size Code | A ISO Metric | B Max Diameter | H Max         | J Max         | Allowable Cable Entry Size |
|---------------------------|--------------|----------------|---------------|---------------|----------------------------|
| 9                         | M12 x 1 - 6H | .858 (21.79)   | 1.730 (43.94) | .875 (22.23)  | 01                         |
| 11                        | M15 x 1 - 6H | .984 (24.99)   | 1.850 (46.99) | 1.000 (25.40) | 01-03                      |
| 13                        | M18 x 1 - 6H | 1.157 (29.39)  | 1.870 (47.50) | 1.125 (28.58) | 01-05                      |
| 15                        | M22 x 1 - 6H | 1.279 (32.49)  | 1.940 (49.28) | 1.312 (33.32) | 03-07                      |
| 17                        | M25 x 1 - 6H | 1.406 (35.71)  | 2.030 (51.56) | 1.500 (38.10) | 05-09                      |
| 19                        | M28 x 1 - 6H | 1.516 (38.51)  | 2.200 (55.88) | 1.750 (44.45) | 06-10                      |
| 21                        | M31 x 1 - 6H | 1.642 (41.71)  | 2.200 (55.88) | 1.750 (44.45) | 08-12                      |
| 23                        | M34 x 1 - 6H | 1.768 (44.91)  | 2.310 (58.67) | 2.000 (50.80) | 09-13                      |
| 25                        | M37 x 1 - 6H | 1.889 (47.98)  | 2.310 (58.67) | 2.000 (50.80) | 10-14                      |

**Table III: Symbol and Finish**

| Symbol | Finish  |
|--------|---|
| N      | Electroless Nickel                                      |
| W      | Cad/O.D. over electroless nickel (1000 hour salt spray) |
| Z      | Black zinc nickel (1000 hour salt spray)                |

**Table IV: Symbol and Finish**

| Symbol | Finish       |
|--------|--------------|
| K      | Nickel Plate |
| T      | Tin Plate    |

**Table V: (Manufacturer's Option)**

| Material        | Finish     |
|-----------------|------------|
| Copper          | Tin Plate  |
| Stainless Steel | Passivated |

**APPLICATION NOTES**

- Assembly identified with manufacturer's name and part number, space permitting.
- With Optional Self-Locking Coupling Nut Metric equivalents are given for general information only and are based on 1.000 inch (25.40 mm).
- Termination band configuration is not controlled. Band with buckle may exceed the "Z" dimension (See Table II) provided the band does not interfere with boot attachment, band material shall be specified as in Table V.
- Termination of the accessory shield with harness shield may be performed with a AS85049/93 shield support ring or similar split ring accessory types.
- Three (3) holes equally spaced shall be provided and accommodate .020 (.51) maximum safety wire for the non-self-locking coupling configuration.
- Drain holes will be provided with a .125 (3.2 mm) diameter, 4 places equally spaces (optional, see part number development). O-Ring not required when drain hole option is specified.
- Material/Finish:  
 Adapter, coupling nut - Al alloy/See Table III  
 Band - See Table V, manufacturer's option  
 Braid - Copper/See Table IV

Dimensions in inches (millimeters) and are subject to change without notice.

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Mil-Spec Backshells

U.S. CAGE Code 06324

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**CONNECTOR DESIGNATOR:**
**A**

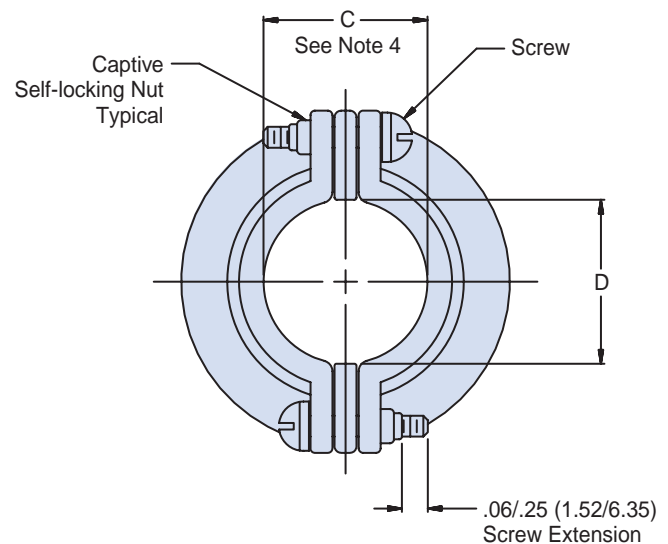
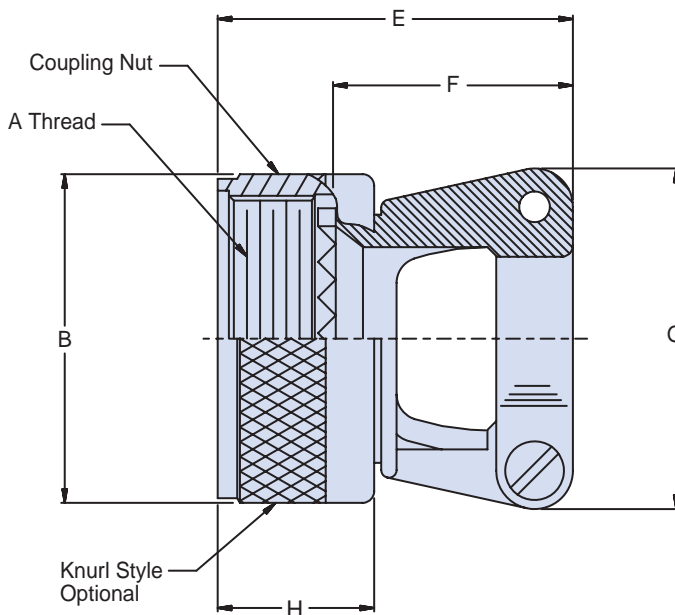
 AS5015 Series AS34001 Crimp,  
 MIL-DTL-26482 Series II,  
 SAE-AS1703 Crimp Series III,  
 MIL-DTL-83723 Series I & III

**Material and Finish Designator**

**A** = Aluminum, Black Anodize  
**N** = Aluminum, Electroless Nickel  
**S** = Stainless Steel, Passivate  
**W** = Aluminum, Cadmium, Olive Drab  
**X** = Aluminum, Nickel Fluorocarbon Polymer  
**Y** = Aluminum, Pure Dense Electrodeposited Aluminum  
**Z** = Aluminum, Zinc-Nickel

**B**
**Product Series and  
Basic Part Number**
**M85049/118**
**S**
**08**
**W**
**Dash No.**  
Table I

**S** = Detented Self-Locking  
**N** = Non-Detented Self-Locking  
 Use Dash (-) for Non-Self-Locking  
 (See Note 5)


**APPLICATION NOTES**

1. Assembly to be identified with manufacturer's name and part number, space permitting.
2. Glenair Series 600 Backshell Assembly Tools are recommended for assembly and installation.
3. Metric equivalents in parentheses (mm) are given for general information only and are based on 1.000 inch = 25.4 mm.
4. Cable entry is measured with saddle bars closed and bottomed on clamp ears.
5. Detented self-locking has a positive audible detented coupling.
6. Material/Finish:  
 Clamp body, coupling nut, saddles - Al alloy or 300 Series SST/See Table II.  
 Clamp screws and lock nuts - CRES/Passivated, Silver plate optional.  
 Anti-rotation device - Corrosion resistant material

Dimensions in inches (millimeters) and are subject to change without notice.

AS85049/118  
Straight Strain Relief  
Self-Locking or Non-Self-Locking



AS85049

B

TABLE I: Dash Number, Shell Size, Thread and Dimensions (Continued Below)

| Dash No. | Screw Size | MIL-DTL-83723 Series III | MIL-DTL-5015 MS3400 Series | AS81703 Series III | MIL-DTL-26482 Series II | A Thread Class 2B | B Dia Max    | C Dim ± .031 (0.8) | D Min       | E Max Length |
|----------|------------|--------------------------|----------------------------|--------------------|-------------------------|-------------------|--------------|--------------------|-------------|--------------|
| 03       | 4-40       | --                       | --                         | 3                  | --                      | 9/16-24 UNEF      | .95 (24.1)   | .219 (5.6)         | .22 (5.6)   | 1.14 (29.0)  |
| 08       | 4-40       | 8                        | 8S                         | --                 | 8                       | 1/2-20 UNF        | .89 (22.6)   | .219 (5.6)         | .22 (5.6)   | 1.14 (29.0)  |
| 10       | 4-40       | 10                       | 10S, 10SL                  | --                 | 10                      | 5/8-20 UNEF       | 1.01 (25.7)  | .264 (6.7)         | .27 (6.9)   | 1.25 (31.8)  |
| 12       | 4-40       | 12                       | 12, 12S                    | 7                  | 12                      | 3/4-20 UNEF       | 1.14 (29.0)  | .344 (8.7)         | .35 (8.9)   | 1.38 (35.1)  |
| 14       | 4-40       | 14                       | 14, 14S                    | 12                 | 14                      | 7/8-20 UNEF       | 1.26 (32.0)  | .460 (11.7)        | .47 (11.9)  | 1.38 (35.1)  |
| 16       | 4-40       | 16                       | 16, 16S                    | 19                 | 16                      | 1-20 UNEF         | 1.39 (35.3)  | .545 (13.8)        | .55 (14.0)  | 1.50 (38.1)  |
| 18       | 6-32       | 18                       | 18                         | 27                 | 18                      | 1 1/16-18 UNEF    | 1.51 (38.4)  | .615 (15.6)        | .62 (15.7)  | 1.75 (44.5)  |
| 20       | 6-32       | 20                       | 20                         | 37                 | 20                      | 1 3/16-18 UNEF    | 1.64 (41.7)  | .698 (17.7)        | .70 (17.8)  | 1.88 (47.8)  |
| 22       | 6-32       | 22                       | 22                         | --                 | 24                      | 1 5/16-18 UNEF    | 1.176 (44.7) | .780 (19.8)        | .78 (19.8)  | 2.00 (50.8)  |
| 24       | 8-32       | 24                       | 24                         | --                 | --                      | 1 7/16-18 UNEF    | 1.89 (48.0)  | .850 (21.6)        | .85 (21.6)  | 2.13 (54.1)  |
| 28       | 8-32       | --                       | 28                         | --                 | --                      | 1 3/4-18 UNS      | 2.14 (54.4)  | .950 (24.1)        | .95 (24.1)  | 2.56 (65.0)  |
| 32       | 8-32       | --                       | 32                         | --                 | --                      | 2-18 UNS          | 2.40 (61.0)  | 1.015 (25.8)       | 1.02 (25.2) | 2.81 (71.4)  |
| 36       | 8-32       | --                       | 36                         | --                 | --                      | 2 1/4-16 UN       | 2.64 (67.1)  | 1.187 (30.1)       | 1.19 (30.2) | 3.06 (77.7)  |
| 40       | 8-32       | --                       | 40                         | --                 | --                      | 2 1/2-16 UN       | 2.89 (73.4)  | 1.220 (31.0)       | 1.22 (31.0) | 3.16 (80.3)  |
| 44       | 8-32       | --                       | 44                         | --                 | --                      | 2 3/4-16 UN       | 3.14 (79.8)  | 1.500 (38.1)       | 1.50 (38.1) | 3.53 (89.7)  |
| 48       | 8-32       | --                       | 48                         | --                 | --                      | 3-16 UN           | 3.39 (86.1)  | 1.625 (41.3)       | 1.63 (41.4) | 3.93 (99.8)  |
| 61       | 8-32       | --                       | --                         | 61                 | --                      | 1 1/2-18 UNEF     | 1.95 (49.5)  | .850 (21.6)        | .85 (21.6)  | 2.13 (54.1)  |

TABLE I: (Continued from Above)

| Dash No. | Screw Size | MIL-DTL-83723 Series III | MIL-DTL-5015 MS3400 Series | AS81703 Series III | MIL-DTL-26482 Series II | F Dim                      | G Dim Max   | H Dim Max    |
|----------|------------|--------------------------|----------------------------|--------------------|-------------------------|----------------------------|-------------|--------------|
| 03       | 4-40       | --                       | --                         | 3                  | --                      | .77 (19.6)<br>.51 (13.0)   | .88 (22.4)  | .710 (18.00) |
| 08       | 4-40       | 8                        | 8S                         | --                 | 8                       | .77 (19.6)<br>.51 (13.0)   | .88 (22.4)  | .710 (18.00) |
| 10       | 4-40       | 10                       | 10S, 10SL                  | --                 | 10                      | .89 (22.6)<br>.64 (16.3)   | .94 (23.9)  | .710 (18.00) |
| 12       | 4-40       | 12                       | 12, 12S                    | 7                  | 12                      | 1.01 (25.7)<br>.76 (19.3)  | 1.12 (28.4) | .710 (18.00) |
| 14       | 4-40       | 14                       | 14, 14S                    | 12                 | 14                      | 1.01 (25.7)<br>.76 (19.3)  | 1.19 (30.3) | .710 (18.00) |
| 16       | 4-40       | 16                       | 16, 16S                    | 19                 | 16                      | 1.13 (28.7)<br>.88 (22.4)  | 1.44 (36.6) | .710 (18.00) |
| 18       | 6-32       | 18                       | 18                         | 27                 | 18                      | 1.38 (35.1)<br>1.13 (28.7) | 1.56 (39.6) | .710 (18.00) |
| 20       | 6-32       | 20                       | 20                         | 37                 | 20                      | 1.51 (38.4)<br>1.25 (31.8) | 1.69 (42.9) | .710 (18.00) |
| 22       | 6-32       | 22                       | 22                         | --                 | 24                      | 1.62 (41.1)<br>1.38 (35.1) | 1.75 (44.5) | .710 (18.00) |
| 24       | 8-32       | 24                       | 24                         | --                 | --                      | 1.76 (44.7)<br>1.51 (38.4) | 1.88 (47.8) | .710 (18.00) |
| 28       | 8-32       | --                       | 28                         | --                 | --                      | 2.03 (51.6)<br>1.67 (42.5) | 2.12 (53.8) | .890 (22.6)  |
| 32       | 8-32       | --                       | 32                         | --                 | --                      | 2.28 (57.9)<br>1.87 (47.5) | 2.50 (63.5) | .890 (22.6)  |
| 36       | 8-32       | --                       | 36                         | --                 | --                      | 2.53 (64.3)<br>2.22 (56.4) | 2.62 (66.5) | .890 (22.6)  |
| 40       | 8-32       | --                       | 40                         | --                 | --                      | 2.63 (66.8)<br>2.41 (61.2) | 2.68 (68.1) | .890 (22.6)  |
| 44       | 8-32       | --                       | 44                         | --                 | --                      | 3.00 (76.2)<br>2.80 (71.1) | 3.00 (76.2) | .890 (22.6)  |
| 48       | 8-32       | --                       | 48                         | --                 | --                      | 3.40 (86.4)<br>3.20 (81.3) | 3.50 (88.9) | .890 (22.6)  |
| 61       | 8-32       | --                       | --                         | 61                 | --                      | 1.76 (44.7)<br>1.51 (38.5) | 1.88 (47.8) | .710 (18.00) |

Dimensions in inches (millimeters) and are subject to change without notice.

**CONNECTOR DESIGNATOR:**
**A**

 AS5015 Series AS34001 Crimp,  
 MIL-DTL-26482 Series II,  
 SAE-AS1703 Crimp Series III,  
 MIL-DTL-83723 Series I & III

**Product Series and  
Basic Part Number**
**M85049/120**
**Dash No.**

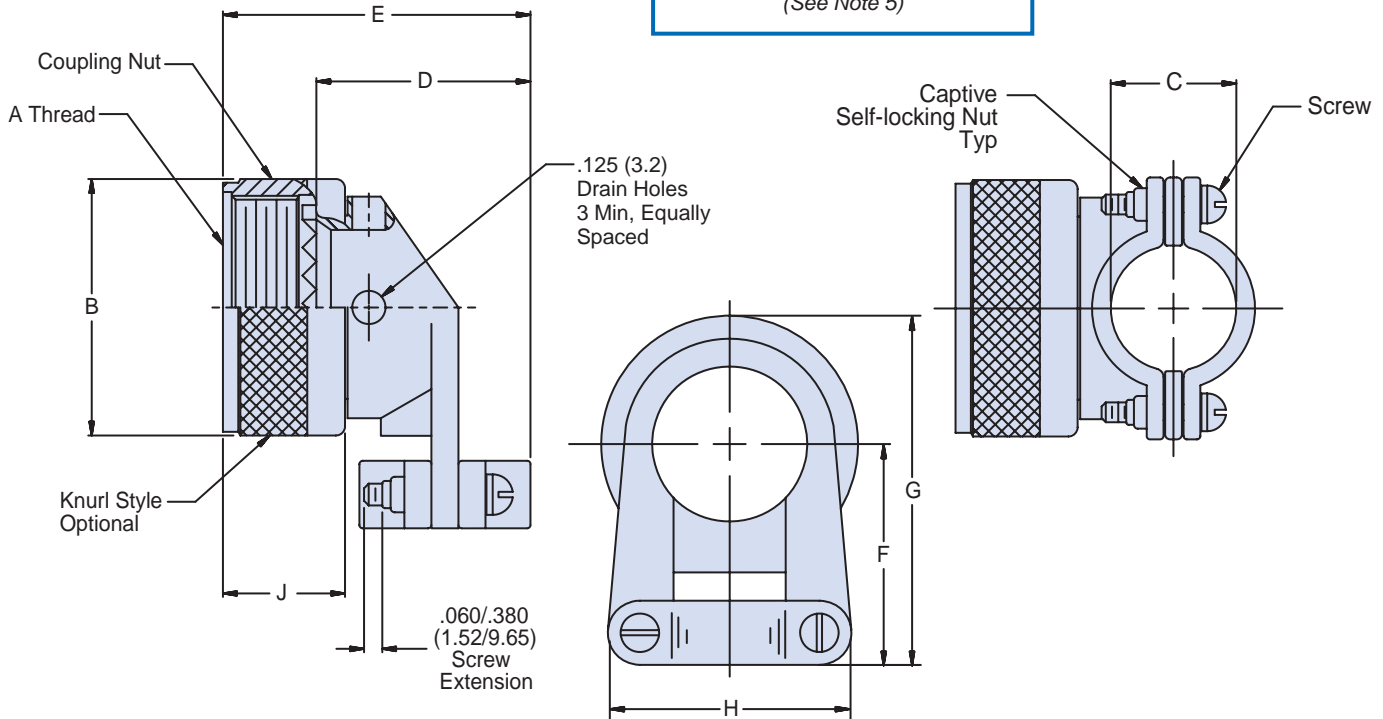
 Table I  
 Page 62-26

**S**
**08**
**Finish**

 Table II  
 Page 62-26

**W**

**S** = Detented Self-Locking  
**N** = Non-Detented Self-Locking  
 Use Dash (-) for Non-Self-Locking  
 (See Note 5)


**APPLICATION NOTES**

1. Assembly to be identified with manufacturer's name and part number, space permitting.
2. Glenair Series 600 Backshell Assembly Tools are recommended for assembly and installation.
3. Metric equivalents in parentheses (mm) are given for general information only and are based on 1.000 inch = 25.4 mm.
4. Cable entry is measured with saddle bars closed and bottomed on clamp ears.
5. Detented self-locking has a positive audible detented coupling.
6. Material/Finish:  
 Clamp body, coupling nut, saddles - Al alloy or 300 Series SST/See Table II.  
 Clamp screws and lock nuts - CRES/Passivated, Silver plate optional.  
 Anti-rotation device - Corrosion resistant material

Dimensions in inches (millimeters) and are subject to change without notice.

**AS85049/120**  
**90° Strain Relief**  
**Self-Locking or Non-Self-Locking**



AS85049

**B**

**TABLE I: Dash Number, Shell Size, Thread and Dimensions (Continued Below)**

| Dash No. | Screw Size | MIL-DTL-83723 Series III | MIL-DTL-5015 MS3400 Series | AS81703 Series III | MIL-DTL-26482 Series II | A Thread Class 2B | B Dia Max    | C Dim ± .031 (0.8) | D Max       | E Max Length |
|----------|------------|--------------------------|----------------------------|--------------------|-------------------------|-------------------|--------------|--------------------|-------------|--------------|
| 03       | 4-40       | --                       | --                         | 3                  | --                      | 9/16-24 UNEF      | .95 (24.1)   | .219 (5.6)         | .93 (23.6)  | 1.29 (32.8)  |
| 08       | 4-40       | 8                        | 8S                         | --                 | 8                       | 1/2-20 UNF        | .89 (22.6)   | .219 (5.6)         | .93 (23.6)  | 1.29 (32.8)  |
| 10       | 4-40       | 10                       | 10S, 10SL                  | --                 | 10                      | 5/8-20 UNEF       | 1.01 (25.7)  | .264 (6.7)         | 1.02 (25.9) | 1.38 (35.1)  |
| 12       | 4-40       | 12                       | 12, 12S                    | 7                  | 12                      | 3/4-20 UNEF       | 1.14 (29.0)  | .344 (8.7)         | 1.21 (30.7) | 1.57 (39.9)  |
| 14       | 4-40       | 14                       | 14.14S                     | 12                 | 14                      | 7/8-20 UNEF       | 1.26 (32.0)  | .460 (11.7)        | 1.27 (32.3) | 1.63 (41.4)  |
| 16       | 4-40       | 16                       | 16, 16S                    | 19                 | 16                      | 1-20 UNEF         | 1.39 (35.3)  | .545 (13.8)        | 1.42 (36.1) | 1.78 (45.2)  |
| 18       | 6-32       | 18                       | 18                         | 27                 | 18                      | 1 1/16-18 UNEF    | 1.51 (38.4)  | .615 (15.6)        | 1.53 (38.9) | 1.89 (48.0)  |
| 20       | 6-32       | 20                       | 20                         | 37                 | 20                      | 1 3/16-18 UNEF    | 1.64 (41.7)  | .698 (17.7)        | 1.65 (41.9) | 2.01 (51.1)  |
| 22       | 6-32       | 22                       | 22                         | --                 | 24                      | 1 5/16-18 UNEF    | 1.176 (44.7) | .780 (19.8)        | 1.78 (45.2) | 2.14 (54.4)  |
| 24       | 8-32       | 24                       | 24                         | --                 | --                      | 1 7/16-18 UNEF    | 1.89 (48.0)  | .850 (21.6)        | 1.90 (48.3) | 2.26 (57.4)  |
| 28       | 8-32       | --                       | 28                         | --                 | --                      | 1 3/4-18 UNS      | 2.14 (54.4)  | .950 (24.1)        | 2.20 (55.9) | 2.72 (69.1)  |
| 32       | 8-32       | --                       | 32                         | --                 | --                      | 2-18 UNS          | 2.40 (61.0)  | 1.015 (25.8)       | 2.27 (57.7) | 2.79 (70.9)  |
| 36       | 8-32       | --                       | 36                         | --                 | --                      | 2 1/4-16 UN       | 2.64 (67.1)  | 1.187 (30.1)       | 2.39 (60.7) | 3.91 (73.9)  |
| 40       | 8-32       | --                       | 40                         | --                 | --                      | 2 1/2-16 UN       | 2.89 (73.4)  | 1.220 (31.0)       | 2.52 (64.0) | 3.04 (77.2)  |
| 44       | 8-32       | --                       | 44                         | --                 | --                      | 2 3/4-16 UN       | 3.14 (79.8)  | 1.500 (38.1)       | 2.77 (70.4) | 3.29 (83.6)  |
| 48       | 8-32       | --                       | 48                         | --                 | --                      | 3-16 UN           | 3.39 (86.1)  | 1.625 (41.3)       | 2.89 (73.4) | 3.41 (86.6)  |
| 61       | 8-32       | --                       | --                         | 61                 | --                      | 1 1/2-18 UNEF     | 1.95 (49.5)  | .850 (21.6)        | 1.90 (48.3) | 2.26 (57.4)  |

**TABLE I: (Continued from Above)**

| Dash No. | Screw Size | MIL-DTL-83723 Series III | MIL-DTL-5015 MS3400 Series | AS81703 Series III | MIL-DTL-26482 Series II | F Dim Max   | G Dim Max    | H Dim Max   | J Dim Max   |
|----------|------------|--------------------------|----------------------------|--------------------|-------------------------|-------------|--------------|-------------|-------------|
| 03       | 4-40       | --                       | --                         | 3                  | --                      | .84 (21.3)  | 1.32 (33.5)  | .88 (22.4)  | .710 (18.0) |
| 08       | 4-40       | 8                        | 8S                         | --                 | 8                       | .81 (20.6)  | 1.26 (32.0)  | .88 (22.4)  | .710 (18.0) |
| 10       | 4-40       | 10                       | 10S, 10SL                  | --                 | 10                      | .87 (22.1)  | 1.38 (35.1)  | .94 (23.9)  | .710 (18.0) |
| 12       | 4-40       | 12                       | 12, 12S                    | 7                  | 12                      | .93 (23.6)  | 1.50 (38.1)  | 1.12 (28.4) | .710 (18.0) |
| 14       | 4-40       | 14                       | 14.14S                     | 12                 | 14                      | 1.00 (25.4) | 1.62 (41.4)  | 1.19 (30.2) | .710 (18.0) |
| 16       | 4-40       | 16                       | 16, 16S                    | 19                 | 16                      | 1.06 (26.9) | 1.75 (44.5)  | 1.44 (36.6) | .710 (18.0) |
| 18       | 6-32       | 18                       | 18                         | 27                 | 18                      | 1.23 (31.2) | 1.99 (50.5)  | 1.56 (39.6) | .710 (18.0) |
| 20       | 6-32       | 20                       | 20                         | 37                 | 20                      | 1.30 (33.0) | 2.07 (52.6)  | 1.69 (42.9) | .710 (18.0) |
| 22       | 6-32       | 22                       | 22                         | --                 | 24                      | 1.36 (34.5) | 2.25 (57.2)  | 1.75 (44.5) | .710 (18.0) |
| 24       | 8-32       | 24                       | 24                         | --                 | --                      | 1.42 (36.1) | 2.37 (60.2)  | 1.88 (47.8) | .710 (18.0) |
| 28       | 8-32       | --                       | 28                         | --                 | --                      | 1.63 (41.4) | 2.70 (68.6)  | 2.12 (53.8) | .890 (22.6) |
| 32       | 8-32       | --                       | 32                         | --                 | --                      | 1.86 (47.2) | 3.05 (77.5)  | 2.50 (63.5) | .890 (22.6) |
| 36       | 8-32       | --                       | 36                         | --                 | --                      | 1.98 (50.3) | 3.30 (83.8)  | 2.62 (66.5) | .890 (22.6) |
| 40       | 8-32       | --                       | 40                         | --                 | --                      | 2.10 (53.3) | 3.55 (90.2)  | 2.68 (68.1) | .890 (22.6) |
| 44       | 8-32       | --                       | 44                         | --                 | --                      | 2.36 (59.9) | 3.93 (99.8)  | 3.00 (76.2) | .890 (22.6) |
| 48       | 8-32       | --                       | 48                         | --                 | --                      | 2.48 (63.0) | 4.18 (106.2) | 3.50 (88.9) | .890 (22.6) |
| 61       | 8-32       | --                       | --                         | 61                 | --                      | 1.45 (36.8) | 2.43 (61.7)  | 1.88 (47.8) | .710 (18.0) |

**TABLE II: Material and Finish**

| Symbol | Material       | Finish                               |
|--------|----------------|--------------------------------------|
| A      | Aluminum Alloy | Black Anodize                        |
| N      |                | Electroless Nickel                   |
| W      |                | Cadmium, Olive Drab                  |
| X      |                | Nickel Fluorocarbon Polymer          |
| Y      |                | Pure Dense Electrodeposited Aluminum |
| Z      |                | Zinc Nickel                          |
| S      | 300 Series SST | Passivated                           |

Dimensions in inches (millimeters) and are subject to change without notice.



# AS85049/121

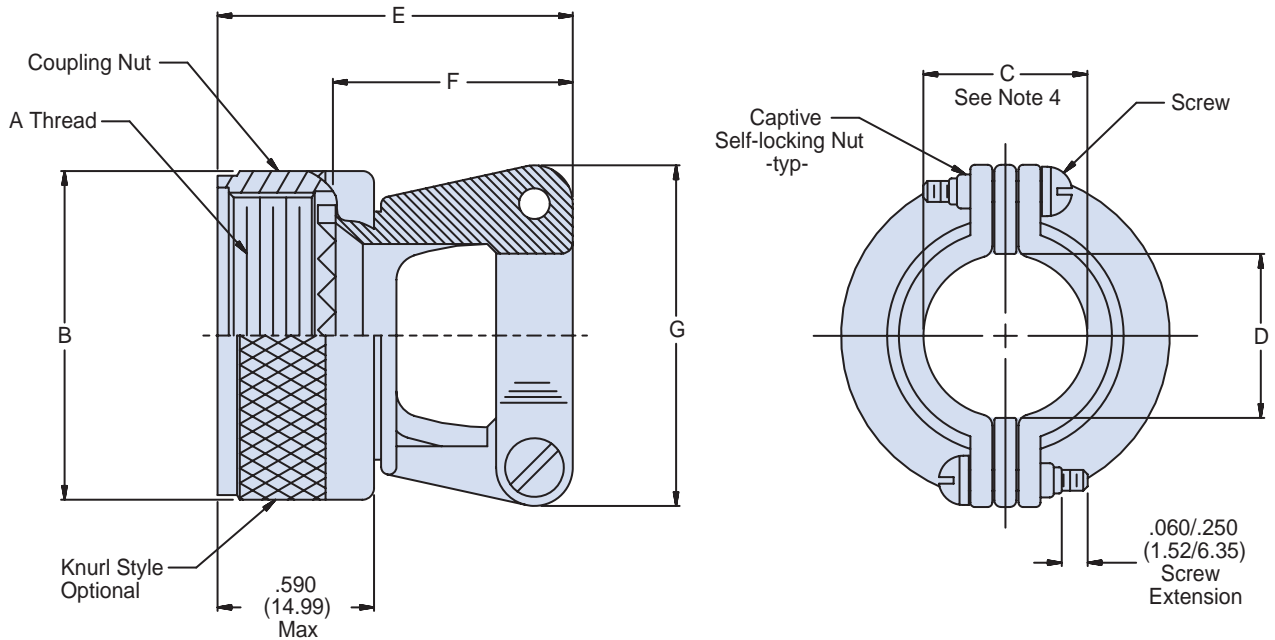
## Straight Strain Relief

### Self-Locking or Non-Self-Locking

**CONNECTOR DESIGNATOR:**
**F** MIL-DTL-38999 Series I and II

**Product Series and  
Basic Part Number**
**M85049/121**
**Dash No.**
*Table I  
Page 62-28*
**S**
**Finish**
*Table II  
Page 62-28*
**08**
**W**

*S = Detented Self-Locking  
N = Non-Detented Self-Locking  
Use Dash (-) for Non-Self-Locking  
(See Note 5)*


**APPLICATION NOTES**

1. Assembly to be identified with manufacturer's name and part number, space permitting.
2. Glenair Series 600 Backshell Assembly Tools are recommended for assembly and installation.
3. Metric equivalents in parentheses (mm) are given for general information only and are based on 1.000 inch = 25.4 mm.
4. Cable entry is measured with saddle bars closed and bottomed on clamp ears.
5. Detented self-locking has a positive audible detented coupling.
6. Material/Finish:  
Clamp body, coupling nut, saddles - Al alloy or 300 Series SST/See Table II.  
Clamp screws and lock nuts - CRES/Passivated, Silver plate optional.  
Anti-rotation device - Corrosion resistant material

Dimensions in inches (millimeters) and are subject to change without notice.

AS85049/121  
Straight Strain Relief  
Self-Locking or Non-Self-Locking



AS85049

B

TABLE I: Dash Number, Shell Size, Thread and Dimensions (Continued Below)

| Dash No. | Screw Size | Connector Shell Size |           | A Thread Class 2B | B Dia Max    | C Dim ± .031 (0.79) See Note 4 | D Min      | E Max Length | F Dim                      | G Max       |
|----------|------------|----------------------|-----------|-------------------|--------------|--------------------------------|------------|--------------|----------------------------|-------------|
|          |            | Series I             | Series II |                   |              |                                |            |              |                            |             |
| 08       | 4-40       | 9                    | 8         | 7/16-28 UNEF      | .858 (21.8)  | .219 (5.6)                     | .22 (5.6)  | 1.01 (25.7)  | .77 (19.6)<br>.51 (13.0)   | .88 (22.4)  |
| 10       | 4-40       | 11                   | 10        | 9/16-24 UNEF      | .984 (25.0)  | .264 (6.7)                     | .27 (6.9)  | 1.13 (28.7)  | .89 (22.6)<br>.64 (16.3)   | .94 (23.9)  |
| 12       | 4-40       | 13                   | 12        | 11/16-24 UNEF     | 1.157 (29.4) | .344 (8.7)                     | .35 (8.9)  | 1.25 (31.8)  | 1.01 (25.7)<br>.76 (19.3)  | 1.12 (28.4) |
| 14       | 4-40       | 15                   | 14        | 13/16-20 UNEF     | 1.297 (32.5) | .460 (11.7)                    | .47 (11.9) | 1.25 (31.8)  | 1.01 (25.7)<br>.76 (19.3)  | 1.19 (30.2) |
| 16       | 4-40       | 17                   | 16        | 15/16-20 UNEF     | 1.406 (35.7) | .545 (13.8)                    | .55 (14.0) | 1.37 (34.8)  | 1.13 (28.7)<br>.88 (22.4)  | 1.44 (36.6) |
| 18       | 6-32       | 19                   | 18        | 1 1/16-18 UNEF    | 1.516 (38.5) | .615 (15.6)                    | .62 (15.7) | 1.62 (41.1)  | 1.38 (35.1)<br>1.13 (28.7) | 1.56 (39.6) |
| 20       | 6-32       | 21                   | 20        | 1 3/16-18 UNEF    | 1.642 (41.7) | .698 (17.7)                    | .70 (17.8) | 1.75 (44.5)  | 1.51 (38.4)<br>1.26 (32.0) | 1.69 (42.9) |
| 22       | 6-32       | 23                   | 22        | 1 5/16-18 UNEF    | 1.768 (44.9) | .780 (19.8)                    | .78 (19.8) | 1.87 (47.5)  | 1.63 (41.4)<br>1.38 (35.1) | 1.75 (44.5) |
| 24       | 8-32       | 25                   | 24        | 1 7/16-18 UNEF    | 1.869 (47.5) | .850 (21.6)                    | .85 (21.6) | 2.00 (50.8)  | 1.76 (44.7)<br>1.51 (38.4) | 1.88 (47.8) |

TABLE II: Material and Finish

| Symbol | Material       | Finish                               |
|--------|----------------|--------------------------------------|
| A      | Aluminum Alloy | Black Anodize                        |
| N      |                | Electroless Nickel                   |
| W      |                | Cadmium, Olive Drab                  |
| X      |                | Nickel Fluorocarbon Polymer          |
| Y      |                | Pure Dense Electrodeposited Aluminum |
| Z      |                | Zinc Nickel                          |
| S      | 300 Series SST | Passivated                           |

Dimensions in inches (millimeters) and are subject to change without notice.



# AS85049/123

## 90° Strain Relief

### Self-Locking or Non-Self Locking

## CONNECTOR DESIGNATOR:

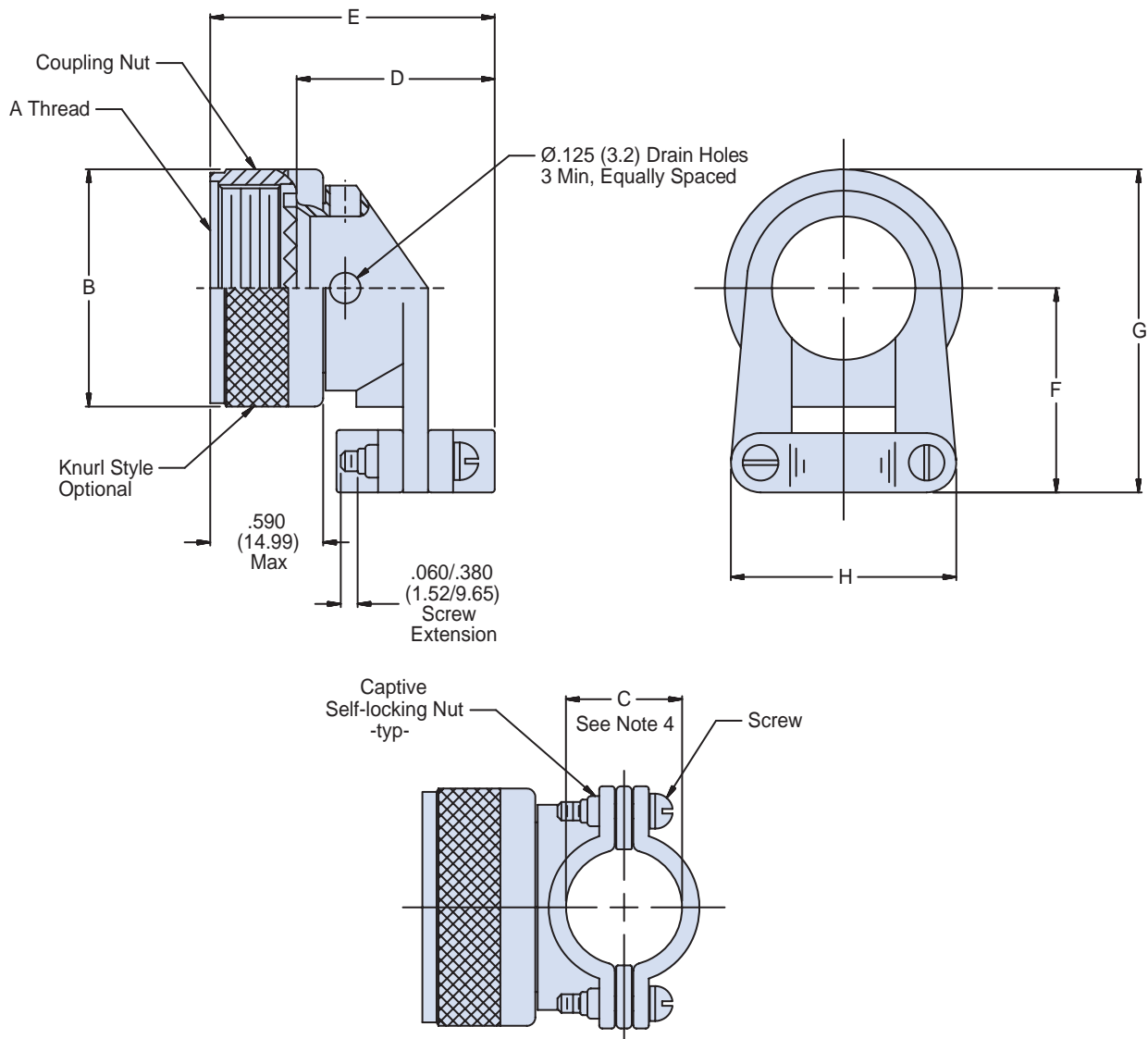
**F** MIL-DTL-38999 Series I and II

**Product Series and  
Basic Part Number**
**M85049/123**
**Dash No.**  
Table I  
Page 62-30

**S**
**Finish**  
Table II  
Page 62-30

**08**
**W**

*S = Detented Self-Locking*  
*N = Non-Detented Self-Locking*  
 Use Dash (-) for Non-Self-Locking  
 (See Note 5)



Dimensions in inches (millimeters) and are subject to change without notice.

**AS85049/123**  
**90° Strain Relief**  
**Self-Locking or Non-Self Locking**



AS85049

**TABLE I: Dash Number, Shell Size, Thread and Dimensions (Continued Below)**

| Dash No. | Screw Size | Connector Shell Size |           | A Thread Class 2B | B Dia Max    | C Dim ± .031 (0.79) See Note 4 | D Max       | E Max Length | F Max       | G Max       | H Max       |
|----------|------------|----------------------|-----------|-------------------|--------------|--------------------------------|-------------|--------------|-------------|-------------|-------------|
|          |            | Series I             | Series II |                   |              |                                |             |              |             |             |             |
| 08       | 4-40       | 9                    | 8         | 7/16-28 UNEF      | .858 (21.8)  | .219 (5.6)                     | .86 (21.8)  | 1.10 (27.9)  | .81 (20.6)  | 1.24 (31.5) | .88 (22.4)  |
| 10       | 4-40       | 11                   | 10        | 9/16-24 UNEF      | .984 (25.0)  | .264 (6.7)                     | .94 (23.9)  | 1.18 (30.0)  | .87 (22.1)  | 1.36 (34.5) | .94 (23.9)  |
| 12       | 4-40       | 13                   | 12        | 11/16-24 UNEF     | 1.157 (29.4) | .344 (8.7)                     | 1.14 (29.0) | 1.38 (35.1)  | .93 (23.6)  | 1.51 (38.4) | 1.12 (28.4) |
| 14       | 4-40       | 15                   | 14        | 13/16-20 UNEF     | 1.297 (32.5) | .460 (11.7)                    | 1.20 (30.5) | 1.44 (36.6)  | .99 (25.1)  | 1.63 (41.4) | 1.19 (30.2) |
| 16       | 4-40       | 17                   | 16        | 15/16-20 UNEF     | 1.406 (35.7) | .545 (13.8)                    | 1.34 (34.0) | 1.58 (40.1)  | 1.09 (27.7) | 1.76 (44.7) | 1.44 (36.6) |
| 18       | 6-32       | 19                   | 18        | 1 1/16-18 UNEF    | 1.516 (38.5) | .615 (15.6)                    | 1.46 (37.1) | 1.70 (43.2)  | 1.23 (31.2) | 1.99 (50.5) | 1.56 (39.6) |
| 20       | 6-32       | 21                   | 20        | 1 3/16-18 UNEF    | 1.642 (41.7) | .698 (17.7)                    | 1.58 (40.1) | 1.82 (46.2)  | 1.30 (33.0) | 2.12 (53.8) | 1.69 (42.9) |
| 22       | 6-32       | 23                   | 22        | 1 5/16-18 UNEF    | 1.768 (44.9) | .780 (19.8)                    | 1.71 (43.4) | 1.95 (49.5)  | 1.36 (34.5) | 2.24 (56.9) | 1.75 (44.5) |
| 24       | 8-32       | 25                   | 24        | 1 7/16-18 UNEF    | 1.869 (47.5) | .850 (21.6)                    | 1.83 (46.5) | 2.07 (52.6)  | 1.42 (36.1) | 2.35 (59.7) | 1.88 (47.8) |

**B**

**TABLE II: Material and Finish**

| Symbol | Material       | Finish                               |
|--------|----------------|--------------------------------------|
| A      | Aluminum Alloy | Black Anodize                        |
| N      |                | Electroless Nickel                   |
| W      |                | Cadmium, Olive Drab                  |
| X      |                | Nickel Fluorocarbon Polymer          |
| Y      |                | Pure Dense Electrodeposited Aluminum |
| Z      |                | Zinc Nickel                          |
| S      | 300 Series SST | Passivated                           |

**APPLICATION NOTES**

1. Assembly to be identified with manufacturer's name and part number, space permitting.
2. Glenair Series 600 Backshell Assembly Tools are recommended for assembly and installation.
3. Metric equivalents in parentheses (mm) are given for general information only and are based on 1.000 inch = 25.4 mm.
4. Cable entry is measured with saddle bars closed and bottomed on clamp ears.
5. Detented self-locking has a positive audible detented coupling.
6. Material/Finish:  
 Clamp body, coupling nut, saddles - Al alloy or 300 Series SST/See Table II.  
 Clamp screws and lock nuts - CRES/Passivated, Silver plate optional.  
 Anti-rotation device - Corrosion resistant material

Dimensions in inches (millimeters) and are subject to change without notice.

# AS85049/124

## Straight Strain Relief

### Self-Locking or Non-Self-Locking

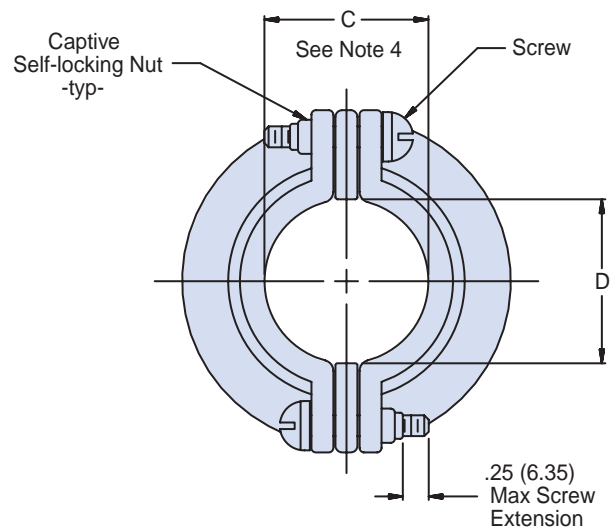
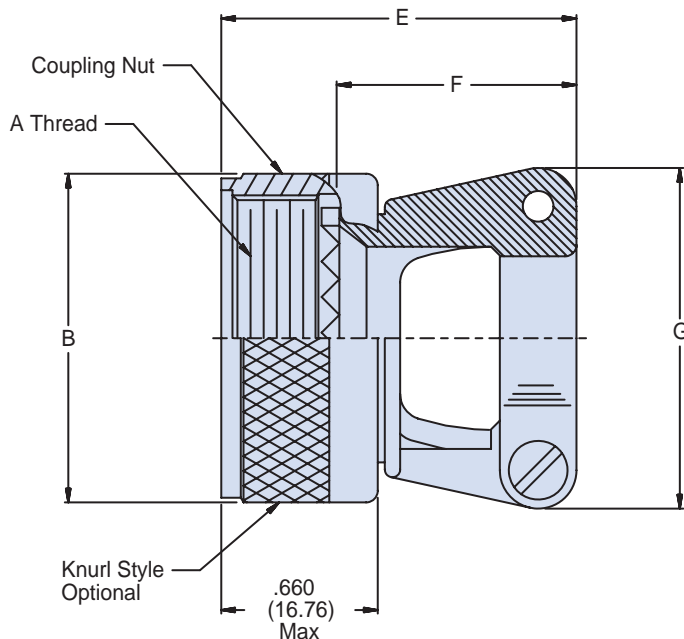
**CONNECTOR DESIGNATOR:**
**H** MIL-DTL-38999 Series III & IV  
EN3645

**Product Series and  
Basic Part Number**
**M85049/124**
**Dash No.**  
Table I  
Page 62-32

**S**
**Finish**  
Table II  
Page 62-32

**09**
**W**

*S = Detented Self-Locking*  
*N = Non-Detented Self-Locking*  
*Use Dash (-) for Non-Self-Locking*  
*(See Note 5)*



Dimensions in inches (millimeters) and are subject to change without notice.

**AS85049/124**  
**Straight Strain Relief**  
**Self-Locking or Non-Self-Locking**



AS85049

**B**

**TABLE I: Dash Number, Shell Size, Thread and Dimensions (Continued Below)**

| Dash No. | Screw Size | Shell Size Code (Ref) | A Thread ISO Metric | B Dia Max    | C Dim ± .031 (0.79) See Note 4 | D Min      | E Max Length | F Max       | G Max       |
|----------|------------|-----------------------|---------------------|--------------|--------------------------------|------------|--------------|-------------|-------------|
| 09       | 4-40       | A                     | M12 x 1 - 6H        | .858 (21.8)  | .219 (5.6)                     | .22 (5.6)  | 1.05 (26.7)  | .77 (19.6)  | .88 (22.4)  |
| 11       | 4-40       | B                     | M15 x 1 - 6H        | .984 (25.0)  | .264 (6.7)                     | .27 (6.9)  | 1.17 (22.6)  | .89 (22.6)  | .94 (23.9)  |
| 13       | 4-40       | C                     | M18 x 1 - 6H        | 1.157 (29.4) | .344 (8.7)                     | .35 (8.9)  | 1.29 (32.8)  | 1.01 (25.7) | 1.12 (28.4) |
| 15       | 4-40       | D                     | M22 x 1 - 6H        | 1.297 (32.5) | .460 (11.7)                    | .47 (11.9) | 1.29 (32.8)  | 1.01 (25.7) | 1.19 (30.2) |
| 17       | 4-40       | E                     | M25 x 1 - 6H        | 1.406 (35.7) | .545 (13.8)                    | .55 (14.0) | 1.41 (35.8)  | 1.13 (28.7) | 1.44 (36.6) |
| 19       | 6-32       | F                     | M28 x 1 - 6H        | 1.516 (38.5) | .615 (15.6)                    | .62 (15.7) | 1.66 (42.2)  | 1.38 (35.1) | 1.56 (39.6) |
| 21       | 6-32       | G                     | M31 x 1 - 6H        | 1.642 (41.7) | .698 (17.7)                    | .70 (17.8) | 1.79 (45.5)  | 1.51 (38.4) | 1.69 (42.9) |
| 23       | 6-32       | H                     | M34 x 1 - 6H        | 1.768 (44.9) | .780 (19.8)                    | .78 (19.8) | 1.91 (48.5)  | 1.63 (41.4) | 1.75 (44.5) |
| 25       | 8-32       | J                     | M37 x 1 - 6H        | 1.869 (47.5) | .850 (21.6)                    | .85 (21.6) | 2.04 (51.8)  | 1.76 (44.7) | 1.88 (47.8) |

**TABLE II: Material and Finish**

| Symbol | Material       | Finish                               |
|--------|----------------|--------------------------------------|
| A      | Aluminum Alloy | Black Anodize                        |
| N      |                | Electroless Nickel                   |
| W      |                | Cadmium, Olive Drab                  |
| X      |                | Nickel Fluorocarbon Polymer          |
| Y      |                | Pure Dense Electrodeposited Aluminum |
| Z      |                | Zinc Nickel                          |
| S      | 300 Series SST | Passivated                           |

**APPLICATION NOTES**

1. Assembly to be identified with manufacturer's name and part number, space permitting.
2. Glenair Series 600 Backshell Assembly Tools are recommended for assembly and installation.
3. Metric equivalents in parentheses (mm) are given for general information only and are based on 1.000 inch = 25.4 mm.
4. Cable entry is measured with saddle bars closed and bottomed on clamp ears.
5. Detented self-locking has a positive audible detented coupling.
6. Material/Finish:  
 Clamp body, coupling nut, saddles - Al alloy or 300 Series SST/See Table II.  
 Clamp screws and lock nuts - CRES/Passivated, Silver plate optional.  
 Anti-rotation device - Corrosion resistant material

Dimensions in inches (millimeters) and are subject to change without notice.

## CONNECTOR DESIGNATOR:

**H** MIL-DTL-38999 Series III & IV  
EN3645

Product Series and  
Basic Part Number

**M85049/126**

Dash No.

Table I  
Page 62-34

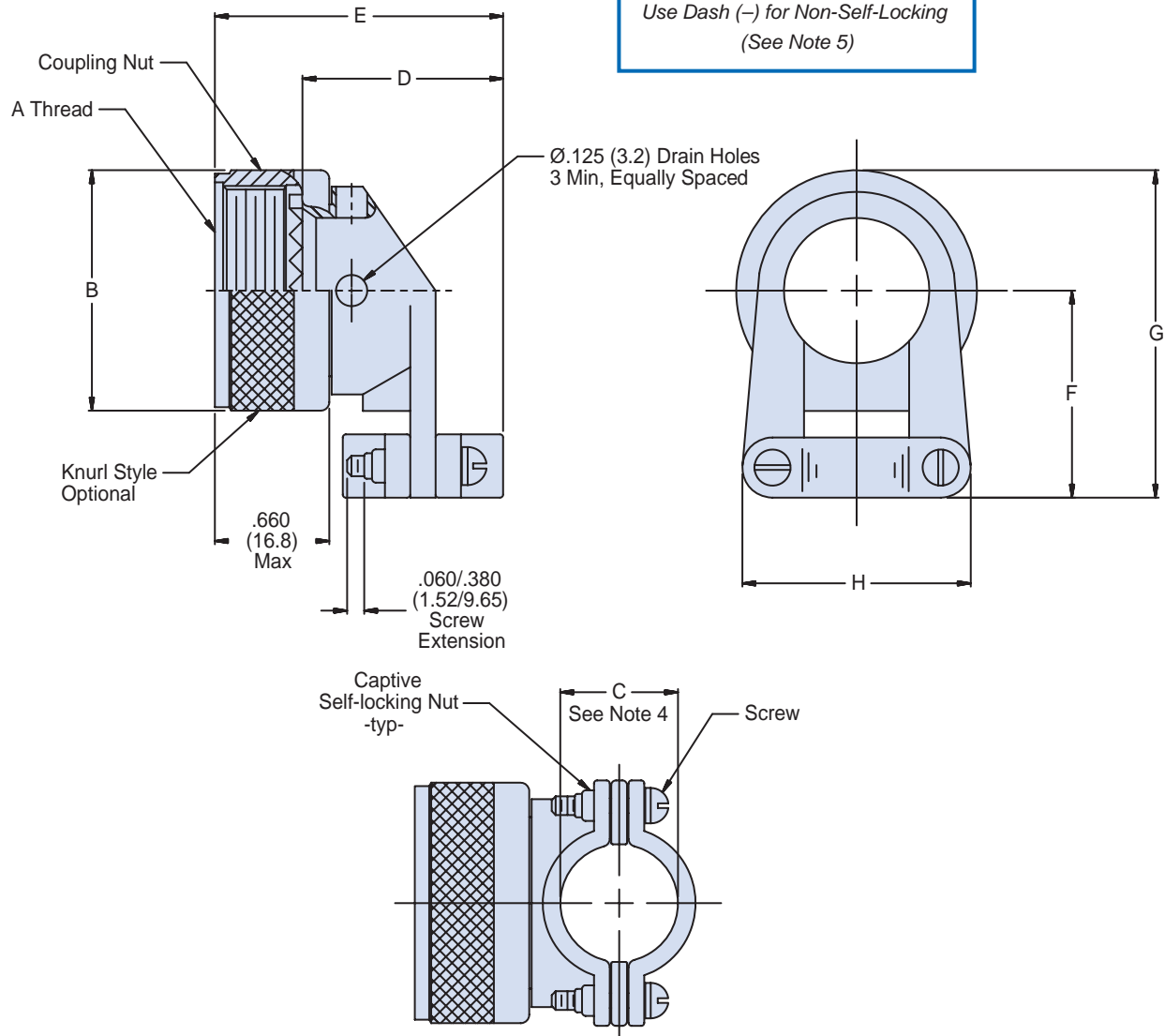
**S**

Finish

Table II  
Page 62-34

**W**

**S** = Detented Self-Locking  
**N** = Non-Detented Self-Locking  
Use Dash (-) for Non-Self-Locking  
(See Note 5)



Dimensions in inches (millimeters) and are subject to change without notice.

**AS85049/126**  
**90° Strain Relief**  
**Self-Locking or Non-Self-Locking**



AS85049

**TABLE I: Dash Number, Shell Size, Thread and Dimensions**

| Dash No. | Screw Size | Shell Size Code (Ref) | A Thread ISO Metric | B Dia Max    | C Dim ± .031 (0.79) See Note 4 | D Max       | E Max Length | F Max       | G Max       | H Max       |
|----------|------------|-----------------------|---------------------|--------------|--------------------------------|-------------|--------------|-------------|-------------|-------------|
| 09       | 4-40       | A                     | M12 x 1 - 6H        | .858 (21.8)  | .219 (5.6)                     | .86 (21.8)  | 1.14 (29.0)  | .81 (20.6)  | 1.24 (31.5) | .88 (22.4)  |
| 11       | 4-40       | B                     | M15 x 1 - 6H        | .984 (25.0)  | .264 (6.7)                     | .94 (23.9)  | 1.22 (31.0)  | .87 (22.1)  | 1.36 (34.5) | .94 (23.9)  |
| 13       | 4-40       | C                     | M18 x 1 - 6H        | 1.157 (29.4) | .344 (8.7)                     | 1.14 (29.0) | 1.42 (36.1)  | .93 (23.6)  | 1.51 (38.4) | 1.12 (28.4) |
| 15       | 4-40       | D                     | M22 x 1 - 6H        | 1.297 (32.5) | .460 (11.7)                    | 1.20 (30.5) | 1.48 (37.6)  | .99 (25.1)  | 1.63 (41.4) | 1.19 (30.2) |
| 17       | 4-40       | E                     | M25 x 1 - 6H        | 1.406 (35.7) | .545 (13.8)                    | 1.34 (34.0) | 1.62 (41.1)  | 1.09 (27.7) | 1.76 (44.7) | 1.44 (36.6) |
| 19       | 6-32       | F                     | M28 x 1 - 6H        | 1.516 (38.5) | .615 (15.6)                    | 1.46 (37.1) | 1.74 (44.2)  | 1.23 (31.2) | 1.99 (50.5) | 1.56 (39.6) |
| 21       | 6-32       | G                     | M31 x 1 - 6H        | 1.642 (41.7) | .698 (17.7)                    | 1.58 (40.1) | 1.86 (47.2)  | 1.30 (33.0) | 2.12 (53.8) | 1.69 (42.9) |
| 23       | 6-32       | H                     | M34 x 1 - 6H        | 1.768 (44.9) | .780 (19.8)                    | 1.71 (43.4) | 1.99 (50.5)  | 1.36 (34.5) | 2.24 (56.9) | 1.75 (44.5) |
| 25       | 8-32       | J                     | M37 x 1 - 6H        | 1.869 (47.5) | .850 (21.6)                    | 1.83 (46.5) | 2.11 (53.6)  | 1.42 (36.1) | 2.35 (59.7) | 1.88 (47.8) |

**B**

**TABLE II: Material and Finish**

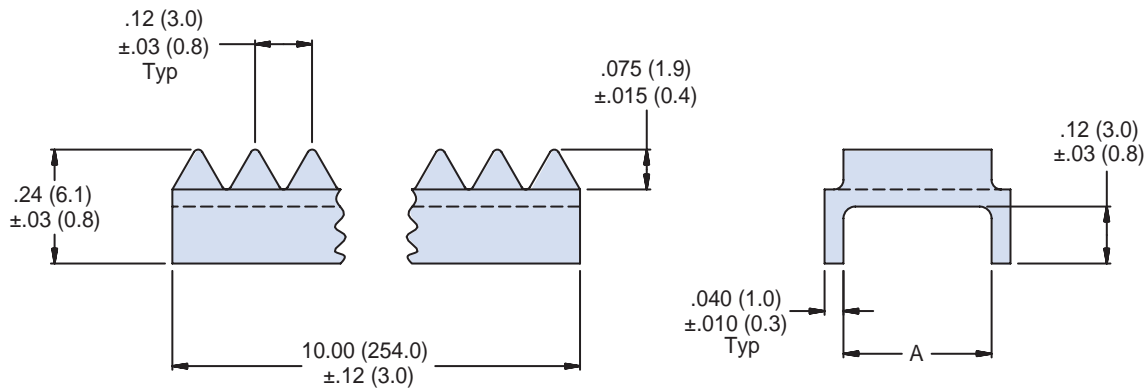
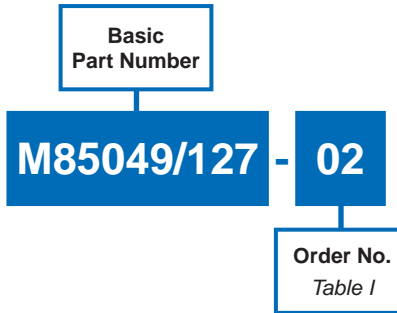
| Symbol | Material       | Finish                               |
|--------|----------------|--------------------------------------|
| A      | Aluminum Alloy | Black Anodize                        |
| N      |                | Electroless Nickel                   |
| W      |                | Cadmium, Olive Drab                  |
| X      |                | Nickel Fluorocarbon Polymer          |
| Y      |                | Pure Dense Electrodeposited Aluminum |
| Z      |                | Zinc Nickel                          |
| S      | 300 Series SST | Passivated                           |

**APPLICATION NOTES**

1. Assembly to be identified with manufacturer's name and part number, space permitting.
2. Glenair Series 600 Backshell Assembly Tools are recommended for assembly and installation.
3. Metric equivalents in parentheses (mm) are given for general information only and are based on 1.000 inch = 25.4 mm.
4. Cable entry is measured with saddle bars closed and bottomed on clamp ears.
5. Detented self-locking has a positive audible detented coupling.
6. Material/Finish:  
 Clamp body, coupling nut, saddles - Al alloy or 300 Series SST/See Table II.  
 Clamp screws and lock nuts - CRES/Passivated, Silver plate optional.  
 Anti-rotation device - Corrosion resistant material

Dimensions in inches (millimeters) and are subject to change without notice.




**TABLE I: Order Number, Dimensions, Sizes**

| Order No. | A<br>.031 (0.8)<br>Dim | Used on Size<br>/118, /120,<br>/121, /123 | Used on Size<br>/124, /126 |
|-----------|------------------------|---|----------------------------|
| 01        | .312 (7.9)             | 03-16                                     | 09-17                      |
| 02        | .440 (11.2)            | 18-24 and 61                              | 19-25                      |
| 03        | .560 (14.2)            | 28-40                                     | —                          |

**APPLICATION NOTES**

1. Assembly identified by bag and tag in suitable quantities.
2. Material/finish: Silicone/N.A.
3. Metric dimensions (mm) are in parentheses.

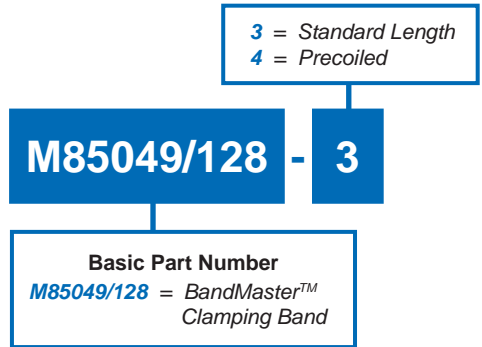
Dimensions in inches (millimeters) and are subject to change without notice.

AS85049/128-3 and AS85049/128-4  
 BandMaster™ Clamping Band  
 Standard Length, Flat or Precoiled

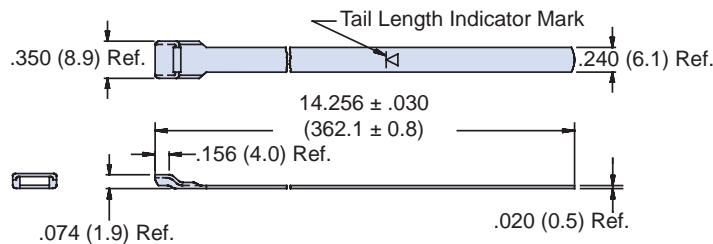


AS85049

B



**Standard Band M85049/128-3 and  
 Precoiled Standard Band M85049/128-4**



**The M85049/128-3 and -4 Standard Band** is precision constructed of 300 Series SST/ Passivate and designed for use with the Glenair 600-058 Hand Banding Tool, the Glenair 601-100 BandMaster Hand Banding Tool with Counter or the Glenair 600-067 Pneumatic Banding Tool. Double-wrapped bands will accommodate diameters up to approximately 1.8 inches (45.7). Bands may be ordered flat (M85049/128-3) or precoiled (M85049/128-4). Bands come bagged and tagged in quantities from 1 to 100.

Metric dimensions (mm) are indicated in parentheses. Consult factory for diameters above 2.5 inches (63.5).

Dimensions in inches (millimeters) and are subject to change without notice.

Basic  
Part Number

Dash Number  
Table I

**M85049/130**

**- 18**

**S**

### Material

**C** = Conductive Silicone with Aluminum or Monel Mesh, Capable of 80 dB at 100 MHz. Temperature Range -57° to +260° C.

**F** = Fluorosilicone IAW SAE AMS-R-25988

**M** = Conductive Silver Filled Silicone IAW MIL-DTL-3528 Type B, Capable of 110 dB at 10GHz. Temperature Range -55° to +260° C.

**N** = Neoprene IAW AMS 3208.

**S** = Silicone IAW AA-59588

**V** = Viton IAW MIL-R-83248

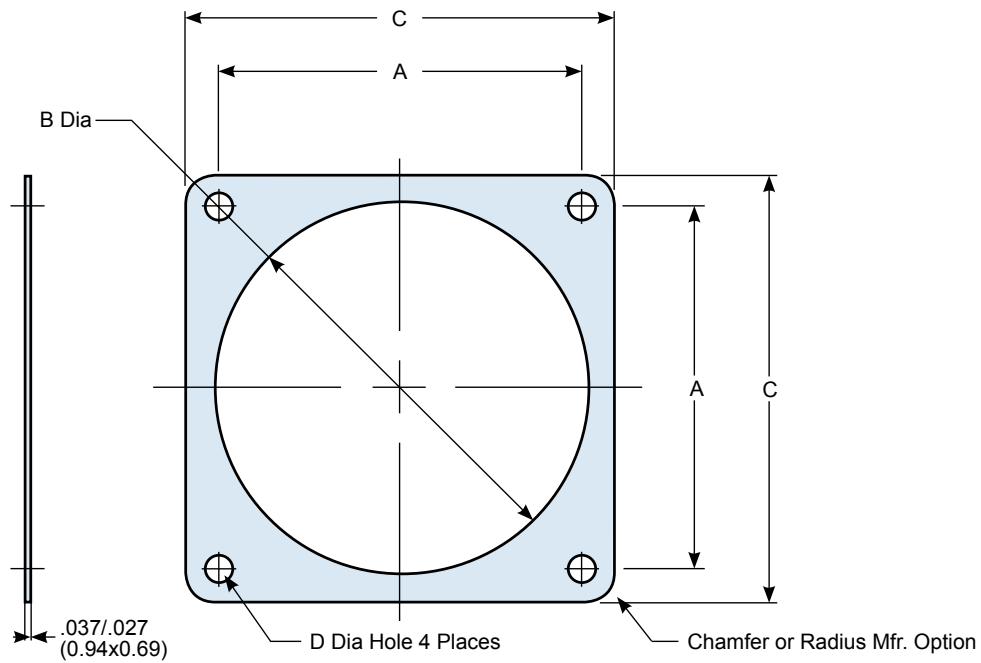


TABLE I: Dimensions

| Dash No. | A<br>± .015 (0.38) | B<br>+.020 (0.05)<br>-.000 | C<br>± .015 (0.38) | D<br>± .010 (0.25) |
|----------|--------------------|----------------------------|--------------------|--------------------|
| 01       | .594 (15.09)       | .568 (14.43)               | .812 (20.62)       | .125 (3.18)        |
| 02       | .594 (15.09)       | .500 (12.70)               | .875 (22.23)       | .156 (3.96)        |
| 03       | .625 (15.88)       | .603 (15.32)               | .896 (22.76)       | .125 (3.18)        |
| 04       | .719 (18.26)       | .680 (12.27)               | .937 (23.80)       | .125 (3.18)        |
| 05       | .719 (18.26)       | .625 (15.88)               | 1.000 (25.40)      | .156 (3.96)        |
| 06       | .750 (19.05)       | .750 (19.05)               | 1.023 (25.98)      | .125 (3.18)        |
| 07       | .812 (20.62)       | .875 (22.23)               | 1.060 (26.92)      | .141 (3.58)        |
| 08       | .812 (20.62)       | .828 (21.03)               | 1.114 (28.30)      | .125 (3.18)        |
| 09       | .813 (20.65)       | .750 (19.05)               | 1.094 (27.79)      | .141 (3.58)        |
| 10       | .843 (21.41)       | .875 (22.23)               | 1.138 (28.91)      | .125 (3.58)        |
| 11       | .906 (23.01)       | 1.005 (25.53)              | 1.153 (29.29)      | .125 (3.58)        |
| 12       | .906 (23.01)       | .938 (23.83)               | 1.125 (28.58)      | .125 (3.58)        |
| 13       | .906 (23.01)       | .875 (22.23)               | 1.188 (30.18)      | .156 (3.96)        |
| 14       | .969 (24.61)       | 1.135 (28.83)              | 1.258 (31.95)      | .156 (3.96)        |
| 15       | .969 (24.61)       | 1.063 (27.00)              | 1.250 (31.75)      | .125 (3.58)        |

Continued on Page B-141

Dimensions in inches (millimeters) and are subject to change without notice.

**TABLE I: Dimensions  
(Continued From Page B-140)**

| Dash No. | A<br>± .015 (0.38) | B<br>+.020 (0.05)<br>-.000 | C<br>± .015 (0.38) | D<br>± .010 (0.25) |
|----------|--------------------|----------------------------|--------------------|--------------------|
| 16       | .969 (24.61)       | 1.000 (25.4)               | 1.281 (32.54)      | .156 (3.69)        |
| 17       | 1.015 (25.78)      | 1.125 (28.58)              | 1.383 (35.13)      | .125 (3.18)        |
| 18       | 1.062 (26.97)      | 1.260 (32.00)              | 1.351 (34.32)      | .156 (3.96)        |
| 19       | 1.062 (26.97)      | 1.189 (30.20)              | 1.343 (34.11)      | .125 (3.18)        |
| 20       | 1.062 (26.97)      | 1.135 (28.83)              | 1.375 (34.92)      | .156 (3.96)        |
| 21       | 1.140 (28.96)      | 1.312 (33.32)              | 1.508 (38.30)      | .125 (3.18)        |
| 22       | 1.156 (29.36)      | 1.375 (34.92)              | 1.500 (38.10)      | .141 (3.58)        |
| 23       | 1.156 (29.36)      | 1.312 (33.32)              | 1.467 (37.26)      | .125 (3.18)        |
| 24       | 1.156 (29.36)      | 1.250 (31.75)              | 1.500 (38.10)      | .177 (4.50)        |
| 25       | 1.187 (30.15)      | 1.266 (32.16)              | 1.458 (37.03)      | .125 (3.58)        |
| 26       | 1.250 (31.75)      | 1.500 (38.10)              | 1.625 (41.28)      | .141 (3.58)        |
| 27       | 1.250 (31.75)      | 1.437 (36.50)              | 1.562 (39.67)      | .125 (3.58)        |
| 28       | 1.250 (31.75)      | 1.375 (34.92)              | 1.625 (41.28)      | .177 (4.50)        |
| 29       | 1.281 (32.54)      | 1.500 (38.10)              | 1.718 (43.64)      | .125 (3.18)        |
| 30       | 1.375 (34.92)      | 1.625 (41.28)              | 1.750 (44.45)      | .177 (3.18)        |
| 31       | 1.375 (34.92)      | 1.563 (39.70)              | 1.703 (43.26)      | .156 (3.96)        |
| 32       | 1.375 (34.92)      | 1.500 (38.10)              | 1.750 (44.45)      | .203 (5.16)        |
| 33       | 1.392 (35.36)      | 1.625 (41.28)              | 1.818 (46.18)      | .141 (3.58)        |
| 34       | 1.436 (36.47)      | 1.570 (39.88)              | 1.799 (45.69)      | .125 (3.18)        |
| 35       | 1.500 (38.10)      | 1.750 (44.45)              | 1.875 (47.63)      | .177 (3.18)        |
| 36       | 1.562 (39.67)      | 1.750 (44.45)              | 2.000 (50.80)      | .203 (5.16)        |
| 37       | 1.568 (39.83)      | 1.875 (47.63)              | 2.138 (54.31)      | .141 (3.58)        |
| 38       | 1.719 (43.66)      | 2.000 (50.80)              | 2.375 (60.33)      | .177 (3.18)        |
| 39       | 1.734 (44.04)      | 2.062 (52.37)              | 2.328 (59.13)      | .177 (3.18)        |
| 40       | 1.750 (44.45)      | 2.000 (50.80)              | 2.250 (57.15)      | .219 (5.56)        |
| 41       | 1.906 (48.41)      | 2.250 (57.15)              | 2.625 (66.68)      | .219 (5.56)        |
| 42       | 1.938 (49.23)      | 2.250 (57.15)              | 2.500 (63.50)      | .219 (5.56)        |
| 43       | 2.188 (55.58)      | 2.500 (63.50)              | 2.750 (69.85)      | .219 (5.56)        |
| 44       | 2.375 (60.33)      | 2.781 (70.64)              | 3.000 (76.20)      | .219 (5.56)        |
| 45       | 2.406 (61.11)      | 2.750 (69.85)              | 3.125 (79.38)      | .281 (7.14)        |
| 46       | 2.625 (66.68)      | 3.031 (76.99)              | 3.250 (82.55)      | .219 (5.56)        |
| 47       | 2.656 (67.46)      | 3.000 (76.20)              | 3.375 (85.73)      | .281 (7.14)        |
| 48       | 2.906 (73.81)      | 3.250 (82.55)              | 3.625 (92.08)      | .281 (7.14)        |
| 49       | 3.156 (80.16)      | 3.500 (88.90)              | 3.875 (98.43)      | .281 (7.14)        |

**APPLICATION NOTES**

1. Assembly identified with manufacturer's name and part number, space permitting.
2. For complete dimensions, see the applicable Military Specification.
3. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.

Basic  
Part Number

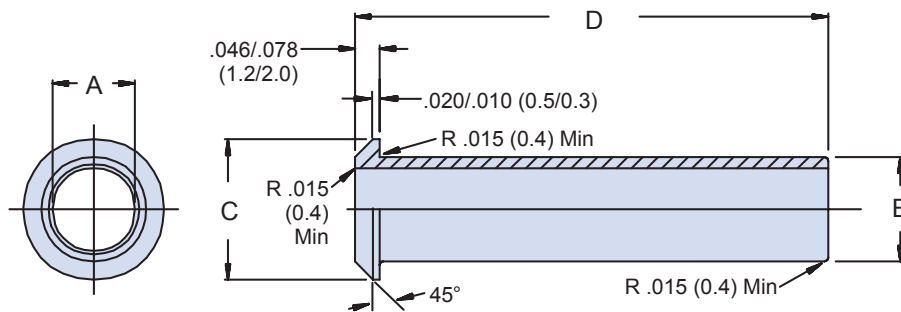
**MS3420**

Dash  
Number

**- 3**

**M85049/139 - 3**

Material: Neoprene



Basic  
Part Number

**MS3420**

Dash  
Number

**- 3**

**L**

Material

*A = Neoprene*  
*D = Silicone*  
*L = Fluorosilicone*

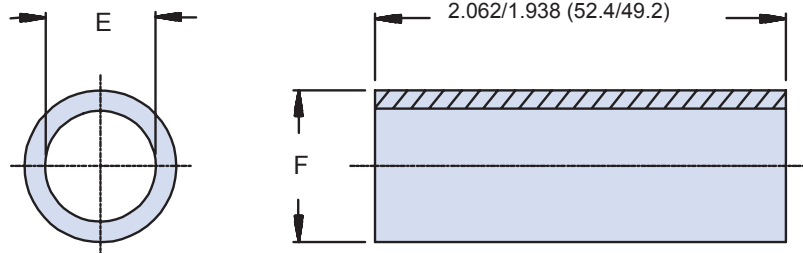
**M85049/139**

**- 3**

**L**

Material

*A = Neoprene*  
*D = Silicone*  
*L = Fluorosilicone*



Dimensions in inches (millimeters) and are subject to change without notice.

# MS3420 and AS85049/139 Telescoping Bushing



AS85049

B

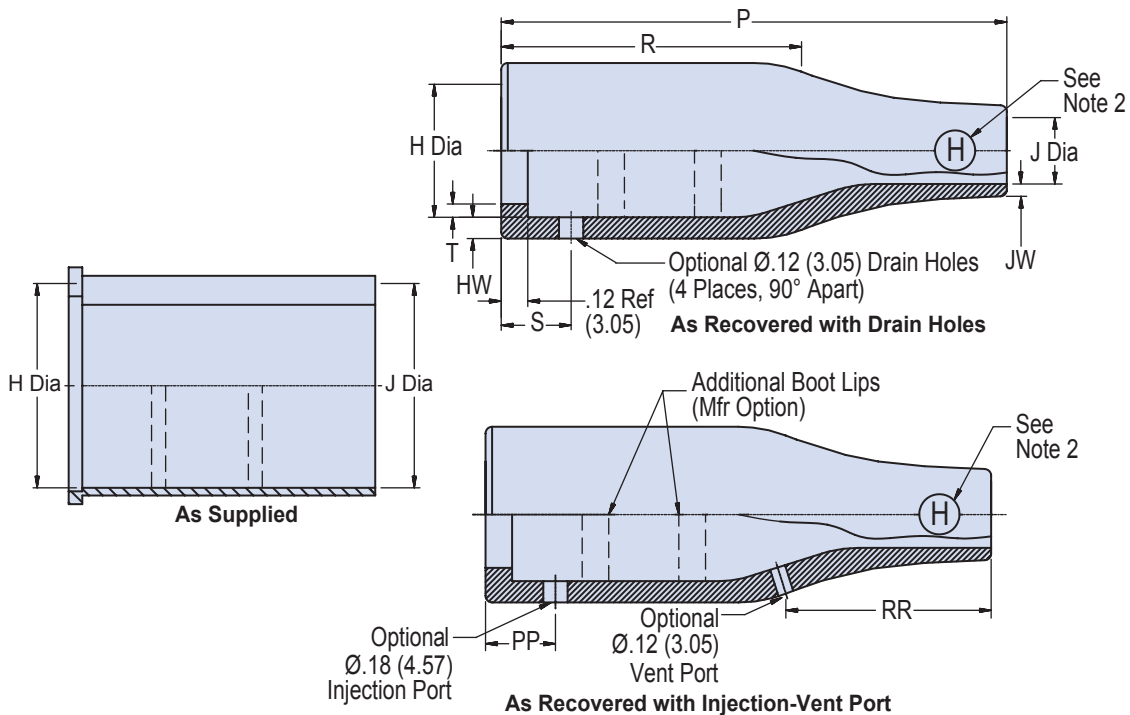
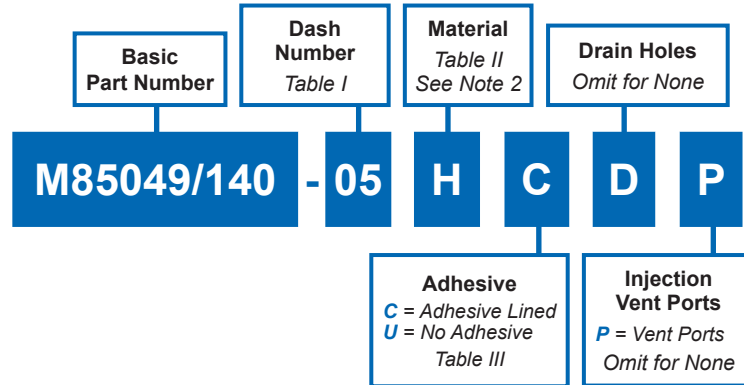
**TABLE I: Reference for Connector Shell Size**

| Dash No.  | Ø A Dia                 | Ø B Dia                 | Ø C Dia                 | D Dim Dia               | E Dia                   | F Dia                   |
|-----------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| <b>3</b>  | .150/.110 (3.8/2.8)     | .230/.190 (5.8/4.8)     | .395/.363 (10.0/9.2)    | 2.906/2.844 (73.8/72.2) | .150/.110 (3.8/2.8)     | .230/.190 (5.8/4.8)     |
| <b>4</b>  | .240/.200 (6.1/5.1)     | .322/.282 (8.2/7.2)     | .521/.489 (13.2/12.4)   | 2.781/2.719 (70.6/69.1) | .240/.200 (6.1/5.1)     | .322/.282 (8.2/7.2)     |
| <b>6</b>  | .332/.292 (8.4/7.4)     | .447/.407 (11.4/10.3)   | .635/.603 (16.1/15.3)   | 2.656/2.594 (67.5/65.9) | .332/.292 (8.4/7.4)     | .447/.407 (11.4/10.3)   |
| <b>8</b>  | .464/.410 (11.8/10.4)   | .579/.525 (14.7/13.3)   | .760/.728 (19.3/18.5)   | 2.531/2.469 (64.3/62.7) | .464/.410 (11.8/10.4)   | .579/.525 (14.7/13.3)   |
| <b>10</b> | .589/.535 (15.0/13.6)   | .652/.535 (16.6/13.6)   | .905/.873 (23.0/59.5)   | 2.406/2.344 (61.1/10.4) | .464/.410 (11.8/10.4)   | .642/.588 (16.3/14.9)   |
| <b>12</b> | .652/.598 (16.6/15.2)   | .767/.713 (19.5/18.1)   | 1.100/1.068 (27.9/27.1) | 2.281/2.219 (57.9/56.4) | .568/.514 (14.4/13.1)   | .767/.713 (19.5/18.1)   |
| <b>16</b> | .777/.723 (19.7/18.4)   | .954/.900 (24.2/22.9)   | 1.330/1.298 (33.8/33.0) | 2.156/2.094 (54.8/53.2) | .777/.723 (19.7/18.4)   | .954/.900 (24.2/22.9)   |
| <b>18</b> | --                      | --                      | --                      | --                      | .976/.898 (24.8/22.8)   | 1.142/1.088 (29.0/27.6) |
| <b>20</b> | .976/.898 (24.8/22.8)   | 1.279/1.201 (32.5/30.5) | 1.614/1.582 (41.0/40.2) | 2.031/1.969 (51.6/50.0) | .976/.898 (24.8/22.8)   | 1.279/1.201 (32.5/30.5) |
| <b>24</b> | 1.289/1.211 (32.7/30.8) | 1.404/1.326 (35.7/33.7) | 1.863/1.831 (47.3/46.5) | 1.906/1.844 (48.4/46.8) | 1.164/1.086 (29.6/27.6) | 1.404/1.326 (35.7/33.7) |
| <b>28</b> | 1.414/1.336 (35.9/33.9) | 1.653/1.575 (42.0/40.0) | 2.101/2.069 (53.4/52.6) | 1.781/1.719 (45.2/43.7) | 1.289/1.719 (45.2/43.7) | 1.653/1.575 (42.0/40.0) |
| <b>32</b> | 1.675/1.573 (42.5/40.0) | 1.915/1.813 (48.6/46.1) | 2.351/2.319 (59.7/58.9) | 1.656/1.594 (42.1/40.0) | 1.676/1.574 (42.6/40.0) | 1.916/1.814 (48.7/46.1) |
| <b>40</b> | 1.925/1.823 (48.9/46.3) | 2.415/2.313 (61.3/58.8) | 2.851/2.819 (72.4/71.6) | 1.531/1.469 (38.9/37.3) | 1.926/1.824 (48.9/46.3) | 2.416/2.314 (61.4/58.8) |

### APPLICATION NOTES

1. Assembly identified with manufacturer's name and part number, space permitting.
2. For complete dimensions, see the applicable Military Specification.
3. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.



Dimensions in inches (millimeters) and are subject to change without notice.



# AS85049/140 Straight Lipped Heat Shrink Boot



AS85049

B

**TABLE I: Dash Number and Dimensions (Continued Below)**

| Dash No. | H Dia Min (As Supplied) | H Dia Max (As Recovered) | J Dia Min (As Supplied) Material A, B, H | J Dia Min (As Supplied) Material G | J Dia Max (As Recovered) | P (As Recovered) ±10% | R (As Recovered) Ref |
|----------|-------------------------|--------------------------|--|------------------------------------|--------------------------|-----------------------|----------------------|
| 01       | 0.92 (23.4)             | 0.41 (10.4)              | 0.92 (23.4)                              | 0.47 (11.9)                        | 0.24 (6.1)               | 1.50 (38.1)           | 0.83 (21.1)          |
| 02       | 1.12 (28.4)             | 0.56 (14.2)              | 1.12 (28.4)                              | 0.58 (14.7)                        | 0.26 (6.6)               | 2.16 (54.9)           | 1.09 (27.7)          |
| 03       | 1.22 (31.0)             | 0.70 (17.6)              | 1.22 (31.0)                              | 0.63 (16.0)                        | 0.28 (7.1)               | 2.63 (66.8)           | 1.39 (35.3)          |
| 04       | 1.42 (36.1)             | 0.88 (22.4)              | 1.42 (36.1)                              | 0.73 (18.5)                        | 0.38 (9.7)               | 3.15 (80.0)           | 1.63 (41.4)          |
| 05       | 1.68 (42.7)             | 1.11 (28.2)              | 1.68 (42.7)                              | 0.87 (22.1)                        | 0.39 (9.9)               | 4.08 (103.6)          | 2.22 (56.4)          |
| 06       | 2.04 (51.8)             | 1.38 (35.1)              | 2.04 (51.8)                              | 1.39 (35.3)                        | 0.63 (16.0)              | 5.13 (130.3)          | 2.54 (64.5)          |
| 07       | 2.60 (66.0)             | 1.75 (44.5)              | 2.60 (66.0)                              | 1.80 (45.7)                        | 0.80 (20.3)              | 6.50 (165.1)          | 3.31 (84.1)          |
| 08       | 3.22 (81.8)             | 2.27 (57.7)              | 3.22 (81.8)                              | 2.25 (57.2)                        | 1.00 (25.4)              | 7.00 (177.8)          | 3.75 (95.3)          |

**TABLE I: Dash Number and Dimensions (Continued from Above)**

| Dash No. | T (As Recovered) Ref | HW (As Recovered) ±20% | JW Max (As Recovered) | PP (As Recovered) ±10% | S (As Recovered) ±10% | RR (As Recovered) ±10% |
|----------|----------------------|------------------------|-----------------------|------------------------|-----------------------|------------------------|
| 01       | 0.04 (1.0)           | 0.07 (1.8)             | 0.09 (2.2)            | 0.60 (15.2)            | 0.48 (12.2)           | N/A                    |
| 02       | 0.04 (1.0)           | 0.07 (1.8)             | 0.09 (2.2)            | 0.60 (15.2)            | 0.49 (12.4)           | .85 (21.6)             |
| 03       | 0.04 (1.0)           | 0.08 (2.0)             | 0.10 (2.5)            | 0.60 (15.2)            | 0.75 (19.1)           | .96 (24.4)             |
| 04       | 0.04 (1.0)           | 0.08 (2.0)             | 0.10 (2.5)            | 0.60 (15.2)            | 0.75 (19.1)           | 1.17 (29.7)            |
| 05       | 0.07 (1.8)           | 0.09 (2.3)             | 0.11 (2.7)            | 0.60 (15.2)            | 0.75 (19.1)           | 1.44 (36.6)            |
| 06       | 0.07 (1.8)           | 0.13 (3.3)             | 0.16 (4.0)            | 0.60 (15.2)            | 0.57 (14.5)           | 2.12 (53.8)            |
| 07       | 0.08 (2.0)           | 0.16 (4.1)             | 0.19 (4.9)            | 0.60 (15.2)            | 0.68 (17.3)           | 2.59 (65.8)            |
| 08       | 0.08 (2.0)           | 0.16 (4.1)             | 0.19 (4.9)            | 0.60 (15.2)            | 0.68 (17.3)           | 2.64 (67.1)            |

**TABLE II: Shrink Boot Materials**

| Material Code | Compound | Material Description       | Color Code |
|---------------|----------|----------------------------|------------|
| A             | 2071     | Flexible Polyolefin        | WHITE      |
| B             | 2040     | General Purpose Polyolefin | RED        |
| G             | 2010     | Zero Halogen Polyolefin    | GREEN      |
| H             | 2025     | High Performance Elastomer | BLUE       |

**TABLE III: Adhesive Description**

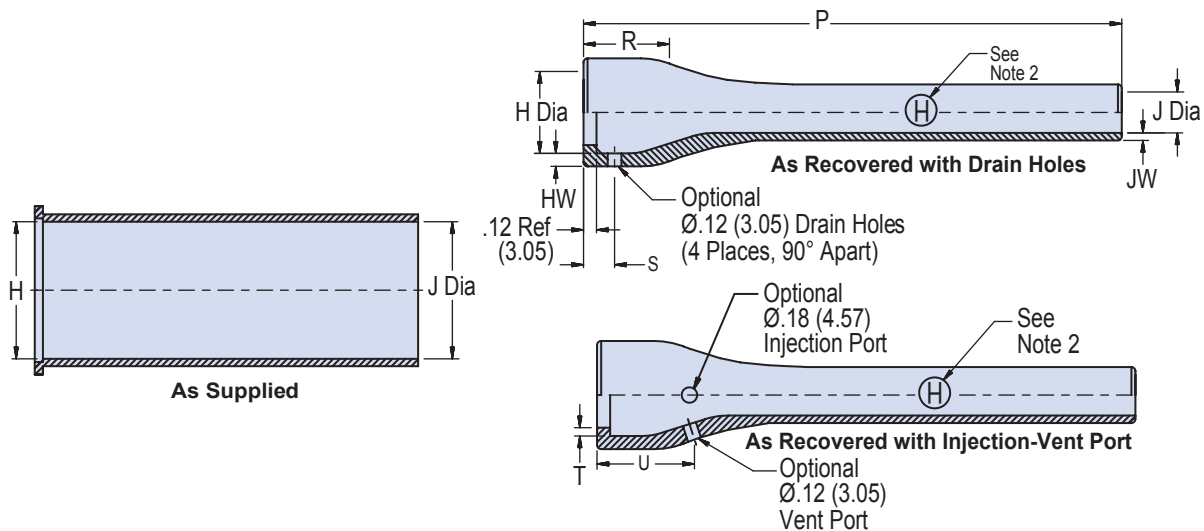
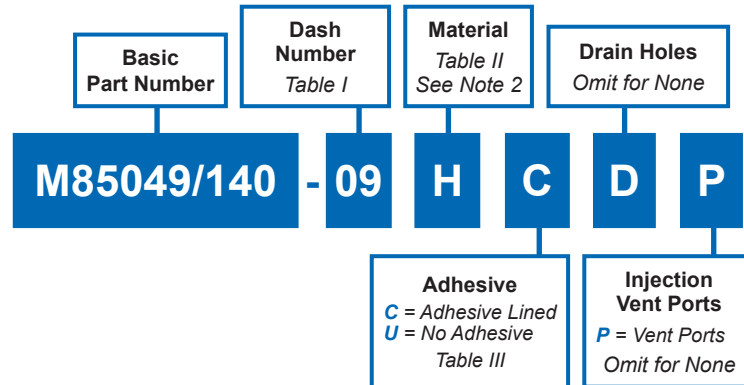
| Symbol | Adhesive Description    |
|--------|-------------------------|
| C      | Zero Halogen / Hot Melt |

**APPLICATION NOTES**

1. See bag identification for matching boot number, not number on boot. See part number development for full description.
2. Encircled material letter designator located on O.D. approximately mid length along the "J" end. See part number development for full description.
3. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.

# AS85049/140 Straight Lipped Long Tail Low Profile Heat Shrink Boot



Dimensions in inches (millimeters) and are subject to change without notice.

# AS85049/140

## Straight Lipped Long Tail Low Profile Heat Shrink Boot



AS85049

B

TABLE I: Dash Number and Dimensions (Continued Below)

| Dash No. | H Dia Min<br>(As Supplied) | H Dia Max<br>(As Recovered) | J Dia Min<br>(As Supplied)<br>Material A, B, H | J Dia Min<br>(As Recovered)<br>Material G | J Dia Max<br>(As Recovered) | P<br>(As Recovered)<br>±10% | R<br>(As Recovered)<br>Ref |
|----------|----------------------------|-----------------------------|--|---|-----------------------------|-----------------------------|----------------------------|
| 09       | 0.88 (22.4)                | 0.47 (11.9)                 | 0.88 (22.4)                                    | 0.55 (14.0)                               | 0.25 (6.4)                  | 4.17 (105.9)                | 0.46 (11.7)                |
| 10       | 0.98 (24.9)                | 0.59 (15.0)                 | 0.98 (24.9)                                    | 0.63 (16.0)                               | 0.30 (7.6)                  | 4.77 (121.2)                | 0.48 (12.2)                |
| 11       | 1.16 (29.5)                | 0.75 (19.1)                 | 1.16 (29.5)                                    | 0.72 (18.3)                               | 0.33 (8.4)                  | 5.46 (138.7)                | 0.48 (12.2)                |
| 12       | 1.34 (34.0)                | 0.91 (23.1)                 | 1.34 (34.0)                                    | 0.84 (21.3)                               | 0.39 (9.9)                  | 6.28 (159.5)                | 0.48 (12.2)                |
| 13       | 1.47 (37.3)                | 1.18 (30.0)                 | 1.47 (37.3)                                    | 0.91 (23.1)                               | 0.43 (10.9)                 | 7.00 (177.8)                | 0.55 (14.0)                |
| 14       | 1.72 (43.7)                | 1.34 (34.0)                 | 1.72 (43.7)                                    | 1.07 (27.2)                               | 0.48 (12.2)                 | 8.00 (203.2)                | 0.60 (15.2)                |
| 15       | 1.97 (50.0)                | 1.62 (41.1)                 | 1.97 (50.0)                                    | 1.24 (31.5)                               | 0.57 (14.5)                 | 8.00 (203.2)                | 0.60 (15.2)                |
| 16       | 2.47 (62.7)                | 1.85 (47.0)                 | 2.47 (62.7)                                    | 1.54 (39.1)                               | 0.71 (18.0)                 | 8.00 (203.2)                | 0.63 (16.0)                |
| 17       | 2.73 (69.3)                | 2.36 (59.9)                 | 2.73 (69.3)                                    | 1.70 (43.2)                               | 0.79 (20.1)                 | 8.00 (203.2)                | 0.63 (16.0)                |
| 18       | 3.22 (81.8)                | 2.64 (67.1)                 | 3.22 (81.8)                                    | 2.01 (51.1)                               | 0.91 (23.1)                 | 8.00 (203.2)                | 0.63 (16.0)                |

TABLE I: Dash Number and Dimensions (Continued from Above)

| Dash No. | T<br>(As Recovered)<br>Ref | HW<br>(As Recovered)<br>±20% | JW<br>Max<br>(As Recovered) | S<br>(As Recovered)<br>±10% | U<br>(As Recovered)<br>±10% |
|----------|----------------------------|------------------------------|-----------------------------|-----------------------------|-----------------------------|
| 09       | 0.04 (1.0)                 | 0.06 (1.5)                   | 0.05 (1.1)                  | 0.23 (5.8)                  | 0.56 (14.2)                 |
| 10       | 0.04 (1.0)                 | 0.06 (1.5)                   | 0.05 (1.1)                  | 0.24 (6.1)                  | 0.59 (15.0)                 |
| 11       | 0.04 (1.0)                 | 0.07 (1.8)                   | 0.05 (1.1)                  | 0.47 (11.9)                 | 0.61 (15.5)                 |
| 12       | 0.04 (1.0)                 | 0.07 (1.8)                   | 0.05 (1.1)                  | 0.47 (11.9)                 | 0.62 (15.7)                 |
| 13       | 0.07 (1.7)                 | 0.08 (2.0)                   | 0.05 (1.1)                  | 0.47 (11.9)                 | 0.71 (18.0)                 |
| 14       | 0.07 (1.7)                 | 0.08 (2.0)                   | 0.05 (1.1)                  | 0.47 (11.9)                 | 0.78 (19.8)                 |
| 15       | 0.07 (1.7)                 | 0.09 (2.3)                   | 0.06 (1.5)                  | 0.30 (7.6)                  | 0.82 (20.8)                 |
| 16       | 0.08 (2.0)                 | 0.10 (2.5)                   | 0.06 (1.5)                  | 0.63 (16.0)                 | 0.92 (23.4)                 |
| 17       | 0.08 (2.0)                 | 0.10 (2.5)                   | 0.06 (1.5)                  | 0.63 (16.0)                 | 0.93 (23.6)                 |
| 18       | 0.08 (2.0)                 | 0.10 (2.5)                   | 0.06 (1.5)                  | 0.63 (16.0)                 | 1.23 (31.2)                 |

TABLE II: Shrink Boot Materials

| Material Code | Compound | Material Description       | Color Code |
|---------------|----------|----------------------------|------------|
| A             | 2071     | Flexible Polyolefin        | WHITE      |
| B             | 2040     | General Purpose Polyolefin | RED        |
| G             | 2010     | Zero Halogen Polyolefin    | GREEN      |
| H             | 2025     | High Performance Elastomer | BLUE       |

TABLE III: Adhesive Description

| Symbol | Adhesive Description    |
|--------|-------------------------|
| C      | Zero Halogen / Hot Melt |

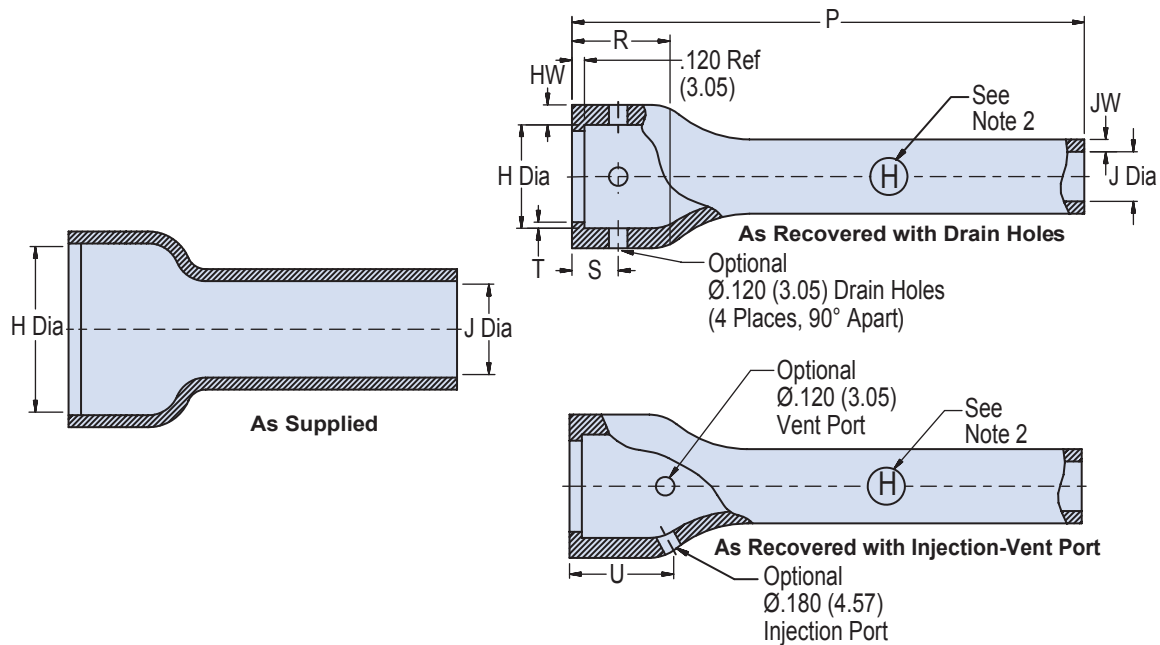
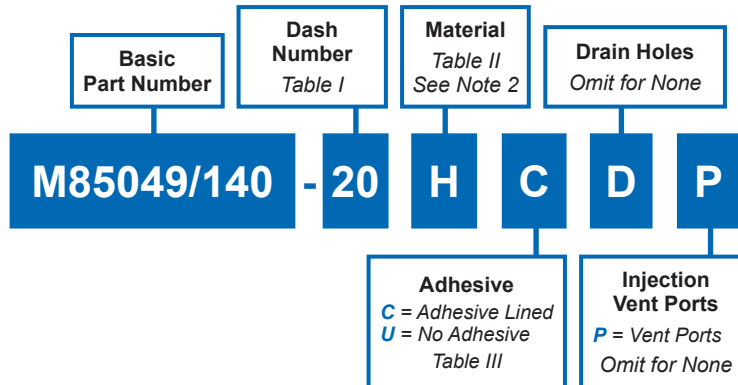
### APPLICATION NOTES

1. See bag identification for matching boot number, not number on boot. See part number development for full description.
2. Encircled material letter designator located on O.D. approximately mid length along the "J" end. See part number development for full description.
3. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.

# AS85049/140

## Straight Lipped Miniature Long Tail High Ratio Low Profile Heat Shrink Boot



Dimensions in inches (millimeters) and are subject to change without notice.

# AS85049/140

## Straight Lipped Miniature Long Tail High Ratio Low Profile Heat Shrink Boot



AS85049

B

TABLE I: Dash Number and Dimensions (Continued Below)

| Dash No. | H Dia Min<br>(As Supplied) | H Dia Max<br>(As Recovered) | J Dia Min<br>(As Supplied)<br>Material A, B, H | J Dia Min<br>(As Supplied)<br>Material G | J Dia Max<br>(As Recovered) | P<br>(As Recovered)<br>±10% | R<br>(As Recovered)<br>Ref |
|----------|----------------------------|-----------------------------|--|--|-----------------------------|-----------------------------|----------------------------|
| 19       | 0.76 (19.3)                | 0.51 (13.0)                 | 0.25 (6.4)                                     | 0.18 (4.6)                               | 0.08 (2.0)                  | 2.37 (60.2)                 | 0.46 (11.7)                |
| 20       | 1.03 (26.2)                | 0.75 (19.1)                 | 0.30 (7.6)                                     | 0.22 (5.6)                               | 0.10 (2.5)                  | 2.92 (74.2)                 | 0.48 (12.2)                |
| 21       | 1.35 (34.3)                | 1.02 (25.9)                 | 0.38 (9.7)                                     | 0.26 (6.6)                               | 0.12 (3.0)                  | 3.32 (84.3)                 | 0.48 (12.2)                |
| 22       | 1.72 (43.7)                | 1.34 (34.0)                 | 0.45 (11.4)                                    | 0.31 (7.9)                               | 0.14 (3.6)                  | 3.92 (99.6)                 | 0.48 (12.2)                |

TABLE I: Dash Number and Dimensions (Continued from Above)

| Dash No. | T<br>(As Recovered)<br>±10% | HW<br>(As Recovered)<br>±20% | JW Max<br>(As Recovered) | S<br>(As Recovered)<br>±10% | U<br>(As Recovered)<br>±10% |
|----------|-----------------------------|------------------------------|--------------------------|-----------------------------|-----------------------------|
| 19       | 0.04 (1.0)                  | 0.06 (1.5)                   | 0.05 (1.14)              | 0.47 (11.9)                 | 0.62 (15.75)                |
| 20       | 0.04 (1.0)                  | 0.07 (1.8)                   | 0.05 (1.14)              | 0.47 (11.9)                 | 0.80 (20.32)                |
| 21       | 0.04 (1.0)                  | 0.07 (1.8)                   | 0.05 (1.14)              | 0.47 (11.9)                 | 0.90 (22.86)                |
| 22       | 0.07 (1.7)                  | 0.07 (1.8)                   | 0.05 (1.14)              | 0.47 (11.9)                 | 1.03 (26.16)                |

TABLE II: Shrink Boot Materials

| Material Code | Compound | Material Description       | Color Code |
|---------------|----------|----------------------------|------------|
| A             | 2071     | Flexible Polyolefin        | WHITE      |
| B             | 2040     | General Purpose Polyolefin | RED        |
| G             | 2010     | Zero Halogen Polyolefin    | GREEN      |
| H             | 2025     | High Performance Elastomer | BLUE       |

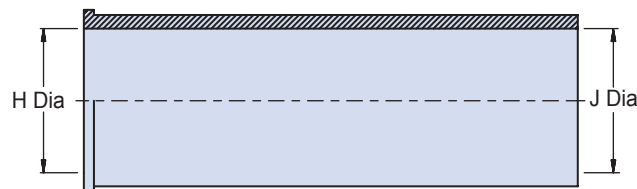
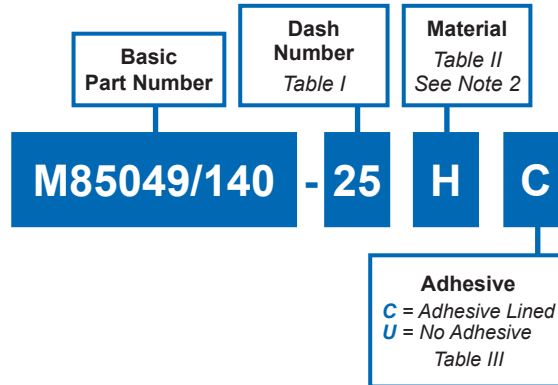
TABLE III: Adhesive Description

| Symbol | Adhesive Description    |
|--------|-------------------------|
| C      | Zero Halogen / Hot Melt |

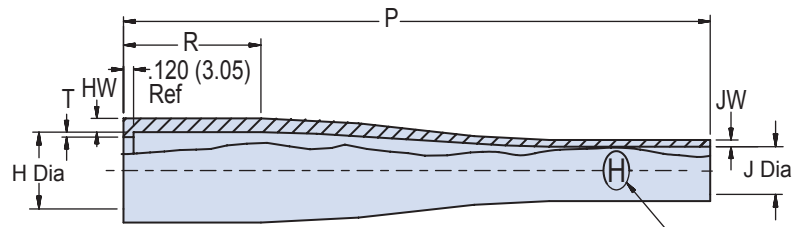
### APPLICATION NOTES

1. See bag identification for matching boot number, not number on boot. See part number development for full description.
2. Encircled material letter designator located on O.D. approximately mid length along the "J" end. See part number development for full description.
3. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.



As Supplied



As Recovered

See Note 2

Dimensions in inches (millimeters) and are subject to change without notice.

# AS85049/140 Straight Lipped Sealing Heat Shrink Boot



AS85049

B

TABLE I: Dash Number and Dimensions

| Dash No. | H Dia Min<br>(As Supplied) | H Dia Max<br>(As Recovered) | J Dia Min<br>(As Supplied) | J Dia Max<br>(As Recovered) | P<br>(As Recovered)<br>±10% | R<br>(As Recovered)<br>Ref | T<br>(As Recovered)<br>±10% | HW<br>(As Recovered)<br>±20% | JW Max<br>(As Recovered) |
|----------|----------------------------|-----------------------------|----------------------------|-----------------------------|-----------------------------|----------------------------|-----------------------------|------------------------------|--------------------------|
| 23       | 0.84 (21.3)                | 0.55 (14.0)                 | 0.66 (16.8)                | 0.21 (5.3)                  | 5.30 (134.6)                | 1.10 (27.9)                | 0.06 (1.5)                  | 0.16 (4.1)                   | 0.04 (1.0)               |
| 24       | 1.00 (25.4)                | 0.65 (16.5)                 | 1.00 (25.4)                | 0.33 (8.4)                  | 6.00 (152.4)                | 1.20 (30.5)                | 0.06 (1.5)                  | 0.16 (4.1)                   | 0.06 (1.5)               |
| 25       | 1.30 (33.0)                | 0.80 (20.3)                 | 1.30 (33.0)                | 0.43 (10.9)                 | 6.00 (152.4)                | 1.20 (30.5)                | 0.06 (1.5)                  | 0.16 (4.1)                   | 0.06 (1.5)               |
| 26       | 1.70 (43.2)                | 0.90 (22.9)                 | 1.70 (43.2)                | 0.56 (14.2)                 | 6.90 (175.3)                | 1.50 (38.1)                | 0.06 (1.5)                  | 0.16 (4.1)                   | 0.08 (2.0)               |
| 27       | 2.10 (53.3)                | 1.10 (27.9)                 | 2.10 (53.3)                | 0.70 (17.8)                 | 6.90 (175.3)                | 1.50 (38.1)                | 0.06 (1.5)                  | 0.16 (4.1)                   | 0.08 (2.0)               |
| 28       | 2.85 (72.4)                | 1.45 (36.4)                 | 2.85 (72.4)                | 0.95 (24.1)                 | 7.24 (183.9)                | 1.60 (40.6)                | 0.06 (1.5)                  | 0.20 (5.1)                   | 0.10 (2.54)              |

TABLE II: Shrink Boot Materials

| Material Code | Compound | Material Description       | Color Code |
|---------------|----------|----------------------------|------------|
| A             | 2071     | Flexible Polyolefin        | WHITE      |
| B             | 2040     | General Purpose Polyolefin | RED        |
| G             | 2010     | Zero Halogen Polyolefin    | GREEN      |
| H             | 2025     | High Performance Elastomer | BLUE       |

TABLE III: Adhesive Description

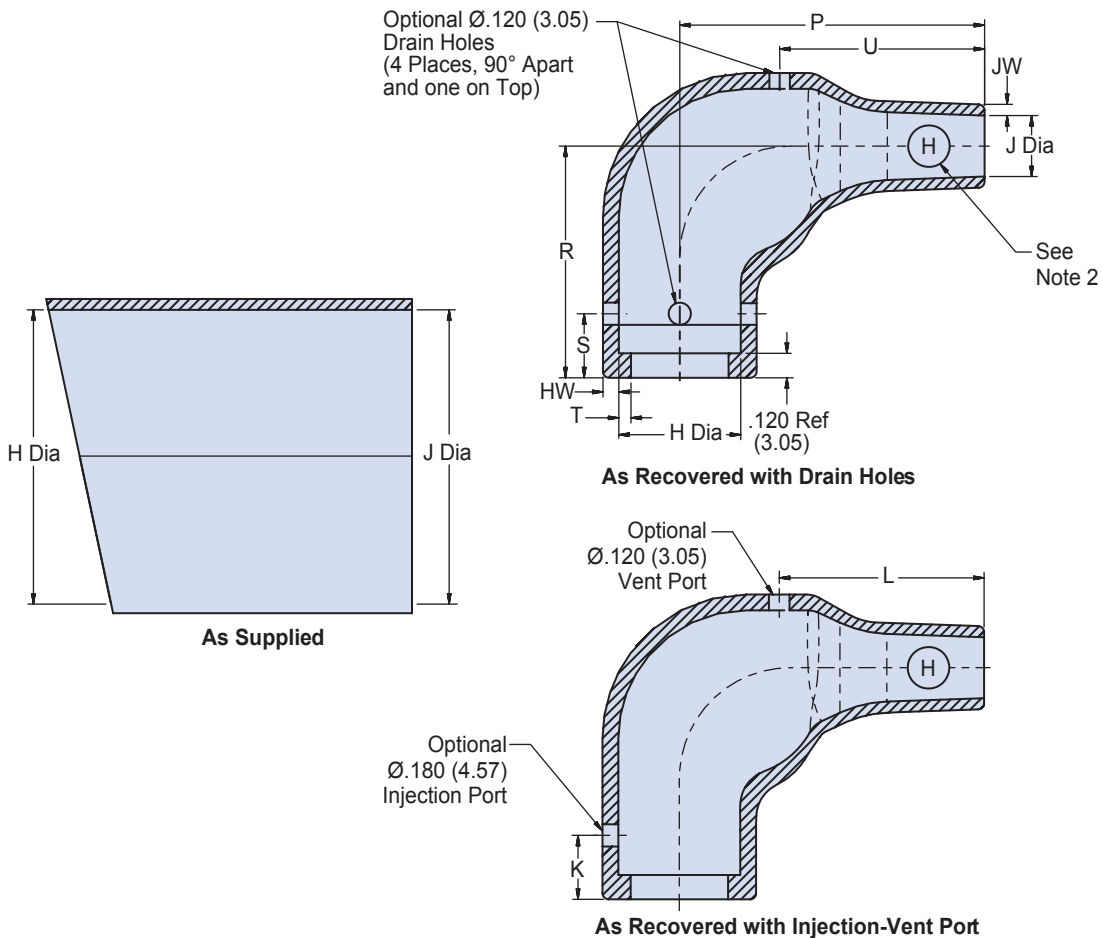
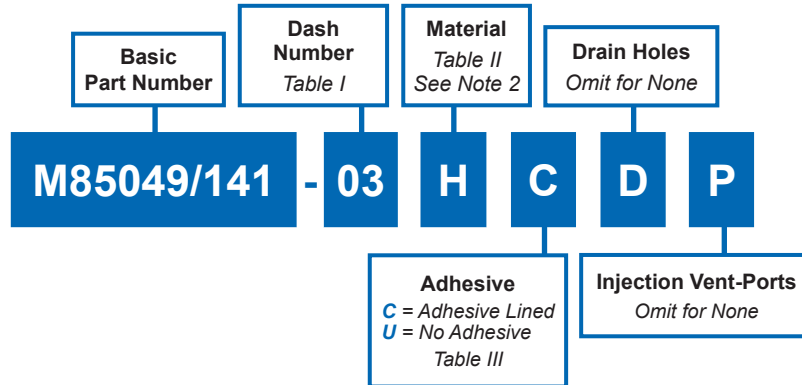
| Symbol | Adhesive Description    |
|--------|-------------------------|
| C      | Zero Halogen / Hot Melt |

### APPLICATION NOTES

1. See bag identification for matching boot number, not number on boot. See part number development for full description.
2. Encircled material letter designator located on O.D. approximately mid length along the "J" end. See part number development for full description.
3. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.





Dimensions in inches (millimeters) and are subject to change without notice.

# AS85049/141 90° Lipped Heat Shrink Boot



AS85049

B

TABLE I: Dash Number and Dimensions (Continued Below)

| Dash No. | H Dia Min<br>(As Supplied) | H Dia Max<br>(As Recovered) | J Dia Min<br>(As Supplied)<br>Material A, B, H | J Dia Min<br>(As Supplied)<br>Material G | J Dia Max<br>(As Recovered) | P<br>(As Recovered)<br>±10% | R<br>(As Recovered)<br>±10% |
|----------|----------------------------|-----------------------------|--|--|-----------------------------|-----------------------------|-----------------------------|
| 01       | 0.920 (23.4)               | 0.410 (10.4)                | 0.920 (23.4)                                   | 0.470 (11.9)                             | 0.240 (6.1)                 | 0.840 (21.3)                | 0.650 (16.5)                |
| 02       | 1.120 (28.4)               | 0.610 (15.5)                | 1.120 (28.4)                                   | 0.580 (14.7)                             | 0.260 (6.6)                 | 1.330 (33.8)                | 0.760 (19.3)                |
| 03       | 1.220 (31.0)               | 0.710 (18.0)                | 1.220 (31.0)                                   | 0.630 (16.0)                             | 0.280 (7.1)                 | 1.440 (36.6)                | 0.830 (21.1)                |
| 04       | 1.420 (36.1)               | 0.890 (22.6)                | 1.420 (36.1)                                   | 0.730 (18.5)                             | 0.330 (8.4)                 | 1.720 (43.7)                | 0.900 (22.9)                |
| 05       | 1.680 (42.7)               | 1.120 (28.4)                | 1.680 (42.7)                                   | 0.870 (22.1)                             | 0.390 (9.9)                 | 2.110 (53.6)                | 1.140 (29.0)                |
| 06       | 2.040 (51.8)               | 1.380 (35.1)                | 2.040 (51.8)                                   | 1.390 (35.3)                             | 0.630 (16.0)                | 3.070 (78.0)                | 1.320 (33.5)                |
| 07       | 2.600 (66.0)               | 1.770 (45.0)                | 2.600 (66.0)                                   | 1.800 (45.7)                             | 0.800 (20.3)                | 3.840 (97.5)                | 1.640 (41.7)                |
| 08       | 3.220 (81.8)               | 2.400 (61.0)                | 3.220 (81.8)                                   | 2.250 (57.2)                             | 1.000 (25.4)                | 4.640 (117.9)               | 2.030 (51.6)                |

TABLE I: Dash Number and Dimensions (Continued from Above)

| Dash No. | T<br>(As Recovered)<br>Ref | HW<br>(As Recovered)<br>±20% | JW<br>Max<br>(As Recovered) | S<br>(As Recovered)<br>±10% | U<br>(As Recovered)<br>±10% | K<br>(As Recovered)<br>±10% | L<br>(As Recovered)<br>±10% |
|----------|----------------------------|------------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| 01       | 0.040 (1.0)                | 0.050 (1.3)                  | 0.050 (1.3)                 | 0.450 (11.4)                | 0.470 (11.9)                | 0.600 (15.2)                | 0.580 (14.7)                |
| 02       | 0.040 (1.0)                | 0.060 (1.5)                  | 0.050 (1.3)                 | 0.470 (11.9)                | 1.020 (25.9)                | 0.750 (19.1)                | 0.980 (24.9)                |
| 03       | 0.040 (1.0)                | 0.070 (1.8)                  | 0.070 (1.8)                 | 0.470 (11.9)                | 1.090 (27.7)                | 0.750 (19.1)                | 0.980 (24.9)                |
| 04       | 0.040 (1.0)                | 0.070 (1.8)                  | 0.070 (1.8)                 | 0.470 (11.9)                | 1.160 (29.5)                | 0.750 (19.1)                | 1.180 (30.0)                |
| 05       | 0.070 (1.8)                | 0.080 (2.0)                  | 0.080 (2.0)                 | 0.470 (11.9)                | 1.470 (37.3)                | 0.760 (19.3)                | 1.300 (33.0)                |
| 06       | 0.070 (1.8)                | 0.130 (3.3)                  | 0.130 (3.3)                 | 0.530 (13.5)                | 2.500 (63.5)                | 1.000 (25.4)                | 2.120 (53.8)                |
| 07       | 0.080 (2.0)                | 0.150 (3.8)                  | 0.150 (3.8)                 | 0.640 (16.3)                | 2.750 (69.9)                | 1.000 (25.4)                | 2.800 (71.1)                |
| 08       | 0.080 (2.0)                | 0.160 (4.1)                  | 0.160 (4.1)                 | 0.640 (16.3)                | 3.120 (79.2)                | 1.000 (25.4)                | 3.150 (80.0)                |

TABLE II: Shrink Boot Materials

| Material Code | Compound | Material Description       | Color Code |
|---------------|----------|----------------------------|------------|
| A             | 2071     | Flexible Polyolefin        | WHITE      |
| B             | 2040     | General Purpose Polyolefin | RED        |
| G             | 2010     | Zero Halogen Polyolefin    | GREEN      |
| H             | 2025     | High Performance Elastomer | BLUE       |

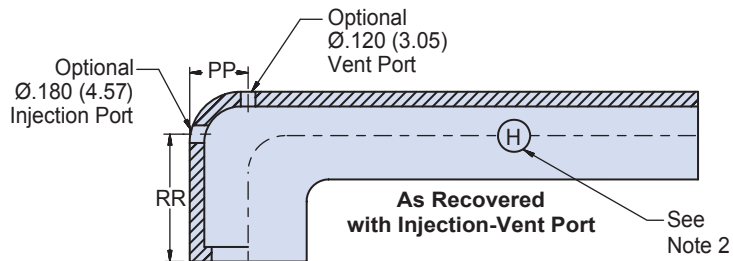
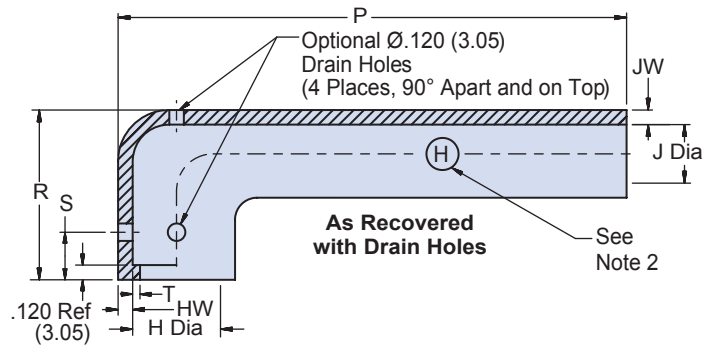
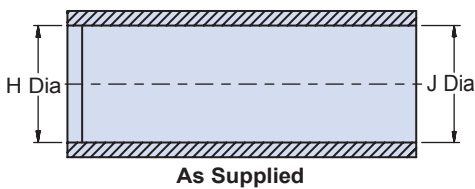
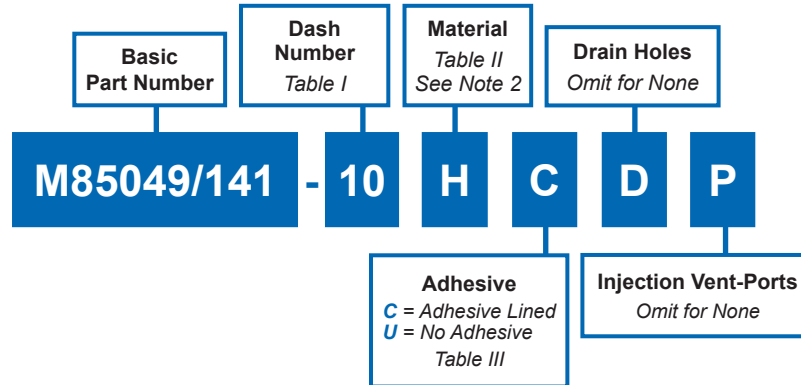
TABLE III: Adhesive Description

| Symbol | Adhesive Description    |
|--------|-------------------------|
| C      | Zero Halogen / Hot Melt |

APPLICATION NOTES

1. See bag identification for matching boot number, not number on boot. See part number development for full description.
2. Encircled material letter designator located on O.D. approximately mid length along the "J" end. See part number development for full description.
3. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.



Dimensions in inches (millimeters) and are subject to change without notice.

# AS85049/141 90° Lipped Low Profile Heat Shrink Boot



AS85049

B

TABLE I: Dash Number and Dimensions (Continued Below)

| Dash No. | H Dia Min<br>(As Supplied) | H Dia Max<br>(As Recovered) | J Dia Min<br>(As Supplied)<br>Material A, B, H | J Dia Max<br>(As Supplied)<br>Material G | J Dia Max<br>(As Recovered) | P<br>(As Recovered)<br>±10% | R<br>(As Recovered)<br>Ref |
|----------|----------------------------|-----------------------------|--|--|-----------------------------|-----------------------------|----------------------------|
| 09       | 0.880 (22.4)               | 0.450 (11.4)                | 0.880 (22.4)                                   | 0.550 (14.0)                             | 0.250 (6.4)                 | 4.140 (105.2)               | 0.730 (18.5)               |
| 10       | 1.010 (25.7)               | 0.590 (15.0)                | 1.010 (25.7)                                   | 0.630 (16.0)                             | 0.300 (7.6)                 | 4.880 (124.0)               | 0.780 (19.8)               |
| 11       | 1.160 (29.5)               | 0.740 (18.8)                | 1.160 (29.5)                                   | 0.720 (18.3)                             | 0.330 (8.4)                 | 5.760 (146.3)               | 0.820 (20.8)               |
| 12       | 1.340 (34.0)               | 0.900 (22.9)                | 1.340 (34.0)                                   | 0.840 (21.3)                             | 0.390 (9.9)                 | 6.780 (172.2)               | 0.860 (21.8)               |
| 13       | 1.470 (37.3)               | 1.160 (29.5)                | 1.470 (37.3)                                   | 0.910 (23.1)                             | 0.430 (10.9)                | 7.290 (185.2)               | 0.960 (24.4)               |
| 14       | 1.720 (43.7)               | 1.340 (34.0)                | 1.720 (43.7)                                   | 1.070 (27.2)                             | 0.480 (12.2)                | 8.410 (213.6)               | 1.080 (27.4)               |
| 15       | 1.970 (50.0)               | 1.620 (41.1)                | 1.970 (50.0)                                   | 1.240 (31.5)                             | 0.570 (14.5)                | 8.840 (224.5)               | 1.160 (29.5)               |
| 16       | 2.470 (62.7)               | 1.850 (47.0)                | 2.470 (62.7)                                   | 1.540 (39.1)                             | 0.710 (18.0)                | 8.950 (227.3)               | 1.310 (33.3)               |
| 17       | 2.730 (69.3)               | 2.350 (59.7)                | 2.730 (69.3)                                   | 1.700 (43.2)                             | 0.790 (20.1)                | 9.190 (233.4)               | 1.380 (35.1)               |
| 18       | 3.220 (81.8)               | 2.640 (67.1)                | 3.220 (81.8)                                   | 2.010 (51.1)                             | 0.910 (23.1)                | 9.330 (237.0)               | 1.750 (44.5)               |

TABLE I: Dash Number and Dimensions (Continued from Above)

| Dash No. | T<br>(As Recovered)<br>Ref | HW<br>(As Recovered)<br>±20% | JW<br>Max<br>(As Recovered) | S<br>(As Recovered)<br>±10% | PP<br>(As Recovered)<br>±10% | RR<br>(As Recovered)<br>±10% |
|----------|----------------------------|------------------------------|-----------------------------|-----------------------------|------------------------------|------------------------------|
| 09       | 0.040 (1.0)                | 0.060 (1.5)                  | 0.060 (1.5)                 | 0.470 (11.9)                | 0.270 (6.9)                  | 0.490 (12.4)                 |
| 10       | 0.040 (1.0)                | 0.060 (1.5)                  | 0.060 (1.5)                 | 0.470 (11.9)                | 0.330 (8.4)                  | 0.590 (15.0)                 |
| 11       | 0.040 (1.0)                | 0.070 (1.8)                  | 0.060 (1.5)                 | 0.470 (11.9)                | 0.410 (10.4)                 | 0.610 (15.5)                 |
| 12       | 0.040 (1.0)                | 0.070 (1.8)                  | 0.060 (1.5)                 | 0.470 (11.9)                | 0.480 (12.2)                 | 0.620 (15.7)                 |
| 13       | 0.070 (1.8)                | 0.080 (2.0)                  | 0.060 (1.5)                 | 0.470 (11.9)                | 0.610 (15.5)                 | 0.700 (17.8)                 |
| 14       | 0.070 (1.8)                | 0.080 (2.0)                  | 0.060 (1.5)                 | 0.470 (11.9)                | 0.720 (18.3)                 | 0.780 (19.8)                 |
| 15       | 0.070 (1.8)                | 0.090 (2.3)                  | 0.060 (1.5)                 | 0.470 (11.9)                | 0.830 (21.1)                 | 0.820 (20.8)                 |
| 16       | 0.080 (2.0)                | 0.100 (2.5)                  | 0.060 (1.5)                 | 0.630 (16.0)                | 0.950 (24.1)                 | 0.920 (23.4)                 |
| 17       | 0.080 (2.0)                | 0.100 (2.5)                  | 0.060 (1.5)                 | 0.630 (16.0)                | 1.180 (30.0)                 | 0.930 (23.6)                 |
| 18       | 0.080 (2.0)                | 0.100 (2.5)                  | 0.060 (1.5)                 | 0.630 (16.0)                | 1.310 (33.3)                 | 1.230 (31.2)                 |

TABLE II: Shrink Boot Materials

| Material Code | Compound | Material Description       | Color Code |
|---------------|----------|----------------------------|------------|
| A             | 2071     | Flexible Polyolefin        | WHITE      |
| B             | 2040     | General Purpose Polyolefin | RED        |
| G             | 2010     | Zero Halogen Polyolefin    | GREEN      |
| H             | 2025     | High Performance Elastomer | BLUE       |

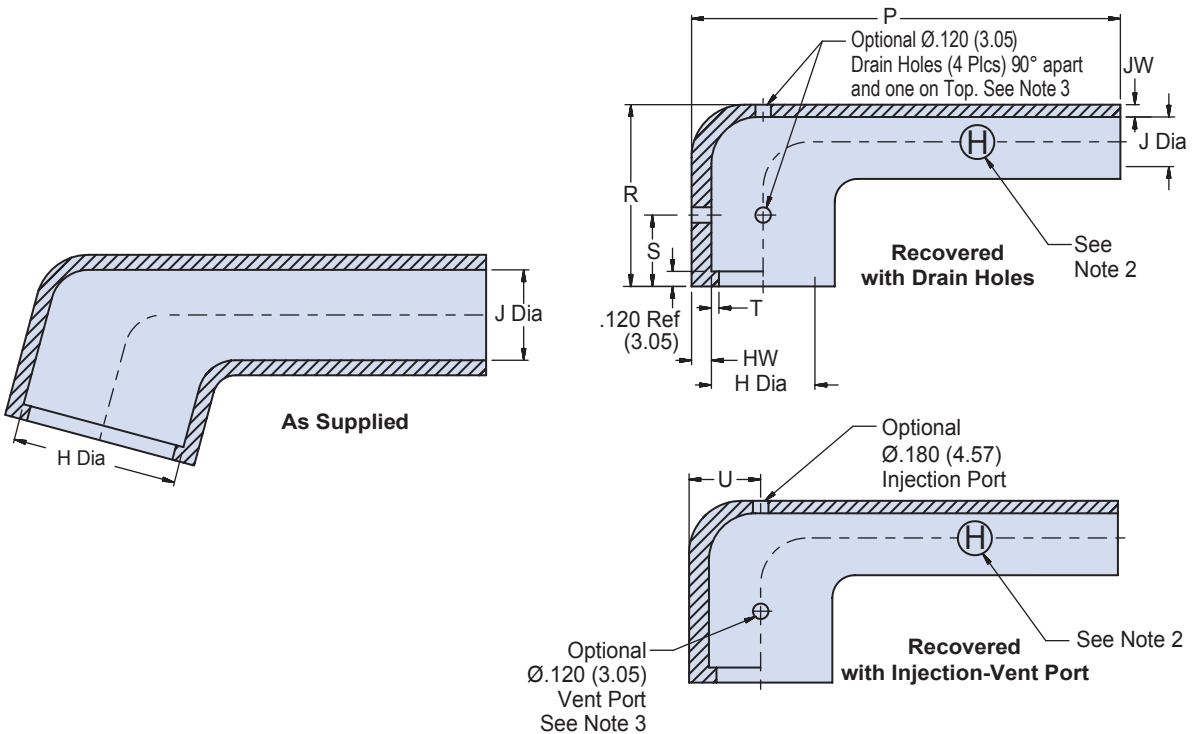
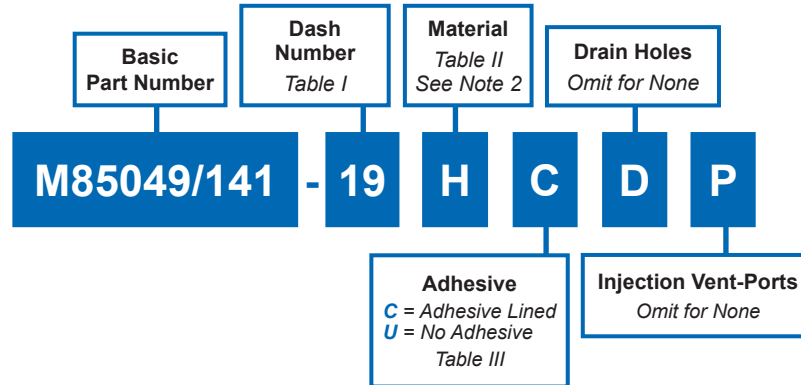
TABLE III: Adhesive Description

| Symbol | Adhesive Description    |
|--------|-------------------------|
| C      | Zero Halogen / Hot Melt |

### APPLICATION NOTES

1. See bag identification for matching boot number, not number on boot. See part number development for full description.
2. Encircled material letter designator located on O.D. approximately mid length along the "J" end. See part number development for full description.
3. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.



Dimensions in inches (millimeters) and are subject to change without notice.

# AS85049/141

## 90° Lipped Miniature Low Profile Heat Shrink Boot



AS85049

B

TABLE I: Dash Number and Dimensions (Continued Below)

| Dash No. | H Dia Min<br>(As Supplied) | H Dia Max<br>(As Recovered) | J Dia Min<br>(As Supplied)<br>Material A, B, H | J Dia Max<br>(As Supplied)<br>Material G | J Dia Max<br>(As Recovered) | P<br>(As Recovered)<br>±10% | R<br>(As Recovered)<br>Ref |
|----------|----------------------------|-----------------------------|--|--|-----------------------------|-----------------------------|----------------------------|
| 19       | 0.760 (19.3)               | 0.510 (13.0)                | 0.250 (6.4)                                    | 0.180 (4.6)                              | 0.080 (2.0)                 | 1.750 (44.5)                | 0.640 (16.3)               |
| 20       | 1.030 (26.2)               | 0.750 (19.1)                | 0.300 (7.6)                                    | 0.220 (5.6)                              | 0.100 (2.5)                 | 2.650 (67.3)                | 0.710 (18.0)               |
| 21       | 1.350 (34.3)               | 1.020 (25.9)                | 0.380 (9.7)                                    | 0.260 (6.6)                              | 0.120 (3.0)                 | 3.200 (81.3)                | 0.740 (18.8)               |
| 22       | 1.720 (43.7)               | 1.340 (34.0)                | 0.450 (11.4)                                   | 0.310 (7.9)                              | 0.140 (3.6)                 | 4.550 (115.6)               | 0.840 (21.3)               |

TABLE I: Dash Number and Dimensions (Continued from Above)

| Dash No. | T<br>(As Recovered)<br>Ref | HW<br>(As Recovered)<br>±20% | JW<br>Max<br>(As Recovered) | S<br>(As Recovered)<br>±10% | U<br>(As Recovered)<br>±10% |
|----------|----------------------------|------------------------------|-----------------------------|-----------------------------|-----------------------------|
| 19       | 0.040 (1.0)                | 0.060 (1.5)                  | 0.050 (1.1)                 | 0.470 (11.90)               | 0.220 (5.6)                 |
| 20       | 0.040 (1.0)                | 0.070 (1.8)                  | 0.050 (1.1)                 | 0.470 (11.90)               | 0.330 (8.4)                 |
| 21       | 0.040 (1.0)                | 0.070 (1.8)                  | 0.050 (1.1)                 | 0.470 (11.90)               | 0.450 (11.4)                |
| 22       | 0.070 (1.8)                | 0.070 (1.8)                  | 0.050 (1.1)                 | 0.470 (11.90)               | 0.610 (15.5)                |

TABLE II: Shrink Boot Materials

| Material Code | Compound | Material Description       | Color Code |
|---------------|----------|----------------------------|------------|
| A             | 2071     | Flexible Polyolefin        | WHITE      |
| B             | 2040     | General Purpose Polyolefin | RED        |
| G             | 2010     | Zero Halogen Polyolefin    | GREEN      |
| H             | 2025     | High Performance Elastomer | BLUE       |

TABLE III: Adhesive Description

| Symbol | Adhesive Description    |
|--------|-------------------------|
| C      | Zero Halogen / Hot Melt |

### APPLICATION NOTES

1. See bag identification for matching boot number, not number on boot. See part number development for full description.
2. Encircled material letter designator located on O.D. approximately mid length along the "J" end. See part number development for full description.
3. Dimensions applicable for both injection and vent ports.
4. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.

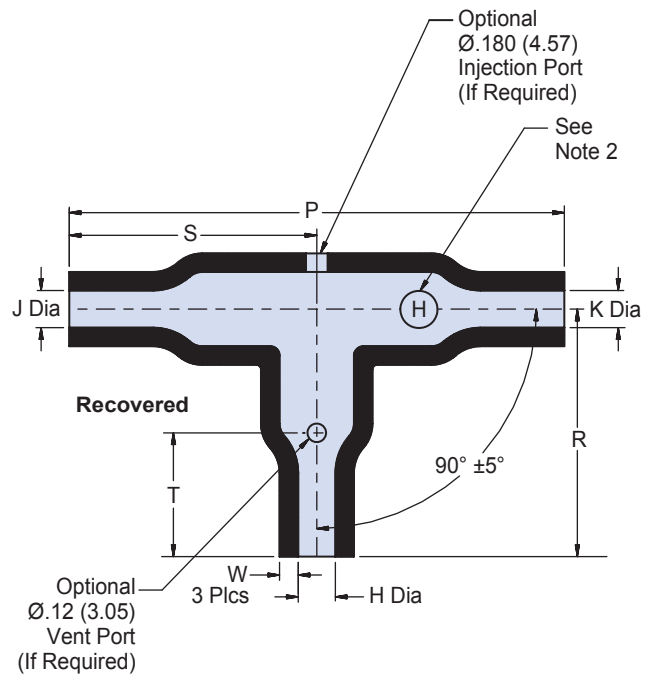
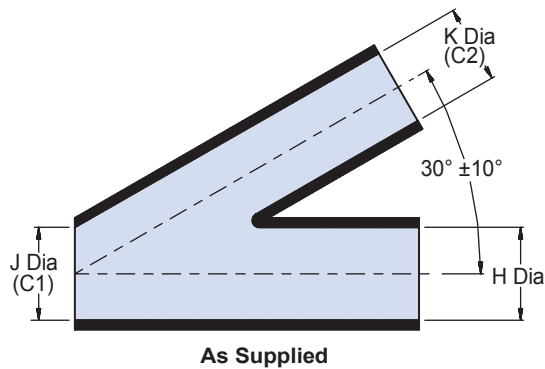
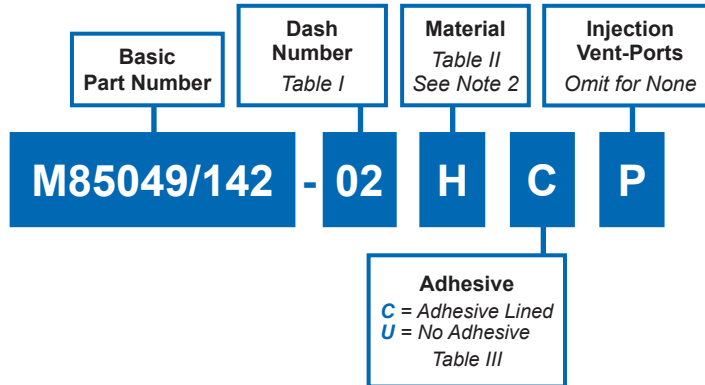
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Mil-Spec Backshells

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Dimensions in inches (millimeters) and are subject to change without notice.



# AS85049/142 Tee Transition Wide Body Heat Shrink Boot



AS85049

B

TABLE I: Dash Number and Dimension

| Dash No. | H, J, K Dia Min<br>(As Supplied) | H, J, K Dia Max<br>(As Recovered) | P<br>(As Recovered)<br>±10% | R<br>(As Recovered)<br>±10% | S<br>(As Recovered)<br>±10% | T<br>(As Recovered)<br>±10% | W<br>(As Recovered)<br>±20% |
|----------|----------------------------------|-----------------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| 01       | 0.260 (6.6)                      | 0.140 (3.6)                       | 1.170 (29.7)                | 0.580 (14.7)                | 0.590 (15.0)                | N/A                         | 0.040 (1.0)                 |
| 02       | 0.520 (13.2)                     | 0.270 (6.9)                       | 2.310 (58.7)                | 1.160 (29.5)                | 1.160 (29.5)                | 0.690 (17.5)                | 0.060 (1.5)                 |
| 03       | 1.060 (26.9)                     | 0.530 (13.5)                      | 4.730 (120.1)               | 2.360 (59.9)                | 2.370 (60.2)                | 1.400 (35.6)                | 0.090 (2.3)                 |
| 04       | 2.190 (55.6)                     | 1.190 (30.2)                      | 9.700 (246.4)               | 4.850 (123.2)               | 4.850 (123.2)               | 2.790 (70.9)                | 0.120 (3.0)                 |

TABLE II: Shrink Boot Materials

| Material Code | Compound | Material Description       | Color Code |
|---------------|----------|----------------------------|------------|
| A             | 2071     | Flexible Polyolefin        | WHITE      |
| B             | 2040     | General Purpose Polyolefin | RED        |
| G             | 2010     | Zero Halogen Polyolefin    | GREEN      |
| H             | 2025     | High Performance Elastomer | BLUE       |

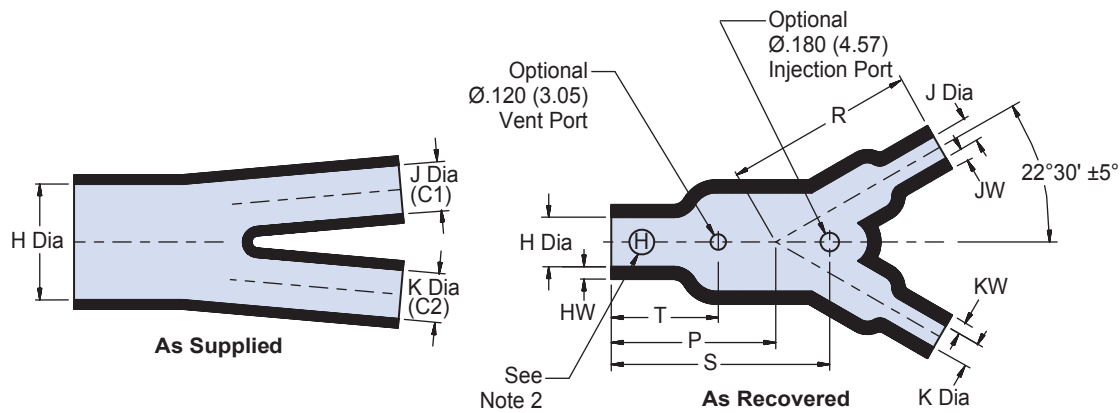
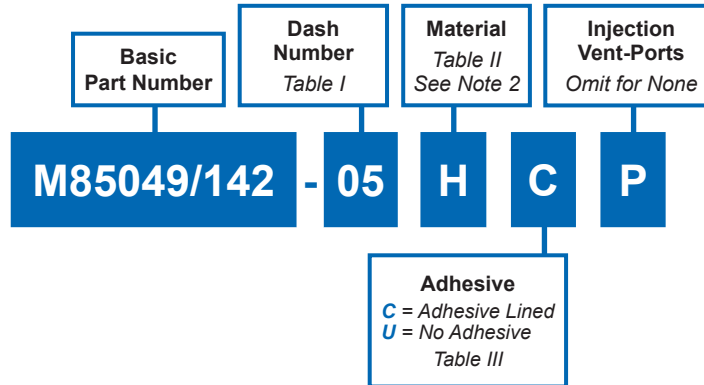
TABLE III: Adhesive Description

| Symbol | Adhesive Description    |
|--------|-------------------------|
| C      | Zero Halogen / Hot Melt |

### APPLICATION NOTES

1. See bag identification for matching boot number, matching dash number on boot. See part number development for full description.
2. Encircled material letter designator located on O.D. approximately mid length along the "K" end. See part number development for full description.
3. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.



Dimensions in inches (millimeters) and are subject to change without notice.

# AS85049/142 Wye Transition Wide Body Heat Shrink Boot



AS85049

TABLE I: Dash Number and Dimensions

| Dash No. | H Dia Min<br>(As Supplied) | H Dia Max<br>(As Recovered) | J & K Dia Min<br>(As Supplied) | J & K Dia Max<br>(As Recovered) | P<br>(As Recovered)<br>Ref | R<br>(As Recovered)<br>Ref | S<br>(As Recovered)<br>±10% | T<br>(As Recovered)<br>±10% | HW<br>(As Recovered)<br>±20% | JW & KW<br>(As Recovered)<br>±20% |
|----------|----------------------------|-----------------------------|--------------------------------|---------------------------------|----------------------------|----------------------------|-----------------------------|-----------------------------|------------------------------|-----------------------------------|
| 05       | 0.520 (13.2)               | 0.240 (6.1)                 | 0.260 (6.6)                    | 0.130 (3.3)                     | 0.880 (22.4)               | 0.760 (19.3)               | 0.940 (23.9)                | 0.610 (15.5)                | 0.060 (1.5)                  | 0.040 (1.0)                       |
| 06       | 1.060 (26.9)               | 0.490 (12.4)                | 0.520 (13.2)                   | 0.240 (6.1)                     | 1.500 (38.1)               | 1.700 (43.2)               | 2.100 (53.3)                | 1.300 (33.0)                | 0.100 (2.5)                  | 0.060 (1.5)                       |
| 07       | 1.520 (38.6)               | 0.710 (18.0)                | 1.060 (26.9)                   | 0.490 (12.4)                    | 2.580 (65.5)               | 3.100 (78.7)               | 3.100 (78.7)                | 2.200 (55.9)                | 0.120 (3.0)                  | 0.100 (2.5)                       |
| 08       | 2.190 (55.6)               | 1.020 (25.9)                | 1.060 (26.9)                   | 0.500 (12.7)                    | 3.350 (85.1)               | 3.700 (94.0)               | 4.400 (111.8)               | 2.800 (71.1)                | 0.180 (4.6)                  | 0.100 (2.5)                       |

B

TABLE II: Shrink Boot Materials

| Material Code | Compound | Material Description       | Color Code |
|---------------|----------|----------------------------|------------|
| A             | 2071     | Flexible Polyolefin        | WHITE      |
| B             | 2040     | General Purpose Polyolefin | RED        |
| G             | 2010     | Zero Halogen Polyolefin    | GREEN      |
| H             | 2025     | High Performance Elastomer | BLUE       |

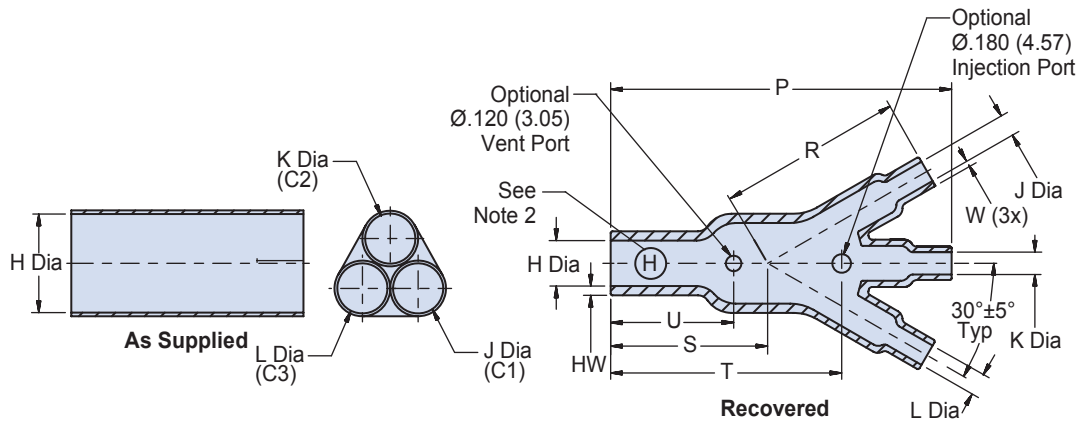
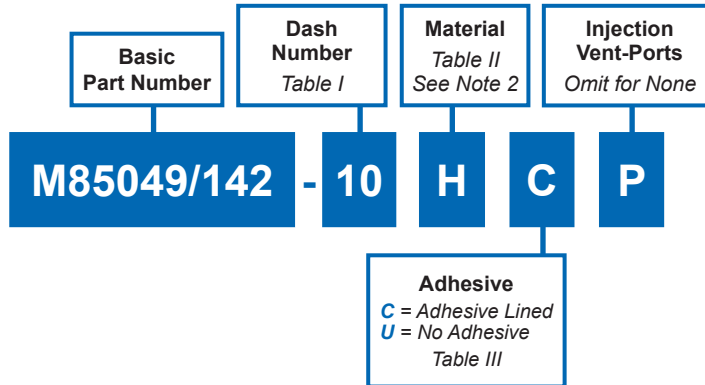
TABLE III: Adhesive Description

| Symbol | Adhesive Description    |
|--------|-------------------------|
| C      | Zero Halogen / Hot Melt |

### APPLICATION NOTES

1. See bag identification for matching boot number, matching dash number on boot. See part number development for full description.
2. Encircled material letter designator located on O.D. approximately mid length along the "K" end. See part number development for full description.
3. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.



Dimensions in inches (millimeters) and are subject to change without notice.

# AS85049/142 1:3 Transition Wide Body Heat Shrink Boot



AS85049

B

TABLE I: Dash Number and Dimensions (Continued Below)

| Dash No. | H Dia Min<br>(As Supplied) | H Dia Max<br>(As Recovered) | J, K, L Dia Min<br>(As Supplied) | J, K, L Dia Max<br>(As Recovered) | P<br>(As Recovered)<br>±10% | R<br>(As Recovered)<br>Ref |
|----------|----------------------------|-----------------------------|----------------------------------|-----------------------------------|-----------------------------|----------------------------|
| 09       | 0.520 (13.2)               | 0.260 (6.6)                 | 0.260 (6.6)                      | 0.140 (3.6)                       | 1.820 (46.2)                | 1.000 (25.4)               |
| 10       | 1.060 (26.9)               | 0.530 (13.5)                | 0.520 (13.2)                     | 0.270 (6.9)                       | 3.670 (93.2)                | 1.980 (50.3)               |
| 11       | 1.520 (38.6)               | 0.750 (19.1)                | 0.760 (19.3)                     | 0.380 (9.7)                       | 5.320 (135.1)               | 2.900 (73.7)               |
| 12       | 2.190 (55.6)               | 1.000 (25.4)                | 1.060 (26.9)                     | 0.490 (12.4)                      | 7.560 (192.0)               | 4.060 (103.1)              |
| 13       | 3.600 (91.4)               | 2.150 (54.6)                | 1.800 (45.7)                     | 1.080 (27.4)                      | 15.37 (390.4)               | 8.310 (211.1)              |

TABLE I: Dash Number and Dimensions (Continued from Above)

| Dash No. | S<br>(As Recovered)<br>Ref | U<br>(As Recovered)<br>±10% | T<br>(As Recovered)<br>±10% | HW<br>(As Recovered)<br>±20% | W<br>(As Recovered)<br>±20% |
|----------|----------------------------|-----------------------------|-----------------------------|------------------------------|-----------------------------|
| 09       | 0.820 (20.8)               | 0.620 (15.7)                | 1.200 (30.5)                | 0.060 (1.5)                  | 0.040 (1.0)                 |
| 10       | 1.690 (42.9)               | 1.300 (33.0)                | 2.250 (57.2)                | 0.100 (2.5)                  | 0.060 (1.5)                 |
| 11       | 2.420 (61.5)               | 1.800 (45.7)                | 3.500 (88.9)                | 0.120 (3.0)                  | 0.070 (1.8)                 |
| 12       | 3.500 (88.9)               | 2.800 (71.1)                | 4.800 (121.9)               | 0.180 (4.6)                  | 0.120 (3.0)                 |
| 13       | 7.060 (179.3)              | 5.00 (127.0)                | 10.00 (254.0)               | 0.280 (7.1)                  | 0.180 (4.6)                 |

TABLE II: Shrink Boot Materials

| Material Code | Compound | Material Description       | Color Code |
|---------------|----------|----------------------------|------------|
| A             | 2071     | Flexible Polyolefin        | WHITE      |
| B             | 2040     | General Purpose Polyolefin | RED        |
| G             | 2010     | Zero Halogen Polyolefin    | GREEN      |
| H             | 2025     | High Performance Elastomer | BLUE       |

TABLE III: Adhesive Description

| Symbol | Adhesive Description    |
|--------|-------------------------|
| C      | Zero Halogen / Hot Melt |

### APPLICATION NOTES

1. See bag identification for matching boot number, matching dash number on boot. See part number development for full description.
2. Encircled material letter designator located on O.D. approximately mid length along the "H" end. See part number development for full description.
3. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.

**WHY GLENAIR?**

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*Outstanding  
Customer Service!*

## **OUTSTANDING CUSTOMER SERVICE**

**Sales, service, and support professionals standing by...  
when and where you need them**



# MIL-DTL-38999 Qualified Connector Accessories



MIL-DTL-38999

| Industry Specification Number        | Part Identification Number | Military Part Number Superseded | Glenair Commercial Part Number | Description  | Glenair Connector Designator/Interface   | Page No.   |
|--------------------------------------|----------------------------|---------------------------------|--------------------------------|--|--|------------|
| MIL-DTL-38999<br>MIL-DTL-38999       | MS27501<br>MS27502         | MS20048<br>MS20047              | 660-012<br>660-013             | Protective Plug Cover<br>Protective Receptacle Cover                                   | MIL-DTL-38999 Series I                   | <b>C-2</b> |
| MIL-DTL-38999                        | MS27510<br>MS27511         | MS27352<br>MS27353              | 660-014<br>660-015             | Protective Plug Cover<br>Protective Receptacle Cover                                   | MIL-DTL-38999 Series II                  | <b>C-3</b> |
| MIL-DTL-38999/22                     | D38999/22                  | ---                             | 650HS010                       | Dummy Storage Receptacle, Threaded Coupling  | MIL-DTL-38999, Series III                | <b>C-4</b> |
| MIL-DTL-38999/28                     | D38999/28                  | ---                             | Consult Factory                | Jam Nut with Safety Wire Holes   | MIL-DTL-38999 Series III & IV;<br>EN3645 | <b>C-5</b> |
| MIL-DTL-38999/32<br>MIL-DTL-38999/33 | D38999/32<br>D38999/33     | ---                             | 660-023<br>660-024             | Composite or Metal Threaded Plug Cover<br>Composite or Metal Threaded Receptacle Cover | MIL-DTL-38999, Series III                | <b>C-6</b> |
| MIL-DTL-38999/50                     | D38999/50                  | ---                             | 650HS007                       | Dummy Storage Receptacle, Bayonet Coupling   | MIL-DTL-38999, Series IV                 | <b>C-7</b> |

C

Dimensions in inches (millimeters) and are subject to change without notice.

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**www.glenair.com C-1 E-Mail: sales@glenair.com**





## MS27501 and MS27502 Protective Plug and Receptacle Covers

### MATING CONNECTOR

MIL-DTL-38999, Series I

### Basic Part Number

MS27501 = Plug Cover  
MS27502 = Receptacle Cover

### Shell Size

### Attachment Option

A = No Attachment  
C = Chain  
N = Chain with Ring (MS27502 Only)

**MS27501**

**B**

**19**

**C**

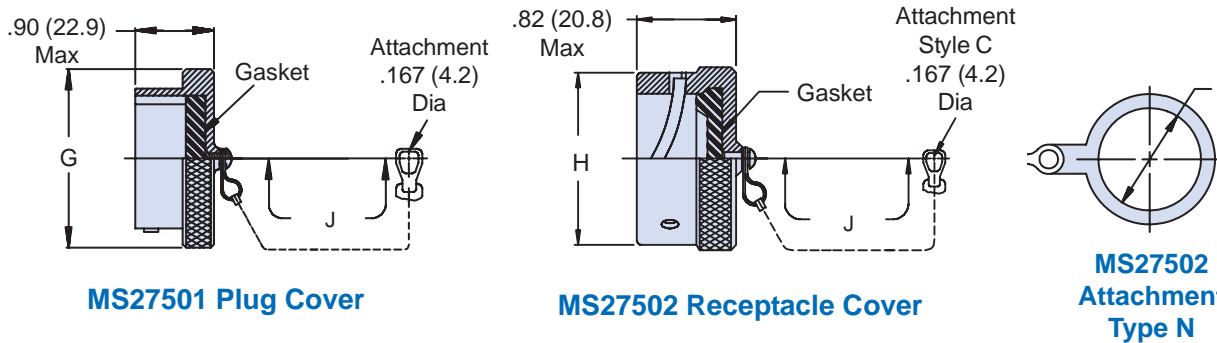
**L**

### Finish

A = Gold Iridite over Cadmium over Nickel  
B = 500 Hour Cadmium Olive Drab  
C = Anodize  
F = Electroless Nickel  
T = Nickel Fluorocarbon Polymer  
Z = Zinc Nickel

### Length (Inches)

L = 5.0 (127.0)  
M = 6.0 (152.4) MS27501 Only  
N = 7.0 (177.8) MS27501 Only  
(Omit for Standard)



MS27501 Plug Cover

MS27502 Receptacle Cover

MS27502  
Attachment  
Type N

TABLE I: Shell Size, Attachment and Dimensions

| Shell Size | G Dia Max    | H Max        | J Attachment Length (Inches) | K Dia Min    |
|------------|--------------|--------------|------------------------------|--------------|
| 9          | .820 (20.8)  | .820 (20.8)  | 3.000 (76.2)                 | .700 (17.8)  |
| 11         | .940 (23.9)  | .940 (23.9)  | 3.000 (76.2)                 | .840 (21.3)  |
| 13         | 1.070 (27.2) | 1.100 (27.9) | 3.500 (88.9)                 | 1.010 (25.7) |
| 15         | 1.190 (30.2) | 1.220 (31.0) | 3.500 (88.9)                 | 1.140 (29.0) |
| 17         | 1.320 (33.5) | 1.340 (34.0) | 3.500 (88.9)                 | 1.260 (32.0) |
| 19         | 1.440 (36.6) | 1.460 (37.1) | 3.500 (88.9)                 | 1.390 (35.3) |
| 21         | 1.570 (39.9) | 1.580 (40.1) | 4.000 (101.6)                | 1.510 (38.4) |
| 23         | 1.690 (42.9) | 1.700 (43.2) | 4.000 (101.6)                | 1.640 (41.7) |
| 25         | 1.820 (46.2) | 1.830 (46.5) | 4.000 (101.6)                | 1.760 (44.7) |

### APPLICATION NOTES

1. Assembly identified with manufacturer's name and part number, space permitting.
2. For complete dimensions, see the applicable Military Specification.
3. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.

# MS27510 and MS27511 Protective Plug and Receptacle Covers



MIL-DTL-38999

**MATING CONNECTOR**  
MIL-DTL-38999, Series II

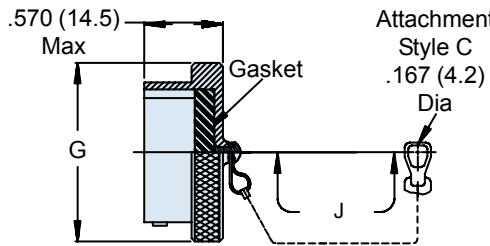
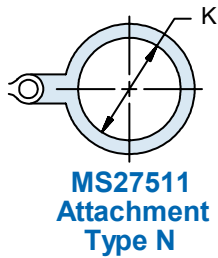
**Basic Part Number**  
MS27510 = Plug Cover  
MS27511 = Receptacle Cover

**Attachment Option**  
A = No Attachment  
C = Chain  
N = Chain with Ring (MS27511 Only)  
R = Rope (MS27511 Only)

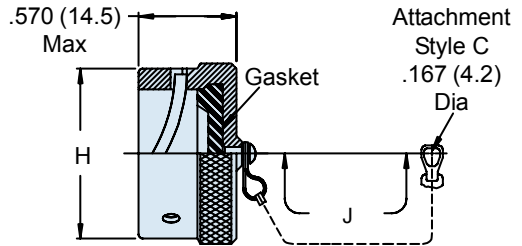
**MS27511 B 19 C L**

**Finish**  
A = Gold Iridite over Cadmium over Nickel  
B = 500 Hour Cadmium Olive Drab  
C = Anodize  
F = Electroless Nickel

**Length (Inches)**  
L = 5.0 (127.0)  
M = 6.0 (152.4) MS27510 Only  
N = 7.0 (177.8) MS27510 Only  
(Omit for Standard Length. Not Applicable to Style R—MS27511 Only)



**MS27510 Plug Cover**



**MS27511 Receptacle Cover**

**TABLE I: Shell Size, Attachment and Dimensions**

| Shell Size | G Dia Max    | H Dia Max    | J Std. Chain or Rope Length | K Dia Min    |
|------------|--------------|--------------|-----------------------------|--------------|
| 8          | .720 (18.3)  | .630 (16.0)  | 3.000 (76.2)                | .890 (22.6)  |
| 10         | .850 (21.6)  | .761 (19.3)  | 3.000 (76.2)                | 1.010 (25.7) |
| 12         | 1.000 (25.4) | .936 (23.8)  | 3.500 (88.9)                | 1.140 (29.0) |
| 14         | 1.130 (28.7) | 1.074 (27.3) | 3.500 (88.9)                | 1.260 (32.0) |
| 16         | 1.250 (31.8) | 1.172 (29.8) | 3.500 (88.9)                | 1.390 (35.3) |
| 18         | 1.380 (35.1) | 1.304 (33.1) | 3.500 (88.9)                | 1.510 (38.4) |
| 20         | 1.500 (38.1) | 1.435 (36.4) | 4.000 (101.6)               | 1.640 (41.7) |
| 22         | 1.630 (41.4) | 1.560 (39.6) | 4.000 (101.6)               | 1.760 (44.7) |
| 24         | 1.750 (44.5) | 1.688 (42.9) | 4.000 (101.6)               | 1.890 (48.0) |

**APPLICATION NOTES**

1. Assembly identified with manufacturer's name and part number, space permitting.
2. For complete dimensions, see the applicable Military Specification.
3. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.

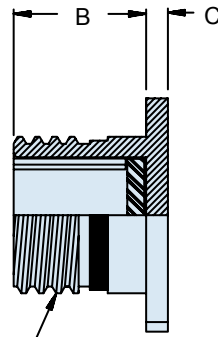
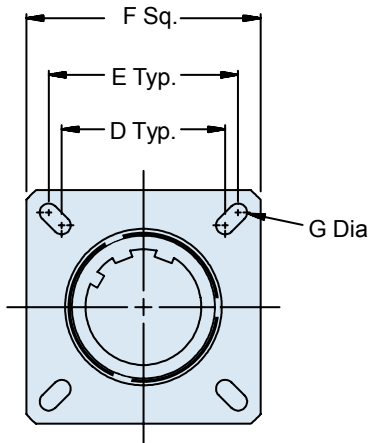
**MATING CONNECTOR**

MIL-DTL-38999 Series III

**D38999/22**

 Shell  
Size Code

**B**
**W**

 Basic  
Part No.


A Thread

**Class per Spec**

*C* = Aluminum Anodize  
*F* = Aluminum, Electroless Nickel  
*H* = Stainless Steel, Passivated (Space Grade)  
*J* = Composite, Cadmium Plated, Olive Drab  
*K* = Corrosion-Resistant Steel Passivate  
*M* = Composite, Electroless Nickel Plated  
*N* = Stainless Steel, Electrodeposited Nickel  
*Y* = Stainless Steel, Passivated

**TABLE I: Shell Size Code and Dimensions**

| Shell<br>Size Code        | Shell<br>Size Ref. | A<br>Thread    | B -0.0 |         | C      |       | D     |         |
|---------------------------|--------------------|----------------|--------|---------|--------|-------|-------|---------|
|                           |                    |                | Max    |         | +0.012 | (0.3) |       |         |
| <b>A</b><br>(See Note 4)  | <b>9</b>           | .625-.1P-3LTS  | .820   | (20.83) | .098   | (2.5) | .594  | (15.09) |
| <b>AA</b><br>(See Note 5) | <b>9</b>           | .625-.1P-3LTS  | .820   | (20.83) | .098   | (2.5) | .594  | (15.09) |
| <b>B</b>                  | <b>11</b>          | .750-.1P-3LTS  | .820   | (20.83) | .098   | (2.5) | .719  | (18.26) |
| <b>C</b>                  | <b>13</b>          | .875-.1P-3LTS  | .820   | (20.83) | .098   | (2.5) | .812  | (20.62) |
| <b>D</b>                  | <b>15</b>          | 1.000-.1P-3LTS | .820   | (20.83) | .098   | (2.5) | .906  | (23.01) |
| <b>E</b>                  | <b>17</b>          | 1.187-.1P-3LTS | .820   | (20.83) | .098   | (2.5) | .969  | (24.61) |
| <b>F</b>                  | <b>19</b>          | 1.250-.1P-3LTS | .820   | (20.83) | .098   | (2.5) | 1.062 | (26.97) |
| <b>G</b>                  | <b>21</b>          | 1.375-.1P-3LTS | .790   | (20.07) | .126   | (3.2) | 1.156 | (29.36) |
| <b>H</b>                  | <b>23</b>          | 1.500-.1P-3LTS | .790   | (20.07) | .126   | (3.2) | 1.250 | (31.75) |
| <b>J</b>                  | <b>25</b>          | 1.625-.1P-3LTS | .790   | (20.07) | .126   | (3.2) | 1.375 | (34.93) |

**TABLE I: Shell Size Code and Dimensions**

| Shell<br>Size Code | Shell<br>Size Ref. | E                | F -0.0          |                | Ø G    |       |
|--------------------|--------------------|------------------|-----------------|----------------|--------|-------|
|                    |                    |                  | +0.012          | (0.3)          | +0.008 | (0.2) |
| <b>A</b>           | <b>9</b>           | .719<br>(18.26)  | .937<br>(23.8)  | .128<br>(3.25) |        |       |
| <b>B</b>           | <b>11</b>          | .812<br>(20.62)  | 1.031<br>(26.2) | .128<br>(3.25) |        |       |
| <b>C</b>           | <b>13</b>          | .906<br>(23.01)  | 1.126<br>(28.6) | .128<br>(3.25) |        |       |
| <b>D</b>           | <b>15</b>          | .969<br>(24.61)  | 1.220<br>(31.0) | .128<br>(3.25) |        |       |
| <b>E</b>           | <b>17</b>          | 1.062<br>(26.97) | 1.311<br>(33.3) | .128<br>(3.25) |        |       |
| <b>F</b>           | <b>19</b>          | 1.156<br>(29.36) | 1.437<br>(36.5) | .128<br>(3.25) |        |       |
| <b>G</b>           | <b>21</b>          | 1.250<br>(31.75) | 1.563<br>(39.7) | .128<br>(3.25) |        |       |
| <b>H</b>           | <b>23</b>          | 1.375<br>(34.93) | 1.689<br>(42.9) | .154<br>(3.91) |        |       |
| <b>J</b>           | <b>25</b>          | 1.500<br>(38.10) | 1.811<br>(46.0) | .154<br>(3.91) |        |       |

**APPLICATION NOTES**

1. Assembly to be identified with manufacturer's name and part number, space permitting.
2. For complete dimensions, see the applicable Military Specification.
3. Metric dimensions (mm) are in parentheses.
4. Shell size code "A" is for polarization C, E and N only.
5. Shell size code "AA" is for polarization A, B and D only.

Dimensions in inches (millimeters) and are subject to change without notice.

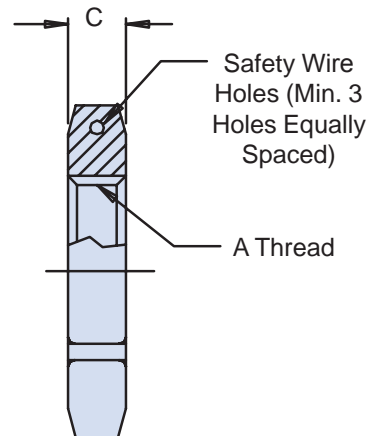
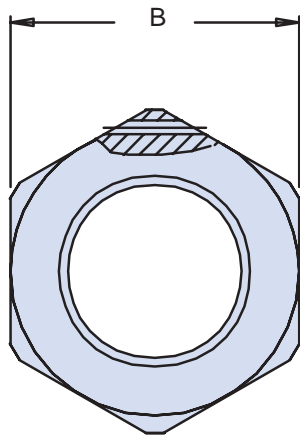
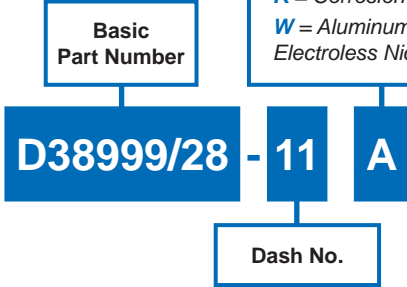
# D38999/28 Jam Nut



MIL-DTL-38999

| CONNECTOR DESIGNATOR: |  |
|-----------------------|--|
| <b>H</b>              | MIL-DTL-38999<br>Series III and IV, EN3645 |

| Material and Finish   |
|---|
| <i>C</i> = Aluminum Anodize                                     |
| <i>F</i> = Aluminum, Electroless Nickel                         |
| <i>K</i> = Corrosion-Resistant Steel Passivate                  |
| <i>W</i> = Aluminum, Cadmium Olive Drab over Electroless Nickel |



**TABLE I: Reference for Connector Shell Size**

| Dash No. | Shell Size |           | A Thread Class 2B | B Hex Max |         | C              |                |
|----------|------------|-----------|-------------------|-----------|---------|----------------|----------------|
|          | Series III | Series IV |                   |           |         | ±.018<br>-.000 | (.45)<br>(.00) |
| 1        | 9          | --        | M17 X 1 - 6H*     | .945      | (24.00) | .125           | (3.17)         |
| 2        | 11         | --        | M20 X 1 - 6H*     | 1.063     | (27.00) | .125           | (3.17)         |
| 3        | 13         | 11        | M25 X 1 - 6H      | 1.260     | (32.00) | .125           | (3.17)         |
| 4        | 15         | 13        | M28 X 1 - 6H      | 1.417     | (36.00) | .125           | (3.17)         |
| 5        | --         | 15        | M31 X 1 - 6H      | 1.614     | (41.00) | .125           | (3.17)         |
| 6        | 17         | --        | M32 X 1 - 6H      | 1.457     | (37.00) | .125           | (3.17)         |
| 7        | --         | 17        | M34 X 1 - 6H      | 1.614     | (41.00) | .125           | (3.17)         |
| 8        | 19         | --        | M35 X 1 - 6H      | 1.614     | (41.00) | .125           | (3.17)         |
| 9        | 21         | 19        | M38 X 1 - 6H      | 1.811     | (46.00) | .125           | (3.17)         |
| 10       | 23         | 21        | M41 X 1 - 6H      | 1.969     | (50.00) | .125           | (3.17)         |
| 11       | 25         | 23        | M44 X 1 - 6H      | 2.017     | (51.23) | .125           | (3.17)         |
| 12       | --         | 25        | M47 X 1 - 6H      | 2.165     | (55.00) | .125           | (3.17)         |

\*Modified Minor Diameter

**APPLICATION NOTES**

1. Assembly identified with manufacturer's name and part number, space permitting.
2. For complete dimensions, see the applicable Military Specification.
3. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.



## D38999/32 and D38999/33 Composite or Metal Protective Covers Plug and Receptacle • MIL-DTL-38999 Series III Threaded

### MATING CONNECTOR

MIL-DTL-38999, Series III Threaded

### Basic Part Number

D38999/32 = Plug Cover  
D38999/33 = Receptacle Cover

Shell Size  
Designator

Attachment Style  
R or N

**D38999/32**

**W**

**15**

**N**

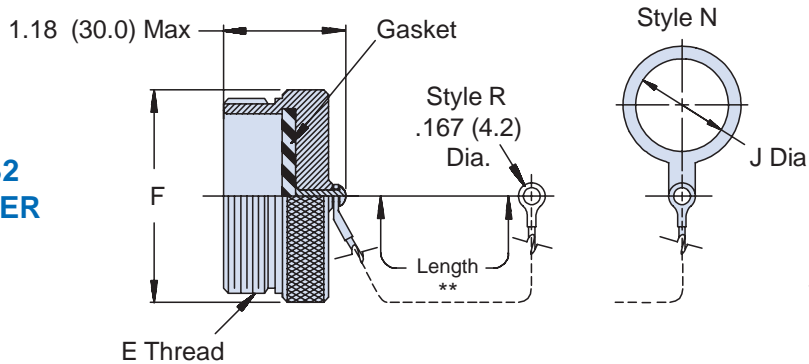
### APPLICATION NOTES

1. Assembly identified with manufacturer's name and part number, space permitting.
2. For complete dimensions, see the applicable Military Specification.
3. Metric dimensions (mm) are in parentheses.

### Material and Finish

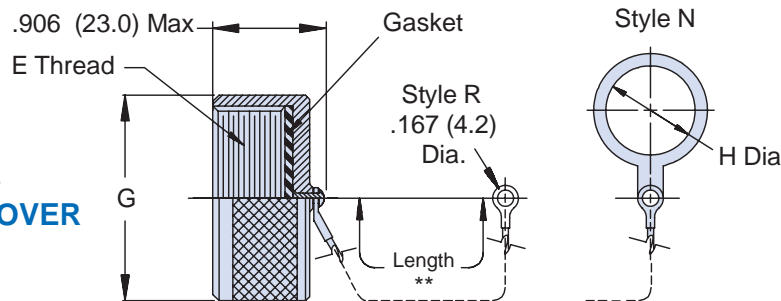
*C* = Aluminum Anodize  
*F* = Aluminum, Electroless Nickel  
*H* = Stainless Steel, Passivated (Space Grade)  
*J* = Composite, Cadmium Plated, Olive Drab  
*K* = Corrosion-Resistant Steel Passivate  
*M* = Composite, Electroless Nickel Plated  
*W* = Aluminum, 500 Hour Cadmium Olive Drab

### D38999/32 PLUG COVER



\*\* Rope Length  
5.000 (127.0)  
+.50 (+13.0)  
-.25 (-7.0)

### D38999/33 RECEPTACLE COVER



**TABLE I: Shell Size, Thread and Dimensions**

| Shell Size | E Thread            | F Max        | G Max        | H Min        | J Min        |
|------------|---------------------|--------------|--------------|--------------|--------------|
| 9          | .6250-0.1P-0.3L-TS  | .906 (23.0)  | .906 (23.0)  | .694 (17.6)  | .512 (13.0)  |
| 11         | .7500-0.1P-0.3L-TS  | 1.024 (26.0) | 1.102 (28.0) | .865 (22.0)  | .709 (18.0)  |
| 13         | .8750-0.1P-0.3L-TS  | 1.220 (31.0) | 1.220 (31.0) | .989 (25.1)  | .787 (20.0)  |
| 15         | 1.0000-0.1P-0.3L-TS | 1.300 (33.0) | 1.260 (32.0) | 1.178 (29.9) | .906 (23.0)  |
| 17         | 1.1875-0.1P-0.3L-TS | 1.457 (37.0) | 1.457 (37.0) | 1.260 (32.0) | 1.024 (26.0) |
| 19         | 1.2500-0.1P-0.3L-TS | 1.575 (40.0) | 1.535 (39.0) | 1.428 (36.3) | 1.142 (29.0) |
| 21         | 1.3750-0.1P-0.3L-TS | 1.732 (44.0) | 1.654 (42.0) | 1.506 (38.3) | 1.260 (32.0) |
| 23         | 1.5000-0.1P-0.3L-TS | 1.811 (46.0) | 1.772 (45.0) | 1.678 (42.6) | 1.339 (34.0) |
| 25         | 1.6250-0.1P-0.3L-TS | 1.969 (50.0) | 1.929 (49.0) | 1.750 (44.5) | 1.535 (39.0) |

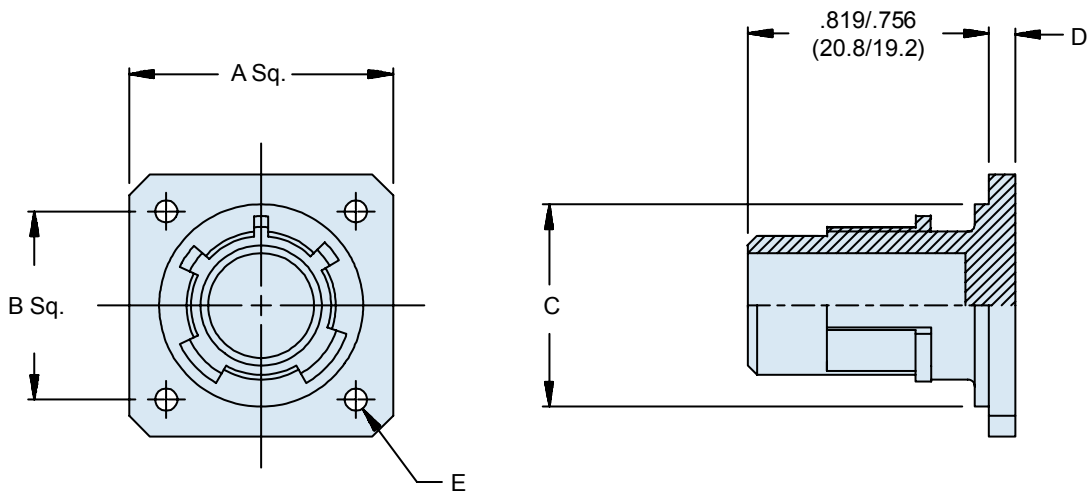
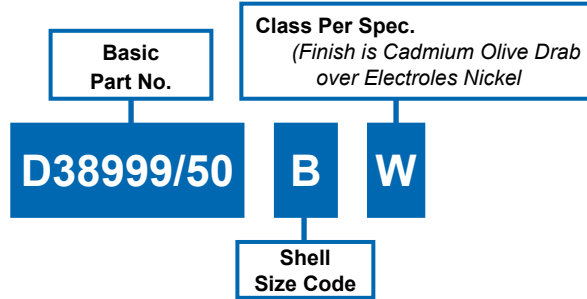
Dimensions in inches (millimeters) and are subject to change without notice.

# D38999/50 Dummy Stowage Receptacle Bayonet Coupling



MIL-DTL-38999

**MATING CONNECTOR**  
MIL-DTL-38999 Series IV



**TABLE I: Dash Number, Cable Entry and Backshell Dimensions**

| Shell Size Code | Shell Size Ref. | A     |         | B     |         | C     |         | D     |         | Ø E   |        |
|-----------------|-----------------|-------|---------|-------|---------|-------|---------|-------|---------|-------|--------|
|                 |                 | ±.043 | (±1.10) | BSC   |         | + 0   | (0.00)  | ±.010 | (±0.25) | ±.008 | (±0.2) |
|                 |                 |       |         |       |         | -.015 | (-0.39) |       |         |       |        |
| <b>B</b>        | <b>11</b>       | 1.030 | (26.15) | .812  | (20.62) | .793  | (20.15) | .093  | (2.35)  | .130  | (3.3)  |
| <b>C</b>        | <b>13</b>       | 1.124 | (28.55) | .906  | (23.02) | .919  | (23.35) | .093  | (2.35)  | .130  | (3.3)  |
| <b>D</b>        | <b>15</b>       | 1.219 | (30.95) | .969  | (24.62) | 1.044 | (26.52) | .093  | (2.35)  | .130  | (3.3)  |
| <b>E</b>        | <b>17</b>       | 1.313 | (33.35) | 1.062 | (26.98) | 1.170 | (29.72) | .093  | (2.35)  | .130  | (3.3)  |
| <b>F</b>        | <b>19</b>       | 1.439 | (36.55) | 1.156 | (29.36) | 1.294 | (32.87) | .093  | (2.35)  | .130  | (3.3)  |
| <b>G</b>        | <b>21</b>       | 1.561 | (39.65) | 1.250 | (31.76) | 1.419 | (36.05) | .124  | (3.15)  | .130  | (3.3)  |
| <b>H</b>        | <b>23</b>       | 1.687 | (42.85) | 1.375 | (34.92) | 1.544 | (39.22) | .124  | (3.15)  | .150  | (3.8)  |
| <b>J</b>        | <b>25</b>       | 1.813 | (46.05) | 1.500 | (38.10) | 1.669 | (42.40) | .124  | (3.15)  | .150  | (3.8)  |

### APPLICATION NOTES

1. Assembly to be identified with manufacturer's name and part number, space permitting.
2. For complete dimensions, see the applicable Military Specification.
3. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.

**WHY GLENAIR?**

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*Paul Winkler  
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Sales Group*

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# MIL-DTL-28840

## Qualified Backshells and Connector Accessories



MIL-DTL-28840

| Industry Specification Number        | Part Identification Number | Military Part Number Superseded | Glenair Commercial Part Number | Description   | Glenair Connector Designator/Interface | Page No.                   |
|--------------------------------------|----------------------------|---------------------------------|--------------------------------|---|--|----------------------------|
| MIL-DTL-28840/1                      | M28840/1                   | --                              | 620GS051                       | Straight Non-Self-Locking Strain Relief   | "G"<br>MIL-DTL-28840                   | <b>D-2</b>                 |
| MIL-DTL-28840/2                      | M28840/2                   | --                              | 620GA051                       | 90° Non-Self-Locking Strain Relief  | "G"<br>MIL-DTL-28840                   | <b>D-3</b>                 |
| MIL-DTL-28840/3                      | M28840/3                   | --                              | 620GB051                       | 45° Non-Self-Locking Strain Relief  | "G"<br>MIL-DTL-28840                   | <b>D-4</b>                 |
| MIL-DTL-28840/4                      | M28840/4                   | --                              | --                             | Metal-Core Conduit  | "G"<br>MIL-DTL-28840                   | <b>D-5</b>                 |
| MIL-DTL-28840/5                      | M28840/5                   | --                              | --                             | Straight Backshell for Metal-Core Conduit   | "G"<br>MIL-DTL-28840                   | <b>D-6</b>                 |
| MIL-DTL-28840/6                      | M28840/6 A<br>M28840/6 B   | --                              | 390AB001<br>370 Series         | Strt. EMI/RFI Environmental Backshell, Style A<br>Straight Environmental Backshell, Style B | "G"<br>MIL-DTL-28840                   | <b>D-7</b><br><b>D-8</b>   |
| MIL-DTL-28840/7                      | M28840/7                   | --                              | 650GS001                       | Dummy Storage Receptacle, Threaded Coupling   | "G"<br>MIL-DTL-28840                   | <b>D-9</b>                 |
| MIL-DTL-28840/8                      | M28840/8-<br>M28840/8 A    | --                              | 390-061                        | 90° Environmental Backshell, Style A<br>90° EMI/RFI Environmental Backshell, Style B        | "G"<br>MIL-DTL-28840                   | <b>D-10</b><br><b>D-11</b> |
| MIL-DTL-28840/9                      | M28840/9 B<br>M28840/9 A   | --                              | 390-061                        | 45° Environmental Backshell, Style A<br>45° EMI/RFI Environmental Backshell                 | "G"<br>MIL-DTL-28840                   | <b>D-12</b><br><b>D-13</b> |
| MIL-DTL-28840/13<br>MIL-DTL-28840/15 | M28840/13<br>M28840/15     | --                              | 660-010<br>660-011             | Protective Threaded Receptacle Cover<br>Protective Threaded Plug Cover                      | MIL-DTL-28840                          | <b>D-14</b>                |
| MIL-DTL-28840/22                     | M28840/22                  | --                              | --                             | Metal-Core Conduit Bushing  | "G"<br>MIL-DTL-28840                   | <b>D-15</b>                |
| MIL-DTL-28840/23                     | M28840/23                  | --                              | Consult Factory                | E Nut, Non-Self-Locking   | "G"<br>MIL-DTL-28840                   | <b>D-16</b>                |
| MIL-DTL-28840/24                     | M28840/24                  | --                              | Consult Factory                | Gasket  | "G"<br>MIL-DTL-28840                   | <b>D-17</b>                |

D

Dimensions in inches (millimeters) and are subject to change without notice.

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**www.glenair.com** **D-1** **E-Mail: sales@glenair.com**



# MIL-DTL-28840/1 Straight Non-Self-Locking Strain Relief

## CONNECTOR DESIGNATOR:

**G** MIL-DTL-28840

Basic  
Part Number

Designator

**M28840/1**

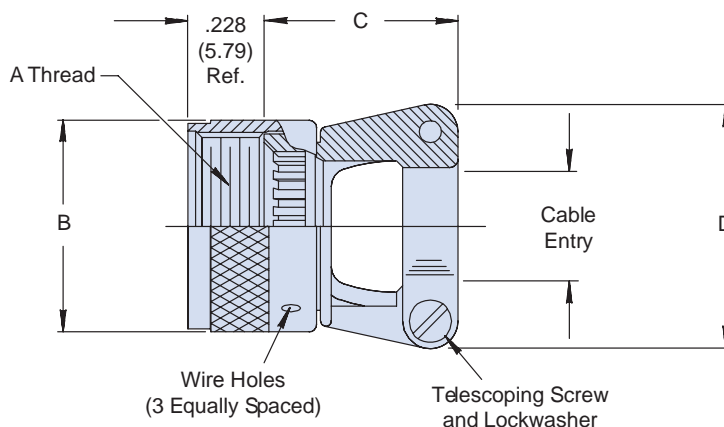
**J**

**W**

### Material and Finish

*D* = Corrosion Resistant Steel,  
Cadmium Plate, Black

*W* = Aluminum, Cadmium Olive Drab



**TABLE I: Shell Size, Cable Entry and Backshell Dimensions**

| Designator | Shell Size Ref. | A Thread Class 2B | C Max        | E Max        | F Max        | Cable Entry |              |             |              |             |              |
|------------|-----------------|-------------------|--------------|--------------|--------------|-------------|--------------|-------------|--------------|-------------|--------------|
|            |                 |                   |              |              |              | Closed      |              | Open        |              |             |              |
| A          | 11              | .750 - 20 UNEF    | 1.028 (26.1) | 1.091 (27.7) | .903 (22.9)  | .177 (4.5)  | .286 (7.3)   | .177 (4.5)  | .286 (7.3)   | .177 (4.5)  | .286 (7.3)   |
| B          | 13              | .875 - 20 UNEF    | 1.141 (29.0) | 1.091 (27.7) | .977 (24.8)  | .177 (4.5)  | .286 (7.3)   | .177 (4.5)  | .286 (7.3)   | .177 (4.5)  | .286 (7.3)   |
| C          | 15              | 1.000 - 20 UNEF   | 1.263 (32.1) | 1.091 (27.7) | 1.151 (29.2) | .250 (6.4)  | .416 (10.6)  | .250 (6.4)  | .416 (10.6)  | .250 (6.4)  | .416 (10.6)  |
| D          | 17              | 1.125 - 18 UNEF   | 1.387 (35.2) | 1.206 (30.6) | 1.281 (32.5) | .291 (7.4)  | .476 (12.1)  | .291 (7.4)  | .476 (12.1)  | .291 (7.4)  | .476 (12.1)  |
| E          | 19              | 1.250 - 18 UNEF   | 1.513 (38.4) | 1.320 (33.5) | 1.406 (35.7) | .348 (8.8)  | .626 (15.9)  | .348 (8.8)  | .626 (15.9)  | .348 (8.8)  | .626 (15.9)  |
| F          | 23              | 1.438 - 18 UNEF   | 1.703 (43.3) | 1.445 (36.7) | 1.576 (40.0) | .429 (10.9) | .831 (21.1)  | .429 (10.9) | .831 (21.1)  | .429 (10.9) | .831 (21.1)  |
| G          | 25              | 1.562 - 18 UNEF   | 1.825 (46.4) | 1.570 (39.9) | 1.666 (42.3) | .523 (13.3) | .956 (24.3)  | .523 (13.3) | .956 (24.3)  | .523 (13.3) | .956 (24.3)  |
| H          | 29              | 1.875 - 16 UN     | 2.143 (54.4) | 1.721 (43.7) | 2.046 (52.0) | .643 (16.3) | 1.081 (27.5) | .643 (16.3) | 1.081 (27.5) | .643 (16.3) | 1.081 (27.5) |
| J          | 33              | 2.062 - 16 UNS    | 2.329 (59.2) | 1.908 (48.5) | 2.209 (56.1) | .704 (17.9) | 1.187 (30.1) | .704 (17.9) | 1.187 (30.1) | .704 (17.9) | 1.187 (30.1) |

### APPLICATION NOTES

1. Assembly to be identified with manufacturer's name and part number, space permitting.
2. Cable Entry is defined as the accommodation entry for the wire bundle or cable. Dimensions are not intended for inspection criteria.
3. For complete dimensions, see the applicable Military Specification.
4. Metric dimensions (mm) are in parentheses.

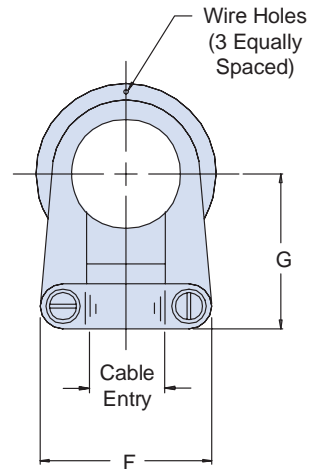
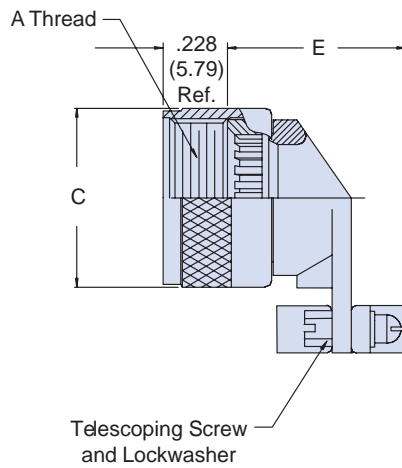
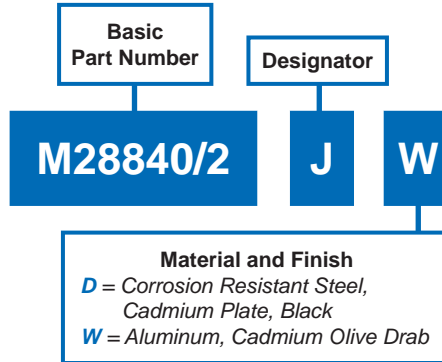
Dimensions in inches (millimeters) and are subject to change without notice.

# MIL-DTL-28840/2 90° Non-Self-Locking Strain Relief



MIL-DTL-28840

|                              |               |
|------------------------------|---------------|
| <b>CONNECTOR DESIGNATOR:</b> |               |
| <b>G</b>                     | MIL-DTL-28840 |



**TABLE I: Shell Size, Cable Entry and Backshell Dimensions**

| Designator | Shell Size Ref. | A Thread Class 2B | C Max        | E Max        | F Max        | G Max        | Cable Entry |              |             |              |
|------------|-----------------|-------------------|--------------|--------------|--------------|--------------|-------------|--------------|-------------|--------------|
|            |                 |                   |              |              |              |              | Min         | Max          | Min         | Max          |
| A          | 11              | .750 - 20 UNEF    | 1.028 (26.1) | 1.071 (27.2) | .903 (22.9)  | .929 (23.6)  | .177 (4.5)  | .286 (7.3)   | .177 (4.5)  | .286 (7.3)   |
| B          | 13              | .875 - 20 UNEF    | 1.141 (29.0) | 1.071 (27.2) | .977 (24.8)  | .929 (23.6)  | .177 (4.5)  | .286 (7.3)   | .177 (4.5)  | .286 (7.3)   |
| C          | 15              | 1.000 - 20 UNEF   | 1.263 (32.1) | 1.280 (32.5) | 1.151 (29.2) | 1.056 (26.8) | .250 (6.4)  | .416 (10.6)  | .250 (6.4)  | .416 (10.6)  |
| D          | 17              | 1.125 - 18 UNEF   | 1.387 (35.2) | 1.392 (35.4) | 1.281 (32.5) | 1.233 (31.3) | .291 (7.4)  | .476 (12.1)  | .291 (7.4)  | .476 (12.1)  |
| E          | 19              | 1.250 - 18 UNEF   | 1.513 (38.4) | 1.517 (38.5) | 1.406 (35.7) | 1.296 (32.9) | .348 (8.8)  | .626 (15.9)  | .348 (8.8)  | .626 (15.9)  |
| F          | 23              | 1.438 - 18 UNEF   | 1.703 (43.3) | 1.642 (41.7) | 1.576 (40.0) | 1.358 (34.5) | .429 (10.9) | .831 (21.1)  | .429 (10.9) | .831 (21.1)  |
| G          | 25              | 1.562 - 18 UNEF   | 1.825 (46.4) | 1.767 (44.9) | 1.666 (42.3) | 1.420 (36.1) | .523 (13.3) | .956 (24.3)  | .523 (13.3) | .956 (24.3)  |
| H          | 29              | 1.875 - 16 UN     | 2.143 (54.4) | 1.905 (48.4) | 2.046 (52.0) | 1.634 (41.5) | .643 (16.3) | 1.081 (27.5) | .643 (16.3) | 1.081 (27.5) |
| J          | 33              | 2.062 - 16 UNS    | 2.329 (59.2) | 1.968 (50.0) | 2.209 (56.1) | 1.859 (47.2) | .704 (17.9) | 1.187 (30.1) | .704 (17.9) | 1.187 (30.1) |

## APPLICATION NOTES

1. Assembly to be identified with manufacturer's name and part number, space permitting.
2. Cable Entry is defined as the accommodation entry for the wire bundle or cable. Dimensions are not intended for inspection criteria.
3. For complete dimensions, see the applicable Military Specification.
4. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.

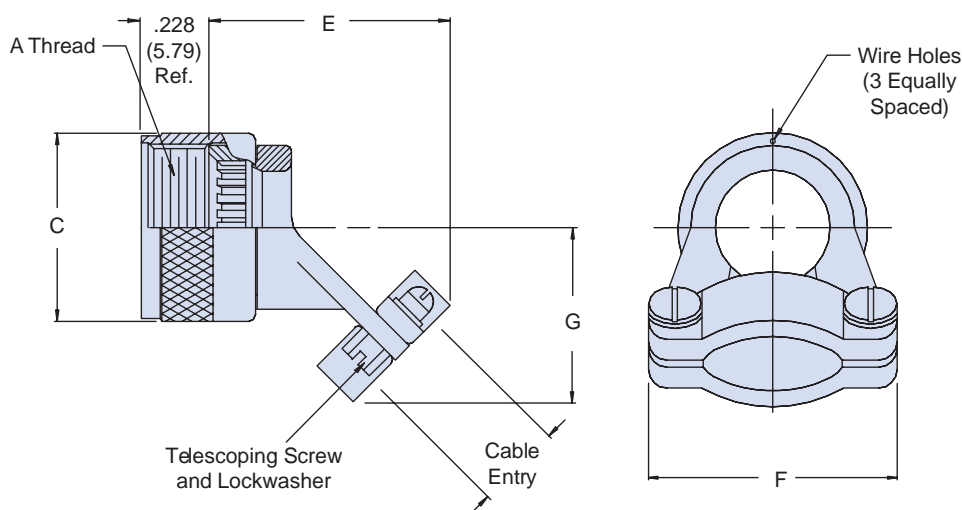


# MIL-DTL-28840/3 45° Non-Self-Locking Strain Relief

**CONNECTOR DESIGNATOR:**
**G** MIL-DTL-28840

**Basic  
Part Number**
**M28840/3**
**Designator**
**J**
**W**
**Material and Finish**

*D* = Corrosion Resistant Steel,  
Cadmium Plate, Black  
*W* = Aluminum, Cadmium Olive Drab


**TABLE I: Shell Size, Cable Entry and Backshell Dimensions**

| Designator | Shell Size Ref. | A Thread Class 2B | C Max        | E Max        | F Max        | G Max        | Cable Entry |              |             |              |
|------------|-----------------|-------------------|--------------|--------------|--------------|--------------|-------------|--------------|-------------|--------------|
|            |                 |                   |              |              |              |              | Min         | Max          | Min         | Max          |
| A          | 11              | .750 - 20 UNEF    | 1.028 (26.1) | 1.650 (41.9) | .903 (22.9)  | .929 (23.6)  | .177 (4.5)  | .286 (7.3)   | .177 (4.5)  | .286 (7.3)   |
| B          | 13              | .875 - 20 UNEF    | 1.141 (29.0) | 1.650 (41.9) | .977 (24.8)  | .929 (23.6)  | .177 (4.5)  | .286 (7.3)   | .177 (4.5)  | .286 (7.3)   |
| C          | 15              | 1.000 - 20 UNEF   | 1.263 (32.1) | 1.765 (44.8) | 1.151 (29.2) | 1.056 (26.8) | .250 (6.4)  | .416 (10.6)  | .250 (6.4)  | .416 (10.6)  |
| D          | 17              | 1.125 - 18 UNEF   | 1.387 (35.2) | 1.874 (47.6) | 1.281 (32.5) | 1.233 (31.3) | .291 (7.4)  | .476 (12.1)  | .291 (7.4)  | .476 (12.1)  |
| E          | 19              | 1.250 - 18 UNEF   | 1.513 (38.4) | 1.918 (48.7) | 1.406 (35.7) | 1.296 (32.9) | .348 (8.8)  | .626 (15.9)  | .348 (8.8)  | .626 (15.9)  |
| F          | 23              | 1.438 - 18 UNEF   | 1.703 (43.3) | 1.962 (49.8) | 1.576 (40.0) | 1.358 (34.5) | .429 (10.9) | .831 (21.1)  | .429 (10.9) | .831 (21.1)  |
| G          | 25              | 1.562 - 18 UNEF   | 1.825 (46.4) | 2.006 (51.0) | 1.666 (42.3) | 1.420 (36.1) | .523 (13.3) | .956 (24.3)  | .523 (13.3) | .956 (24.3)  |
| H          | 29              | 1.875 - 16 UN     | 2.143 (54.4) | 2.301 (58.4) | 2.046 (52.0) | 1.634 (41.5) | .643 (16.3) | 1.081 (27.5) | .643 (16.3) | 1.081 (27.5) |
| J          | 33              | 2.062 - 16 UNS    | 2.329 (59.2) | 2.389 (60.7) | 2.209 (56.1) | 1.859 (47.2) | .704 (17.9) | 1.187 (30.1) | .704 (17.9) | 1.187 (30.1) |

**APPLICATION NOTES**

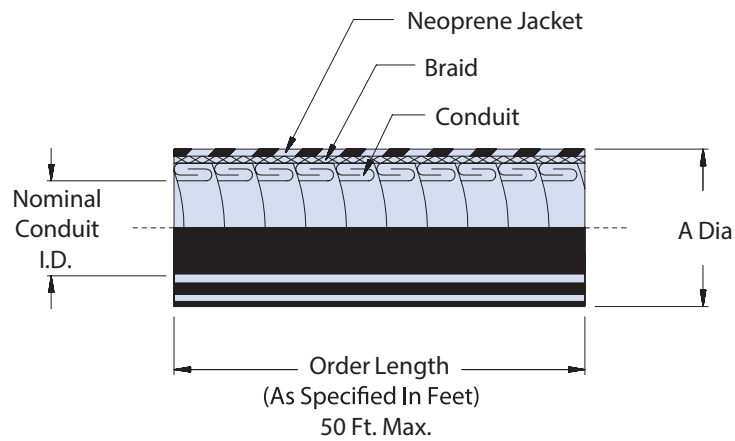
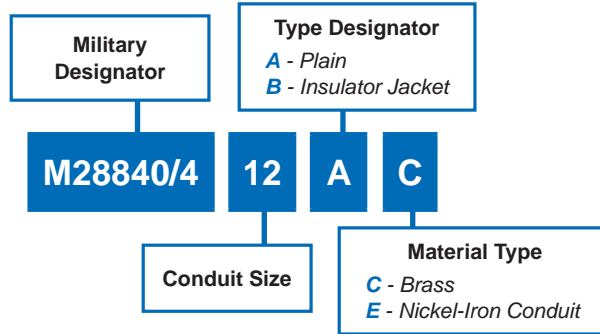
1. Assembly to be identified with manufacturer's name and part number, space permitting.
2. Cable Entry is defined as the accommodation entry for the wire bundle or cable. Dimensions are not intended for inspection criteria.
3. For complete dimensions, see the applicable Military Specification.
4. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.

# M28840/4 Metal Core Conduit



MIL-DTL-28840



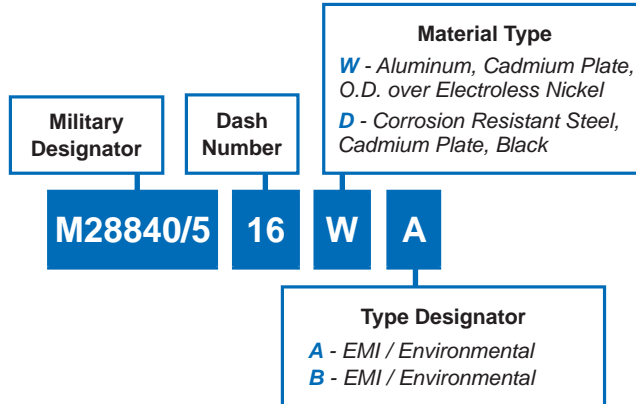
D

| Size | Nominal Conduit Inside Diameter | A Diameter Over Shield ± .010 (0.25) | L           | B Diameter Max Over Jacket |
|------|---------------------------------|--------------------------------------|-------------|----------------------------|
| 03   | .375 (9.52)                     | .525 (13.34)                         | 50 ft. Max. | .688 (17.47)               |
| 04   | .500 (12.70)                    | .650 (16.51)                         |             | .812 (20.62)               |
| 05   | .625 (15.87)                    | .765 (19.43)                         |             | .937 (23.79)               |
| 06   | .750 (19.05)                    | .925 (23.50)                         |             | 1.078 (27.38)              |
| 08   | 1.00 (25.40)                    | 1.210 (30.73)                        |             | 1.437 (36.49)              |
| 10   | 1.25 (31.75)                    | 1.455 (36.96)                        |             | 1.695 (43.05)              |
| 12   | 1.500 (38.10)                   | 1.725 (43.82)                        |             | 1.956 (49.68)              |
| 16   | 2.000 (50.80)                   | 2.200 (55.88)                        |             | 2.469 (62.71)              |

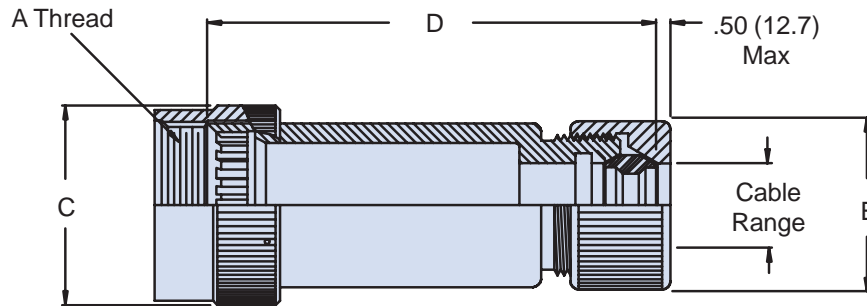
Dimensions in inches (millimeters) and are subject to change without notice.



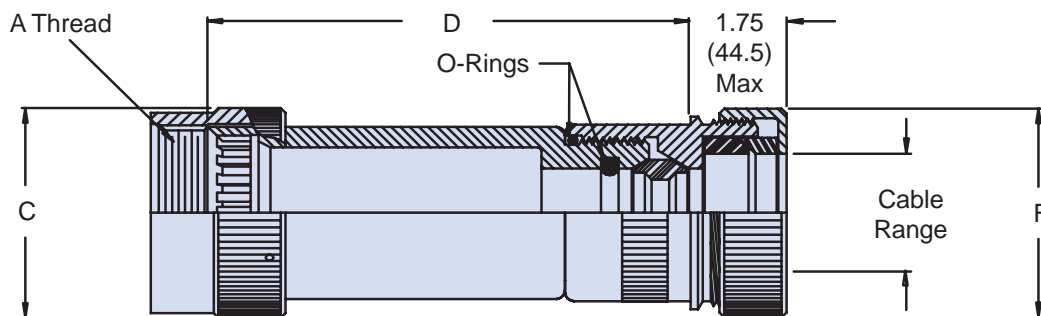
# M28840/5 Backshell for Metal Core Conduit



D



STYLE A - EMI/Non-Environmental  
(Plain Conduit)



STYLE B - EMI/Environmental  
(Jacket Conduit)

Dimensions in inches (millimeters) and are subject to change without notice.

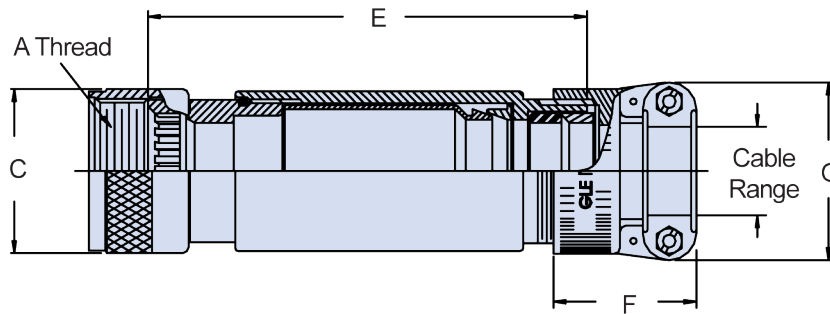
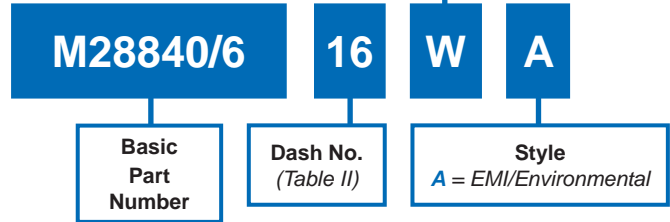
# MIL-DTL-28840/6 Style A Straight EMI/RFI Environmental Backshell



MIL-DTL-28840

| CONNECTOR DESIGNATOR: |               |
|-----------------------|---------------|
| <b>G</b>              | MIL-DTL-28840 |

**Material and Finish**  
*D = Corrosion Resistant Steel, Cadmium Plate, Black*  
*W = Aluminum, Cadmium Olive Drab*



**TABLE I: Shell Size and Dimensions**

| Shell Size | A Thread Class 2B | C Dia Max    |
|------------|-------------------|--------------|
| 11         | .750 - 20 UNEF    | 1.028 (26.1) |
| 13         | .875 - 20 UNEF    | 1.141 (29.0) |
| 15         | 1.000 - 20 UNEF   | 1.263 (32.1) |
| 17         | 1.125 - 18 UNEF   | 1.387 (35.2) |
| 19         | 1.250 - 18 UNEF   | 1.513 (38.4) |
| 23         | 1.438 - 18 UNEF   | 1.703 (43.3) |
| 25         | 1.562 - 18 UNEF   | 1.825 (46.4) |
| 29         | 1.875 - 16 UN     | 2.143 (54.4) |
| 33         | 2.062 - 16 UNS    | 2.329 (59.2) |

### APPLICATION NOTES

- For complete dimensions see the applicable Military Specification.
- Metric dimensions (mm) are in parentheses.
- Cable Range is defined as the accommodation range for the wire bundle or cable. Dimensions shown are not intended for inspection criteria.

**TABLE II: Dash Number, Shell Size, Dimensions and Cable Range**

| Dash No. | Shell Size | E ± .120 (3.0) | F Ref Dim    | G Ref Dim    | Cable Range  |              |
|----------|------------|----------------|--------------|--------------|--------------|--------------|
|          |            |                |              |              | Min          | Max          |
| 01       | 11         | 3.62 (91.9)    | 1.281 (32.5) | .938 (23.8)  | .188 (4.8)   | .312 (7.9)   |
| 02       | 13         | 3.62 (91.9)    | 1.281 (32.5) | .938 (23.8)  | .188 (4.8)   | .312 (7.9)   |
| 03       | 13         | 3.62 (91.9)    | 1.281 (32.5) | 1.125 (28.6) | .281 (7.1)   | .438 (11.1)  |
| 04       | 15         | 3.62 (91.9)    | 1.281 (32.5) | .938 (23.8)  | .188 (4.8)   | .312 (7.9)   |
| 05       | 15         | 3.62 (91.9)    | 1.281 (32.5) | 1.125 (28.6) | .281 (7.1)   | .438 (11.1)  |
| 06       | 15         | 3.62 (91.9)    | 1.281 (32.5) | 1.312 (33.3) | .344 (8.7)   | .562 (14.3)  |
| 07       | 15         | 4.12 (104.6)   | 1.312 (33.3) | 1.593 (40.5) | .438 (11.1)  | .750 (19.1)  |
| 08       | 17         | 4.12 (104.6)   | 1.281 (32.5) | 1.312 (33.3) | .375 (9.5)   | .625 (15.9)  |
| 09       | 17         | 4.12 (104.6)   | 1.312 (33.3) | 1.593 (40.5) | .438 (11.1)  | .750 (19.1)  |
| 10       | 17         | 4.12 (104.6)   | 1.406 (35.7) | 1.750 (44.5) | .625 (15.9)  | .938 (23.8)  |
| 11       | 19         | 4.12 (104.6)   | 1.281 (32.5) | 1.312 (33.3) | .375 (9.5)   | .625 (15.9)  |
| 12       | 19         | 4.12 (104.6)   | 1.406 (35.7) | 1.750 (44.5) | .625 (15.9)  | .938 (23.8)  |
| 13       | 23         | 4.62 (117.3)   | 1.312 (33.3) | 1.593 (40.5) | .438 (11.1)  | .750 (19.1)  |
| 14       | 23         | 4.62 (117.3)   | 1.406 (35.7) | 1.750 (44.5) | .625 (15.9)  | .938 (23.8)  |
| 15       | 23         | 4.62 (117.3)   | 1.593 (40.5) | 2.093 (53.2) | .812 (20.6)  | 1.188 (30.2) |
| 16       | 25         | 4.62 (117.3)   | 1.406 (35.7) | 1.750 (44.5) | .625 (15.9)  | .938 (23.8)  |
| 17       | 25         | 5.12 (130.0)   | 1.593 (40.5) | 2.093 (53.2) | .812 (20.6)  | 1.188 (30.2) |
| 18       | 25         | 5.12 (130.0)   | 1.593 (40.5) | 2.093 (53.2) | .875 (22.2)  | 1.250 (31.8) |
| 19       | 25         | 5.12 (130.0)   | 1.625 (41.3) | 2.343 (59.5) | 1.000 (25.4) | 1.380 (35.1) |
| 20       | 29         | 5.12 (130.0)   | 1.593 (40.5) | 2.093 (53.2) | .812 (20.6)  | 1.188 (30.2) |
| 21       | 29         | 5.12 (130.0)   | 1.625 (41.3) | 2.343 (59.5) | 1.000 (25.4) | 1.380 (35.1) |
| 22       | 33         | 5.12 (130.0)   | 1.625 (41.3) | 2.343 (59.5) | 1.000 (25.4) | 1.380 (35.1) |
| 23       | 33         | 5.12 (130.0)   | 1.900 (48.3) | 2.750 (69.9) | 1.250 (31.8) | 1.625 (41.3) |
| 24       | 11         | 3.62 (91.9)    | 1.281 (32.5) | 1.125 (28.6) | .281 (7.1)   | .438 (11.1)  |
| 25       | 11         | 3.62 (91.9)    | 1.281 (32.5) | 1.312 (33.3) | .344 (8.7)   | .562 (14.3)  |
| 26       | 13         | 3.62 (91.9)    | 1.281 (32.5) | 1.312 (33.3) | .344 (8.7)   | .562 (14.3)  |
| 27       | 13         | 4.12 (104.6)   | 1.281 (32.5) | 1.312 (33.3) | .375 (9.5)   | .625 (15.9)  |
| 28       | 15         | 4.12 (104.6)   | 1.281 (32.5) | 1.312 (33.3) | .375 (9.5)   | .625 (15.9)  |

Dimensions in inches (millimeters) and are subject to change without notice.





# MIL-DTL-28840/6 Style B Straight Environmental Backshell

## CONNECTOR DESIGNATOR:

**G** MIL-DTL-28840

Basic  
Part Number

**M28840/6**

## Material and Finish

*D* = Corrosion Resistant Steel,  
Cadmium Plate, Black  
*W* = Aluminum, Cadmium Olive Drab

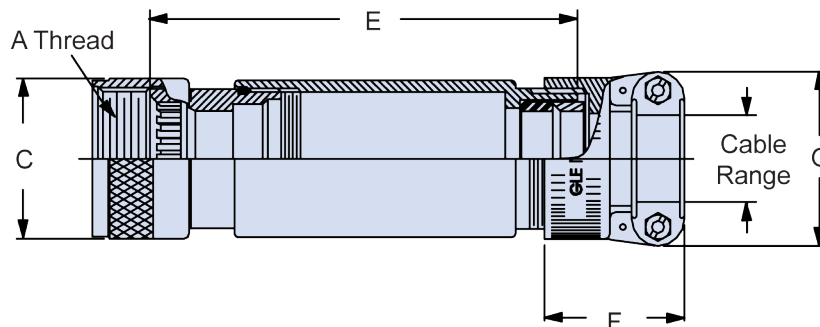
**16**

Dash Number  
(Table II)

**W**

Style Designator  
*B* = Environmental

**B**



## APPLICATION NOTES

- For complete dimensions see the applicable Military Specification.
- Metric dimensions (mm) are in parentheses.
- Cable Range is defined as the accommodation range for the wire bundle or cable. Dimensions shown are not intended for inspection criteria.

TABLE I: Shell Size

| Shell Size | A Thread Class 2B | C Dia Max    |
|------------|-------------------|--------------|
| 11         | .750 - 20 UNEF    | 1.030 (26.2) |
| 13         | .875 - 20 UNEF    | 1.140 (29.0) |
| 15         | 1.000 - 20 UNEF   | 1.260 (32.0) |
| 17         | 1.125 - 18 UNEF   | 1.390 (35.3) |
| 19         | 1.250 - 18 UNEF   | 1.510 (38.4) |
| 23         | 1.438 - 18 UNEF   | 1.700 (43.2) |
| 25         | 1.563 - 18 UNEF   | 1.820 (46.2) |
| 29         | 1.875 - 16 UN     | 2.140 (54.4) |
| 33         | 2.063 - 16 UNS    | 2.330 (59.2) |

TABLE II: Dash Number and Dimensions

| Dash No. | Shell Size Ref. | E<br>± .12 (3.0) | F Ref. Dim   | G Ref. Dim   | Cable Range  |              |
|----------|-----------------|------------------|--------------|--------------|--------------|--------------|
|          |                 |                  |              |              | Min          | Max          |
| 01       | 11              | 3.620 (91.9)     | 1.281 (32.5) | .938 (23.8)  | .188 (4.8)   | .312 (7.9)   |
| 02       | 13              | 3.620 (91.9)     | 1.281 (32.5) | .938 (23.8)  | .188 (4.8)   | .312 (7.9)   |
| 03       | 13              | 3.620 (91.9)     | 1.281 (32.5) | 1.125 (28.6) | .281 (7.1)   | .438 (11.1)  |
| 04       | 15              | 3.620 (91.9)     | 1.281 (32.5) | .938 (23.8)  | .188 (4.8)   | .312 (7.9)   |
| 05       | 15              | 3.620 (91.9)     | 1.281 (32.5) | 1.125 (28.6) | .281 (7.1)   | .438 (11.1)  |
| 06       | 15              | 3.620 (91.9)     | 1.281 (32.5) | 1.312 (33.3) | .344 (8.7)   | .562 (14.3)  |
| 07       | 15              | 4.120 (104.6)    | 1.312 (33.3) | 1.593 (40.5) | .438 (11.1)  | .750 (19.1)  |
| 08       | 17              | 4.120 (104.6)    | 1.281 (32.5) | 1.312 (33.3) | .375 (9.5)   | .625 (15.9)  |
| 09       | 17              | 4.120 (104.6)    | 1.312 (33.3) | 1.593 (40.5) | .438 (11.1)  | .750 (19.1)  |
| 10       | 17              | 4.120 (104.6)    | 1.406 (35.7) | 1.750 (44.5) | .625 (15.9)  | .938 (23.8)  |
| 11       | 19              | 4.120 (104.6)    | 1.281 (32.5) | 1.312 (33.3) | .375 (9.5)   | .625 (15.9)  |
| 12       | 19              | 4.120 (104.6)    | 1.406 (35.7) | 1.750 (44.5) | .625 (15.9)  | .938 (23.8)  |
| 13       | 23              | 4.620 (117.3)    | 1.312 (33.3) | 1.593 (40.5) | .438 (11.1)  | .750 (19.1)  |
| 14       | 23              | 4.620 (117.3)    | 1.406 (35.7) | 1.750 (44.5) | .625 (15.9)  | .938 (23.8)  |
| 15       | 23              | 4.620 (117.3)    | 1.593 (40.5) | 2.003 (50.9) | .812 (20.6)  | 1.188 (30.2) |
| 16       | 25              | 4.620 (117.3)    | 1.406 (35.7) | 1.750 (44.5) | .625 (15.9)  | .938 (23.8)  |
| 17       | 25              | 5.120 (130.0)    | 1.593 (40.5) | 2.093 (53.2) | .812 (20.6)  | 1.188 (30.2) |
| 18       | 25              | 5.120 (130.0)    | 1.593 (40.5) | 2.093 (53.2) | .875 (22.2)  | 1.250 (31.8) |
| 19       | 25              | 5.120 (130.0)    | 1.625 (41.3) | 2.343 (59.5) | 1.000 (25.4) | 1.380 (35.1) |
| 20       | 29              | 5.120 (130.0)    | 1.593 (40.5) | 2.093 (53.2) | .812 (20.6)  | 1.188 (30.2) |
| 21       | 29              | 5.120 (130.0)    | 1.625 (41.3) | 2.343 (59.5) | 1.000 (25.4) | 1.380 (35.1) |
| 22       | 33              | 5.120 (130.0)    | 1.625 (41.3) | 2.343 (59.5) | 1.000 (25.4) | 1.380 (35.1) |
| 23       | 33              | 5.120 (130.0)    | 1.900 (48.3) | 2.750 (69.9) | 1.250 (31.8) | 1.625 (41.3) |
| 24       | 11              | 3.620 (91.9)     | 1.281 (32.5) | 1.125 (28.6) | .281 (7.1)   | .438 (11.1)  |
| 25       | 11              | 3.620 (91.9)     | 1.281 (32.5) | 1.312 (33.3) | .344 (8.7)   | .562 (14.3)  |
| 26       | 13              | 3.620 (91.9)     | 1.281 (32.5) | 1.312 (33.3) | .344 (8.7)   | .562 (14.3)  |
| 27       | 13              | 4.120 (104.6)    | 1.281 (32.5) | 1.312 (33.3) | .375 (9.5)   | .625 (15.9)  |
| 28       | 15              | 4.120 (104.6)    | 1.281 (32.5) | 1.312 (33.3) | .375 (9.5)   | .625 (15.9)  |

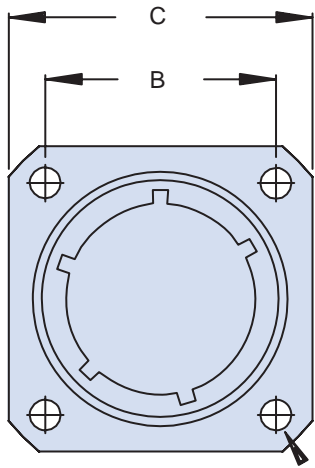
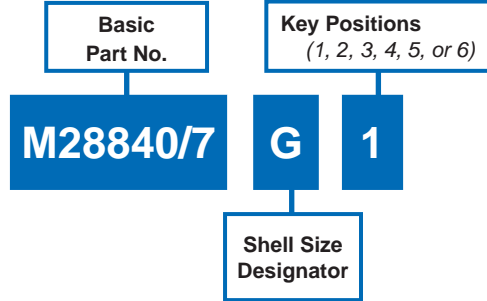
Dimensions in inches (millimeters) and are subject to change without notice.

# M28840/7 Dummy Storage Receptacle Threaded Coupling

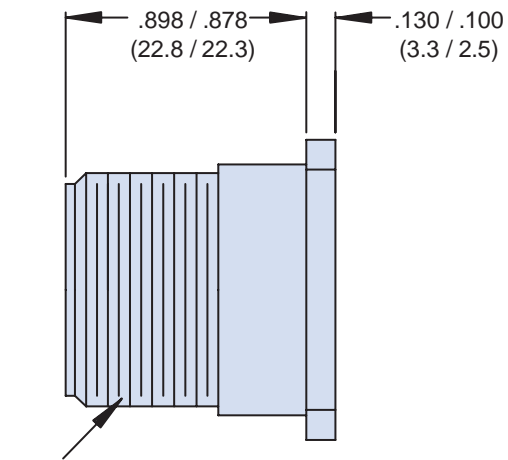


MIL-DTL-28840

|                         |
|-------------------------|
| <b>MATING CONNECTOR</b> |
| MIL-DTL-28840           |



D Dia  
4 Holes



**TABLE I: Dash Number, Cable Entry and Backshell Dimensions**

| Shell Size Designator | Shell Size Ref. | E Thread           | B Dim        | C Max        | D Max      |
|-----------------------|-----------------|--------------------|--------------|--------------|------------|
| A                     | 11              | 0.750-0.1P-0.2L-DS | .750 (19.1)  | 1.043 (26.5) | .130 (3.3) |
| B                     | 13              | 0.875-0.1P-0.2L-DS | .843 (21.4)  | 1.158 (29.4) | .130 (3.3) |
| C                     | 15              | 1.062-0.1P-0.2L-DS | .968 (24.6)  | 1.278 (32.5) | .130 (3.3) |
| D                     | 17              | 1.125-0.1P-0.2L-DS | 1.015 (25.8) | 1.403 (35.6) | .130 (3.3) |
| E                     | 19              | 1.312-0.1P-0.2L-DS | 1.140 (29.0) | 1.528 (38.8) | .130 (3.3) |
| F                     | 23              | 1.500-0.1P-0.2L-DS | 1.281 (32.5) | 1.738 (44.1) | .130 (3.3) |
| G                     | 25              | 1.625-0.1P-0.2L-DS | 1.392 (35.4) | 1.838 (46.7) | .157 (4.0) |
| H                     | 29              | 1.812-0.1P-0.2L-DS | 1.568 (39.8) | 2.158 (54.8) | .157 (4.0) |
| J                     | 33              | 2.000-0.1P-0.2L-DS | 1.734 (44.0) | 2.348 (59.6) | .183 (4.6) |

- APPLICATION NOTES**
1. Assembly to be identified with manufacturer's name and part number, space permitting.
  2. For complete dimensions, see the applicable Military Specification.
  3. Material/Finish: Aluminum Alloy/Cadmium Olive Drab.
  4. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.





# MIL-DTL-28840/8 Style A 90° EMI/RFI Environmental Backshell

## CONNECTOR DESIGNATOR:

**G** MIL-DTL-28840

## Material and Finish

*D* = Corrosion Resistant Steel, Cadmium Plate, Black  
*W* = Aluminum, Cadmium Olive Drab

**M28840/8**

**16**

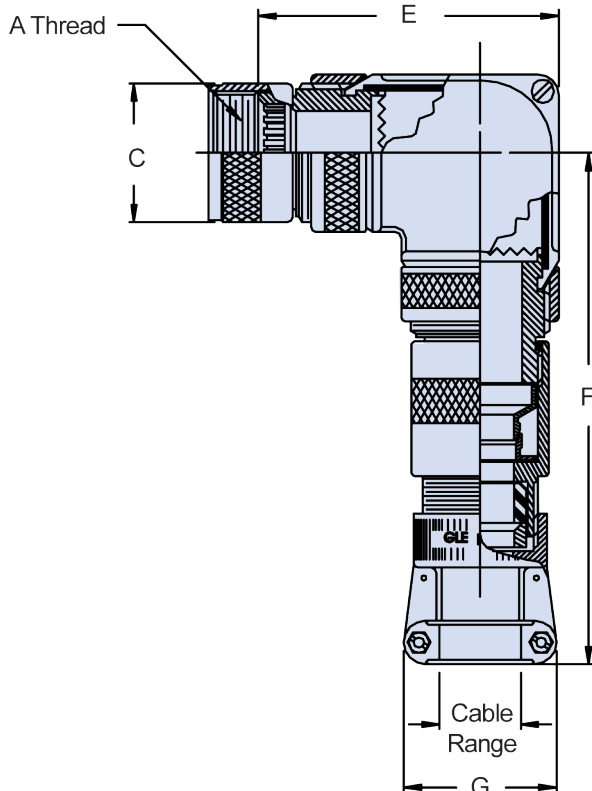
**W**

**A**

**Basic  
Part  
Number**

**Dash No.  
(Table II)**

**Style  
A = EMI/Environmental**



**TABLE II: Dash Number, Shell Size, Dimensions and Cable Range**

| Dash No. | Shell Size | E Max Envelope | F Max         | G Ref Dim    | Cable Range  |              |
|----------|------------|----------------|---------------|--------------|--------------|--------------|
|          |            |                |               |              | Min          | Max          |
| 01       | 11         | 2.614 (66.4)   | 5.332 (135.4) | .938 (23.8)  | .188 (4.8)   | .312 (7.9)   |
| 02       | 13         | 2.614 (66.4)   | 5.332 (135.4) | .938 (23.8)  | .188 (4.8)   | .312 (7.9)   |
| 03       | 13         | 2.614 (66.4)   | 5.332 (135.4) | 1.125 (28.6) | .281 (7.1)   | .438 (11.1)  |
| 04       | 15         | 2.864 (72.7)   | 5.457 (138.6) | .938 (23.8)  | .188 (4.8)   | .312 (7.9)   |
| 05       | 15         | 2.864 (72.7)   | 5.457 (138.6) | 1.125 (28.6) | .281 (7.1)   | .438 (11.1)  |
| 06       | 15         | 2.864 (72.7)   | 5.457 (138.6) | 1.312 (33.3) | .344 (8.7)   | .562 (14.3)  |
| 07       | 15         | 3.114 (79.1)   | 5.682 (144.3) | 1.593 (40.5) | .438 (11.1)  | .750 (19.1)  |
| 08       | 17         | 3.114 (79.1)   | 5.682 (144.3) | 1.312 (33.3) | .375 (9.5)   | .625 (15.9)  |
| 09       | 17         | 3.114 (79.1)   | 5.713 (145.1) | 1.593 (40.5) | .438 (11.1)  | .750 (19.1)  |
| 10       | 17         | 3.114 (79.1)   | 5.807 (147.5) | 1.750 (44.5) | .625 (15.9)  | .938 (23.8)  |
| 11       | 19         | 3.114 (79.1)   | 5.682 (144.3) | 1.312 (33.3) | .375 (9.5)   | .625 (15.9)  |
| 12       | 19         | 3.364 (85.4)   | 5.832 (148.1) | 1.750 (44.5) | .625 (15.9)  | .938 (23.8)  |
| 13       | 23         | 3.364 (85.4)   | 5.738 (145.7) | 1.593 (40.5) | .438 (11.1)  | .750 (19.1)  |
| 14       | 23         | 3.364 (85.4)   | 5.832 (148.1) | 1.750 (44.5) | .625 (15.9)  | .938 (23.8)  |
| 15       | 23         | 3.364 (85.4)   | 6.019 (152.9) | 2.093 (53.2) | .812 (20.6)  | 1.188 (30.2) |
| 16       | 25         | 3.364 (85.4)   | 5.832 (148.1) | 1.750 (44.5) | .625 (15.9)  | .938 (23.8)  |
| 17       | 25         | 3.364 (85.4)   | 6.019 (152.9) | 2.093 (53.2) | .812 (20.6)  | 1.188 (30.2) |
| 18       | 25         | 3.614 (91.8)   | 6.144 (156.1) | 2.093 (53.2) | .875 (22.2)  | 1.250 (31.8) |
| 19       | 25         | 3.614 (91.8)   | 6.176 (156.9) | 2.343 (59.5) | 1.000 (25.4) | 1.380 (35.1) |
| 20       | 29         | 3.614 (91.8)   | 6.144 (156.1) | 2.093 (53.2) | .812 (20.6)  | 1.188 (30.2) |
| 21       | 29         | 3.614 (91.8)   | 6.176 (156.9) | 2.343 (59.5) | 1.000 (25.4) | 1.380 (35.1) |
| 22       | 33         | 4.114 (104.5)  | 6.426 (163.2) | 2.343 (59.5) | 1.000 (25.4) | 1.380 (35.1) |
| 23       | 33         | 4.114 (104.5)  | 6.701 (170.2) | 2.750 (69.9) | 1.250 (31.8) | 1.625 (41.3) |
| 24       | 11         | 2.614 (66.4)   | 5.332 (135.4) | 1.125 (28.6) | .281 (7.1)   | .438 (11.1)  |
| 25       | 11         | 2.864 (72.7)   | 5.457 (138.6) | 1.312 (33.3) | .344 (8.7)   | .562 (14.3)  |
| 26       | 13         | 2.864 (72.7)   | 5.457 (138.6) | 1.312 (33.3) | .344 (8.7)   | .562 (14.3)  |
| 27       | 13         | 3.114 (79.1)   | 5.682 (144.3) | 1.312 (33.3) | .375 (9.5)   | .625 (15.9)  |
| 28       | 15         | 3.114 (79.1)   | 5.682 (144.3) | 1.312 (33.3) | .375 (9.5)   | .625 (15.9)  |

**TABLE I: Shell Size and Dimensions**

| Shell Size | A Thread Class 2B | C Dia Max    |
|------------|-------------------|--------------|
| 11         | .750 - 20 UNEF    | 1.028 (26.1) |
| 13         | .875 - 20 UNEF    | 1.141 (29.0) |
| 15         | 1.000 - 20 UNEF   | 1.263 (32.1) |
| 17         | 1.125 - 18 UNEF   | 1.387 (35.2) |
| 19         | 1.250 - 18 UNEF   | 1.513 (38.4) |
| 23         | 1.438 - 18 UNEF   | 1.703 (43.3) |
| 25         | 1.562 - 18 UNEF   | 1.825 (46.4) |
| 29         | 1.875 - 16 UN     | 2.143 (54.4) |
| 33         | 2.062 - 16 UNS    | 2.329 (59.2) |

## APPLICATION NOTES

- For complete dimensions see the applicable Military Specification.
- Metric dimensions (mm) are in parentheses.
- Cable Range is defined as the accommodation range for the wire bundle or cable. Dimensions shown are not intended for inspection criteria.

Dimensions in inches (millimeters) and are subject to change without notice.

# MIL-DTL-28840/8 Style B 90° Environmental Backshell



MIL-DTL-28840

## CONNECTOR DESIGNATOR:

**G** MIL-DTL-28840

Basic Part Number

**Material and Finish**  
*D = Corrosion Resistant Steel, Cadmium Plate, Black*  
*W = Aluminum, Cadmium Olive Drab*

**M28840/8**

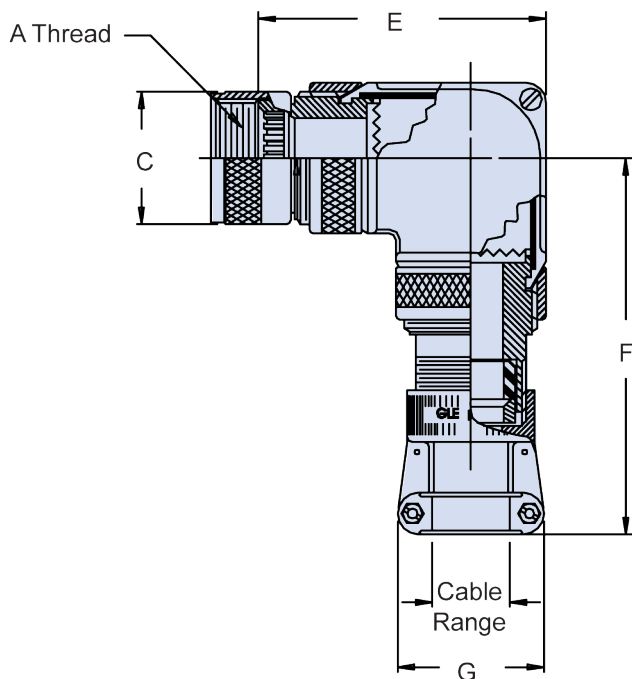
**16**

**W**

**B**

Dash Number  
(Table II)

Style Designator  
*B = Environmental*



**TABLE I: Shell Size**

| Shell Size | A Thread Class 2B | C Dia Max    |
|------------|-------------------|--------------|
| 11         | .750 - 20 UNEF    | 1.030 (26.2) |
| 13         | .875 - 20 UNEF    | 1.140 (29.0) |
| 15         | 1.000 - 20 UNEF   | 1.260 (32.0) |
| 17         | 1.125 - 18 UNEF   | 1.390 (35.3) |
| 19         | 1.250 - 18 UNEF   | 1.510 (38.4) |
| 23         | 1.438 - 18 UNEF   | 1.700 (43.2) |
| 25         | 1.563 - 18 UNEF   | 1.820 (46.2) |
| 29         | 1.875 - 16 UN     | 2.140 (54.4) |
| 33         | 2.063 - 16 UNS    | 2.330 (59.2) |

**TABLE II: Dash Number and Dimensions**

| Dash No. | Shell Size Ref. | E Max Envelope | F Max         | G Ref. Dim   | Cable Range  |              |
|----------|-----------------|----------------|---------------|--------------|--------------|--------------|
|          |                 |                |               |              | Min          | Max          |
| 01       | 11              | 2.614 (66.4)   | 2.962 (75.2)  | .938 (23.8)  | .188 (4.8)   | .312 (7.9)   |
| 02       | 13              | 2.614 (66.4)   | 2.962 (75.2)  | .938 (23.8)  | .188 (4.8)   | .312 (7.9)   |
| 03       | 13              | 2.614 (66.4)   | 2.962 (75.2)  | 1.125 (28.6) | .281 (7.1)   | .438 (11.1)  |
| 04       | 15              | 2.864 (72.7)   | 3.087 (78.4)  | .938 (23.8)  | .188 (4.8)   | .312 (7.9)   |
| 05       | 15              | 2.864 (72.7)   | 3.087 (78.4)  | 1.125 (28.6) | .281 (7.1)   | .438 (11.1)  |
| 06       | 15              | 2.864 (72.7)   | 3.087 (78.4)  | 1.312 (33.3) | .344 (8.7)   | .562 (14.3)  |
| 07       | 15              | 3.114 (79.1)   | 3.312 (84.1)  | 1.593 (40.5) | .438 (11.1)  | .750 (19.1)  |
| 08       | 17              | 3.114 (79.1)   | 3.312 (84.1)  | 1.312 (33.3) | .375 (9.5)   | .625 (15.9)  |
| 09       | 17              | 3.114 (79.1)   | 3.343 (84.9)  | 1.593 (40.5) | .438 (11.1)  | .750 (19.1)  |
| 10       | 17              | 3.114 (79.1)   | 3.437 (87.3)  | 1.750 (44.5) | .625 (15.9)  | .938 (23.8)  |
| 11       | 19              | 3.114 (79.1)   | 3.312 (84.1)  | 1.312 (33.3) | .375 (9.5)   | .625 (15.9)  |
| 12       | 19              | 3.364 (85.4)   | 3.462 (87.9)  | 1.750 (44.5) | .625 (15.9)  | .938 (23.8)  |
| 13       | 23              | 3.364 (85.4)   | 3.368 (85.5)  | 1.593 (40.5) | .438 (11.1)  | .750 (19.1)  |
| 14       | 23              | 3.364 (85.4)   | 3.462 (87.9)  | 1.750 (44.5) | .625 (15.9)  | .938 (23.8)  |
| 15       | 23              | 3.364 (85.4)   | 3.649 (92.7)  | 2.093 (53.2) | .812 (20.6)  | 1.188 (30.2) |
| 16       | 25              | 3.364 (85.4)   | 3.462 (87.9)  | 1.750 (44.5) | .625 (15.9)  | .938 (23.8)  |
| 17       | 25              | 3.364 (85.4)   | 3.649 (92.7)  | 2.093 (53.2) | .812 (20.6)  | 1.188 (30.2) |
| 18       | 25              | 3.614 (91.8)   | 3.774 (95.9)  | 2.093 (53.2) | .875 (22.2)  | 1.250 (31.8) |
| 19       | 25              | 3.614 (91.8)   | 3.806 (96.7)  | 2.343 (59.5) | 1.000 (25.4) | 1.380 (35.1) |
| 20       | 29              | 3.614 (91.8)   | 3.774 (95.9)  | 2.093 (53.2) | .812 (20.6)  | 1.188 (30.2) |
| 21       | 29              | 3.614 (91.8)   | 3.806 (96.7)  | 2.343 (59.5) | 1.000 (25.4) | 1.380 (35.1) |
| 22       | 33              | 4.114 (104.5)  | 4.056 (103.0) | 2.343 (59.5) | 1.000 (25.4) | 1.380 (35.1) |
| 23       | 33              | 4.114 (104.5)  | 4.331 (110.0) | 2.750 (69.9) | 1.250 (31.8) | 1.625 (41.3) |
| 24       | 11              | 2.614 (66.4)   | 2.962 (75.2)  | 1.125 (28.6) | .281 (7.1)   | .438 (11.1)  |
| 25       | 11              | 2.864 (72.7)   | 3.087 (78.4)  | 1.312 (33.3) | .344 (8.7)   | .562 (14.3)  |
| 26       | 13              | 2.864 (72.7)   | 3.087 (78.4)  | 1.312 (33.3) | .344 (8.7)   | .562 (14.3)  |
| 27       | 13              | 3.114 (79.1)   | 3.312 (84.1)  | 1.312 (33.3) | .375 (9.5)   | .625 (15.9)  |
| 28       | 15              | 3.114 (79.1)   | 3.312 (84.1)  | 1.312 (33.3) | .375 (9.5)   | .625 (15.9)  |

## APPLICATION NOTES

- For complete dimensions see the applicable Military Specification.
- Metric dimensions (mm) are in parentheses.
- Cable Range is defined as the accommodation range for the wire bundle or cable. Dimensions shown are not intended for inspection criteria.

Dimensions in inches (millimeters) and are subject to change without notice.

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U.S. CAGE Code 06324

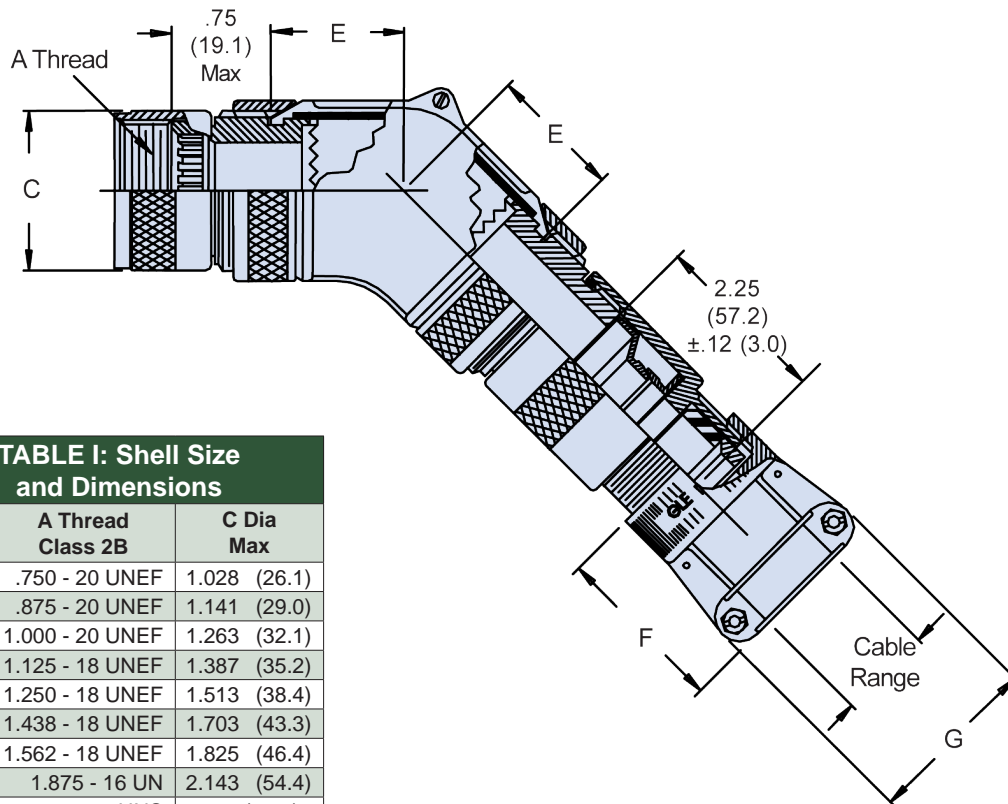
Printed in U.S.A.

# MIL-DTL-28840/9 Style A 45° EMI/RFI Environmental Backshell

**CONNECTOR DESIGNATOR:**
**G** MIL-DTL-28840

**Material and Finish**

*D* = Corrosion Resistant Steel, Cadmium Plate, Black  
*W* = Aluminum, Cadmium Olive Drab

**M28840/9**
**16**
**W**
**A**
**Basic  
Part  
Number**
**Dash No.  
(Table II)**
**Style  
A = EMI/Environmental**

**TABLE I: Shell Size  
and Dimensions**

| Shell Size | A Thread Class 2B | C Dia Max    |
|------------|-------------------|--------------|
| 11         | .750 - 20 UNEF    | 1.028 (26.1) |
| 13         | .875 - 20 UNEF    | 1.141 (29.0) |
| 15         | 1.000 - 20 UNEF   | 1.263 (32.1) |
| 17         | 1.125 - 18 UNEF   | 1.387 (35.2) |
| 19         | 1.250 - 18 UNEF   | 1.513 (38.4) |
| 23         | 1.438 - 18 UNEF   | 1.703 (43.3) |
| 25         | 1.562 - 18 UNEF   | 1.825 (46.4) |
| 29         | 1.875 - 16 UN     | 2.143 (54.4) |
| 33         | 2.062 - 16 UNS    | 2.329 (59.2) |

**APPLICATION NOTES**

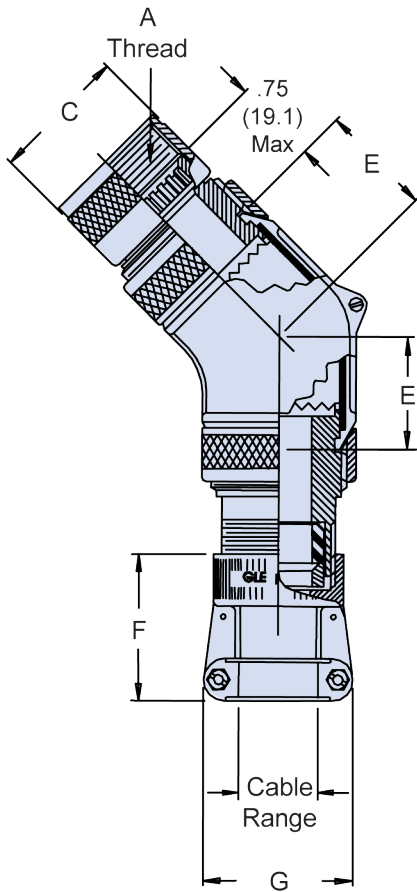
1. For complete dimensions see the applicable Military Specification.
2. Metric dimensions (mm) are in parentheses.
3. Cable Range is defined as the accommodation range for the wire bundle or cable. Dimensions shown are not intended for inspection criteria.

Dimensions in inches (millimeters) and are subject to change without notice.

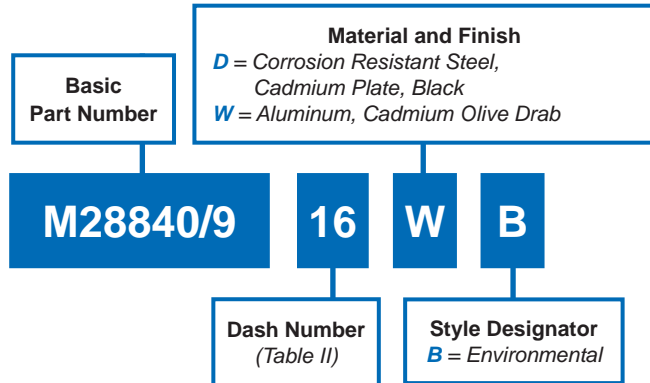
# MIL-DTL-28840/9 45° Environmental Backshell Style B



MIL-DTL-28840



| CONNECTOR DESIGNATOR: |                      |
|-----------------------|----------------------|
| <b>G</b>              | <b>MIL-DTL-28840</b> |



| Shell Size | A Thread Class 2B | C Dia Max    |
|------------|-------------------|--------------|
| 11         | .750 - 20 UNEF    | 1.030 (26.2) |
| 13         | .875 - 20 UNEF    | 1.140 (29.0) |
| 15         | 1.000 - 20 UNEF   | 1.260 (32.0) |
| 17         | 1.125 - 18 UNEF   | 1.390 (35.3) |
| 19         | 1.250 - 18 UNEF   | 1.510 (38.4) |
| 23         | 1.438 - 18 UNEF   | 1.700 (43.2) |
| 25         | 1.563 - 18 UNEF   | 1.820 (46.2) |
| 29         | 1.875 - 16 UN     | 2.140 (54.4) |
| 33         | 2.063 - 16 UNS    | 2.330 (59.2) |

| Dash No. | Shell Size Ref. | E Max        | F Ref. Dim   | G Ref. Dim   | Cable Range  |              |
|----------|-----------------|--------------|--------------|--------------|--------------|--------------|
|          |                 |              |              |              | Min          | Max          |
| 01       | 11              | 1.031 (26.2) | 1.281 (32.5) | .938 (23.8)  | .188 (4.8)   | .312 (7.9)   |
| 02       | 13              | 1.031 (26.2) | 1.281 (32.5) | .938 (23.8)  | .188 (4.8)   | .312 (7.9)   |
| 03       | 13              | 1.031 (26.2) | 1.281 (32.5) | 1.125 (28.6) | .281 (7.1)   | .438 (11.1)  |
| 04       | 15              | 1.156 (29.4) | 1.281 (32.5) | .938 (23.8)  | .188 (4.8)   | .312 (7.9)   |
| 05       | 15              | 1.156 (29.4) | 1.281 (32.5) | 1.125 (28.6) | .281 (7.1)   | .438 (11.1)  |
| 06       | 15              | 1.156 (29.4) | 1.281 (32.5) | 1.312 (33.3) | .344 (8.7)   | .562 (14.3)  |
| 07       | 15              | 1.281 (32.5) | 1.312 (33.3) | 1.593 (40.5) | .438 (11.1)  | .750 (19.1)  |
| 08       | 17              | 1.281 (32.5) | 1.281 (32.5) | 1.312 (33.3) | .375 (9.5)   | .625 (15.9)  |
| 09       | 17              | 1.281 (32.5) | 1.312 (33.3) | 1.593 (40.5) | .438 (11.1)  | .750 (19.1)  |
| 10       | 17              | 1.281 (32.5) | 1.406 (35.7) | 1.750 (44.5) | .625 (15.9)  | .938 (23.8)  |
| 11       | 19              | 1.281 (32.5) | 1.281 (32.5) | 1.312 (33.3) | .375 (9.5)   | .625 (15.9)  |
| 12       | 19              | 1.406 (35.7) | 1.406 (35.7) | 1.750 (44.5) | .625 (15.9)  | .938 (23.8)  |
| 13       | 23              | 1.406 (35.7) | 1.312 (33.3) | 1.593 (40.5) | .438 (11.1)  | .750 (19.1)  |
| 14       | 23              | 1.406 (35.7) | 1.406 (35.7) | 1.750 (44.5) | .625 (15.9)  | .938 (23.8)  |
| 15       | 23              | 1.406 (35.7) | 1.593 (40.5) | 2.093 (53.2) | .812 (20.6)  | 1.188 (30.2) |
| 16       | 25              | 1.406 (35.7) | 1.406 (35.7) | 1.750 (44.5) | .625 (15.9)  | .938 (23.8)  |
| 17       | 25              | 1.406 (35.7) | 1.593 (40.5) | 2.093 (53.2) | .812 (20.6)  | 1.188 (30.2) |
| 18       | 25              | 1.531 (38.9) | 1.593 (40.5) | 2.093 (53.2) | .875 (22.2)  | 1.250 (31.8) |
| 19       | 25              | 1.531 (38.9) | 1.625 (41.3) | 2.343 (59.5) | 1.000 (25.4) | 1.380 (35.1) |
| 20       | 29              | 1.531 (38.9) | 1.593 (40.5) | 2.093 (53.2) | .812 (20.6)  | 1.188 (30.2) |
| 21       | 29              | 1.531 (38.9) | 1.625 (41.3) | 2.343 (59.5) | 1.000 (25.4) | 1.380 (35.1) |
| 22       | 33              | 1.781 (45.2) | 1.625 (41.3) | 2.343 (59.5) | 1.000 (25.4) | 1.380 (35.1) |
| 23       | 33              | 1.781 (45.2) | 1.900 (48.3) | 2.750 (69.9) | 1.250 (31.8) | 1.625 (41.3) |
| 24       | 11              | 1.031 (26.2) | 1.281 (32.5) | 1.125 (28.6) | .281 (7.1)   | .438 (11.1)  |
| 25       | 11              | 1.156 (29.4) | 1.281 (32.5) | 1.312 (33.3) | .344 (8.7)   | .562 (14.3)  |
| 26       | 13              | 1.156 (29.4) | 1.281 (32.5) | 1.312 (33.3) | .344 (8.7)   | .562 (14.3)  |
| 27       | 13              | 1.281 (32.5) | 1.281 (32.5) | 1.312 (33.3) | .375 (9.5)   | .625 (15.9)  |
| 28       | 15              | 1.281 (32.5) | 1.281 (32.5) | 1.312 (33.3) | .375 (9.5)   | .625 (15.9)  |

## APPLICATION NOTES

- For complete dimensions see the applicable Military Specification.
- Metric dimensions (mm) are in parentheses.
- Cable Range is defined as the accommodation range for the wire bundle or cable. Dimensions shown are not intended for inspection criteria.

Dimensions in inches (millimeters) and are subject to change without notice.

D

# M28840/13 and M28840/15 Protective Plug and Receptacle Covers

## MATING CONNECTOR

MIL-DTL-28840

## Basic Part Number

**M28840/13** = Receptacle Cover  
**M28840/15** = Plug Cover

## Shell Size Designator

**M28840/13**

**H**

**A**

**W**

## Material and Finish

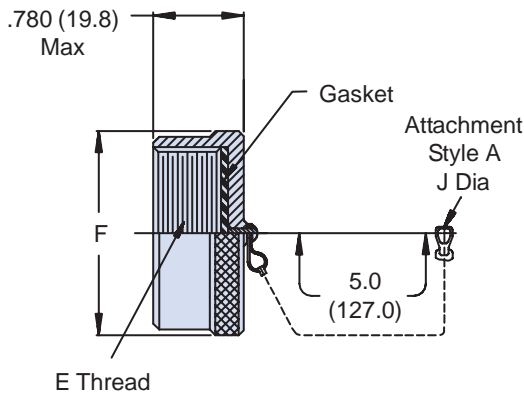
**D** = Corrosion Resistant Steel, Cadmium Plate, Black  
**W** = Aluminum, 500 Hour, Cadmium O.D.

## APPLICATION NOTES

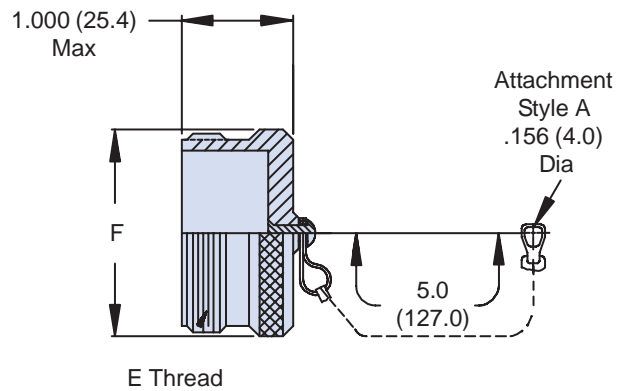
1. Assembly identified with manufacturer's name and part number, space permitting.
2. For complete dimensions, see the applicable Military Specification.
3. Metric dimensions (mm) are in parentheses.

## Attachment Style

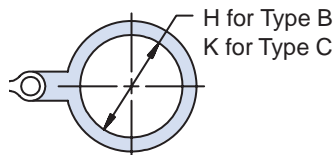
**A** = Chain with Fastener  
**B** = Chain with Ring for Jam Nut Receptacle (M28840/13 Only)  
**B** = Chain with Ring (M28840/15 Only)  
**C** = Chain with Ring for Cable Receptacle (M28840/13 Only)



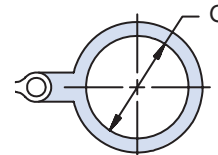
**M28840/13 Receptacle Cover**



**M28840/15 Plug Cover**



**M28840/13 Attachment Types B & C**



**M28840/15 Attachment Type B**

**TABLE I: Shell Size Designator, Thread and Dimensions**

| Shell Size Desig. | Shell Size Ref. | E Thread           | F Max        | G Dia<br>± .010 (0.3) | H Dia<br>± .010 (0.3) | J Dia<br>± .005 (0.1) | K Dia<br>± .010 (0.3) |
|-------------------|-----------------|--------------------|--------------|-----------------------|-----------------------|-----------------------|-----------------------|
| A                 | 11              | 0.750-0.1P-0.2L-DS | 1.028 (26.1) | .765 (19.4)           | .890 (22.6)           | .130 (3.3)            | .765 (19.4)           |
| B                 | 13              | 0.875-0.1P-0.2L-DS | 1.141 (29.0) | .890 (22.6)           | 1.015 (25.8)          | .130 (3.3)            | .890 (22.6)           |
| C                 | 15              | 1.062-0.1P-0.2L-DS | 1.263 (32.1) | 1.015 (25.8)          | 1.203 (30.6)          | .130 (3.3)            | 1.015 (25.8)          |
| D                 | 17              | 1.125-0.1P-0.2L-DS | 1.387 (35.2) | 1.140 (29.0)          | 1.265 (32.1)          | .130 (3.3)            | 1.140 (29.0)          |
| E                 | 19              | 1.312-0.1P-0.2L-DS | 1.513 (38.4) | 1.265 (32.1)          | 1.453 (36.9)          | .130 (3.3)            | 1.265 (32.1)          |
| F                 | 23              | 1.500-0.1P-0.2L-DS | 1.703 (43.3) | 1.453 (36.9)          | 1.640 (41.7)          | .130 (3.3)            | 1.453 (36.9)          |
| G                 | 25              | 1.625-0.1P-0.2L-DS | 1.825 (46.4) | 1.577 (40.1)          | 1.765 (44.8)          | .156 (4.0)            | 1.577 (40.1)          |
| H                 | 29              | 1.812-0.1P-0.2L-DS | 2.143 (54.4) | 1.890 (48.0)          | 1.953 (49.6)          | .156 (4.0)            | 1.890 (48.0)          |
| J                 | 33              | 2.000-0.1P-0.2L-DS | 2.329 (59.2) | 2.077 (52.8)          | 2.140 (54.4)          | .193 (4.9)            | 2.077 (52.8)          |

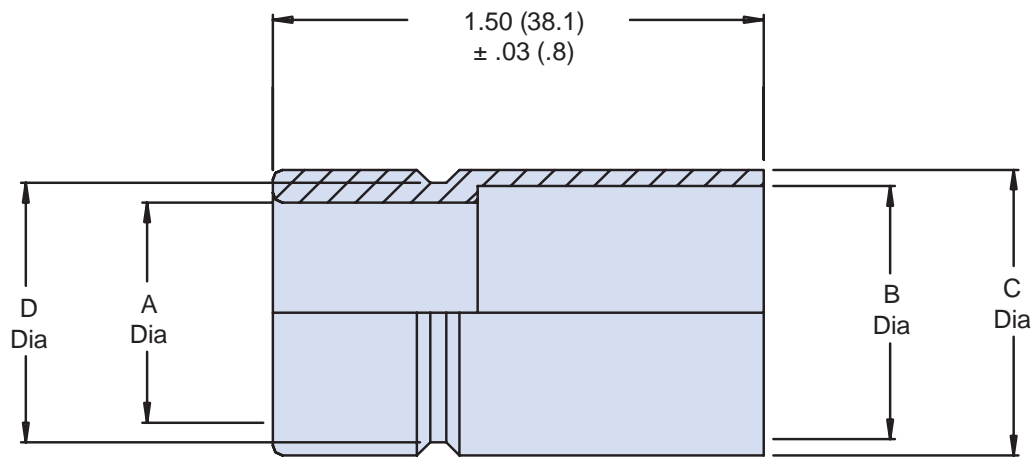
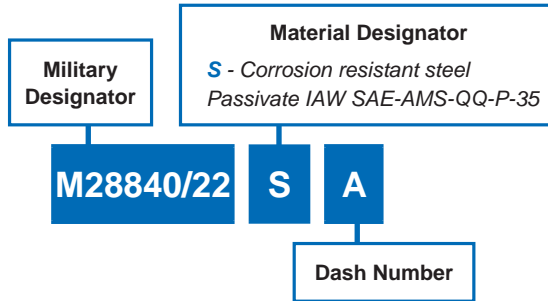
Dimensions in inches (millimeters) and are subject to change without notice.



# M28840/22 Metal Core Conduit Bushing



MIL-DTL-28840



D

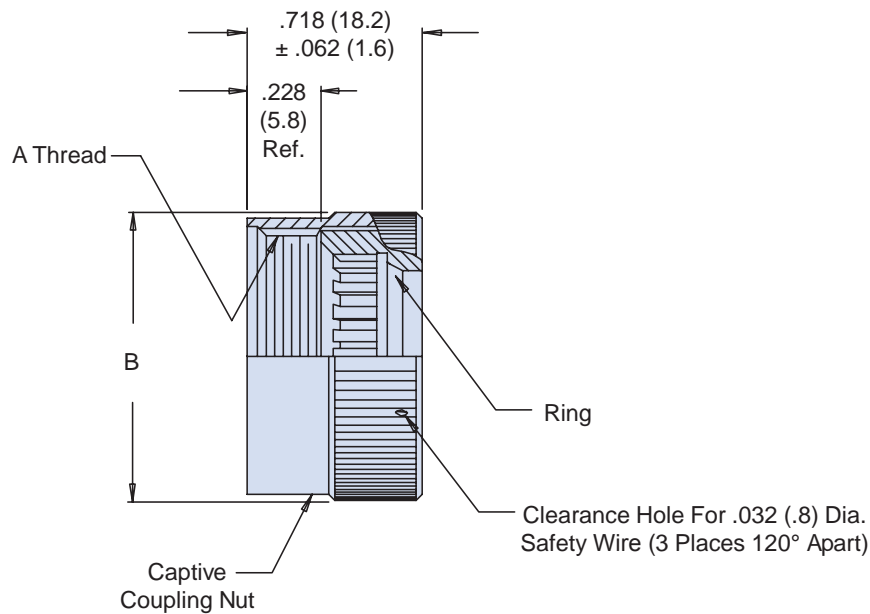
| Size | MIL-<br>DTL-28840/04<br>Size Ref. | A<br>+.020 (.50)<br>-.000 (.000) | B<br>+.005 (.12)<br>-.000 (.000) | C<br>+.000 (.000)<br>-.005 (.12) | D<br>+.000 (.000)<br>-.005 (.12) |
|------|-----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| 03   | 03                                | .375 (9.53)                      | .540 (13.71)                     | .625 (15.87)                     | .525 (13.34)                     |
| 04   | 04                                | .500 (12.70)                     | .665 (16.89)                     | .750 (19.05)                     | .650 (16.51)                     |
| 05   | 05                                | .625 (15.87)                     | .780 (19.81)                     | .875 (22.23)                     | .775 (19.69)                     |
| 06   | 06                                | .750 (19.05)                     | .940 (23.88)                     | 1.000 (25.40)                    | .900 (22.86)                     |
| 08   | 08                                | 1.000 (25.40)                    | 1.225 (31.12)                    | 1.375 (34.93)                    | 1.275 (32.39)                    |
| 10   | 10                                | 1.250 (31.75)                    | 1.470 (37.34)                    | 1.625 (41.28)                    | 1.525 (38.74)                    |
| 12   | 12                                | 1.500 (38.10)                    | 1.740 (44.20)                    | 1.875 (47.65)                    | 1.775 (45.09)                    |
| 16   | 16                                | 2.000 (50.80)                    | 2.215 (56.26)                    | 2.375 (60.33)                    | 2.275 (57.79)                    |

Dimensions in inches (millimeters) and are subject to change without notice.



# MIL-DTL-28840/23 Non-Self-Locking E-Nut

**CONNECTOR DESIGNATOR:**
**G** MIL-DTL-28840

**Basic Part  
Number**
**Shell  
Size**
**M28840/23**
**- J**
**W**
**Material and Finish**
*D = Corrosion Resistant Steel,  
Cadmium Plate, Black*
*W = Aluminum, Cadmium Olive Drab*

**TABLE I: Shell Size, Shell Size Ref,  
Thread and Dimensions**

| Shell Size | Shell Size Ref. | A Thread Class 2B | Ø B Max      |
|------------|-----------------|-------------------|--------------|
| A          | 11              | .750 - 20 UNEF    | 1.028 (26.1) |
| B          | 13              | .875 - 20 UNEF    | 1.141 (29.0) |
| C          | 15              | 1.000 - 20 UNEF   | 1.263 (32.1) |
| D          | 17              | 1.125 - 18 UNEF   | 1.387 (35.2) |
| E          | 19              | 1.250 - 18 UNEF   | 1.513 (38.4) |
| F          | 23              | 1.438 - 18 UNEF   | 1.703 (43.3) |
| G          | 25              | 1.562 - 18 UNEF   | 1.825 (46.4) |
| H          | 29              | 1.875 - 16 UN     | 2.143 (54.4) |
| J          | 33              | 2.062 - 16 UNS    | 2.329 (59.2) |

**APPLICATION NOTES**

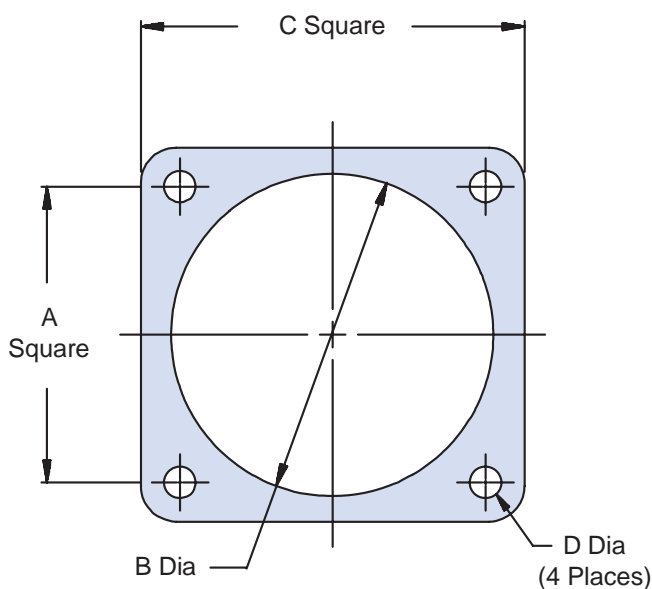
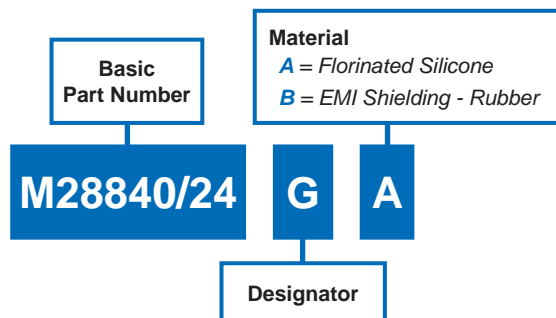
1. Assembly to be identified with manufacturer's name and part number, space permitting.
2. For complete dimensions, see the applicable Military Specification.
3. Cable entry is defined as the accommodation range for the wire bundle or cable. Dimensions shown are not intended for inspection criteria.
4. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.

# M28840/24 Gasket



MIL-DTL-28840



D

**TABLE I: Reference for Connector Shell Size**

| Designator | Shell Size | A Sq. |        | Ø B   |        | C Sq. |        | Ø D   |       |
|------------|------------|-------|--------|-------|--------|-------|--------|-------|-------|
|            |            | ±.010 | (.3)   | ±.008 | (.2)   | ±.008 | (.2)   | ±.010 | (.3)  |
| A          | 11         | .750  | (19.1) | .758  | (19.3) | 1.031 | (26.2) | .120  | (3.0) |
| B          | 13         | .843  | (21.4) | .883  | (22.4) | 1.146 | (29.1) | .120  | (3.0) |
| C          | 15         | .968  | (24.6) | 1.070 | (27.2) | 1.266 | (32.2) | .120  | (3.0) |
| D          | 17         | 1.015 | (25.8) | 1.133 | (28.8) | 1.391 | (35.3) | .120  | (3.0) |
| E          | 19         | 1.140 | (29.0) | 1.320 | (33.5) | 1.516 | (38.5) | .120  | (3.0) |
| F          | 23         | 1.281 | (32.5) | 1.508 | (38.3) | 1.726 | (43.8) | .120  | (3.0) |
| G          | 25         | 1.392 | (35.4) | 1.633 | (41.5) | 1.826 | (46.4) | .147  | (3.7) |
| H          | 29         | 1.568 | (39.8) | 1.883 | (47.8) | 2.146 | (54.5) | .147  | (3.7) |
| J          | 33         | 1.734 | (44.0) | 2.070 | (52.6) | 2.336 | (59.3) | .173  | (4.4) |

- APPLICATION NOTES**
1. Assembly identified with manufacturer's name and part number, space permitting.
  2. For complete dimensions, see the applicable Military Specification.
  3. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.

**WHY GLENAIR?**

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# MIL-DTL-83723

## Qualified Backshells and Connector Accessories



MIL-DTL-83723

| Industry Specification Number        | Part Identification Number                | Military Part Number Superseded | Glenair Commercial Part Number | Description  | Glenair Connector Designator/Interface | Page No.          |
|--------------------------------------|---|---------------------------------|--------------------------------|--|--|-------------------|
| MIL-DTL-83723/27                     | M83723/27M                                | ---                             | 310KS002                       | Straight Shrink Boot Adapter   | "K"<br>MIL-DTL-83723 Series II         | E-2               |
| MIL-DTL-83723/35                     | M83723/35S<br>M83723/35A<br>M83723/35N    | ---                             | Consult Factory                | Strt. Non-Environmental Strain Relief Backshell<br>90° Non-Environmental Strain Relief Backshell<br>Non-Self-Locking E-Nut | "K"<br>MIL-DTL-83723 Series II         | E-3<br>E-4<br>E-5 |
| MIL-DTL-83723/50                     | M83723/50 R<br>M83723/50 B<br>M83723/50 A | ---                             | Consult Factory                | Straight Qwik-Ty® Strain Relief<br>45° Qwik-Ty® Strain Relief<br>90° Qwik-Ty® Strain Relief                                | "K"<br>MIL-DTL-83723 Series II         | E-6               |
| MIL-DTL-83723/59<br>MIL-DTL-83723/60 | M83723/59-1<br>M83723/60-1                | MS27292<br>MS27293              | 660-021<br>660-022             | Protective Plug Cover, Threaded Coupling<br>Protective Receptacle Cover, Threaded Coupling                                 | MIL-DTL-83723, Series III              | E-7               |
| MIL-DTL-83723/59<br>MIL-DTL-83723/60 | M83723/59-2<br>M83723/60-2                | MS27294<br>MS27295              | 660-019<br>660-020             | Protective Plug Cover Bayonet Coupling<br>Protective Receptacle Cover Bayonet Coupling                                     | MIL-DTL-83723, Series III              | E-8               |
| MIL-DTL-83723/70                     | M83723/70                                 | ---                             | Consult Factory                | Straight Quick Disconnect Receptacle Adapter   | ---                                    | E-9               |

E

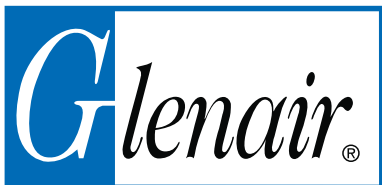
Dimensions in inches (millimeters) and are subject to change without notice.

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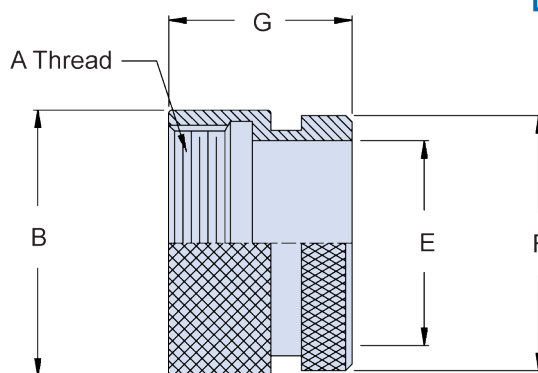
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## M83723/27M Straight Shrink Boot Adapter

**CONNECTOR DESIGNATOR:**
**K** MIL-DTL-83723 Series II

**Basic  
Part Number**
**Shell  
Size**
**M83723/27M**
**22**
**M**
**Backshell  
Only**

**TABLE I: Adapter Size, Shell Size, Thread and Dimensions**

| Adapter Size | Shell Size Ref. | A Thread Class 2B | B Dia Max    | E Dia        | F Dia Min    | G Max        |
|--------------|-----------------|-------------------|--------------|--------------|--------------|--------------|
| 08           | 8S              | .438 - 28 UNEF    | .580 (14.7)  | .250 (6.4)   | .479 (12.2)  | .830 (21.1)  |
| 10           | 10S             | .500 - 28 UNEF    | .640 (16.3)  | .303 (7.7)   | .539 (13.7)  | .830 (21.1)  |
| 11           | 10SL            | .562 - 24 UNEF    | .700 (17.8)  | .383 (9.7)   | .608 (15.4)  | .830 (21.1)  |
| 12           | 12              | .625 - 24 UNEF    | .760 (19.3)  | .408 (10.4)  | .659 (16.7)  | .830 (21.1)  |
| 13           | 12S             | .625 - 24 UNEF    | .760 (19.3)  | .408 (10.4)  | .659 (16.7)  | .830 (21.1)  |
| 14           | 14              | .750 - 20 UNEF    | .890 (22.6)  | .490 (12.4)  | .782 (19.9)  | .830 (21.1)  |
| 16           | 14S             | .750 - 20 UNEF    | .890 (22.6)  | .490 (12.4)  | .782 (19.9)  | .830 (21.1)  |
| 16           | 16              | .875 - 20 UNEF    | 1.010 (25.7) | .609 (15.5)  | .908 (23.1)  | .996 (25.3)  |
| 17           | 16S             | .875 - 20 UNEF    | 1.010 (25.7) | .609 (15.5)  | .908 (23.1)  | .830 (21.1)  |
| 18           | 18              | 1.000 - 20 UNEF   | 1.140 (29.0) | .730 (18.5)  | 1.025 (26.0) | .996 (25.3)  |
| 20           | 20              | 1.125 - 18 UNEF   | 1.260 (32.0) | .870 (22.1)  | 1.212 (30.8) | .996 (25.3)  |
| 22           | 22              | 1.250 - 18 UNEF   | 1.390 (35.3) | .978 (24.8)  | 1.343 (34.1) | .996 (25.3)  |
| 24           | 24              | 1.375 - 18 UNEF   | 1.520 (38.6) | 1.090 (27.7) | 1.450 (36.8) | .996 (25.3)  |
| 28           | 28              | 1.625 - 18 UNEF   | 1.760 (44.7) | 1.250 (31.8) | 1.671 (42.4) | 1.076 (27.3) |
| 32           | 32              | 1.875 - 16 UN     | 2.010 (51.1) | 1.520 (38.6) | 1.956 (49.7) | 1.076 (27.3) |
| 36           | 36              | 2.125 - 16 UN     | 2.260 (57.4) | 1.756 (44.6) | 2.164 (55.0) | 1.076 (27.3) |
| 40           | 40              | 2.375 - 16 UN     | 2.510 (63.8) | 1.880 (47.8) | 2.500 (63.5) | 1.222 (31.0) |

**APPLICATION NOTES**

- For complete dimensions see the applicable Military Specification.
- Finish: Electroless Nickel.
- Metric dimensions (mm) are in parentheses.

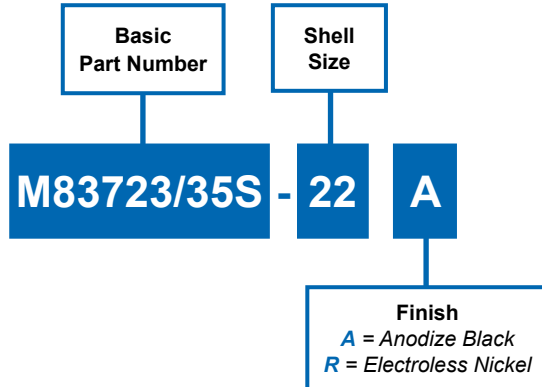
Dimensions in inches (millimeters) and are subject to change without notice.

# M83723/35S Straight Non-Environmental Strain Relief Backshell

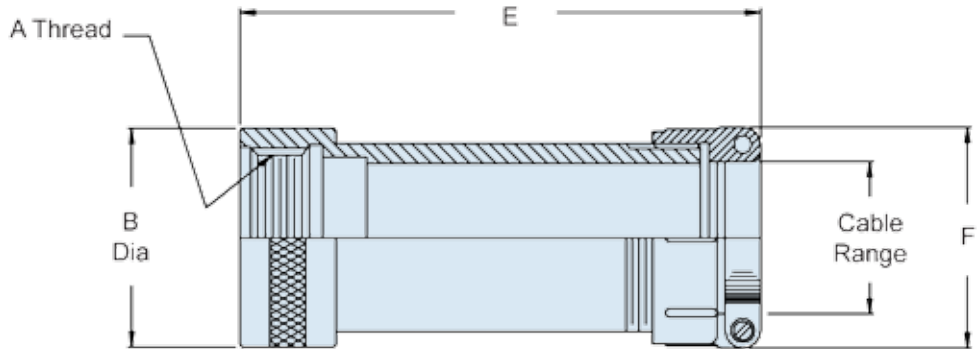


MIL-DTL-83723

|                              |                         |
|------------------------------|-------------------------|
| <b>CONNECTOR DESIGNATOR:</b> |                         |
| <b>K</b>                     | MIL-DTL-83723 Series II |



- APPLICATION NOTES**
- For complete dimensions see the applicable Military Specification.
  - Metric dimensions (mm) are in parentheses.
  - Cable Range is defined as the accommodation range for the wire bundle or cable. Dimensions shown are not intended for inspection criteria.



| Shell Size | Shell Size (s) (Ref) | A Thread Class 2B | B Dia Max    | E Max        | F Max        | Cable Range |              |
|------------|----------------------|-------------------|--------------|--------------|--------------|-------------|--------------|
|            |                      |                   |              |              |              | Min         | Max          |
| 08         | 8S                   | .438 - 28 UNEF    | .585 (14.9)  | 1.290 (32.8) | .843 (21.4)  | .125 (3.2)  | .235 (6.0)   |
| 10         | 10S                  | .500 - 28 UNEF    | .645 (16.4)  | 1.290 (32.8) | .843 (21.4)  | .125 (3.2)  | .235 (6.0)   |
| 11         | 10SL                 | .562 - 24 UNEF    | .730 (18.5)  | 1.290 (32.8) | .906 (23.0)  | .170 (4.3)  | .297 (7.5)   |
| 13         | 12 & 12S             | .625 - 24 UNEF    | .770 (19.6)  | 1.290 (32.8) | 1.085 (27.6) | .170 (4.3)  | .297 (7.5)   |
| 15         | 14 & 14S             | .750 - 20 UNEF    | .910 (23.1)  | 1.368 (34.7) | 1.093 (27.8) | .235 (6.0)  | .422 (10.7)  |
| 16         | 16                   | .875 - 20 UNEF    | 1.035 (26.3) | 1.587 (40.3) | 1.275 (32.4) | .295 (7.5)  | .547 (13.9)  |
| 17         | 16S                  | .875 - 20 UNEF    | 1.035 (26.3) | 1.430 (36.3) | 1.187 (30.1) | .295 (7.5)  | .547 (13.9)  |
| 18         | 18                   | 1.000 - 20 UNEF   | 1.170 (29.7) | 1.695 (43.1) | 1.475 (37.5) | .325 (8.3)  | .610 (15.5)  |
| 20         | 20                   | 1.125 - 18 UNEF   | 1.300 (33.0) | 1.695 (43.1) | 1.500 (38.1) | .380 (9.7)  | .735 (18.7)  |
| 22         | 22                   | 1.250 - 18 UNEF   | 1.420 (36.1) | 1.695 (43.1) | 1.710 (43.4) | .380 (9.7)  | .735 (18.7)  |
| 24         | 24                   | 1.375 - 18 UNEF   | 1.535 (39.0) | 1.931 (49.0) | 1.719 (43.7) | .500 (12.7) | .922 (23.4)  |
| 28         | 28                   | 1.625 - 18 UNEF   | 1.800 (45.7) | 1.931 (49.0) | 2.040 (51.8) | .500 (12.7) | .922 (23.4)  |
| 32         | 32                   | 1.875 - 16 UNEF   | 2.035 (51.6) | 1.869 (47.5) | 2.332 (59.2) | .705 (17.9) | 1.235 (31.4) |
| 36         | 36                   | 2.125 - 16 UN     | 2.270 (57.7) | 1.869 (47.5) | 2.312 (58.7) | .725 (18.4) | 1.360 (34.5) |
| 40         | 40                   | 2.375 - 16 UN     | 2.780 (70.6) | 2.875 (73.0) | 2.950 (74.9) | .911 (23.1) | 1.630 (41.4) |

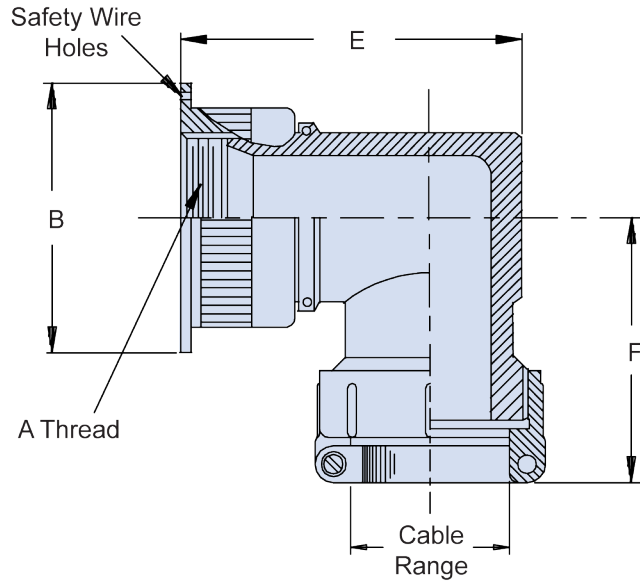
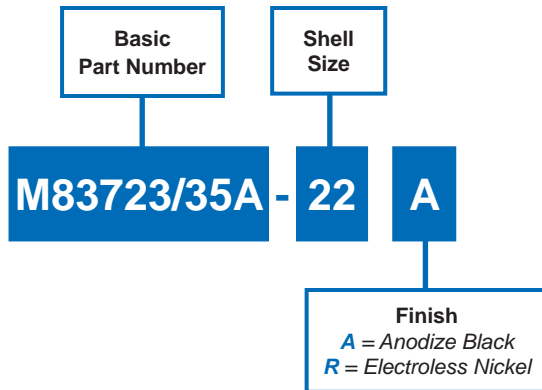
Dimensions in inches (millimeters) and are subject to change without notice.





# M83723/35A

## 90° Non-Environmental Strain Relief Backshell

**CONNECTOR DESIGNATOR:**
**K** MIL-DTL-83723 Series II

**TABLE I: Shell Size, Cable Range and Dimensions**

| Shell Size | A Thread Class 2B | B Dia Max    | E Max         | F Max         | Cable Range |              |
|------------|-------------------|--------------|---------------|---------------|-------------|--------------|
|            |                   |              |               |               | Min         | Max          |
| 08         | .438 - 28 UNEF    | .805 (20.4)  | 1.187 (30.1)  | 1.220 (31.0)  | .102 (2.6)  | .235 (6.0)   |
| 10         | .500 - 28 UNEF    | .890 (22.6)  | 1.187 (30.1)  | 1.250 (31.8)  | .102 (2.6)  | .235 (6.0)   |
| 11         | .562 - 24 UNEF    | .975 (24.8)  | 1.312 (33.3)  | 1.280 (32.5)  | .140 (3.6)  | .297 (7.5)   |
| 13         | .625 - 24 UNEF    | 1.005 (25.5) | 1.312 (33.3)  | 1.280 (32.5)  | .140 (3.6)  | .297 (7.5)   |
| 12         | .625 - 24 UNEF    | 1.005 (25.5) | 1.468 (37.3)  | 1.280 (32.5)  | .140 (3.6)  | .297 (7.5)   |
| 15         | .750 - 20 UNEF    | 1.130 (28.7) | 1.437 (36.5)  | 1.405 (35.7)  | .195 (5.0)  | .422 (10.7)  |
| 14         | .750 - 20 UNEF    | 1.130 (28.7) | 1.594 (40.5)  | 1.405 (35.7)  | .195 (5.0)  | .422 (10.7)  |
| 17         | .875 - 20 UNEF    | 1.255 (31.9) | 1.531 (38.9)  | 1.529 (38.8)  | .255 (6.5)  | .547 (13.9)  |
| 16         | .875 - 20 UNEF    | 1.255 (31.9) | 1.687 (42.8)  | 1.529 (38.8)  | .255 (6.5)  | .547 (13.9)  |
| 18         | 1.000 - 20 UNEF   | 1.350 (34.3) | 1.765 (44.8)  | 1.593 (40.5)  | .285 (7.2)  | .610 (15.5)  |
| 20         | 1.125 - 18 UNEF   | 1.475 (37.5) | 2.000 (50.8)  | 1.655 (42.0)  | .350 (8.9)  | .735 (18.7)  |
| 22         | 1.250 - 18 UNEF   | 1.600 (40.6) | 2.000 (50.8)  | 1.718 (43.6)  | .350 (8.9)  | .735 (18.7)  |
| 24         | 1.375 - 18 UNEF   | 1.725 (43.8) | 2.265 (57.5)  | 1.894 (48.1)  | .468 (11.9) | .922 (23.4)  |
| 28         | 1.625 - 18 UNEF   | 1.975 (50.2) | 2.265 (57.5)  | 1.973 (50.1)  | .468 (11.9) | .922 (23.4)  |
| 32         | 1.875 - 16 UN     | 2.225 (56.5) | 2.578 (65.5)  | 2.187 (55.5)  | .664 (16.9) | 1.235 (31.4) |
| 36         | 2.125 - 16 UN     | 2.475 (62.9) | 2.815 (71.5)  | 2.405 (61.1)  | .694 (17.6) | 1.360 (34.5) |
| 40         | 2.375 - 16 UN     | 2.750 (69.9) | 5.800 (147.3) | 5.100 (129.5) | .911 (23.1) | 1.630 (41.4) |

**APPLICATION NOTES**

- For complete dimensions see the applicable Military Specification.
- Metric dimensions (mm) are in parentheses.
- Cable Range is defined as the accommodation range for the wire bundle or cable. Dimensions shown are not intended for inspection criteria.

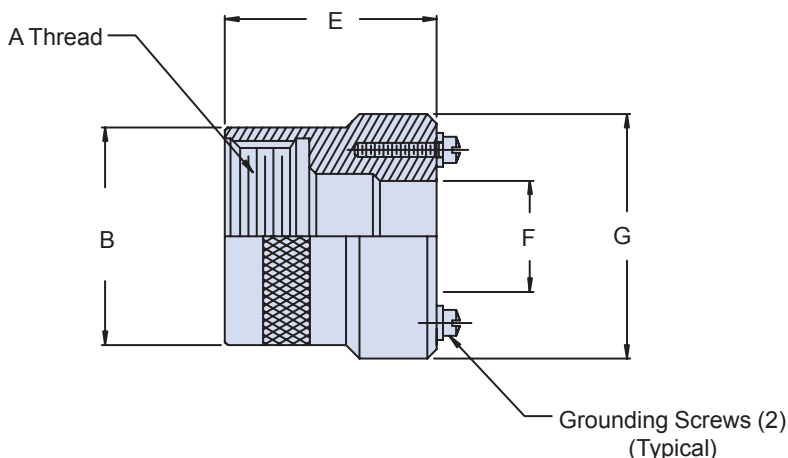
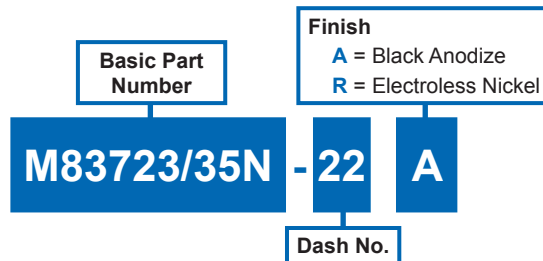
Dimensions in inches (millimeters) and are subject to change without notice.

# M83723/35N Non-Self-Locking E-Nut



MIL-DTL-83723

|                              |                         |
|------------------------------|-------------------------|
| <b>CONNECTOR DESIGNATOR:</b> |                         |
| <b>K</b>                     | MIL-DTL-83723 Series II |



**TABLE I: Dash Number, Shell Size, Thread and Dimensions**

| Dash No. | Shell Size Ref. | A Thread Class 2B | Ø B Max     | E Max        | F Max        | G Max        |
|----------|-----------------|-------------------|-------------|--------------|--------------|--------------|
| 08       | 8S              | .438 - 28 UNEF    | .59 (15.0)  | .780 (19.8)  | .257 (6.5)   | .900 (22.9)  |
| 10       | 10S             | .500 - 28 UNEF    | .65 (16.5)  | .780 (19.8)  | .310 (7.9)   | .900 (22.9)  |
| 11       | 10SL            | .562 - 24 UNEF    | .73 (18.5)  | .780 (19.8)  | .390 (9.9)   | .980 (24.9)  |
| 13       | 12S             | .625 - 24 UNEF    | .77 (19.6)  | .780 (19.8)  | .415 (10.5)  | .995 (25.3)  |
| 15       | 14S             | .750 - 20 UNEF    | .91 (23.1)  | .780 (19.8)  | .497 (12.6)  | 1.160 (29.5) |
| 16       | 16              | .875 - 20 UNEF    | 1.03 (26.2) | .970 (24.6)  | .616 (15.6)  | 1.260 (32.0) |
| 17       | 16S             | .875 - 20 UNEF    | 1.03 (26.2) | .780 (19.8)  | .616 (15.6)  | 1.260 (32.0) |
| 18       | 18              | 1.000 - 20 UNEF   | 1.17 (29.7) | 1.050 (26.7) | .735 (18.7)  | 1.455 (37.0) |
| 20       | 33              | 1.125 - 18 UNEF   | 1.30 (33.0) | 1.050 (26.7) | .875 (22.2)  | 1.580 (40.1) |
| 22       | 20              | 1.250 - 18 UNEF   | 1.42 (36.1) | 1.050 (26.7) | .983 (25.0)  | 1.580 (40.1) |
| 24       | 22              | 1.375 - 18 UNEF   | 1.54 (39.1) | .970 (24.6)  | 1.095 (27.8) | 1.890 (48.0) |
| 28       | 28              | 1.625 - 18 UNEF   | 1.80 (45.7) | .970 (24.6)  | 1.255 (31.9) | 1.890 (48.0) |
| 32       | 32              | 1.875 - 16 UN     | 2.04 (51.8) | .970 (24.6)  | 1.525 (38.7) | 2.215 (56.3) |
| 36       | 36              | 2.125 - 16 UN     | 2.27 (57.7) | .970 (24.6)  | 1.760 (44.7) | 2.405 (61.1) |
| 40       | 40              | 2.375 - 16 UN     | 2.78 (70.6) | 1.450 (36.8) | 2.020 (51.3) | 2.781 (70.6) |

## APPLICATION NOTES

1. For complete dimensions, see the applicable Military Specification.
2. Metric dimensions (mm) are indicated in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.

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Mil-Spec Backshells

U.S. CAGE Code 06324

Rev. 8.29.14

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E



# M83723/50

## Straight, 45° and 90° Qwik-Ty® Strain Reliefs

### Non-Self-Locking

**CONNECTOR DESIGNATOR:**
**K** MIL-DTL-83723, Series II

**Basic Part Number**

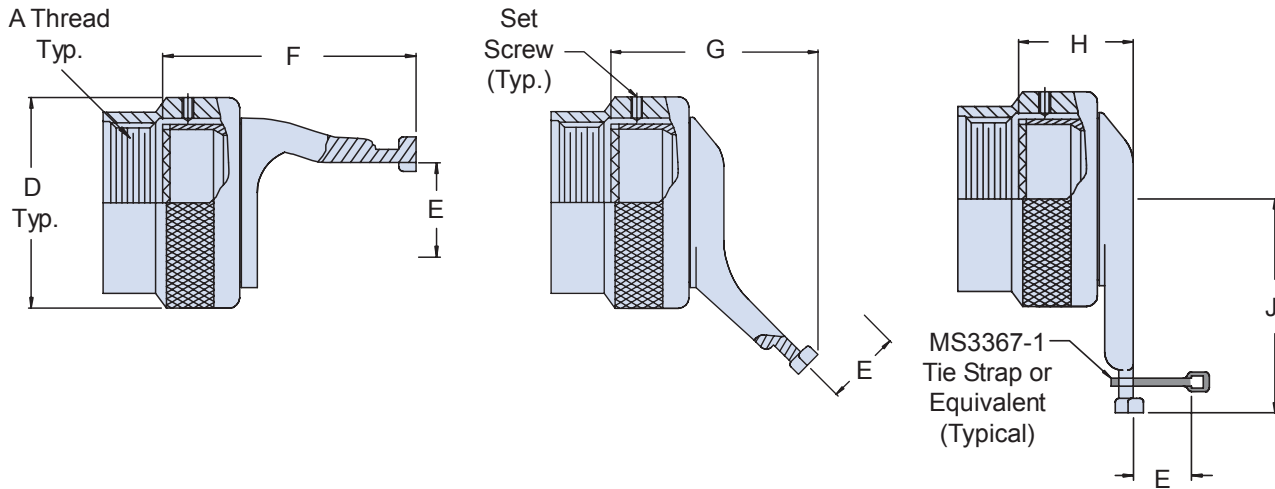
M83723/50R = Straight  
 M83723/50B = 45°  
 M83723/50A = 90°

**Angular Function**

R = Straight  
 B = 45°  
 A = 90°

**Shell Size**
**22**
**Finish**

A = Black Anodize  
 N = Electroless Nickel

**M83723/50**
**R**
**22**
**N**

**TABLE I: Shell Size, Thread, Cable Entry and Backshell Dimensions**

| Shell Size | A Thread Class 2B | D Dia Max    | E Max Cable Entry | F Max        | G Max        | H Max       | J Max        |
|------------|-------------------|--------------|-------------------|--------------|--------------|-------------|--------------|
| 08         | .438 - 28 UNEF    | .620 (15.7)  | .240 (6.1)        | 1.060 (26.9) | .740 (18.8)  | .710 (18.0) | .880 (22.4)  |
| 10         | .500 - 28 UNEF    | .730 (18.5)  | .295 (7.5)        | 1.060 (26.9) | .740 (18.8)  | .710 (18.0) | .940 (23.9)  |
| 11         | .562 - 24 UNEF    | .730 (18.5)  | .375 (9.5)        | 1.060 (26.9) | .740 (18.8)  | .710 (18.0) | .940 (23.9)  |
| 12         | .625 - 24 UNEF    | .860 (21.8)  | .400 (10.2)       | 1.120 (28.4) | .740 (18.8)  | .710 (18.0) | 1.000 (25.4) |
| 13         | .625 - 24 UNEF    | .860 (21.8)  | .400 (10.2)       | 1.120 (28.4) | .740 (18.8)  | .710 (18.0) | 1.000 (25.4) |
| 14         | .750 - 20 UNEF    | .980 (24.9)  | .482 (12.2)       | 1.300 (33.0) | 2.010 (51.1) | .710 (18.0) | 1.320 (33.5) |
| 15         | .750 - 20 UNEF    | .980 (24.9)  | .482 (12.2)       | 1.310 (33.3) | 2.020 (51.3) | .710 (18.0) | 1.320 (33.5) |
| 16         | .875 - 20 UNEF    | 1.110 (28.2) | .601 (15.3)       | 1.300 (33.0) | 2.010 (51.1) | .710 (18.0) | 1.370 (34.8) |
| 17         | .875 - 20 UNEF    | 1.110 (28.2) | .601 (15.3)       | 1.300 (33.0) | 2.010 (51.1) | .710 (18.0) | 1.370 (34.8) |
| 18         | 1.000 - 20 UNEF   | 1.220 (31.0) | .722 (18.3)       | 1.360 (34.5) | 2.170 (55.1) | .730 (18.5) | 1.470 (37.3) |
| 20         | 1.125 - 18 UNEF   | 1.350 (34.3) | .862 (21.9)       | 1.500 (38.1) | 2.250 (57.2) | .740 (18.8) | 1.510 (38.4) |
| 22         | 1.250 - 18 UNEF   | 1.470 (37.3) | .970 (24.6)       | 1.620 (41.1) | 2.250 (57.2) | .630 (16.0) | 1.570 (39.9) |
| 24         | 1.375 - 18 UNEF   | 1.590 (40.4) | 1.082 (27.5)      | 1.680 (42.7) | 2.330 (59.2) | .630 (16.0) | 1.640 (41.7) |
| 28         | 1.625 - 18 UNEF   | 1.970 (50.0) | 1.241 (31.5)      | 1.710 (43.4) | 2.330 (59.2) | .630 (16.0) | 1.710 (43.4) |

**APPLICATION NOTES**

1. Assembly identified with manufacturer's name and part number, space permitting.
2. For complete dimensions, see the applicable Military Specification.
3. Cable entry is defined as the accommodation range for the wire bundle or cable. Dimensions shown are not intended for inspection criteria.
4. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.

# M83723/59-1, M83723/60-1, MS27292 and MS27294 Threaded Protective Plug and Receptacle Covers



MIL-DTL-83723

## MATING CONNECTOR

MIL-DTL-83723, Series III Threaded

### Superseded Part Number

Basic Part Number  
MS27292 = Plug Cover  
MS27294 = Receptacle Cover

Dash Number

MS27292 - 1

See Note 3

### Basic Part Number

M83723/59-1 = Plug Cover  
M83723/60-1 = Receptacle Cover

Shell Size

M83723/59-1

10

### Attachment Style

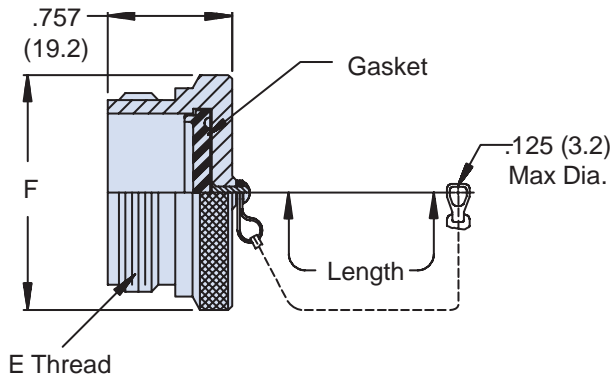
C = 5.0" (127.0) Chain  
P = 8.0" (203.2) Chain  
R = 5.0" (127.0) Rope  
T = 8.0" (203.2) Rope  
N = No Attachment

A

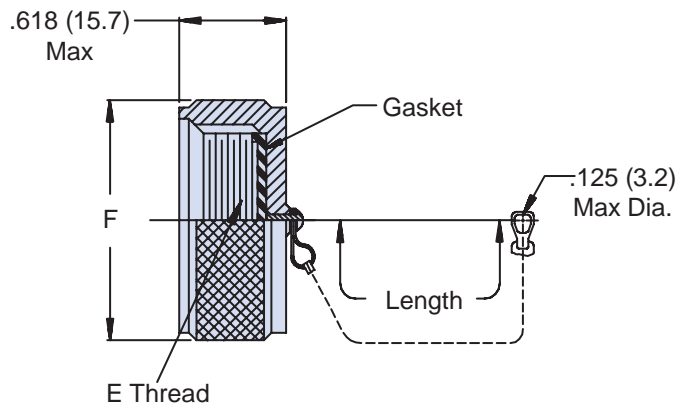
C

### Finish

A = Black Anodize  
R = Electroless Nickel  
W = Cadmium over Electroless Nickel



**M83723/59-1 PLUG COVER**  
**M27292 PLUG COVER (SEE NOTE 3)**



**M83723/60-1 RECEPTACLE COVER**  
**M27294 RECEPTACLE COVER (SEE NOTE 3)**

**TABLE I: Shell Size, Dash Number, Thread and Dimensions**

| Shell Size | M27292 Dash No. | E Thread Class 2A/2B | K Dia Max    |
|------------|-----------------|----------------------|--------------|
| 8          | 7               | 9/16- 24 UNEF        | .776 (19.7)  |
| 10         | 1               | 11/16- 24 UNEF       | .906 (23.0)  |
| 12         | 2               | 7/8- 20 UNEF         | 1.078 (27.4) |
| 14         | 3               | 15/16- 20 UNEF       | 1.141 (29.0) |
| 16         | 4               | 1 1/16- 18 UNEF      | 1.266 (32.2) |
| 18         | 5               | 1 3/16- 18 UNEF      | 1.375 (34.9) |
| 20         | 8               | 1 5/16- 18 UNEF      | 1.510 (38.4) |
| 22         | 6               | 1 7/16- 18 UNEF      | 1.625 (41.3) |
| 24         | 9               | 1 9/16- 18 UNEF      | 1.760 (44.7) |

### APPLICATION NOTES

1. Assembly identified with manufacturer's name and part number, space permitting.
2. For complete dimensions, see the applicable Military Specification.
3. MS27292 and MS27294 have a black anodize finish. Dash numbers 1, 2 and 7 have a 3.0-inch (76.2) wire rope attachment. Other dash numbers have a 5-inch (127.0) wire rope attachment.
4. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.

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E



## M83723/59-2, M83723/60-2, MS27293 and MS29295 Protective Plug and Receptacle Covers Bayonet Coupling

### MATING CONNECTOR

MIL-DTL-83723 Bayonet

### Superseded Part Number

Basic Part Number  
MS27293 = Plug Cover  
MS27295 = Receptacle Cover

Dash Number

MS27293 - 1

See Note 3

### Basic Part Number

M83723/59-2 = Plug Cover  
M83723/60-2 = Receptacle Cover

Shell Size

### Attachment Style

C = 5.0" (127.0) Chain  
P = 8.0" (203.2) Chain  
R = 5.0" (127.0) Rope  
T = 8.0" (203.2) Rope  
N = No Attachment

M83723/59-2

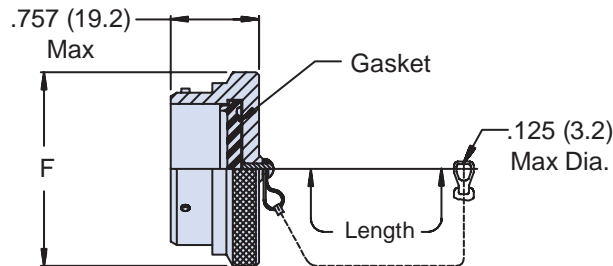
10

A

C

### Finish

A = Black Anodize  
R = Electroless Nickel  
W = Cadmium over Electroless Nickel



**M83723/59-2 PLUG COVER**  
**M27293 PLUG COVER (SEE NOTE 3)**

**TABLE I: Shell Size,  
Dash Number  
and Dimensions**

| Shell Size | M27292<br>M27294<br>Dash No. | F Dia<br>Max |
|------------|------------------------------|--------------|
| 8          | 7                            | .776 (19.7)  |
| 10         | 1                            | .906 (23.0)  |
| 12         | 2                            | 1.078 (27.4) |
| 14         | 3                            | 1.141 (29.0) |
| 16         | 4                            | 1.266 (32.2) |
| 18         | 5                            | 1.375 (34.9) |
| 20         | 8                            | 1.510 (38.4) |
| 22         | 6                            | 1.625 (41.3) |
| 24         | 9                            | 1.760 (44.7) |

Dimensions in inches (millimeters) and are subject to change without notice.

# M83723/70 Series III Quick-Disconnect Receptacle Adapter



MIL-DTL-83723

Basic Part Number

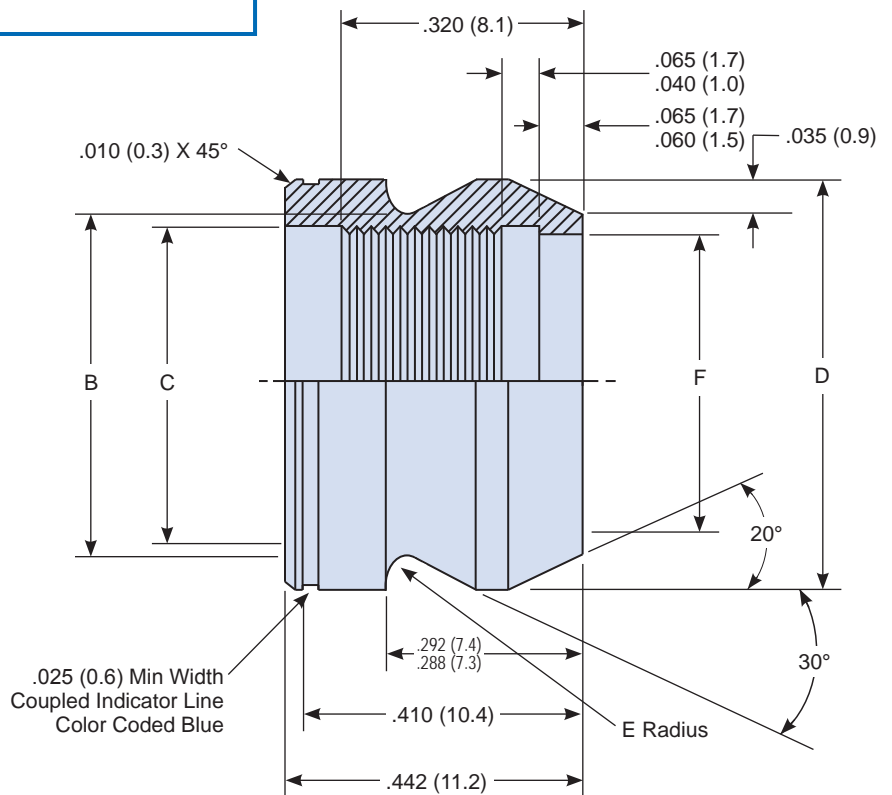
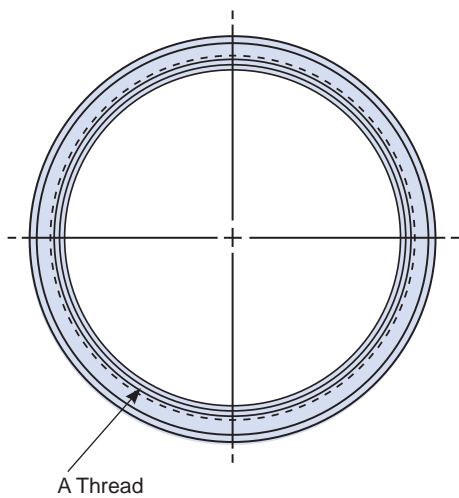
**M83723/70**

Dash No.

**W 22**

### Material and Finish

- A* = Aluminum, Black Anodize
- R* = Aluminum, Electroless Nickel
- G* = Corrosion-Resistant Steel Passivate
- W* = Aluminum, Cadmium Olive Drab over Electroless Nickel



### APPLICATION NOTES

1. Dimensions are in inches and apply after plating.
2. Metric equivalents are in parentheses and given for information only.
3. Unless otherwise specified, tolerances shall be  $\pm 0.005$  (0.13) for three decimal places,  $\pm 0.01$  (0.25) for two decimal places and  $\pm 1/2^\circ$  for all angles.
4. Coupling indicator line shall be color coded blue and  $.025 \pm .010$  (0.64  $\pm$  0.25) wide.

Dimensions in inches (millimeters) and are subject to change without notice.





## M83723/70 Straight Adapter

**TABLE I: Shell Size, Thread, Teeth and Dimensions**

| Shell Size | A<br>Coupling Thread<br>UNEF-2B | B<br>Dia      | C<br>Dia      | D<br>Dia      | E<br>Radius | F<br>Dia      |
|------------|---------------------------------|---------------|---------------|---------------|-------------|---------------|
| 8          | .5625-24                        | .607 (15.42)  | .579 (14.71)  | .689 (17.50)  | .036 (0.91) | .525 (13.34)  |
|            |                                 | .603 (15.32)  | .575 (14.61)  | .685 (17.40)  | .031 (0.79) |               |
| 10         | .6875-24                        | .732 (18.59)  | .714 (18.14)  | .814 (20.68)  | .036 (0.91) | .650 (16.51)  |
|            |                                 | .728 (18.49)  | .710 (18.03)  | .810 (20.57)  | .031 (0.79) |               |
| 12         | .875-20                         | .918 (23.34)  | .894 (22.71)  | 1.001 (25.43) | .036 (0.91) | .840 (21.34)  |
|            |                                 | .915 (23.24)  | .890 (22.61)  | .997 (25.32)  | .031 (0.79) |               |
| 14         | .9375-20                        | .982 (24.94)  | .954 (24.23)  | 1.064 (27.03) | .036 (0.91) | .900 (22.86)  |
|            |                                 | .978 (24.84)  | .950 (24.13)  | 1.060 (26.92) | .031 (0.79) |               |
| 16         | 1.0625-18                       | 1.107 (28.12) | 1.079 (27.41) | 1.189 (30.20) | .036 (0.91) | 1.025 (26.04) |
|            |                                 | 1.103 (28.02) | 1.075 (27.31) | 1.185 (30.10) | .031 (0.79) |               |
| 18         | 1.1875-18                       | 1.232 (31.29) | 1.204 (30.58) | 1.330 (33.78) | .044 (1.12) | 1.150 (29.21) |
|            |                                 | 1.228 (31.19) | 1.200 (30.48) | 1.326 (33.68) | .039 (0.99) |               |
| 20         | 1.3125-18                       | 1.357 (34.47) | 1.329 (33.76) | 1.455 (36.96) | .044 (1.12) | 1.275 (32.39) |
|            |                                 | 1.353 (34.37) | 1.325 (33.66) | 1.451 (36.86) | .039 (0.99) |               |
| 22         | 1.4375-18                       | 1.482 (37.64) | 1.454 (36.93) | 1.580 (40.13) | .044 (1.12) | 1.400 (35.56) |
|            |                                 | 1.478 (37.54) | 1.450 (36.83) | 1.576 (40.03) | .039 (0.99) |               |
| 24         | 1.5625-18                       | 1.607 (40.82) | 1.579 (40.11) | 1.705 (43.31) | .044 (1.12) | 1.525 (38.74) |
|            |                                 | 1.603 (40.72) | 1.575 (40.01) | 1.701 (43.21) | .039 (0.99) |               |

Dimensions in inches (millimeters) and are subject to change without notice.



# AS81511 Qualified Backshells and Connector Accessories



## SECTION F • AS81511 QUALIFIED PRODUCTS • SECTION F

| Industry Specification Number | Part Identification Number | Military Part Number Superseded | Glenair Commercial Part Number | Description  | Glenair Connector Designator/Interface         | Page No. |
|-------------------------------|----------------------------|---------------------------------|--------------------------------|--|--|----------|
| AS81511/13                    | M81511/13                  | --                              | 620JS001                       | Straight Non-Self-Locking Strain Relief  | "J"<br>AS81511 Series I, II, III & IV          | F-2      |
| AS81511/14                    | M81511/14 A<br>M81511/14 B | --                              | 390JS012<br>390JS012           | Straight EMI/RFI Environmental Backshell A<br>Straight EMI/RFI Environmental Backshell B | "J"<br>AS81511 Series I, II, III & IV          | F-3      |
| AS81511/14                    | M81511/14 C<br>M81511/14 D | --                              | 380JS008<br>380JS008           | Str. EMI/RFI Non-Environmental Backshell C<br>Str. EMI/RFI Non-Environmental Backshell D | "J"<br>AS81511 Series I, II, III & IV          | F-5      |
| AS81511/17<br>AS81511/18      | M81511/17<br>M81511/18     | --                              | 660-017<br>660-018             | Protective Plug Cover<br>Protective Receptacle Cover                                     | AS81511 Series I, II, III & IV                 | F-7      |
| AS81511/19                    | M81511/19                  | --                              | 650JS002                       | Dummy Storage Receptacle   | AS81511 Series I, II, III & IV                 | F-8      |
| AS81511/20                    | M81511/20                  | --                              | Consult Factory                | Jam Nut  | AS81511 Series I, II, III & IV                 | F-9      |
| AS81511/29                    | M81511/29                  | --                              | 660-016                        | Protective Plug Cover  | AS81511 Series I, II, III & IV                 | F-7      |
| AS81511/30                    | M81511/30                  | --                              | 650JS001                       | Dummy Storage Receptacle Bayonet Coupling  | MIL-DTL-26500 and<br>MIL-DTL-83723, Series III | F-10     |

Dimensions in inches (millimeters) and are subject to change without notice.

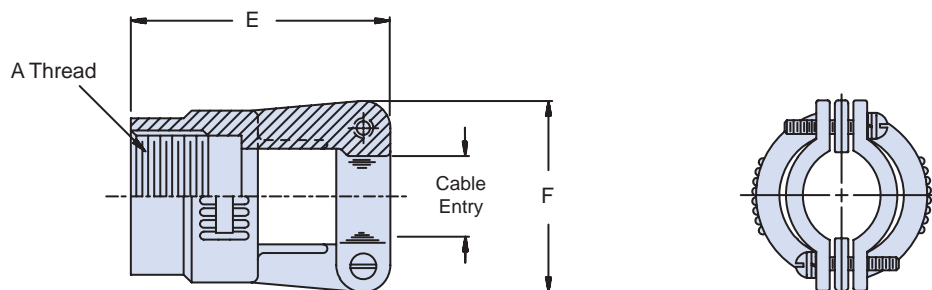
## CONNECTOR DESIGNATOR:

**J** AS81511 Series I, II, III & IV
Basic  
Part Number

Shell Size

**M81511/13****16****A1**

Adapter Connector Class Designator

*A1 = Classes E, H, and P**B1 = Classes A, B, C, F, G, and T*
**TABLE I: Shell Size, Cable Entry and Backshell Dimensions**

| Shell Size | A Thread<br>Class 2B | E<br>Max     | F<br>Max     | Cable Entry |              |             |              |
|------------|----------------------|--------------|--------------|-------------|--------------|-------------|--------------|
|            |                      |              |              | Min         | Max          | Min         | Max          |
| 08         | .500 - 28 UNEF       | 1.375 (34.9) | .775 (19.7)  | .062 (1.6)  | .125 (3.2)   | .062 (1.6)  | .125 (3.2)   |
| 10         | .625 - 28 UN         | 1.375 (34.9) | .955 (24.3)  | .125 (3.2)  | .250 (6.4)   | .125 (3.2)  | .250 (6.4)   |
| 14         | .875 - 28 UN         | 1.375 (34.9) | 1.145 (29.1) | .250 (6.4)  | .500 (12.7)  | .250 (6.4)  | .500 (12.7)  |
| 16         | 1.000 - 28 UN        | 1.375 (34.9) | 1.210 (30.7) | .375 (9.5)  | .625 (15.9)  | .375 (9.5)  | .625 (15.9)  |
| 18         | 1.125 - 28 UN        | 1.375 (34.9) | 1.330 (33.8) | .500 (12.7) | .750 (19.1)  | .500 (12.7) | .750 (19.1)  |
| 20         | 1.250 - 28 UN        | 1.452 (36.9) | 1.470 (37.3) | .625 (15.9) | .875 (22.2)  | .625 (15.9) | .875 (22.2)  |
| 22         | 1.375 - 28 UN        | 1.452 (36.9) | 1.580 (40.1) | .750 (19.1) | 1.000 (25.4) | .750 (19.1) | 1.000 (25.4) |
| 24         | 1.500 - 28 UN        | 1.452 (36.9) | 1.720 (43.7) | .750 (19.1) | 1.125 (28.6) | .750 (19.1) | 1.125 (28.6) |

## APPLICATION NOTES

1. Assembly to be identified with manufacturer's name and part number, space permitting.
2. Cable Entry is defined as the accommodation entry for the wire bundle or cable. Dimensions are not intended for inspection criteria.
3. For complete dimensions, see the applicable Military Specification.
4. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.

# AS81511/14 Straight EMI/RFI Environmental Backshell A & B



AS81511

**CONNECTOR DESIGNATOR:**

**J** AS81511 Series I, II, III & IV

Basic Part Number

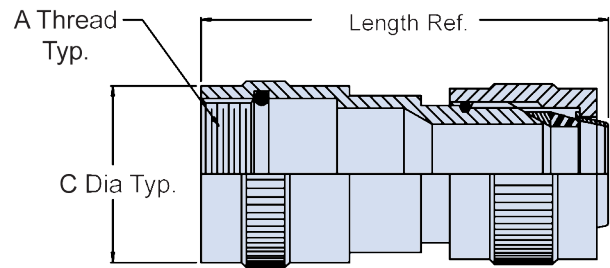
Dash Number  
(Table I)

**M81511/14 - 050**

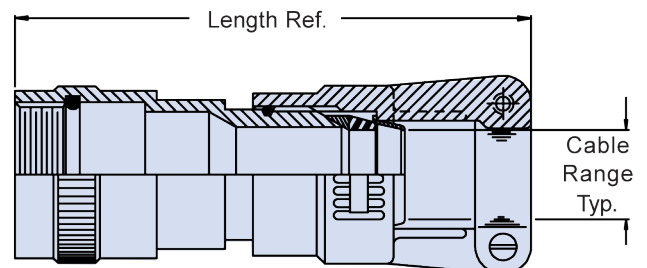
**TABLE I: Dash Number and Dimensions**

| Dash No. | Shell Size | Function | A Thread Class 2B | Length Ref. | Cable Range |             |
|----------|------------|----------|-------------------|-------------|-------------|-------------|
|          |            |          |                   |             | Min         | Max         |
| 001      | 08         | A        | .500 - 28 UNEF    | 2.22 (56.4) | .062 (1.6)  | .125 (3.2)  |
| 002      | 08         | A        | .500 - 28 UNEF    | 2.22 (56.4) | .125 (3.2)  | .250 (6.4)  |
| 003      | 08         | B        | .500 - 28 UNEF    | 2.72 (69.1) | .062 (1.6)  | .125 (3.2)  |
| 004      | 08         | B        | .500 - 28 UNEF    | 2.72 (69.1) | .125 (3.2)  | .250 (6.4)  |
| 005      | 08         | A        | .500 - 28 UNEF    | 2.72 (69.1) | .062 (1.6)  | .125 (3.2)  |
| 006      | 08         | A        | .500 - 28 UNEF    | 2.72 (69.1) | .125 (3.2)  | .250 (6.4)  |
| 007      | 08         | B        | .500 - 28 UNEF    | 3.22 (81.8) | .062 (1.6)  | .125 (3.2)  |
| 008      | 08         | B        | .500 - 28 UNEF    | 3.22 (81.8) | .125 (3.2)  | .250 (6.4)  |
| 009      | 10         | A        | .625 - 28 UN      | 2.22 (56.4) | .125 (3.2)  | .250 (6.4)  |
| 010      | 10         | A        | .625 - 28 UN      | 2.22 (56.4) | .250 (6.4)  | .375 (9.5)  |
| 011      | 10         | A        | .625 - 28 UN      | 2.22 (56.4) | .375 (9.5)  | .500 (12.7) |
| 012      | 10         | B        | .625 - 28 UN      | 2.72 (69.1) | .125 (3.2)  | .250 (6.4)  |
| 013      | 10         | B        | .625 - 28 UN      | 2.72 (69.1) | .250 (6.4)  | .375 (9.5)  |
| 014      | 10         | B        | .625 - 28 UN      | 2.72 (69.1) | .375 (9.5)  | .500 (12.7) |
| 015      | 10         | A        | .625 - 28 UN      | 2.72 (69.1) | .125 (3.2)  | .250 (6.4)  |
| 016      | 10         | A        | .625 - 28 UN      | 2.72 (69.1) | .250 (6.4)  | .375 (9.5)  |
| 017      | 10         | A        | .625 - 28 UN      | 2.72 (69.1) | .375 (9.5)  | .500 (12.7) |
| 018      | 10         | B        | .625 - 28 UN      | 3.22 (81.8) | .125 (3.2)  | .250 (6.4)  |
| 019      | 10         | B        | .625 - 28 UN      | 3.22 (81.8) | .250 (6.4)  | .375 (9.5)  |
| 020      | 10         | B        | .625 - 28 UN      | 3.22 (81.8) | .375 (9.5)  | .500 (12.7) |
| 021      | 14         | A        | .875 - 28 UN      | 2.22 (56.4) | .250 (6.4)  | .375 (9.5)  |
| 022      | 14         | A        | .875 - 28 UN      | 2.22 (56.4) | .375 (9.5)  | .500 (12.7) |
| 023      | 14         | A        | .875 - 28 UN      | 2.22 (56.4) | .500 (12.7) | .625 (15.9) |
| 024      | 14         | B        | .875 - 28 UN      | 2.72 (69.1) | .250 (6.4)  | .375 (9.5)  |
| 025      | 14         | B        | .875 - 28 UN      | 2.72 (69.1) | .375 (9.5)  | .500 (12.7) |
| 026      | 14         | B        | .875 - 28 UN      | 2.72 (69.1) | .500 (12.7) | .625 (15.9) |
| 027      | 14         | A        | .875 - 28 UN      | 2.72 (69.1) | .250 (6.4)  | .375 (9.5)  |
| 028      | 14         | A        | .875 - 28 UN      | 2.72 (69.1) | .375 (9.5)  | .500 (12.7) |
| 029      | 14         | A        | .875 - 28 UN      | 2.72 (69.1) | .500 (12.7) | .625 (15.9) |
| 030      | 14         | B        | .875 - 28 UN      | 3.22 (81.8) | .250 (6.4)  | .375 (9.5)  |
| 031      | 14         | B        | .875 - 28 UN      | 3.22 (81.8) | .375 (9.5)  | .500 (12.7) |
| 032      | 14         | B        | .875 - 28 UN      | 3.22 (81.8) | .500 (12.7) | .625 (15.9) |
| 033      | 16         | A        | 1.000 - 28 UN     | 2.22 (56.4) | .250 (6.4)  | .375 (9.5)  |
| 034      | 16         | A        | 1.000 - 28 UN     | 2.22 (56.4) | .375 (9.5)  | .500 (12.7) |
| 035      | 16         | A        | 1.000 - 28 UN     | 2.22 (56.4) | .500 (12.7) | .625 (15.9) |
| 036      | 16         | B        | 1.000 - 28 UN     | 2.72 (69.1) | .250 (6.4)  | .375 (9.5)  |
| 037      | 16         | B        | 1.000 - 28 UN     | 2.72 (69.1) | .375 (9.5)  | .500 (12.7) |

Table I Continued on Page F-4



Function "A" Adapter Assembly



Function "B" Adapter Assembly

**APPLICATION NOTES**

1. For complete dimensions see the applicable Military Specification.
2. Metric dimensions (mm) are in parentheses.
3. Cable Range is defined as the accommodation range for the wire bundle or cable. Dimensions shown are not intended for inspection criteria.
4. For functions C and D see page F-5.

Dimensions in inches (millimeters) and are subject to change without notice.

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# AS81511/14

## Straight EMI/RFI Environmental Backshell A & B

**TABLE I: Dash Number and Dimensions (Continued from Page F-3)**

| Dash No. | Shell Size | Function | A Thread Class 2B | C Dia Max    | Length Ref. | Cable Range  |              |
|----------|------------|----------|-------------------|--------------|-------------|--------------|--------------|
|          |            |          |                   |              |             | Min          | Max          |
| 038      | 16         | B        | 1.000 - 28 UN     | 1.056 (26.8) | 2.72 (69.1) | .500 (12.7)  | .625 (15.9)  |
| 039      | 16         | A        | 1.000 - 28 UN     | 1.056 (26.8) | 2.72 (69.1) | .250 (6.4)   | .375 (9.5)   |
| 040      | 16         | A        | 1.000 - 28 UN     | 1.056 (26.8) | 2.72 (69.1) | .375 (9.5)   | .500 (12.7)  |
| 041      | 16         | A        | 1.000 - 28 UN     | 1.056 (26.8) | 2.72 (69.1) | .500 (12.7)  | .625 (15.9)  |
| 042      | 16         | B        | 1.000 - 28 UN     | 1.056 (26.8) | 3.22 (81.8) | .250 (6.4)   | .375 (9.5)   |
| 043      | 16         | B        | 1.000 - 28 UN     | 1.056 (26.8) | 3.22 (81.8) | .375 (9.5)   | .500 (12.7)  |
| 044      | 16         | B        | 1.000 - 28 UN     | 1.056 (26.8) | 3.22 (81.8) | .500 (12.7)  | .625 (15.9)  |
| 045      | 18         | A        | 1.125 - 28 UN     | 1.180 (30.0) | 2.22 (56.4) | .375 (9.5)   | .500 (12.7)  |
| 046      | 18         | A        | 1.125 - 28 UN     | 1.180 (30.0) | 2.22 (56.4) | .500 (12.7)  | .625 (15.9)  |
| 047      | 18         | A        | 1.125 - 28 UN     | 1.180 (30.0) | 2.22 (56.4) | .625 (15.9)  | .750 (19.1)  |
| 048      | 18         | B        | 1.125 - 28 UN     | 1.180 (30.0) | 2.72 (69.1) | .375 (9.5)   | .500 (12.7)  |
| 049      | 18         | B        | 1.125 - 28 UN     | 1.180 (30.0) | 2.72 (69.1) | .500 (12.7)  | .625 (15.9)  |
| 050      | 18         | B        | 1.125 - 28 UN     | 1.180 (30.0) | 2.72 (69.1) | .625 (15.9)  | .750 (19.1)  |
| 051      | 18         | A        | 1.125 - 28 UN     | 1.180 (30.0) | 2.72 (69.1) | .375 (9.5)   | .500 (12.7)  |
| 052      | 18         | A        | 1.125 - 28 UN     | 1.180 (30.0) | 2.72 (69.1) | .500 (12.7)  | .625 (15.9)  |
| 053      | 18         | A        | 1.125 - 28 UN     | 1.180 (30.0) | 2.72 (69.1) | .625 (15.9)  | .750 (19.1)  |
| 054      | 18         | B        | 1.125 - 28 UN     | 1.180 (30.0) | 3.22 (81.8) | .375 (9.5)   | .500 (12.7)  |
| 055      | 18         | B        | 1.125 - 28 UN     | 1.180 (30.0) | 3.22 (81.8) | .500 (12.7)  | .625 (15.9)  |
| 056      | 18         | B        | 1.125 - 28 UN     | 1.180 (30.0) | 3.22 (81.8) | .625 (15.9)  | .750 (19.1)  |
| 113      | 20         | A        | 1.250 - 28 UN     | 1.305 (33.1) | 2.30 (58.4) | .500 (12.7)  | .625 (15.9)  |
| 114      | 20         | A        | 1.250 - 28 UN     | 1.305 (33.1) | 2.30 (58.4) | .625 (15.9)  | .750 (19.1)  |
| 115      | 20         | A        | 1.250 - 28 UN     | 1.305 (33.1) | 2.30 (58.4) | .750 (19.1)  | .875 (22.2)  |
| 116      | 20         | B        | 1.250 - 28 UN     | 1.305 (33.1) | 2.80 (71.1) | .500 (12.7)  | .625 (15.9)  |
| 117      | 20         | B        | 1.250 - 28 UN     | 1.305 (33.1) | 2.80 (71.1) | .625 (15.9)  | .750 (19.1)  |
| 118      | 20         | B        | 1.250 - 28 UN     | 1.305 (33.1) | 2.80 (71.1) | .750 (19.1)  | .875 (22.2)  |
| 119      | 20         | A        | 1.250 - 28 UN     | 1.305 (33.1) | 2.80 (71.1) | .500 (12.7)  | .625 (15.9)  |
| 120      | 20         | A        | 1.250 - 28 UN     | 1.305 (33.1) | 2.80 (71.1) | .625 (15.9)  | .750 (19.1)  |
| 121      | 20         | A        | 1.250 - 28 UN     | 1.305 (33.1) | 2.80 (71.1) | .750 (19.1)  | .875 (22.2)  |
| 122      | 20         | B        | 1.250 - 28 UN     | 1.305 (33.1) | 3.30 (83.8) | .500 (12.7)  | .625 (15.9)  |
| 123      | 20         | B        | 1.250 - 28 UN     | 1.305 (33.1) | 3.30 (83.8) | .625 (15.9)  | .750 (19.1)  |
| 124      | 20         | B        | 1.250 - 28 UN     | 1.305 (33.1) | 3.30 (83.8) | .750 (19.1)  | .875 (22.2)  |
| 125      | 22         | A        | 1.375 - 28 UN     | 1.430 (36.3) | 2.30 (58.4) | .625 (15.9)  | .750 (19.1)  |
| 126      | 22         | A        | 1.375 - 28 UN     | 1.430 (36.3) | 2.30 (58.4) | .750 (19.1)  | .875 (22.2)  |
| 127      | 22         | A        | 1.375 - 28 UN     | 1.430 (36.3) | 2.30 (58.4) | .875 (22.2)  | 1.000 (25.4) |
| 128      | 22         | B        | 1.375 - 28 UN     | 1.430 (36.3) | 2.80 (71.1) | .625 (15.9)  | .750 (19.1)  |
| 129      | 22         | B        | 1.375 - 28 UN     | 1.430 (36.3) | 2.80 (71.1) | .750 (19.1)  | .875 (22.2)  |
| 130      | 22         | B        | 1.375 - 28 UN     | 1.430 (36.3) | 2.80 (71.1) | .875 (22.2)  | 1.000 (25.4) |
| 131      | 22         | A        | 1.375 - 28 UN     | 1.430 (36.3) | 2.80 (71.1) | .625 (15.9)  | .750 (19.1)  |
| 132      | 22         | A        | 1.375 - 28 UN     | 1.430 (36.3) | 2.80 (71.1) | .750 (19.1)  | .875 (22.2)  |
| 133      | 22         | A        | 1.375 - 28 UN     | 1.430 (36.3) | 2.80 (71.1) | .875 (22.2)  | 1.000 (25.4) |
| 134      | 22         | B        | 1.375 - 28 UN     | 1.430 (36.3) | 3.30 (83.8) | .625 (15.9)  | .750 (19.1)  |
| 135      | 22         | B        | 1.375 - 28 UN     | 1.430 (36.3) | 3.30 (83.8) | .750 (19.1)  | .875 (22.2)  |
| 136      | 22         | B        | 1.375 - 28 UN     | 1.430 (36.3) | 3.30 (83.8) | .875 (22.2)  | 1.000 (25.4) |
| 137      | 24         | A        | 1.500 - 28 UN     | 1.555 (39.5) | 2.30 (58.4) | .750 (19.1)  | .875 (22.2)  |
| 138      | 24         | A        | 1.500 - 28 UN     | 1.555 (39.5) | 2.30 (58.4) | .875 (22.2)  | 1.000 (25.4) |
| 139      | 24         | A        | 1.500 - 28 UN     | 1.555 (39.5) | 2.30 (58.4) | 1.000 (25.4) | 1.125 (28.6) |
| 140      | 24         | B        | 1.500 - 28 UN     | 1.555 (39.5) | 2.80 (71.1) | .750 (19.1)  | .875 (22.2)  |
| 141      | 24         | B        | 1.500 - 28 UN     | 1.555 (39.5) | 2.80 (71.1) | .875 (22.2)  | 1.000 (25.4) |
| 142      | 24         | B        | 1.500 - 28 UN     | 1.555 (39.5) | 2.80 (71.1) | 1.000 (25.4) | 1.125 (28.6) |
| 143      | 24         | A        | 1.500 - 28 UN     | 1.555 (39.5) | 2.80 (71.1) | .750 (19.1)  | .875 (22.2)  |
| 144      | 24         | A        | 1.500 - 28 UN     | 1.555 (39.5) | 2.80 (71.1) | .875 (22.2)  | 1.000 (25.4) |
| 145      | 24         | A        | 1.500 - 28 UN     | 1.555 (39.5) | 2.80 (71.1) | 1.000 (25.4) | 1.125 (28.6) |
| 146      | 24         | B        | 1.500 - 28 UN     | 1.555 (39.5) | 3.30 (83.8) | .750 (19.1)  | .875 (22.2)  |
| 147      | 24         | B        | 1.500 - 28 UN     | 1.555 (39.5) | 3.30 (83.8) | .875 (22.2)  | 1.000 (25.4) |
| 148      | 24         | B        | 1.500 - 28 UN     | 1.555 (39.5) | 3.30 (83.8) | 1.000 (25.4) | 1.125 (28.6) |

Dimensions in inches (millimeters) and are subject to change without notice.

# AS81511/14 Functions C and D Straight EMI/RFI Non-Environmental Backshell



AS81511

**CONNECTOR DESIGNATOR:**

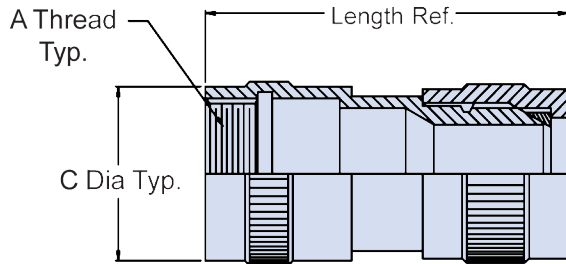
**J** AS81511 Series I, II, III & IV

Basic Part Number

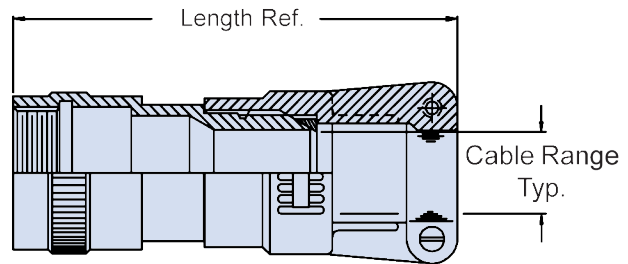
Dash Number (Table I)

**M81511/14**

**100**



**Function "C" Adapter Assembly**



**Function "D" Adapter Assembly**

| TABLE I: Dash Number and Dimensions |            |          |                   |             |             |             |             |
|-------------------------------------|------------|----------|-------------------|-------------|-------------|-------------|-------------|
| Dash No.                            | Shell Size | Function | A Thread Class 2B | C Dia Max   | Length Ref. | Cable Range |             |
|                                     |            |          |                   |             |             | Min         | Max         |
| 057                                 | 08         | C        | .500 - 28 UNEF    | .555 (14.1) | 1.71 (43.4) | .062 (1.6)  | .125 (3.2)  |
| 058                                 | 08         | C        | .500 - 28 UNEF    | .555 (14.1) | 1.71 (43.4) | .125 (3.2)  | .250 (6.4)  |
| 059                                 | 08         | D        | .500 - 28 UNEF    | .555 (14.1) | 2.47 (62.7) | .062 (1.6)  | .125 (3.2)  |
| 060                                 | 08         | D        | .500 - 28 UNEF    | .555 (14.1) | 2.47 (62.7) | .125 (3.2)  | .250 (6.4)  |
| 061                                 | 08         | C        | .500 - 28 UNEF    | .555 (14.1) | 2.21 (56.1) | .062 (1.6)  | .125 (3.2)  |
| 062                                 | 08         | C        | .500 - 28 UNEF    | .555 (14.1) | 2.21 (56.1) | .125 (3.2)  | .250 (6.4)  |
| 063                                 | 08         | D        | .500 - 28 UNEF    | .555 (14.1) | 2.97 (75.4) | .062 (1.6)  | .125 (3.2)  |
| 064                                 | 08         | D        | .500 - 28 UNEF    | .555 (14.1) | 2.97 (75.4) | .125 (3.2)  | .250 (6.4)  |
| 065                                 | 10         | C        | .625 - 28 UN      | .680 (17.3) | 1.71 (43.4) | .125 (3.2)  | .250 (6.4)  |
| 066                                 | 10         | C        | .625 - 28 UN      | .680 (17.3) | 1.71 (43.4) | .250 (6.4)  | .375 (9.5)  |
| 067                                 | 10         | C        | .625 - 28 UN      | .680 (17.3) | 1.71 (43.4) | .375 (9.5)  | .500 (12.7) |
| 068                                 | 10         | D        | .625 - 28 UN      | .680 (17.3) | 2.47 (62.7) | .125 (3.2)  | .250 (6.4)  |
| 069                                 | 10         | D        | .625 - 28 UN      | .680 (17.3) | 2.47 (62.7) | .250 (6.4)  | .375 (9.5)  |
| 070                                 | 10         | D        | .625 - 28 UN      | .680 (17.3) | 2.47 (62.7) | .375 (9.5)  | .500 (12.7) |
| 071                                 | 10         | C        | .625 - 28 UN      | .680 (17.3) | 2.21 (56.1) | .125 (3.2)  | .250 (6.4)  |
| 072                                 | 10         | C        | .625 - 28 UN      | .680 (17.3) | 2.21 (56.1) | .250 (6.4)  | .375 (9.5)  |
| 073                                 | 10         | C        | .625 - 28 UN      | .680 (17.3) | 2.21 (56.1) | .375 (9.5)  | .500 (12.7) |
| 074                                 | 10         | D        | .625 - 28 UN      | .680 (17.3) | 2.97 (75.4) | .125 (3.2)  | .250 (6.4)  |
| 075                                 | 10         | D        | .625 - 28 UN      | .680 (17.3) | 2.97 (75.4) | .250 (6.4)  | .375 (9.5)  |
| 076                                 | 10         | D        | .625 - 28 UN      | .680 (17.3) | 2.97 (75.4) | .375 (9.5)  | .500 (12.7) |
| 077                                 | 14         | C        | .875 - 28 UN      | .930 (23.6) | 1.71 (43.4) | .250 (6.4)  | .375 (9.5)  |
| 078                                 | 14         | C        | .875 - 28 UN      | .930 (23.6) | 1.71 (43.4) | .375 (9.5)  | .500 (12.7) |
| 079                                 | 14         | C        | .875 - 28 UN      | .930 (23.6) | 1.71 (43.4) | .500 (12.7) | .625 (15.9) |
| 080                                 | 14         | D        | .875 - 28 UN      | .930 (23.6) | 2.47 (62.7) | .250 (6.4)  | .375 (9.5)  |
| 081                                 | 14         | D        | .875 - 28 UN      | .930 (23.6) | 2.47 (62.7) | .375 (9.5)  | .500 (12.7) |
| 082                                 | 14         | D        | .875 - 28 UN      | .930 (23.6) | 2.47 (62.7) | .500 (12.7) | .625 (15.9) |
| 083                                 | 14         | C        | .875 - 28 UN      | .930 (23.6) | 2.21 (56.1) | .250 (6.4)  | .375 (9.5)  |
| 084                                 | 14         | C        | .875 - 28 UN      | .930 (23.6) | 2.21 (56.1) | .375 (9.5)  | .500 (12.7) |
| 085                                 | 14         | C        | .875 - 28 UN      | .930 (23.6) | 2.21 (56.1) | .500 (12.7) | .625 (15.9) |
| 086                                 | 14         | D        | .875 - 28 UN      | .930 (23.6) | 2.97 (75.4) | .250 (6.4)  | .375 (9.5)  |
| 087                                 | 14         | D        | .875 - 28 UN      | .930 (23.6) | 2.97 (75.4) | .375 (9.5)  | .500 (12.7) |
| 088                                 | 14         | D        | .875 - 28 UN      | .930 (23.6) | 2.97 (75.4) | .500 (12.7) | .625 (15.9) |

Table I Continued on Next Column (Right)

| TABLE I: Dash Number and Dimensions (Continued) |            |          |                   |              |             |             |             |
|---|------------|----------|-------------------|--------------|-------------|-------------|-------------|
| Dash No.  | Shell Size | Function | A Thread Class 2B | C Dia Max    | Length Ref. | Cable Range |             |
|   |            |          |                   |              |             | Min         | Max         |
| 089   | 16         | C        | 1.000 - 28 UN     | 1.056 (26.8) | 1.71 (43.4) | .250 (6.4)  | .375 (9.5)  |
| 090   | 16         | C        | 1.000 - 28 UN     | 1.056 (26.8) | 1.71 (43.4) | .375 (9.5)  | .500 (12.7) |
| 091   | 16         | C        | 1.000 - 28 UN     | 1.056 (26.8) | 1.71 (43.4) | .500 (12.7) | .625 (15.9) |
| 092   | 16         | D        | 1.000 - 28 UN     | 1.056 (26.8) | 2.47 (62.7) | .250 (6.4)  | .375 (9.5)  |
| 093   | 16         | D        | 1.000 - 28 UN     | 1.056 (26.8) | 2.47 (62.7) | .375 (9.5)  | .500 (12.7) |
| 094   | 16         | D        | 1.000 - 28 UN     | 1.056 (26.8) | 2.47 (62.7) | .500 (12.7) | .625 (15.9) |
| 095   | 16         | C        | 1.000 - 28 UN     | 1.056 (26.8) | 2.21 (56.1) | .250 (6.4)  | .375 (9.5)  |
| 096   | 16         | C        | 1.000 - 28 UN     | 1.056 (26.8) | 2.21 (56.1) | .375 (9.5)  | .500 (12.7) |
| 097   | 16         | C        | 1.000 - 28 UN     | 1.056 (26.8) | 2.21 (56.1) | .500 (12.7) | .625 (15.9) |
| 098   | 16         | D        | 1.000 - 28 UN     | 1.056 (26.8) | 2.97 (75.4) | .250 (6.4)  | .375 (9.5)  |
| 099   | 16         | D        | 1.000 - 28 UN     | 1.056 (26.8) | 2.97 (75.4) | .375 (9.5)  | .500 (12.7) |
| 100   | 16         | D        | 1.000 - 28 UN     | 1.056 (26.8) | 2.97 (75.4) | .500 (12.7) | .625 (15.9) |
| 101   | 18         | C        | 1.125 - 28 UN     | 1.180 (30.0) | 1.71 (43.4) | .375 (9.5)  | .500 (12.7) |
| 102   | 18         | C        | 1.125 - 28 UN     | 1.180 (30.0) | 1.71 (43.4) | .500 (12.7) | .625 (15.9) |
| 103   | 18         | C        | 1.125 - 28 UN     | 1.180 (30.0) | 1.71 (43.4) | .625 (15.9) | .750 (19.1) |
| 104   | 18         | D        | 1.125 - 28 UN     | 1.180 (30.0) | 2.47 (62.7) | .375 (9.5)  | .500 (12.7) |
| 105   | 18         | D        | 1.125 - 28 UN     | 1.180 (30.0) | 2.47 (62.7) | .500 (12.7) | .625 (15.9) |
| 106   | 18         | D        | 1.125 - 28 UN     | 1.180 (30.0) | 2.47 (62.7) | .625 (15.9) | .750 (19.1) |
| 107   | 18         | C        | 1.125 - 28 UN     | 1.180 (30.0) | 2.21 (56.1) | .375 (9.5)  | .500 (12.7) |
| 108   | 18         | C        | 1.125 - 28 UN     | 1.180 (30.0) | 2.21 (56.1) | .500 (12.7) | .625 (15.9) |
| 109   | 18         | C        | 1.125 - 28 UN     | 1.180 (30.0) | 2.21 (56.1) | .625 (15.9) | .750 (19.1) |
| 110   | 18         | D        | 1.125 - 28 UN     | 1.180 (30.0) | 2.97 (75.4) | .375 (9.5)  | .500 (12.7) |
| 111   | 18         | D        | 1.125 - 28 UN     | 1.180 (30.0) | 2.97 (75.4) | .500 (12.7) | .625 (15.9) |
| 112   | 18         | D        | 1.125 - 28 UN     | 1.180 (30.0) | 2.97 (75.4) | .625 (15.9) | .750 (19.1) |
| 149   | 20         | C        | 1.250 - 28 UN     | 1.305 (33.1) | 1.78 (45.2) | .500 (12.7) | .625 (15.9) |
| 150   | 20         | C        | 1.250 - 28 UN     | 1.305 (33.1) | 1.78 (45.2) | .625 (15.9) | .750 (19.1) |
| 151   | 20         | C        | 1.250 - 28 UN     | 1.305 (33.1) | 1.78 (45.2) | .750 (19.1) | .875 (22.2) |
| 152   | 20         | D        | 1.250 - 28 UN     | 1.305 (33.1) | 2.55 (64.8) | .500 (12.7) | .625 (15.9) |
| 153   | 20         | D        | 1.250 - 28 UN     | 1.305 (33.1) | 2.55 (64.8) | .625 (15.9) | .750 (19.1) |
| 154   | 20         | D        | 1.250 - 28 UN     | 1.305 (33.1) | 2.55 (64.8) | .750 (19.1) | .875 (22.2) |
| 155   | 20         | C        | 1.250 - 28 UN     | 1.305 (33.1) | 2.28 (57.9) | .500 (12.7) | .625 (15.9) |
| 156   | 20         | C        | 1.250 - 28 UN     | 1.305 (33.1) | 2.28 (57.9) | .625 (15.9) | .750 (19.1) |

Table I Continued on Page F-6

Dimensions in inches (millimeters) and are subject to change without notice.

F



## AS81511/14 Functions C and D Straight EMI/RFI Non-Environmental Backshell

**TABLE I: Dash Number and Dimensions (Continued from Page F-5)**

| Dash No. | Shell Size | Function | A Thread Class 2B | C Dia Max    | Length Ref. | Cable Range  |              |
|----------|------------|----------|-------------------|--------------|-------------|--------------|--------------|
|          |            |          |                   |              |             | Min          | Max          |
| 157      | 20         | C        | 1.250 - 28 UN     | 1.305 (33.1) | 2.28 (57.9) | .750 (19.1)  | .875 (22.2)  |
| 158      | 20         | D        | 1.250 - 28 UN     | 1.305 (33.1) | 3.05 (77.5) | .500 (12.7)  | .625 (15.9)  |
| 159      | 20         | D        | 1.250 - 28 UN     | 1.305 (33.1) | 3.05 (77.5) | .625 (15.9)  | .750 (19.1)  |
| 160      | 20         | D        | 1.250 - 28 UN     | 1.305 (33.1) | 3.05 (77.5) | .750 (19.1)  | .875 (22.2)  |
| 161      | 22         | C        | 1.375 - 28 UN     | 1.430 (36.3) | 1.78 (45.2) | .625 (15.9)  | .750 (19.1)  |
| 162      | 22         | C        | 1.375 - 28 UN     | 1.430 (36.3) | 1.78 (45.2) | .750 (19.1)  | .875 (22.2)  |
| 163      | 22         | C        | 1.375 - 28 UN     | 1.430 (36.3) | 1.78 (45.2) | .875 (22.2)  | 1.000 (25.4) |
| 164      | 22         | D        | 1.375 - 28 UN     | 1.430 (36.3) | 2.55 (64.8) | .625 (15.9)  | .750 (19.1)  |
| 165      | 22         | D        | 1.375 - 28 UN     | 1.430 (36.3) | 2.55 (64.8) | .750 (19.1)  | .875 (22.2)  |
| 166      | 22         | D        | 1.375 - 28 UN     | 1.430 (36.3) | 2.55 (64.8) | .875 (22.2)  | 1.000 (25.4) |
| 167      | 22         | C        | 1.375 - 28 UN     | 1.430 (36.3) | 2.28 (57.9) | .625 (15.9)  | .750 (19.1)  |
| 168      | 22         | C        | 1.375 - 28 UN     | 1.430 (36.3) | 2.28 (57.9) | .750 (19.1)  | .875 (22.2)  |
| 169      | 22         | C        | 1.375 - 28 UN     | 1.430 (36.3) | 2.28 (57.9) | .875 (22.2)  | 1.000 (25.4) |
| 170      | 22         | D        | 1.375 - 28 UN     | 1.430 (36.3) | 3.05 (77.5) | .625 (15.9)  | .750 (19.1)  |
| 171      | 22         | D        | 1.375 - 28 UN     | 1.430 (36.3) | 3.05 (77.5) | .750 (19.1)  | .875 (22.2)  |
| 172      | 22         | D        | 1.375 - 28 UN     | 1.430 (36.3) | 3.05 (77.5) | .875 (22.2)  | 1.000 (25.4) |
| 173      | 24         | C        | 1.500 - 28 UN     | 1.555 (39.5) | 1.78 (45.2) | .750 (19.1)  | .875 (22.2)  |
| 174      | 24         | C        | 1.500 - 28 UN     | 1.555 (39.5) | 1.78 (45.2) | .875 (22.2)  | 1.000 (25.4) |
| 175      | 24         | C        | 1.500 - 28 UN     | 1.555 (39.5) | 1.78 (45.2) | 1.000 (25.4) | 1.125 (28.6) |
| 176      | 24         | D        | 1.500 - 28 UN     | 1.555 (39.5) | 2.55 (64.8) | .750 (19.1)  | .875 (22.2)  |
| 177      | 24         | D        | 1.500 - 28 UN     | 1.555 (39.5) | 2.55 (64.8) | .875 (22.2)  | 1.000 (25.4) |
| 178      | 24         | D        | 1.500 - 28 UN     | 1.555 (39.5) | 2.55 (64.8) | 1.000 (25.4) | 1.125 (28.6) |
| 179      | 24         | C        | 1.500 - 28 UN     | 1.555 (39.5) | 2.28 (57.9) | .750 (19.1)  | .875 (22.2)  |
| 180      | 24         | C        | 1.500 - 28 UN     | 1.555 (39.5) | 2.28 (57.9) | .875 (22.2)  | 1.000 (25.4) |
| 181      | 24         | C        | 1.500 - 28 UN     | 1.555 (39.5) | 2.28 (57.9) | 1.000 (25.4) | 1.125 (28.6) |
| 182      | 24         | D        | 1.500 - 28 UN     | 1.555 (39.5) | 3.05 (77.5) | .750 (19.1)  | .875 (22.2)  |
| 183      | 24         | D        | 1.500 - 28 UN     | 1.555 (39.5) | 3.05 (77.5) | .875 (22.2)  | 1.000 (25.4) |
| 184      | 24         | D        | 1.500 - 28 UN     | 1.555 (39.5) | 3.05 (77.5) | 1.000 (25.4) | 1.125 (28.6) |
| 171      | 22         | D        | 1.375 - 28 UN     | 1.430 (36.3) | 3.05 (77.5) | .750 (19.1)  | .875 (22.2)  |
| 172      | 22         | D        | 1.375 - 28 UN     | 1.430 (36.3) | 3.05 (77.5) | .875 (22.2)  | 1.000 (25.4) |
| 173      | 24         | C        | 1.500 - 28 UN     | 1.555 (39.5) | 1.78 (45.2) | .750 (19.1)  | .875 (22.2)  |
| 174      | 24         | C        | 1.500 - 28 UN     | 1.555 (39.5) | 1.78 (45.2) | .875 (22.2)  | 1.000 (25.4) |
| 175      | 24         | C        | 1.500 - 28 UN     | 1.555 (39.5) | 1.78 (45.2) | 1.000 (25.4) | 1.125 (28.6) |
| 176      | 24         | D        | 1.500 - 28 UN     | 1.555 (39.5) | 2.55 (64.8) | .750 (19.1)  | .875 (22.2)  |
| 177      | 24         | D        | 1.500 - 28 UN     | 1.555 (39.5) | 2.55 (64.8) | .875 (22.2)  | 1.000 (25.4) |
| 178      | 24         | D        | 1.500 - 28 UN     | 1.555 (39.5) | 2.55 (64.8) | 1.000 (25.4) | 1.125 (28.6) |
| 179      | 24         | C        | 1.500 - 28 UN     | 1.555 (39.5) | 2.28 (57.9) | .750 (19.1)  | .875 (22.2)  |
| 180      | 24         | C        | 1.500 - 28 UN     | 1.555 (39.5) | 2.28 (57.9) | .875 (22.2)  | 1.000 (25.4) |
| 181      | 24         | C        | 1.500 - 28 UN     | 1.555 (39.5) | 2.28 (57.9) | 1.000 (25.4) | 1.125 (28.6) |
| 182      | 24         | D        | 1.500 - 28 UN     | 1.555 (39.5) | 3.05 (77.5) | .750 (19.1)  | .875 (22.2)  |
| 183      | 24         | D        | 1.500 - 28 UN     | 1.555 (39.5) | 3.05 (77.5) | .875 (22.2)  | 1.000 (25.4) |
| 184      | 24         | D        | 1.500 - 28 UN     | 1.555 (39.5) | 3.05 (77.5) | 1.000 (25.4) | 1.125 (28.6) |

### APPLICATION NOTES

1. For complete dimensions see the applicable Military Specification.
2. Metric dimensions (mm) are in parentheses.
3. Cable Range is defined as the accommodation range for the wire bundle or cable. Dimensions shown are not intended for inspection criteria.
4. For functions A and B see page F-3.

Dimensions in inches (millimeters) and are subject to change without notice.

# AS81511/17, AS81511/18 and AS81511/29 Protective Plug and Receptacle Covers



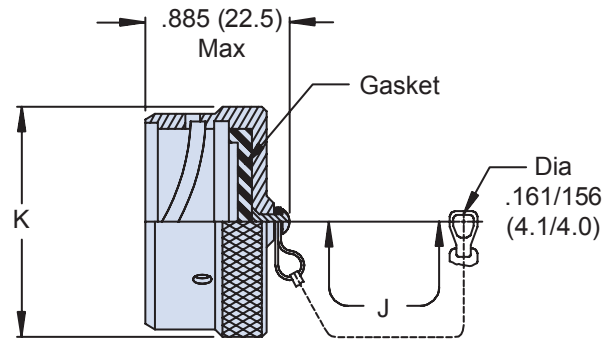
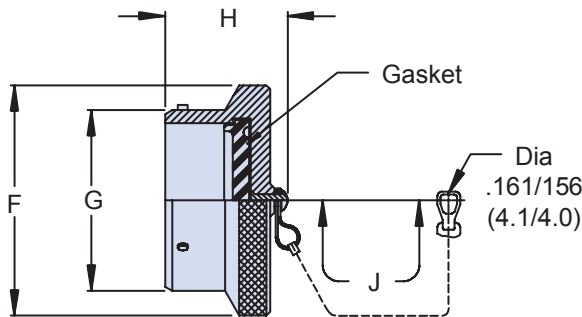
AS81511

|                         |
|-------------------------|
| <b>MATING CONNECTOR</b> |
| AS81511                 |

**Basic Part Number**  
*M81511/17 = Plug Cover Series 2*  
*M81511/18 = Receptacle Cover Series 1 and 2*  
*M81511/29 = Plug Cover Series 1*

**M81511/17 - 16**

**Shell Size**



**M81511/29 Plug Cover - Series 1**  
**M81511/17 Plug Cover - Series 2**

**M81511/18 Receptacle Cover Series 1 and 2**

| TABLE I: Shell Size, Attachment and Dimensions |              |                                |              |             |                 |              |
|--|--------------|--------------------------------|--------------|-------------|-----------------|--------------|
| Shell Size                                     | F Dia Max    | G Dia<br>+.000(0.0) -.006(0.2) | H Max        |             | J<br>± One Link | K Dia Max    |
|  |              |                                | M81511/29    | M81511/17   |                 |              |
| 08   | .845 (21.5)  | .553 (14.0)                    | 1.125 (28.6) | .985 (25.0) | 3.0 (76.2)      | .844 (21.4)  |
| 10   | .970 (24.6)  | .678 (17.2)                    | 1.125 (28.6) | .985 (25.0) | 3.0 (76.2)      | .969 (24.6)  |
| 14   | 1.220 (31.0) | .928 (23.6)                    | 1.125 (28.6) | .985 (25.0) | 3.5 (88.9)      | 1.219 (31.0) |
| 16   | 1.345 (34.2) | 1.054 (26.8)                   | 1.125 (28.6) | .985 (25.0) | 3.5 (88.9)      | 1.345 (34.2) |
| 18   | 1.470 (37.3) | 1.178 (29.9)                   | 1.125 (28.6) | .985 (25.0) | 3.5 (88.9)      | 1.469 (37.3) |
| 20*  | 1.595 (40.5) | 1.303 (33.1)                   | 1.125 (28.6) | —           | 3.5 (88.9)      | 1.594 (40.5) |
| 22*  | 1.720 (43.7) | 1.428 (36.3)                   | 1.125 (28.6) | —           | 3.5 (88.9)      | 1.719 (43.7) |
| 24*  | 1.845 (46.9) | 1.553 (39.4)                   | 1.125 (28.6) | —           | 3.5 (88.9)      | 1.844 (46.8) |

\* Not Applicable for M81511/17 or M81511/18

| APPLICATION NOTES  |
|--|
| 1. Assembly identified with manufacturer's name and part number, space permitting. |
| 2. For complete dimensions, see the applicable Military Specification.             |
| 3. Metric dimensions (mm) are in parentheses.                                      |

Dimensions in inches (millimeters) and are subject to change without notice.

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Mil-Spec Backshells

U.S. CAGE Code 06324

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Printed in U.S.A.

F

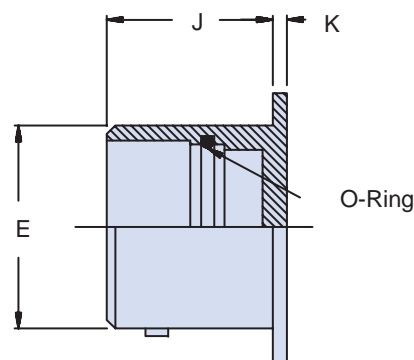
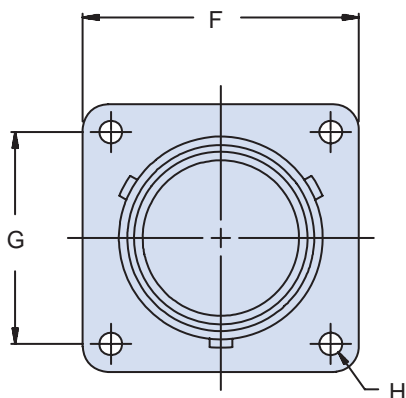


**MATING CONNECTOR**

AS81511 Series 2

**Basic  
Part No.**
**Finish:**

 1 = Cadmium Olive Drab  
 2 = Dull Chromium over Nickel

**M81511/19 - 14 1**
**Shell Size**

**TABLE I: Dash Number, Cable Entry  
and Backshell Dimensions**

| Shell<br>Size | Ø E   |        | F Sq. |        | G Sq. |        | H     |       | J     |        | K     |       |
|---------------|-------|--------|-------|--------|-------|--------|-------|-------|-------|--------|-------|-------|
|               | ±.003 | (.1)   | ±.008 | (.2)   | ±.005 | (.1)   | ±.005 | (0.1) | ±.010 | (.3)   | ±.005 | (.1)  |
| 08            | .550  | (14.0) | .812  | (20.6) | .594  | (15.1) | .121  | (3.1) | .645  | (16.4) | .070  | (1.8) |
| 10            | .675  | (17.1) | .937  | (23.8) | .719  | (18.3) | .121  | (3.1) | .645  | (16.4) | .070  | (1.8) |
| 14            | .925  | (23.5) | 1.125 | (28.6) | .906  | (23.0) | .121  | (3.1) | .645  | (16.4) | .070  | (1.8) |
| 16            | 1.051 | (26.7) | 1.250 | (31.8) | .969  | (24.6) | .121  | (3.1) | .645  | (16.4) | .070  | (1.8) |
| 18            | 1.175 | (29.8) | 1.343 | (34.1) | 1.062 | (27.0) | .121  | (3.1) | .645  | (16.4) | .070  | (1.8) |

**APPLICATION NOTES**

1. Assembly to be identified with manufacturer's name and part number, space permitting.
2. For complete dimensions, see the applicable Military Specification.
3. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.

# AS81511/20 Jam Nut



AS81511

**MATING  
CONNECTOR**  
  
AS81511

**M81511/20**

**8**

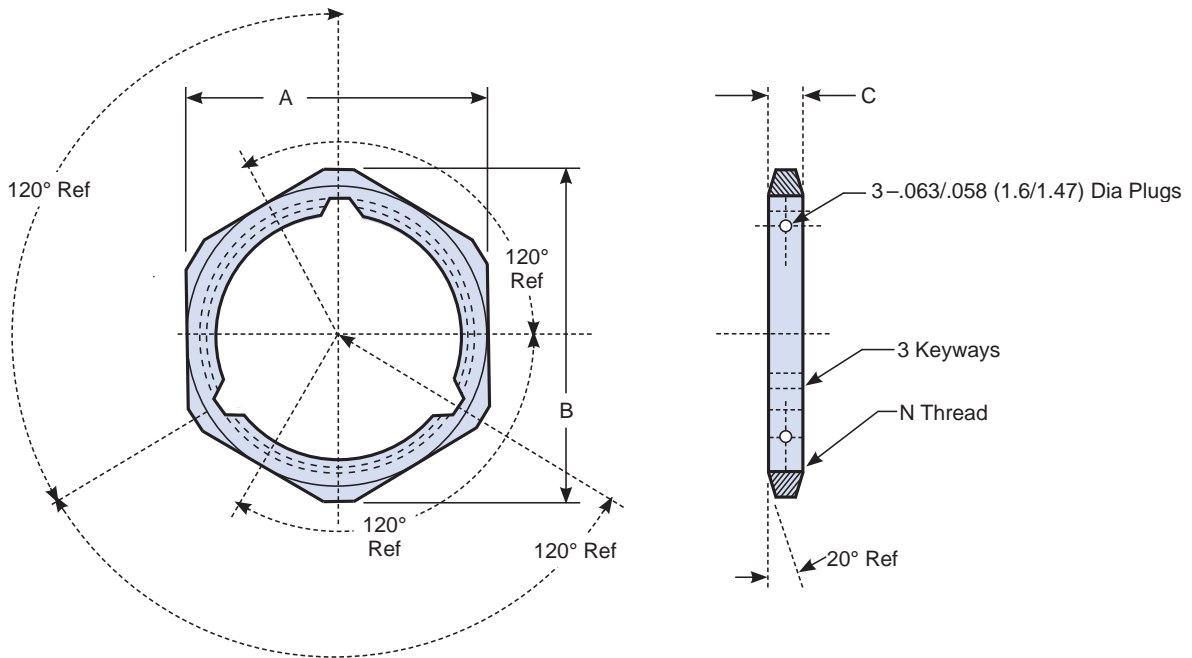
**1**

**Basic  
Part Number**

**Shell Size  
Table I**

**Material / Finish**

- 1 = 150°C Maximum Temperature, Aluminum Material / Cadmium, Olive Drab over Electroless Nickel
- 2 = 175°C-200°C Temperature Range, Aluminum Material / Electroless Nickel, Grade A



**TABLE I: Reference for Connector Shell Size**

| Part No.       | Tem Rating (C) | Shell Size (Ref) | A Across Flats | B             | C           | N Thread      | Weight (Pounds) (Ref) |
|----------------|----------------|------------------|----------------|---------------|-------------|---------------|-----------------------|
| M81511 20-08-1 | 150°           | 8                | .882 (22.40)   | .977 (24.82)  | .140 (3.56) | 5-8-20UN-2B   | .0038                 |
| M81511 20-08-2 | 175-200°       | 8                | .870 (22.10)   | .960 (24.38)  | .125 (3.18) | 5-8-20UN-2B   | .0038                 |
| M81511 20-10-1 | 150°           | 10               | .944 (23.98)   | 1.084 (27.53) | .140 (3.56) | 3-4-20UNEF-2B | .0044                 |
| M81511 20-10-2 | 175-200°       | 10               | .932 (23.67)   | 1.067 (27.10) | .125 (3.18) | 3-4-20UNEF-2B | .0044                 |
| M81511 20-14-1 | 150°           | 14               | 1.194 (30.33)  | 1.373 (34.87) | .140 (3.56) | 1-20UNEF-2B   | .0057                 |
| M81511 20-14-2 | 175-200°       | 14               | 1.182 (30.02)  | 1.356 (34.44) | .125 (3.18) | 1-20UNEF-2B   | .0057                 |
| M81511 20-16-1 | 150°           | 16               | 1.319 (33.50)  | 1.517 (38.53) | .140 (3.56) | 1-1-8-20UN-2B | .0071                 |
| M81511 20-16-2 | 175-200°       | 16               | 1.307 (33.20)  | 1.500 (38.10) | .125 (3.18) | 1-1-8-20UN-2B | .0071                 |
| M81511 20-18-1 | 150°           | 18               | 1.444 (36.68)  | 1.662 (42.21) | .140 (3.56) | 1-1-4-20UN-2B | .0079                 |
| M81511 20-18-2 | 175-200°       | 18               | 1.432 (36.37)  | 1.645 (41.78) | .125 (3.18) | 1-1-4-20UN-2B | .0079                 |
| M81511 20-20-1 | 150°           | 20               | 1.632 (41.45)  | 1.772 (45.01) | .140 (3.56) | 1-3-8-20UN-2B | .0091                 |
| M81511 20-20-2 | 175-200°       | 20               | 1.620 (41.15)  | 1.755 (44.58) | .125 (3.18) | 1-3-8-20UN-2B | .0091                 |
| M81511 20-22-1 | 150°           | 22               | 1.694 (43.03)  | 1.950 (49.53) | .140 (3.56) | 1-1-2-20UN-2B | .0102                 |
| M81511 20-22-2 | 175-200°       | 22               | 1.682 (42.72)  | 1.933 (49.10) | .125 (3.18) | 1-1-2-20UN-2B | .0102                 |
| M81511 20-24-1 | 150°           | 24               | 1.882 (47.80)  | 2.086 (52.98) | .140 (3.56) | 1-5-8-20UN-2B | .0123                 |
| M81511 20-24-2 | 175-200°       | 24               | 1.870 (47.50)  | 2.065 (52.45) | .125 (3.18) | 1-5-8-20UN-2B | .0123                 |

**APPLICATION NOTES**

1. The nut is aluminum, plugs are polytetrafluoroethylene.
2. This nut is used with MIL-C-81511 '3, '4, '23, '24, '27, '28, '32 and '37 receptacles.
3. Dimensions apply after plating.
4. For complete dimensions, see the applicable Military Specification.
5. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.

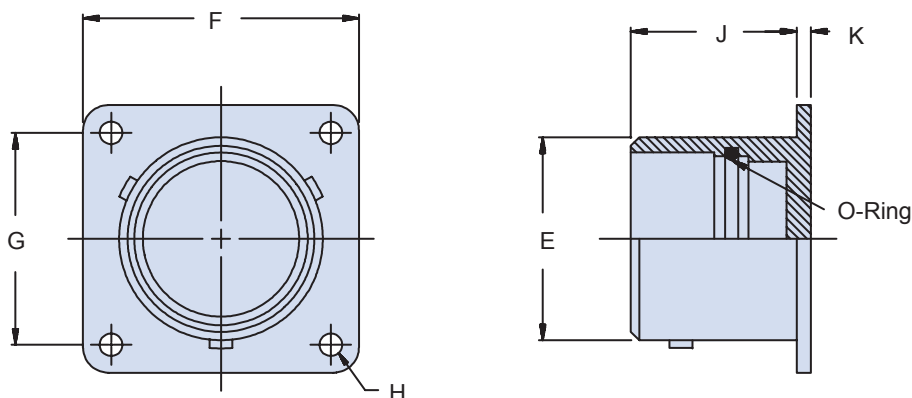
F

**MATING CONNECTOR**

AS81511 Series 1

**Basic  
Part No.**
**Finish:**

 1 = Cadmium Olive Drab  
 2 = Dull Chromium over Nickel

**M81511/30 - 14 1**
**Shell Size**

**TABLE I: Dash Number, Cable Entry  
and Backshell Dimensions**

| Shell<br>Size | Ø E   |        | F Sq. |        | G Sq. |        | H     |       | J     |        | K     |       |
|---------------|-------|--------|-------|--------|-------|--------|-------|-------|-------|--------|-------|-------|
|               | ±.003 | (.1)   | ±.008 | (.2)   | ±.005 | (.1)   | ±.005 | (0.1) | ±.010 | (.3)   | ±.005 | (.1)  |
| 08            | .550  | (14.0) | .812  | (20.6) | .594  | (15.1) | .121  | (3.1) | .645  | (16.4) | .070  | (1.8) |
| 10            | .675  | (17.1) | .937  | (23.8) | .719  | (18.3) | .121  | (3.1) | .645  | (16.4) | .070  | (1.8) |
| 14            | .925  | (23.5) | 1.125 | (28.6) | .906  | (23.0) | .121  | (3.1) | .645  | (16.4) | .070  | (1.8) |
| 16            | 1.051 | (26.7) | 1.250 | (31.8) | .969  | (24.6) | .121  | (3.1) | .645  | (16.4) | .070  | (1.8) |
| 18            | 1.175 | (29.8) | 1.343 | (34.1) | 1.062 | (27.0) | .121  | (3.1) | .645  | (16.4) | .070  | (1.8) |
| 20            | 1.300 | (33.0) | 1.467 | (37.3) | 1.156 | (29.4) | .121  | (3.1) | .645  | (16.4) | .070  | (1.8) |
| 22            | 1.425 | (36.2) | 1.562 | (39.7) | 1.250 | (31.8) | .121  | (3.1) | .645  | (16.4) | .070  | (1.8) |
| 24            | 1.550 | (39.4) | 1.703 | (43.3) | 1.375 | (34.9) | .148  | (3.8) | .645  | (16.4) | .070  | (1.8) |

**APPLICATION NOTES**

1. Assembly to be identified with manufacturer's name and part number, space permitting.
2. For complete dimensions, see the applicable Military Specification.
3. Metric dimensions (mm) are in parentheses.

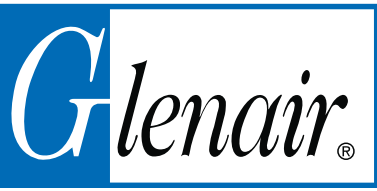
Dimensions in inches (millimeters) and are subject to change without notice.

## Miscellaneous Qualified Backshells and Connector Accessories



| Industry Specification Number | Part Identification Number | Military Part Number Superseded | Glenair Commercial Part Number | Description  | Glenair Connector Designator/Interface   | Page No.    |
|-------------------------------|----------------------------|---------------------------------|--------------------------------|--|--|-------------|
| AS25042<br>AS25043            | MS25042<br>MS25043         | MS25042<br>MS25043              | 660-004<br>660-005             | Threaded Protective Plug Cover<br>Threaded Protective Receptacle Cover                   | AS50151  | <b>G-2</b>  |
| MS17349<br>MS17350            | MS17349<br>MS17350         | —                               | 660-007<br>660-006             | Threaded Protective Receptacle Cover<br>Threaded Protective Plug Cover                   | MIL-DTL-22992  | <b>G-3</b>  |
| MS27291                       | MS27291                    | —                               | 620ES050                       | Straight Non-Self-Locking Strain Relief  | "E"<br>MIL-DTL-26500   | <b>G-4</b>  |
| MIL-DTL-26500                 | MS27558                    | —                               | G2221-A                        | 90° Non-Self-Locking Strain Relief   | "E"<br>MIL-DTL-26500   | <b>G-5</b>  |
| MIL-DTL-26500                 | MS27559                    | —                               | G2221-B                        | 90° Non-Self-Locking Strain Relief   | "E"<br>MIL-DTL-26500   | <b>G-6</b>  |
| —                             | MS27741                    | —                               | 410-003                        | TAG® Ring for Reliable Terminations  | —  | <b>G-7</b>  |
| AS50151                       | MS3105                     | —                               | 650BS001                       | Dummy Storage Receptacle, Threaded Coupling  | AS50151  | <b>G-8</b>  |
| —                             | MS3115                     | —                               | 650DS001                       | Dummy Storage Receptacle, Bayonet Coupling   | MIL-DTL-26482  | <b>G-9</b>  |
| —                             | MS3180<br>MS3181           | —                               | 660-008<br>660-009             | Protective Plug Cover, Bayonet Coupling<br>Protective Receptacle Cover, Bayonet Coupling | MIL-DTL-26482  | <b>G-10</b> |
| —                             | MS27512                    | MS3186                          | Consult Factory                | Jam Nut with Safety Wire Holes   | AS50151; MIL-DTL-26482;<br>MIL-DTL-26500;<br>MIL-DTL-83723 Series I;<br>MIL-DTL-83723, Series III<br>MIL-DTL-38999 Series I;<br>MIL-DTL38999 Series II;<br>MIL-DTL-28840;<br>MIL-DTL-27599 | <b>G-11</b> |
| —                             | M29504/04                  | —                               | Consult Factory                | Fiber Optic Pin Terminus, Size 16  | MIL-DTL-29504  | <b>G-13</b> |
| —                             | M29504/05                  | —                               | Consult Factory                | Fiber Optic Socket Terminus, Size 16   | MIL-DTL-29504  | <b>G-14</b> |
| MIL-DTL-83513/05              | M83513/05                  | —                               | Consult Factory                | Micro-D Jackscrew Kits   | MIL-DTL-83513/05   | <b>G-15</b> |
| MIL-DTL-83538/9               | M83538/9S                  | —                               | Consult Factory                | Straight Adapter and Extender  | MIL-DTL-83538/4  | <b>G-16</b> |
| MIL-S-81824/1                 | M81824/1                   | —                               | 070-001                        | In-Line Splice, Insulated and Environmental  | —  | <b>G-17</b> |

Dimensions in inches (millimeters) and are subject to change without notice.



# AS25042 and AS25043 Protective Plug and Receptacle Covers

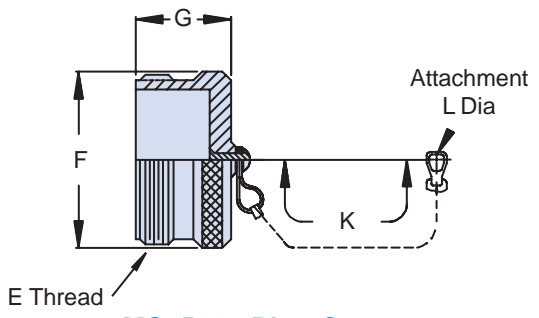
**MATING CONNECTOR**  
**AS50151**

**Basic Part Number**  
*MS25042 = Plug Cover*  
*MS25043 = Receptacle Cover*

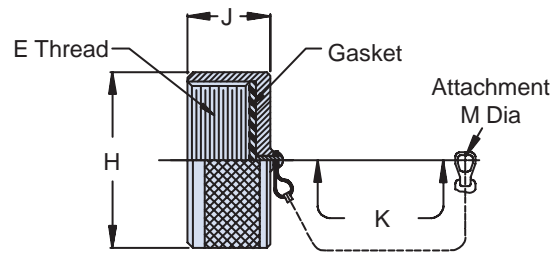
**Shell Size**  
(Table I)

**Finish**  
*D = Cadmium, O.D.*  
*DA = Black Anodize*

MS25042 - 20 D



MS25042 Plug Cover



MS25043 Receptacle Cover

TABLE I: Shell Size, Thread, Attachment and Dimensions

| Shell Size | E Thread       | F Dia Max    | G Max       | H Max        | J Max       | K Attachment Length (Inches) | L Dia Min  | M Dia Min  |
|------------|----------------|--------------|-------------|--------------|-------------|------------------------------|------------|------------|
| 8          | 1/2- 28 UNEF   | .562 (14.3)  | .656 (16.7) | .688 (17.5)  | .469 (11.9) | 4.00 (101.6)                 | .151 (3.8) | .135 (3.4) |
| 10         | 5/8- 24 UNEF   | .687 (17.4)  | .656 (16.7) | .815 (20.7)  | .469 (11.9) | 4.00 (101.6)                 | .151 (3.8) | .135 (3.4) |
| 12         | 3/4- 20 UNEF   | .812 (20.6)  | .844 (21.4) | 1.000 (25.4) | .469 (11.9) | 4.50 (114.3)                 | .151 (3.8) | .135 (3.4) |
| 14         | 7/8- 20 UNEF   | .937 (23.8)  | .844 (21.4) | 1.125 (28.6) | .469 (11.9) | 4.50 (114.3)                 | .151 (3.8) | .135 (3.4) |
| 16         | 1- 20 UNEF     | 1.062 (27.0) | .844 (21.4) | 1.188 (30.2) | .469 (11.9) | 4.50 (114.3)                 | .151 (3.8) | .135 (3.4) |
| 18         | 1 1/8- 18 UNEF | 1.187 (30.1) | .844 (21.4) | 1.344 (34.1) | .469 (11.9) | 4.50 (114.3)                 | .151 (3.8) | .135 (3.4) |
| 20         | 1 1/4- 18 UNEF | 1.312 (33.3) | .844 (21.4) | 1.469 (37.3) | .469 (11.9) | 5.00 (127.0)                 | .182 (4.6) | .135 (3.4) |
| 22         | 1 3/8- 18 UNEF | 1.437 (36.5) | .844 (21.4) | 1.594 (40.5) | .469 (11.9) | 5.00 (127.0)                 | .182 (4.6) | .135 (3.4) |
| 24         | 1 1/2- 18 UNEF | 1.562 (39.7) | .844 (21.4) | 1.719 (43.7) | .469 (11.9) | 5.50 (139.7)                 | .182 (4.6) | .166 (4.2) |
| 28         | 1 3/4- 18 UNS  | 1.812 (46.0) | .844 (21.4) | 1.969 (50.0) | .531 (13.5) | 7.75 (196.9)                 | .182 (4.6) | .166 (4.2) |
| 32         | 2- 18 UNS      | 2.062 (52.4) | .844 (21.4) | 2.219 (56.4) | .531 (13.5) | 7.75 (196.9)                 | .213 (5.4) | .182 (4.6) |
| 36         | 2 1/4- 16 UN   | 2.312 (58.7) | .844 (21.4) | 2.469 (62.7) | .531 (13.5) | 7.75 (196.9)                 | .213 (5.4) | .182 (4.6) |
| 40         | 2 1/2- 16 UN   | 2.562 (65.1) | .844 (21.4) | 2.719 (69.1) | .531 (13.5) | 7.75 (196.9)                 | .213 (5.4) | .182 (4.6) |
| 44         | 2 3/4- 16 UN   | 2.812 (71.4) | .844 (21.4) | 2.969 (75.4) | .531 (13.5) | 7.75 (196.9)                 | .213 (5.4) | .182 (4.6) |
| 48         | 3- 16 UN       | 3.062 (77.8) | .844 (21.4) | 3.188 (81.0) | .531 (13.5) | 7.75 (196.9)                 | .213 (5.4) | .182 (4.6) |

APPLICATION NOTES

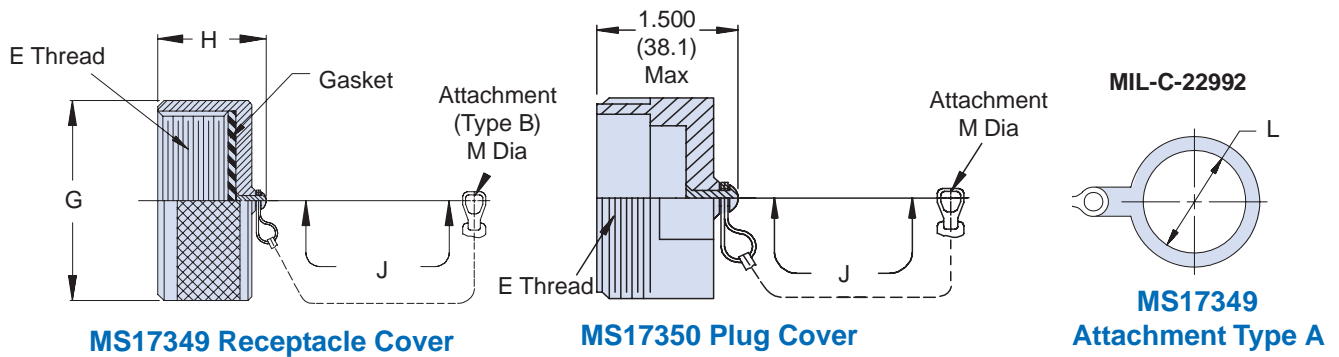
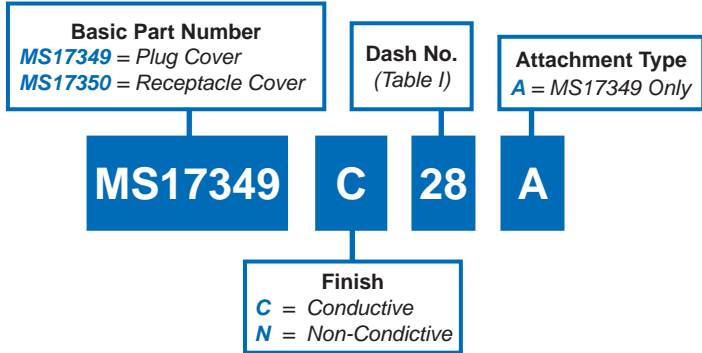
1. Assembly identified with manufacturer's name and part number, space permitting.
2. For complete dimensions, see the applicable Military Specification.
3. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.

# MS17349 and MS17350 Protective Plug and Receptacle Covers



|                         |
|-------------------------|
| <b>MATING CONNECTOR</b> |
| MIL-DTL-22992           |



| TABLE I: Dash Number, Thread, Attachment and Dimensions |                     |              |             |                         |              |            |
|---|---------------------|--------------|-------------|-------------------------|--------------|------------|
| Dash No.  | E Thread            | G Max        | H Max       | J Chain Length (Inches) | L Min        | M Dia Min  |
| 12  | .8750-0.1P-0.2L-DS  | 1.094 (27.8) | .765 (19.4) | 5.00 (127.0)            | 1.016 (25.8) | .150 (3.8) |
| 14  | 1.0000-0.1P-0.2L-DS | 1.219 (31.0) | .765 (19.4) | 5.00 (127.0)            | 1.141 (29.0) | .150 (3.8) |
| 16  | 1.1250-0.1P-0.2L-DS | 1.344 (34.1) | .980 (24.9) | 5.00 (127.0)            | 1.266 (32.2) | .150 (3.8) |
| 18  | 1.2500-0.1P-0.2L-DS | 1.469 (37.3) | .980 (24.9) | 5.00 (127.0)            | 1.391 (35.3) | .177 (4.5) |
| 20  | 1.3750-0.1P-0.2L-DS | 1.562 (39.7) | .980 (24.9) | 5.00 (127.0)            | 1.516 (38.5) | .177 (4.5) |
| 22  | 1.5000-0.1P-0.2L-DS | 1.688 (42.9) | .980 (24.9) | 6.00 (152.4)            | 1.641 (41.7) | .177 (4.5) |
| 24  | 1.7500-0.1P-0.2L-DS | 1.938 (49.2) | .980 (24.9) | 6.00 (152.4)            | 1.891 (48.0) | .177 (4.5) |
| 28  | 2.0000-0.1P-0.2L-DS | 2.219 (56.4) | .980 (24.9) | 6.00 (152.4)            | 2.141 (54.4) | .177 (4.5) |
| 32  | 2.2500-0.1P-0.2L-DS | 2.469 (62.7) | .980 (24.9) | 6.00 (152.4)            | 2.391 (60.7) | .199 (5.1) |
| 36  | 2.5000-0.1P-0.2L-DS | 2.719 (69.1) | .980 (24.9) | 6.00 (152.4)            | 2.641 (67.1) | .199 (5.1) |
| 40  | 2.7500-0.1P-0.2L-DS | 2.969 (75.4) | .980 (24.9) | 6.00 (152.4)            | 2.891 (73.4) | .199 (5.1) |
| 44  | 3.0000-0.1P-0.2L-DS | 3.219 (81.8) | .980 (24.9) | 6.00 (152.4)            | 3.141 (79.8) | .199 (5.1) |

| APPLICATION NOTES  |
|--|
| 1. Assembly identified with manufacturer's name and part number, space permitting. |
| 2. For complete dimensions, see the applicable Military Specification.             |
| 3. Metric dimensions (mm) are in parentheses.                                      |

Dimensions in inches (millimeters) and are subject to change without notice.



# MS27291

## Straight Non-Self-Locking Strain Relief

## CONNECTOR DESIGNATOR:

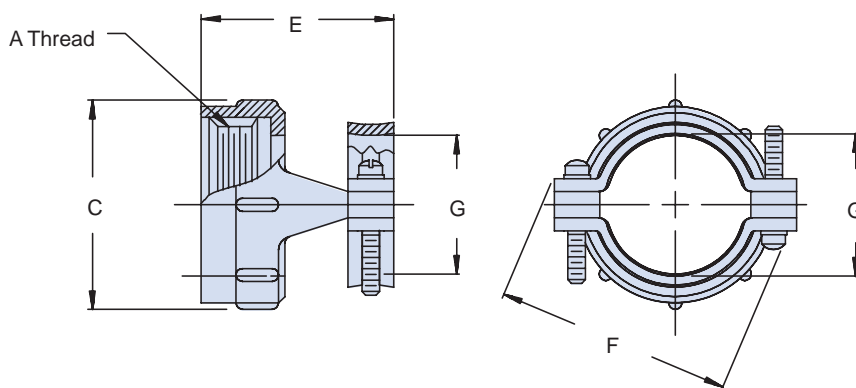
**E** MIL-DTL-26500
Basic  
Part NumberDash  
Number
**MS27291 - 401**


TABLE I: Dash Number, Shell Size, Thread and Dimensions

| Dash No. For Use with Class Connectors |     | Shell Size Ref. | A Thread Class 2B | C Max        | E            |              | F Max        |  | Ø G   |      |
|--|-----|-----------------|-------------------|--------------|--------------|--------------|--------------|--|-------|------|
| R and F                                | G   |                 |                   |              | ±.015        | (.4)         |              |  | ±.005 | (.1) |
| 1                                      | 101 | 10              | .562 - 24 UNEF    | .731 (18.6)  | .935 (23.7)  | .914 (23.2)  | .270 (6.9)   |  |       |      |
| 2                                      | 201 | 12              | .750 - 20 UNEF    | .919 (23.3)  | .935 (23.7)  | 1.026 (26.1) | .400 (10.2)  |  |       |      |
| 3                                      | 301 | 14              | .812 - 20 UNEF    | .981 (24.9)  | 1.170 (29.7) | 1.090 (27.7) | .460 (11.7)  |  |       |      |
| 4                                      | 401 | 16              | .938 - 20 UNEF    | 1.106 (28.1) | 1.170 (29.7) | 1.250 (31.8) | .610 (15.5)  |  |       |      |
| 5                                      | 501 | 18              | 1.062 - 18 UNEF   | 1.231 (31.3) | 1.170 (29.7) | 1.358 (34.5) | .690 (17.5)  |  |       |      |
| 6                                      | 601 | 22              | 1.312 - 18 UNEF   | 1.481 (37.6) | 1.170 (29.7) | 1.604 (40.7) | .940 (23.9)  |  |       |      |
| 13                                     | 701 | 8               | .438 - 28 UNEF    | .606 (15.4)  | .935 (23.7)  | .789 (20.0)  | .186 (4.7)   |  |       |      |
| 14                                     | 801 | 20              | 1.188 - 18 UNEF   | 1.356 (34.4) | 1.170 (29.7) | 1.481 (37.6) | .816 (20.7)  |  |       |      |
| 15                                     | 901 | 24              | 1.438 - 18 UNEF   | 1.606 (40.8) | 1.170 (29.7) | 1.729 (43.9) | 1.066 (27.1) |  |       |      |

## APPLICATION NOTES

1. Finish: Class R and F—anodize, Class G, Chrome Plated
2. Assembly to be identified with manufacturer's name and part number, space permitting.
3. For complete dimensions, see the applicable Military Specification.
4. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.

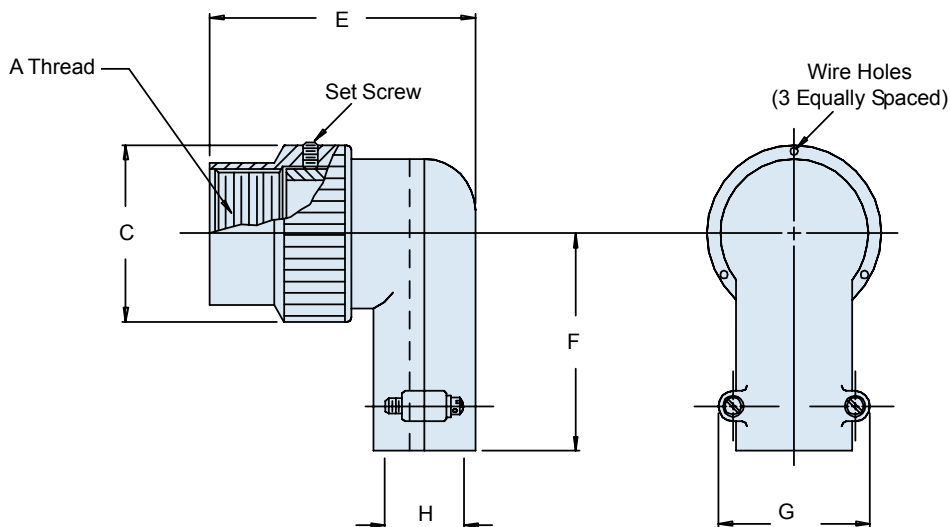


# MS27558 90° Non-Self-Locking Strain Relief



| CONNECTOR DESIGNATOR: |               |
|-----------------------|---------------|
| <b>E</b>              | MIL-DTL-26500 |

|                      |                |
|----------------------|----------------|
| Basic<br>Part Number | Dash<br>Number |
| <b>MS27558</b>       | <b>- 3</b>     |



| TABLE I: Dash Number, Shell Size, Thread and Dimensions |                 |                   |              |              |              |              |              |  |  |  |  |
|---|-----------------|-------------------|--------------|--------------|--------------|--------------|--------------|--|--|--|--|
| Dash No.  | Shell Size Ref. | A Thread Class 2B | C Max        | E Max        | F Max        | G Max        | H Dia        |  |  |  |  |
| 1*  | 8               | .437 - 28 UNEF    | .672 (17.1)  | 1.200 (30.5) | .602 (15.3)  | .892 (22.7)  | .240 (6.1)   |  |  |  |  |
| 2   | 10              | .562 - 24 UNEF    | .797 (20.2)  | 1.320 (33.5) | .650 (16.5)  | 1.072 (27.2) | .365 (9.3)   |  |  |  |  |
| 3   | 12              | .750 - 20 UNEF    | 1.016 (25.8) | 1.320 (33.5) | .740 (18.8)  | 1.072 (27.2) | .365 (9.3)   |  |  |  |  |
| 4   | 14              | .812 - 20 UNEF    | 1.110 (28.2) | 1.487 (37.8) | .775 (19.7)  | 1.108 (28.1) | .515 (13.1)  |  |  |  |  |
| 5   | 16              | .938 - 20 UNEF    | 1.234 (31.3) | 1.470 (37.3) | .830 (21.1)  | 1.108 (28.1) | .515 (13.1)  |  |  |  |  |
| 6   | 18              | 1.062 - 18 UNEF   | 1.360 (34.5) | 1.588 (40.3) | .897 (22.8)  | 1.233 (31.3) | .640 (16.3)  |  |  |  |  |
| 7   | 20              | 1.188 - 18 UNEF   | 1.485 (37.7) | 1.759 (44.7) | .955 (24.3)  | 1.477 (37.5) | .775 (19.7)  |  |  |  |  |
| 8   | 22              | 1.312 - 18 UNEF   | 1.610 (40.9) | 1.759 (44.7) | 1.015 (25.8) | 1.477 (37.5) | .775 (19.7)  |  |  |  |  |
| 9   | 24              | 1.438 - 18 UNEF   | 1.735 (44.1) | 2.027 (51.5) | 1.077 (27.4) | 1.727 (43.9) | 1.060 (26.9) |  |  |  |  |

\* Consult Factory

| APPLICATION NOTES  |
|--|
| 1. Finish: Anodize.  |
| 2. Assembly to be identified with manufacturer's name and part number, space permitting. |
| 3. For complete dimensions, see the applicable Military Specification.                   |
| 4. Metric dimensions (mm) are in parentheses.  |

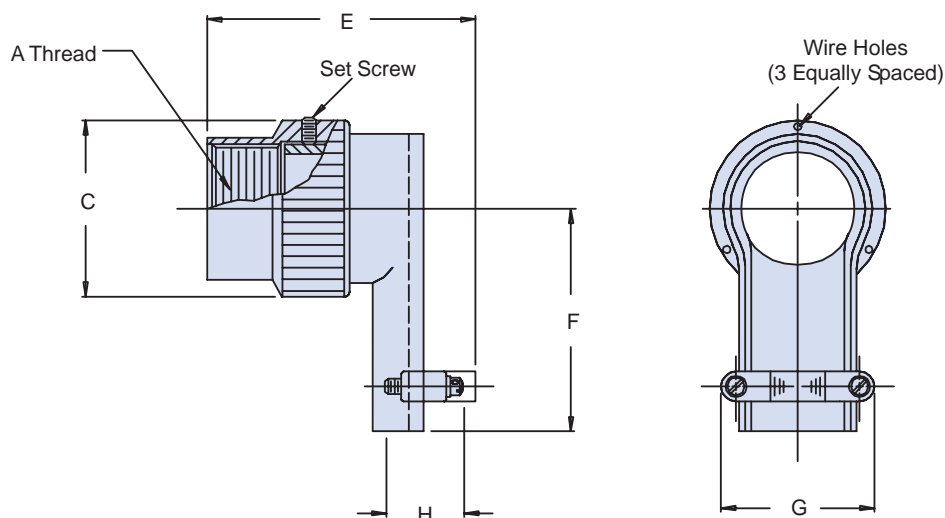
Dimensions in inches (millimeters) and are subject to change without notice.





# MS27559 90° Non-Self-Locking Strain Relief

**CONNECTOR DESIGNATOR:**
**E** MIL-DTL-26500

**Basic  
Part Number**
**Dash  
Number**
**MS27559**
**- 4**

**TABLE I: Dash Number, Shell Size, Thread and Dimensions**

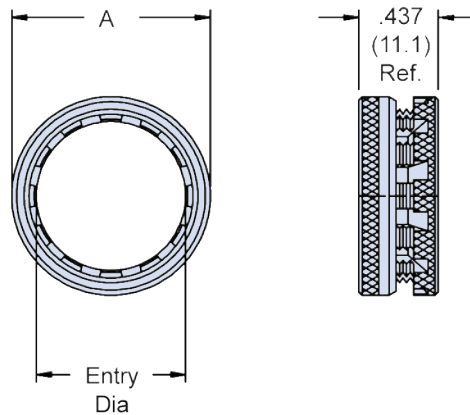
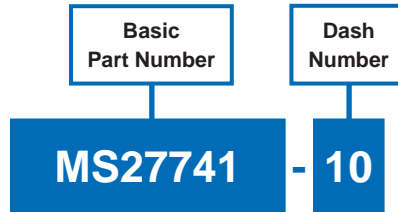
| Dash No. | Shell Size Ref. | A Thread Class 2B | C Max        | E Max        | F Max        | G Max        | H Dia       |
|----------|-----------------|-------------------|--------------|--------------|--------------|--------------|-------------|
| 1        | 8               | .437 - 28 UNEF    | .672 (17.1)  | 1.173 (29.8) | .602 (15.3)  | .892 (22.7)  | .201 (5.1)  |
| 2        | 10              | .562 - 24 UNEF    | .797 (20.2)  | 1.293 (32.8) | .650 (16.5)  | 1.072 (27.2) | .320 (8.1)  |
| 3        | 12              | .750 - 20 UNEF    | 1.016 (25.8) | 1.293 (32.8) | .740 (18.8)  | 1.072 (27.2) | .320 (8.1)  |
| 4        | 14              | .812 - 20 UNEF    | 1.110 (28.2) | 1.460 (37.1) | .775 (19.7)  | 1.108 (28.1) | .452 (11.5) |
| 5        | 16              | .938 - 20 UNEF    | 1.234 (31.3) | 1.443 (36.7) | .830 (21.1)  | 1.108 (28.1) | .508 (12.9) |
| 6        | 18              | 1.062 - 18 UNEF   | 1.360 (34.5) | 1.561 (39.6) | .897 (22.8)  | 1.233 (31.3) | .571 (14.5) |
| 7        | 20              | 1.188 - 18 UNEF   | 1.485 (37.7) | 1.732 (44.0) | .955 (24.3)  | 1.477 (37.5) | .748 (19.0) |
| 8        | 22              | 1.312 - 18 UNEF   | 1.610 (40.9) | 1.732 (44.0) | 1.015 (25.8) | 1.477 (37.5) | .748 (19.0) |
| 9        | 24              | 1.438 - 18 UNEF   | 1.735 (44.1) | 2.000 (50.8) | 1.077 (27.4) | 1.727 (43.9) | .996 (25.3) |

**APPLICATION NOTES**

1. Finish: Anodize.
2. Assembly to be identified with manufacturer's name and part number, space permitting.
3. For complete dimensions, see the applicable Military Specification.
4. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.

**MS27741**  
**TAG® Ring**  
 For Reliable Shield Terminations



**TABLE I: Shell Size, Entry, Slots and Weight**

| Dash No. | A Dia Max    | Entry Dia    | No. of Slots | Weight in Grams |
|----------|--------------|--------------|--------------|-----------------|
| 2        | .545 (13.8)  | .250 (6.4)   | 3            | 2.268           |
| 3        | .670 (17.0)  | .375 (9.5)   | 4            | 2.722           |
| 4        | .795 (20.2)  | .500 (12.7)  | 6            | 3.175           |
| 5        | .920 (23.4)  | .625 (15.9)  | 8            | 4.082           |
| 6        | 1.045 (26.5) | .750 (19.1)  | 10           | 4.536           |
| 7        | 1.170 (29.7) | .875 (22.2)  | 10           | 4.990           |
| 8        | 1.295 (32.9) | 1.000 (25.4) | 12           | 5.443           |
| 9        | 1.420 (36.1) | 1.125 (28.6) | 15           | 6.350           |
| 10       | 1.687 (42.8) | 1.250 (31.8) | 15           | 10.433          |
| 11       | 1.812 (46.0) | 1.375 (34.9) | 15           | 14.515          |

**APPLICATION NOTES**

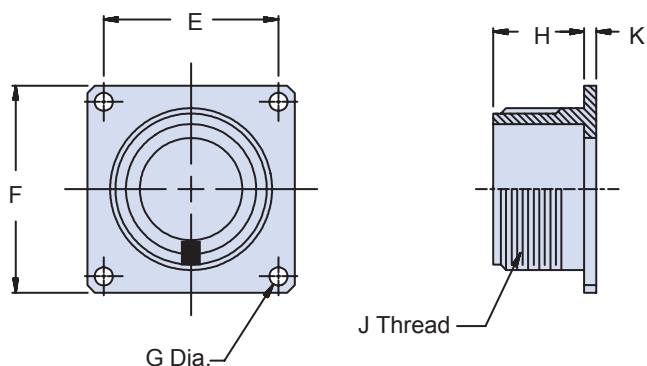
1. For complete dimensions see the applicable Military Specification.
2. Finish:  
Body and Nut - Gold Iridite  
Spring - Gold Plate
3. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.



# AS31051

## Dummy Storage Receptacle Threaded Coupling

**MATING CONNECTOR**
**AS50151**
**Basic  
Part No.**
**Dash No.**
**MS3105 - 16**

**TABLE I: Dash Number, Cable Entry  
and Backshell Dimensions**

| Shell<br>Size | E     |        | F<br>Max | G<br>Max |      | H<br>Max |      | J Thread<br>Class 2A | K<br>Max      |      |       |
|---------------|-------|--------|----------|----------|------|----------|------|----------------------|---------------|------|-------|
|               | ±.005 | (.1)   |          |          |      |          |      |                      |               |      |       |
| 8S            | .594  | (15.1) | .906     | (23.0)   | .130 | (3.3)    | .593 | (15.1)               | 1/2-28 UNEF   | .156 | (4.0) |
| 10S           | .719  | (18.3) | 1.031    | (26.2)   | .130 | (3.3)    | .593 | (15.1)               | 5/8-24 UNEF   | .156 | (4.0) |
| 12S           | .812  | (20.6) | 1.125    | (28.6)   | .130 | (3.3)    | .593 | (15.1)               | 3/4-20 UNEF   | .156 | (4.0) |
| 12            | .812  | (20.6) | 1.125    | (28.6)   | .130 | (3.3)    | .781 | (19.8)               | 3/4-20 UNEF   | .156 | (4.0) |
| 14S           | .906  | (23.0) | 1.219    | (31.0)   | .130 | (3.3)    | .593 | (15.1)               | 7/8-20 UNEF   | .156 | (4.0) |
| 14            | .906  | (23.0) | 1.219    | (31.0)   | .130 | (3.3)    | .781 | (19.8)               | 7/8-20 UNEF   | .156 | (4.0) |
| 16S           | .969  | (24.6) | 1.312    | (33.3)   | .130 | (3.3)    | .593 | (15.1)               | 1-20 UNEF     | .156 | (4.0) |
| 16            | .969  | (24.6) | 1.312    | (33.3)   | .130 | (3.3)    | .781 | (19.8)               | 1-20 UNEF     | .156 | (4.0) |
| 18            | 1.062 | (27.0) | 1.406    | (35.7)   | .130 | (3.3)    | .781 | (19.8)               | 1 1/8-18 UNEF | .203 | (5.2) |
| 20            | 1.156 | (29.4) | 1.531    | (38.9)   | .130 | (3.3)    | .781 | (19.8)               | 1 1/4-18 UNEF | .203 | (5.2) |
| 22            | 1.250 | (31.8) | 1.656    | (42.1)   | .130 | (3.3)    | .781 | (19.8)               | 1 3/8-18 UNEF | .203 | (5.2) |
| 24            | 1.375 | (34.9) | 1.781    | (45.2)   | .157 | (4.0)    | .843 | (21.4)               | 1 1/2-18 UNEF | .203 | (5.2) |
| 28            | 1.562 | (39.7) | 2.031    | (51.6)   | .157 | (4.0)    | .843 | (21.4)               | 1 3/4-18 UNS  | .203 | (5.2) |
| 32            | 1.750 | (44.5) | 2.281    | (57.9)   | .183 | (4.6)    | .906 | (23.0)               | 2-18 UNS      | .359 | (9.1) |
| 36            | 1.938 | (49.2) | 2.531    | (64.3)   | .183 | (4.6)    | .906 | (23.0)               | 2 1/4-16 UN   | .359 | (9.1) |
| 40            | 2.188 | (55.6) | 2.781    | (70.6)   | .183 | (4.6)    | .906 | (23.0)               | 2 1/2-16 UN   | .359 | (9.1) |
| 44            | 2.375 | (60.3) | 3.031    | (77.0)   | .183 | (4.6)    | .906 | (23.0)               | 2 3/4-16 UN   | .359 | (9.1) |
| 48            | 2.625 | (66.7) | 3.281    | (83.3)   | .183 | (4.6)    | .906 | (23.0)               | 3-16 UN       | .359 | (9.1) |

**APPLICATION NOTES**

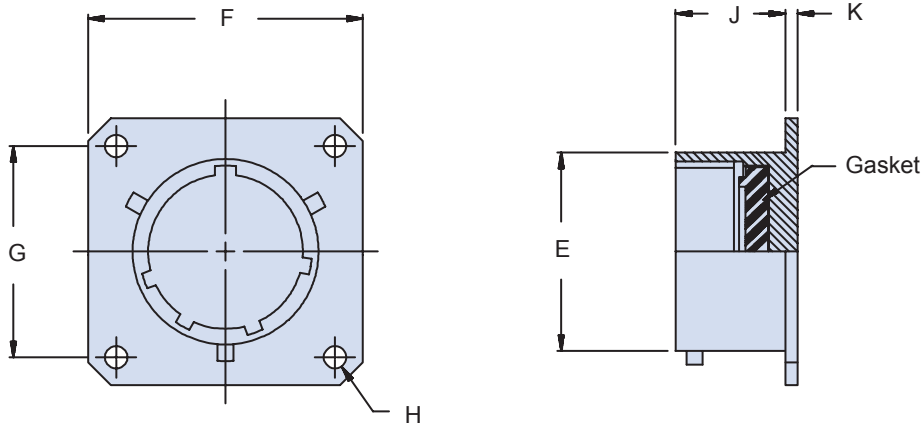
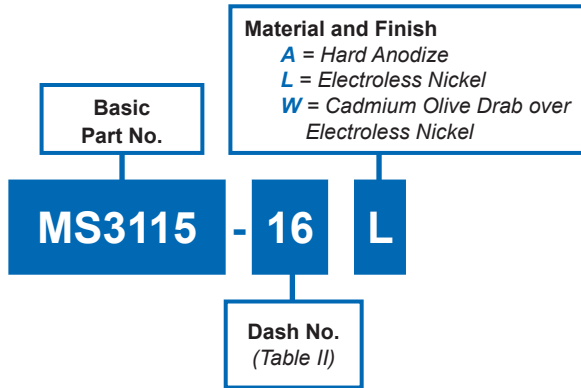
1. Assembly to be identified with manufacturer's name and part number, space permitting.
2. For complete dimensions, see the applicable Military Specification.
3. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.

# MS3115 Dummy Storage Receptacle Bayonet Coupling



|                         |
|-------------------------|
| <b>MATING CONNECTOR</b> |
| MIL-DTL-26482           |



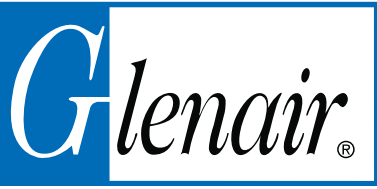
**TABLE I: Dash Number, Cable Entry and Backshell Dimensions**

| Shell Size | E     |        | F Max | G Dim  | Ø H   |        | J     |       | K     |        |      |       |
|------------|-------|--------|-------|--------|-------|--------|-------|-------|-------|--------|------|-------|
|            | ±.003 | (.1)   |       |        | ±.005 | (0.1)  | ±.016 | (.4)  | ±.016 | (.4)   |      |       |
| 8          | .471  | (12.0) | .828  | (21.0) | .594  | (15.1) | .120  | (3.0) | .478  | (12.1) | .062 | (1.6) |
| 10         | .588  | (14.9) | .954  | (24.2) | .719  | (18.3) | .120  | (3.0) | .478  | (12.1) | .062 | (1.6) |
| 12         | .748  | (19.0) | 1.047 | (26.6) | .812  | (20.6) | .120  | (3.0) | .478  | (12.1) | .062 | (1.6) |
| 14         | .873  | (22.2) | 1.141 | (29.0) | .906  | (23.0) | .120  | (3.0) | .478  | (12.1) | .062 | (1.6) |
| 16         | .998  | (25.3) | 1.234 | (31.3) | .969  | (24.6) | .120  | (3.0) | .478  | (12.1) | .062 | (1.6) |
| 18         | 1.123 | (28.5) | 1.328 | (33.7) | 1.062 | (27.0) | .120  | (3.0) | .478  | (12.1) | .062 | (1.6) |
| 20         | 1.248 | (31.7) | 1.453 | (36.9) | 1.156 | (29.4) | .120  | (3.0) | .572  | (14.5) | .094 | (2.4) |
| 22         | 1.373 | (34.9) | 1.578 | (40.1) | 1.250 | (31.8) | .120  | (3.0) | .572  | (14.5) | .094 | (2.4) |
| 24         | 1.498 | (38.0) | 1.703 | (43.3) | 1.375 | (34.9) | .147  | (3.7) | .605  | (15.4) | .094 | (2.4) |

### APPLICATION NOTES

1. Assembly to be identified with manufacturer's name and part number, space permitting.
2. For complete dimensions, see the applicable Military Specification.
3. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.



# MS3180 and MS3181 Protective Plug and Receptacle Covers

**MATING CONNECTOR**  
**MIL-DTL-26482**

**Attachment Option**  
C = Chain  
N = Chain with Ring (MS3181 Only)  
R = Wire Rope

**Length**  
L = Chain or Rope Length of 5 Inches (127.0 mm). Omit for Standard (See K in Table I)

**Prior Revision D Available:**

Finish is Cadmium Olive Drab

Attachment Option (Omit for None)  
C = Chain  
N = Chain with Ring (MS3181 Only)

**MS3180 - 12 C**

Basic Part Number  
MS3180 = Plug Cover  
MS3181 = Receptacle Cover

Shell Size

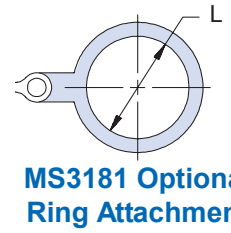
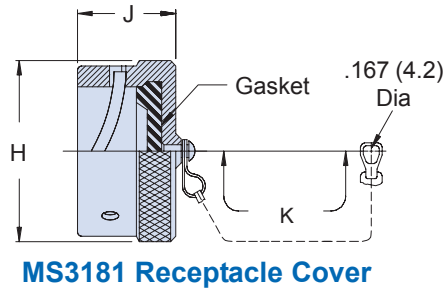
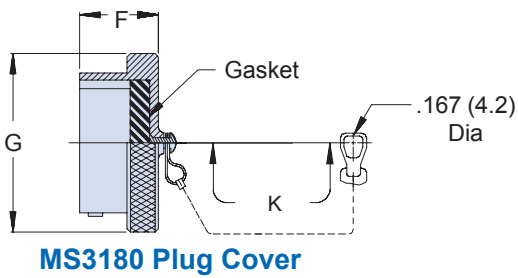
NOTE: prior revision parts will NOT carry the "JAN" marking

**MS3180 - 12 C A L**

Basic Part Number  
MS3180 = Plug Cover  
MS3181 = Receptacle Cover

Shell Size (Table I)

Finish  
A = Anodize



**TABLE I: Shell Size, Dimensions and Attachment**

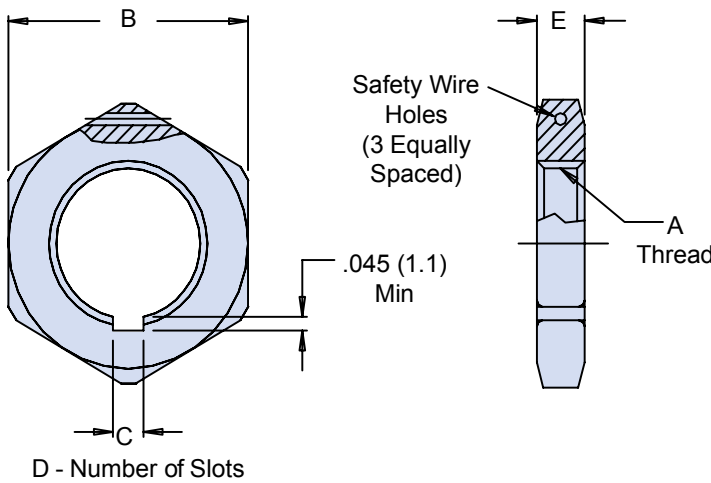
| Shell Size | F Max       | G Dia Max    | H Dia Max    | J Max       | K Standard Length (Inches) | L Min        |
|------------|-------------|--------------|--------------|-------------|----------------------------|--------------|
| 8          | .562 (14.3) | .719 (18.3)  | .734 (18.6)  | .562 (14.3) | 3.00 (76.2)                | .578 (14.7)  |
| 10         | .562 (14.3) | .844 (21.4)  | .859 (21.8)  | .562 (14.3) | 3.00 (76.2)                | .703 (17.9)  |
| 12         | .562 (14.3) | 1.000 (25.4) | 1.000 (25.4) | .562 (14.3) | 3.50 (88.9)                | .891 (22.6)  |
| 14         | .562 (14.3) | 1.125 (28.6) | 1.125 (28.6) | .562 (14.3) | 3.50 (88.9)                | 1.016 (25.8) |
| 16         | .562 (14.3) | 1.250 (31.8) | 1.250 (31.8) | .562 (14.3) | 3.50 (88.9)                | 1.141 (29.0) |
| 18         | .562 (14.3) | 1.375 (34.9) | 1.375 (34.9) | .562 (14.3) | 3.50 (88.9)                | 1.266 (32.2) |
| 20         | .625 (15.9) | 1.500 (38.1) | 1.500 (38.1) | .562 (14.3) | 4.00 (101.6)               | 1.391 (35.3) |
| 22         | .625 (15.9) | 1.625 (41.3) | 1.625 (41.3) | .562 (14.3) | 4.00 (101.6)               | 1.516 (38.5) |
| 24         | .658 (16.7) | 1.750 (44.5) | 1.750 (44.5) | .602 (15.3) | 4.00 (101.6)               | 1.641 (41.7) |

- APPLICATION NOTES**
1. Assembly identified with manufacturer's name and part number, space permitting.
  2. For complete dimensions, see the applicable Military Specification.
  3. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.  
Mil-Spec Backshells and Accessories U.S. CAGE Code 06324

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# MS3186 Jam Nut with Safety Wire Holes



|                          |  |                 |
|--------------------------|--|-----------------|
| <b>Basic Part Number</b> | <b>Material</b><br>A = Aluminum<br>S = Steel<br>C = CRES | <b>Dash No.</b> |
| <b>MS3186</b>            | <b>A</b>   | <b>- 113</b>    |
|                          |  | <b>B</b>        |

**Finish**

- A = Black Anodize (Material 'A' only)
- B = Black Cadmium over Corrosion Resistant Steel (Material 'C' only)
- C = Clear Cadmium (Material 'A' only)
- E = Electrodeposited Nickel
- N = Electroless Nickel (Space Use Only)
- P = Passivated (Material 'C' only)
- T = Tin Plate (Material 'S' only)
- W = 1,000 Hour Cadmium Olive Drab over Electroless Nickel

**TABLE I: Reference for Connector Shell Size**

| Dash No. | AS50151   | MIL-DTL-26482 | MIL-DTL-26500 | MIL-DTL-83723 I | MIL-DTL-83723 III | MIL-DTL-38999 I | MIL-DTL-38999 II | MIL-DTL-28840 | MIL-DTL-27599 |
|----------|-----------|---------------|---------------|-----------------|-------------------|-----------------|------------------|---------------|---------------|
| 101      | 8S        | --            | --            | --              | --                | --              | --               | --            | --            |
| 102      | --        | 8             | --            | 8               | --                | --              | --               | --            | --            |
| 103      | 10S, 10SL | --            | --            | --              | --                | --              | --               | --            | --            |
| 104      | --        | --            | 8             | --              | --                | --              | --               | --            | --            |
| 105      | --        | --            | --            | --              | 8                 | --              | --               | --            | --            |
| 106      | --        | 10            | --            | 10              | --                | 9               | --               | --            | 9             |
| 107      | 12S, 12   | --            | 10            | --              | 10                | --              | --               | --            | --            |
| 108      | --        | --            | --            | --              | --                | 11              | --               | --            | 11            |
| 109      | 14S, 14   | 12            | --            | 12              | --                | --              | 8                | 11            | 8             |
| 110      | --        | --            | 12            | --              | 12                | --              | --               | --            | --            |
| 111      | 16S, 16   | 14            | 14            | 14              | 14                | 13              | 10               | 13            | 10, 13        |
| 112      | --        | --            | 16            | --              | 16 Bay            | --              | --               | --            | --            |
| 113      | 18        | 16            | --            | 16              | 16 Thd            | 15              | 12               | --            | 12, 15        |
| 114      | --        | --            | --            | --              | --                | --              | --               | 15            | --            |
| 115      | --        | --            | 18            | --              | --                | --              | --               | --            | 14, 17        |
| 116      | 20        | 18            | --            | 18              | 18                | 17              | 14               | 17            | --            |
| 117      | 22        | 20            | 20            | 20              | 20                | 19              | 16               | --            | 16, 19        |
| 118      | --        | --            | --            | --              | --                | --              | --               | 19            | --            |
| 119      | --        | --            | 22            | --              | --                | --              | --               | --            | --            |
| 120      | 24        | 22            | --            | 22              | 22                | 21              | 18               | --            | 18, 21        |
| 121      | --        | 24            | 24            | 24              | 24                | 23              | 20               | 23            | 20, 23        |
| 122      | 28        | --            | --            | --              | --                | 25              | 22               | 25            | 22, 25        |
| 123      | --        | --            | --            | --              | --                | --              | 24               | --            | 24            |
| 124      | --        | --            | --            | --              | --                | --              | --               | 29            | --            |
| 125      | 32        | --            | --            | --              | --                | --              | --               | --            | --            |
| 126      | --        | --            | --            | --              | --                | --              | --               | 33            | --            |
| 127      | 36        | --            | --            | --              | --                | --              | --               | --            | --            |
| 128      | 40        | --            | --            | --              | --                | --              | --               | --            | --            |
| 129      | 44        | --            | --            | --              | --                | --              | --               | --            | --            |
| 130      | 48        | --            | --            | --              | --                | --              | --               | --            | --            |

Dimensions in inches (millimeters) and are subject to change without notice.





## MS3186 Jam Nut with Safety Wire Holes

**TABLE I: Reference for Connector Shell Size**

| Dash No. | A Thread            | B     |        | C    |       | D Min. No. of Slots | Ø E   |       |
|----------|---------------------|-------|--------|------|-------|---------------------|-------|-------|
|          |                     | ±.017 | (.4)   | Max  |       |                     | ±.017 | (.4)  |
| 101      | .500 -28 UNEF-2B    | .687  | (17.4) | None |       | None                | .125  | (3.2) |
| 102      | .5625 - 24 UNEF-2B  | .750  | (19.1) | .135 | (3.4) | 2                   | .125  | (3.2) |
| 103      | .625 - 24 UNEF-2B   | .812  | (20.6) | None |       | None                | .125  | (3.2) |
| 104      | .625 - 20 UN-2B     | .812  | (20.6) | .135 | (3.4) | 2                   | .125  | (3.2) |
| 105      | .625 - 20 UN-2B     | .812  | (20.6) | None |       | 2                   | .125  | (3.2) |
| 106      | .6875 - 24 UNEF-2B  | .875  | (22.2) | .135 | (3.4) | 1                   | .125  | (3.2) |
| 107      | .750 - 20 UNEF-2B   | .937  | (23.8) | None |       | 2                   | .125  | (3.2) |
| 108      | .8125 - 20 UNEF-2B  | 1.000 | (25.4) | .135 | (3.4) | 1                   | .125  | (3.2) |
| 109      | .875 - 20 UNEF-2B   | 1.062 | (27.0) | .135 | (3.4) | 1                   | .125  | (3.2) |
| 110      | .9375 - 20 UNEF-2B  | 1.123 | (28.5) | None |       | 1                   | .125  | (3.2) |
| 111      | 1.000 - 20 UNEF-2B  | 1.188 | (30.2) | .135 | (3.4) | 1                   | .125  | (3.2) |
| 112      | 1.125 - 20 UN-2B    | 1.312 | (33.3) | .135 | (3.4) | 1                   | .125  | (3.2) |
| 113      | 1.125 - 18 UNEF-2B  | 1.312 | (33.3) | .135 | (3.4) | 1                   | .125  | (3.2) |
| 114      | 1.1875 - 18 UNEF-2B | 1.375 | (34.9) | None |       | None                | .125  | (3.2) |
| 115      | 1.250 - 20 UN-2B    | 1.438 | (36.5) | None |       | None                | .125  | (3.2) |
| 116      | 1.250 - 18 UNEF-2B  | 1.438 | (36.5) | .135 | (3.4) | 1                   | .125  | (3.2) |
| 117      | 1.375 - 18 UNEF-2B  | 1.562 | (39.7) | .192 | (4.9) | 1                   | .125  | (3.2) |
| 118      | 1.4375 - 18 UNEF-2B | 1.625 | (41.3) | None |       | None                | .125  | (3.2) |
| 119      | 1.500 - 20 UN-2B    | 1.688 | (42.9) | None |       | None                | .125  | (3.2) |
| 120      | 1.500 - 18 UNEF-2B  | 1.688 | (42.9) | .192 | (4.9) | 1                   | .125  | (3.2) |
| 121      | 1.625 - 18 UNEF-2B  | 1.812 | (46.0) | .192 | (4.9) | 1                   | .125  | (3.2) |
| 122      | 1.750 - 18 UNS-2B   | 2.000 | (50.8) | .192 | (4.9) | 1                   | .125  | (3.2) |
| 123      | 1.875 - 16 UN-2B    | 2.125 | (54.0) | None |       | None                | .125  | (3.2) |
| 124      | 1.9375 - 16 UN-2B   | 2.187 | (55.5) | None |       | None                | .189  | (4.8) |
| 125      | 2.000 - 18 UNS-2B   | 2.250 | (57.2) | None |       | None                | .189  | (4.8) |
| 126      | 2.125 - 16 UN-2B    | 2.375 | (60.3) | None |       | None                | .189  | (4.8) |
| 127      | 2.250 - 16 UN-2B    | 2.500 | (63.5) | None |       | None                | .189  | (4.8) |
| 128      | 2.500 - 16 UN-2B    | 2.750 | (69.9) | None |       | None                | .189  | (4.8) |
| 129      | 2.750 - 16 UN-2B    | 3.000 | (76.2) | None |       | None                | .189  | (4.8) |
| 130      | 3.000 - 16 UN-2B    | 3.250 | (82.6) | None |       | None                | .189  | (4.8) |

### APPLICATION NOTES

1. Assembly identified with manufacturer's name and part number, space permitting.
2. For complete dimensions, see the applicable Military Specification.
3. Metric dimensions (mm) are in parentheses.

Dimensions in inches (millimeters) and are subject to change without notice.

M29504/04

181-002

Size 16 MIL-DTL-38999 Series III Type  
Fiber Optic Pin Terminus



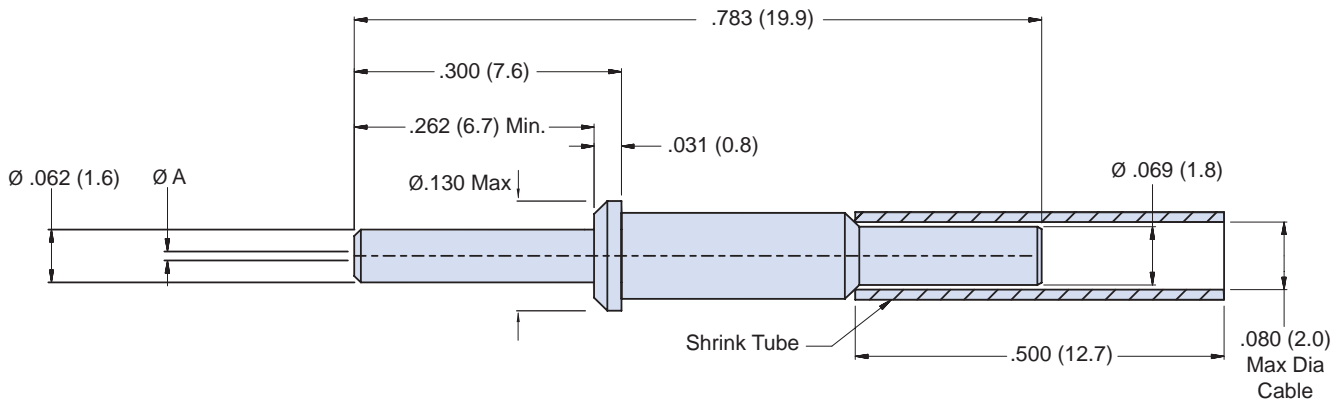
Misc. Backshells  
and Accessories



**Ultra low dB loss QPL'd pin terminus for MIL-DTL-38999 Series III**



| Part Number  | Fiber Size Core/Cladding/Coating | Ø A (Microns) | Ref. M29504/04-XXXX |
|--------------|----------------------------------|---------------|---------------------|
| 181-002-125  | 9/125 (Singlemode)               | 125.5         | M29504/04-4208      |
| 181-002-126S | 9/125 (Singlemode)               | 126.0         | M29504/04-4209      |
| 181-002-126  | 50/125 & 62.5/125                | 126.0         | M29504/04-4210      |
| 181-002-127  | 50/125 & 62.5/125                | 127.0         | M29504/04-4040      |
| 181-002-142  | 100/140                          | 142.0         | M29504/04-4043      |
| 181-002-144  | 100/140                          | 144.0         | N/A                 |
| 181-002-145  | 100/140                          | 145.0         | M29504/04-4044      |
| 181-002-156  | 62.5/125/155 (Polyimide)         | 156.0         | M29504/04-4211      |
| 181-002-157  | 62.5/125/155 (Polyimide)         | 157.0         | M29504/04-4212      |
| 181-002-173  | 100/140/172 (Polyimide)          | 173.0         | M29504/04-4087      |
| 181-002-175  | 100/140/172 (Polyimide)          | 175.0         | M29504/04-4213      |
| 181-002-231  | 200/230                          | 231.0         | N/A                 |
| 181-002-236  | 200/233                          | 236.0         | M29504/04-4214      |
| 181-002-286  | 200/280                          | 286.0         | M29504/04-4215      |
| 181-002-448  | 400/440                          | 448.0         | M29504/04-4216      |
| 181-002-533  | 486/500                          | 533.0         | N/A                 |



**Material and Finish**

Ferrule: Zirconia Ceramic  
Terminus Assembly: Stainless Steel/Passivate  
Shrink Tube: Kynar

**Notes**

See Glenair assembly procedure GAP-015 for complete termination instructions.  
Recommended Insertion/Extraction tool: P/N M81969/14-03 or equivalent

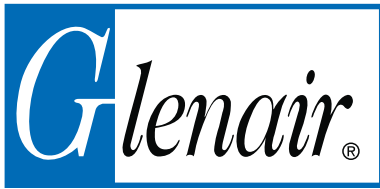
Dimensions in inches (millimeters) and are subject to change without notice.

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G



M29504/05

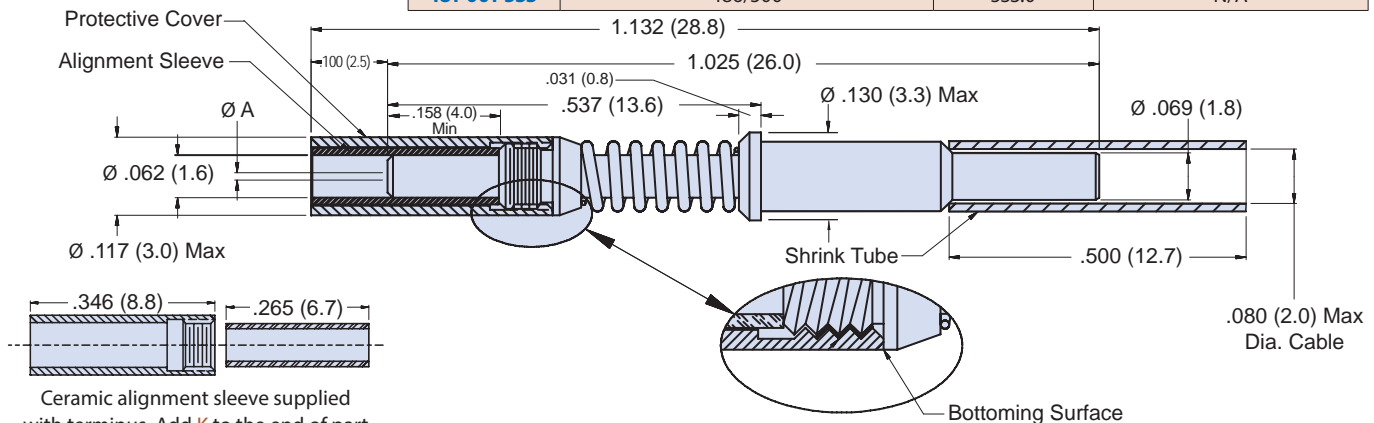
181-001

Size 16 MIL-DTL-38999 Series III Type  
Fiber Optic Socket Terminus

### Ultra low dB loss QPL'd socket terminus for MIL-DTL-38999 Series III



| Part Number  | Fiber Size<br>Core/Cladding/Coating (Microns) | Ø A (Microns) | Ref. M29504/05-XXXX |
|--------------|---|---------------|---------------------|
| 181-001-125  | 9/125 (Singlemode)                            | 125.5         | M29504/05-4237      |
| 181-001-126S | 9/125 (Singlemode)                            | 126.0         | M29504/05-4238      |
| 181-001-126  | 50/125 & 62.5/125                             | 126.0         | M29504/05-4239      |
| 181-001-127  | 50/125 & 62.5/125                             | 127.0         | M29504/05-4046      |
| 181-001-142  | 100/140                                       | 142.0         | M29504/05-4049      |
| 181-001-144  | 100/140                                       | 144.0         | N/A                 |
| 181-001-145  | 100/140                                       | 145.0         | M29504/05-4050      |
| 181-001-156  | 62.5/125/155 (Polyimide)                      | 156.0         | M29504/05-4240      |
| 181-001-157  | 62.5/125/155 (Polyimide)                      | 157.0         | M29504/05-4241      |
| 181-001-173  | 100/140/172 (Polyimide)                       | 173.0         | M29504/05-4088      |
| 181-001-175  | 100/140/172 (Polyimide)                       | 175.0         | M29504/05-4242      |
| 181-001-231  | 200/230                                       | 231.0         | N/A                 |
| 181-001-236  | 200/233                                       | 236.0         | M29504/05-4243      |
| 181-001-286  | 200/280                                       | 286.0         | M29504/05-4244      |
| 181-001-448  | 400/440                                       | 448.0         | M29504/05-4245      |
| 181-001-533  | 486/500                                       | 533.0         | N/A                 |



Ceramic alignment sleeve supplied with terminus. Add **K** to the end of part number development to supply with optional stainless steel alignment sleeve e.g. 181-001-126K.

Table II: Accessories

| Part Number | Description                      |
|-------------|----------------------------------|
| 181-001-S   | Ceramic Alignment Sleeve         |
| 181-001-K   | Stainless Steel Alignment Sleeve |
| 181-001-C   | Protective cover                 |

### Material and Finish

Ferrule: Zirconia Ceramic  
 Alignment Sleeve: Zirconia Ceramic or Stainless Steel/Passivate.  
 Terminus Assembly: Stainless Steel/Passivate  
 Spacer, Spring, and Cover: Stainless Steel/Passivate • Shrink Tube: Kynar

### Notes

Alignment Sleeve & Protective Cover can also be ordered separately (Table II).  
 See assembly procedure GAP-015 for complete termination instructions.  
 Recommended Insertion/Extraction tool: P/N M81969/14-03 or equivalent

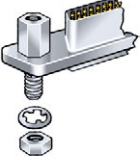
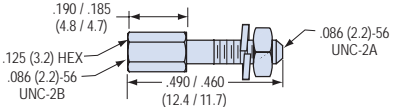
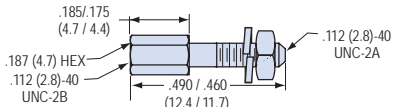
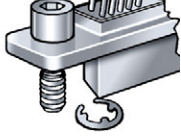
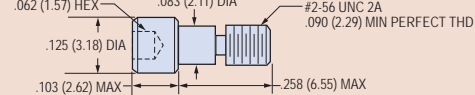
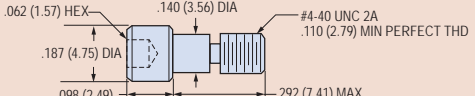
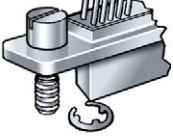
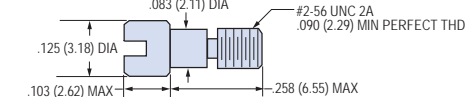
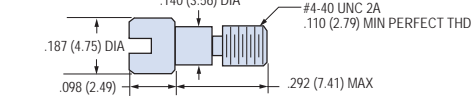
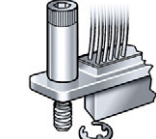
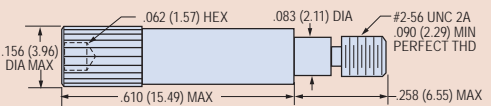

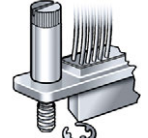
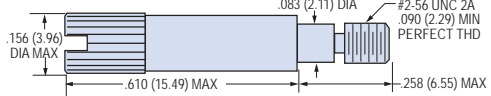
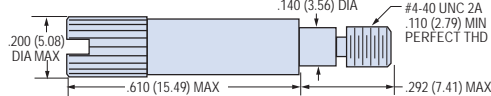
Dimensions in inches (millimeters) and are subject to change without notice.

# MIL-DTL-83513/05 Micro-D Jackscrew Kits



**Order One Kit Per Connector.** Jackpost kits contain two posts, two hex nuts and 2 lockwashers. Jackscrew kits contain 2 screws and 2 e-rings. Packaged one kit (two screws or posts) per bag.

**Mil Spec Hardware Kits** feature 300 series stainless steel.

| MIL SPEC JACKSCREW KITS   |   |                      |                     |  |
|---|---|----------------------|---------------------|--|
| Configuration   | Connector Size, Thread Size                               | Mil Spec Part Number | Glenair Part Number | Dimensions   |
|   |   |                      |                     |  |
| <br><b>Jackpost</b>                          | Sizes 9 to 69 Contacts. Mil Spec Size A to G #2-56 UNC    | M83513/05-07         | 080-00-00-100       |    |
|   | Size 100 Only Mil Spec Size H #4-40 UNC                   | M83513/05-17         | 080-00-00-101       |    |
| <br><b>Hex Head Jackscrew Low Profile</b>   | Sizes 9 to 69 Contacts. Mil Spec Size A to G #2-56 UNC-2A | M83513/05-02         | 080-00-00-502       |    |
|   | Size 100 Only Mil Spec Size H #4-40 UNC-2A                | M83513/05-12         | 080-00-00-512       |  |
| <br><b>Slot Head Jackscrew Low Profile</b> | Sizes 9 to 69 Contacts. Mil Spec Size A to G #2-56 UNC-2A | M83513/05-05         | 080-00-00-505       |  |
|   | Size 100 Only Mil Spec Size H #4-40 UNC-2A                | M83513/05-15         | 080-00-00-515       |  |
| <br><b>Hex Head Jackscrew Extended</b>     | Sizes 9 to 69 Contacts. Mil Spec Size A to G #2-56 UNC-2A | M83513/05-03         | 080-00-00-503       |  |
|   | Size 100 Only Mil Spec Size H #4-40 UNC-2A                | M83513/05-13         | 080-00-00-513       |  |
| <br><b>Slot Head Jackscrew Extended</b>    | Sizes 9 to 69 Contacts. Mil Spec Size A to G #2-56 UNC-2A | M83513/05-06         | 080-00-00-506       |  |
|   | Size 100 Only Mil Spec Size H #4-40 UNC-2A                | M83513/05-16         | 080-00-00-516       |  |

Dimensions in inches (millimeters) and are subject to change without notice.

# M83538/9S Straight Adapter and Extender

## CONNECTOR DESIGNATOR:

MIL-DTL-83538/4

Basic  
Part NumberShell  
Size

M83538/9S - 09

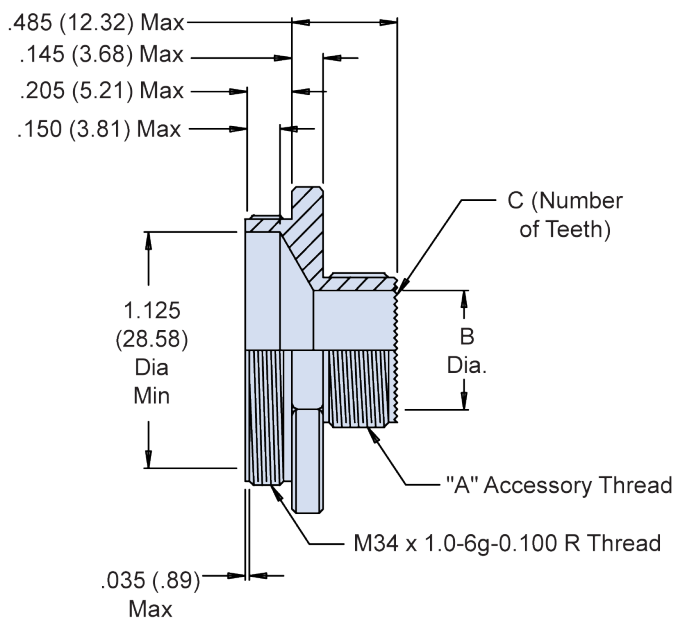
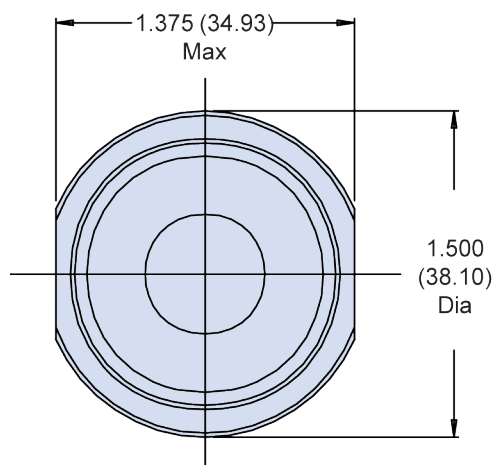


TABLE I: Shell Size, Thread, Teeth and Dimensions

| Shell Size | "A" Accessory Thread | B Dia<br>±.005 (0.13) | C Number of Teeth |
|------------|----------------------|-----------------------|-------------------|
| 09         | M12x1.0-6g 0.100R    | .332 (8.18)           | 12                |
| 11         | M15x1.0-6g 0.100R    | .440 (11.18)          | 16                |
| 13         | M18x1.0-6g 0.100R    | .559 (14.20)          | 20                |
| 15         | M22x1.0-6g 0.100R    | .716 (18.19)          | 24                |
| 17         | M25x1.0-6g 0.100R    | .834 (21.18)          | 28                |
| 19         | M28x1.0-6g 0.100R    | .952 (24.18)          | 32                |
| 21         | M31x1.0-6g 0.100R    | 1.070 (27.18)         | 36                |
| 23         | M34x1.0-6g 0.100R    | 1.188 (30.18)         | 40                |

## APPLICATION NOTES

- For complete dimensions see the applicable Military Specification.
- Material is corrosion resistant steel.
- Metric dimensions (mm) are in parentheses.

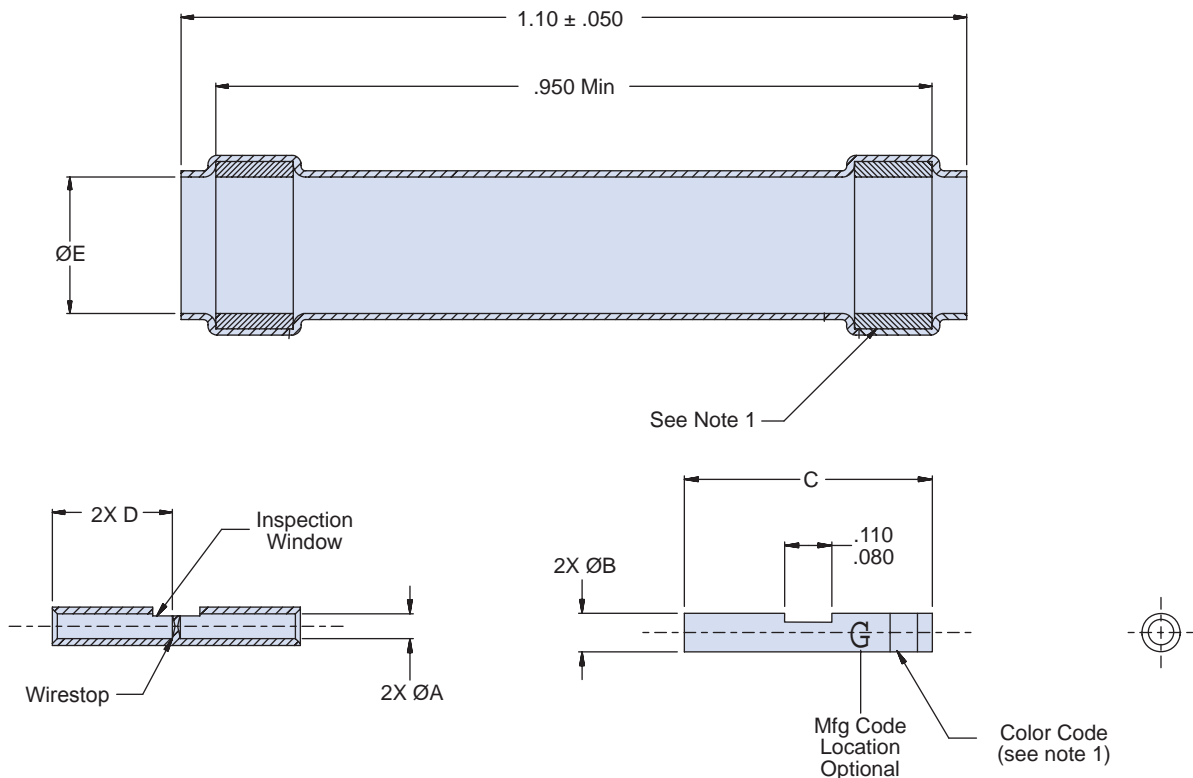
Dimensions in inches (millimeters) and are subject to change without notice.

**M81824/1 • 070-001**  
**MIL-Qualified Splice**  
**In-Line, Insulated, Environmental**



Misc. Backshells  
and Accessories

|                       |  |
|-----------------------|--|
| <b>Product Series</b> | <b>Size</b><br><i>(Table I, Page G-18)</i> |
| <b>M81824/1</b>       | <b>1</b>                                   |



**APPLICATION NOTES**

1. For complete dimensions see the applicable Military Specification.
2. One seal ring must be color coded per Table I. Splice to have matching circumferential color stripe.
3. Metric dimensions (mm) are in parentheses.
4. Material and Finish:  
 Splice – Copper UNS C10100 ASTM F68 or ASTM B187.  
 Finish – Tin plate per ASTM B 545, .00010 min thick over nickel per AMS-QQ-N-290.  
 Sealing material – Thermally stabilized thermoplastic.  
 Shrink Sleeve – transparent, heat shrinkable, cross-linked polyvinylidene fluoride per AMS-DTL-23053/8.

Dimensions in inches (millimeters) and are subject to change without notice.

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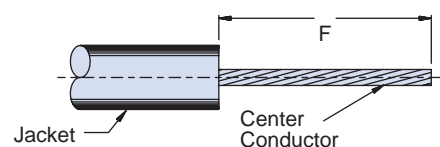


| Size | Wire Range | A Dia       | B Dia       | C            | D           | E Dia            |                    | Mil Ref    | Color Code (note 1) |
|------|------------|-------------|-------------|--------------|-------------|------------------|--------------------|------------|---------------------|
|      |            |             |             |              |             | Min (Free State) | After Recovery Ref |            |                     |
| 01   | 20–26 AWG  | .050 (1.27) | .080 (2.03) | .510 (12.95) | .245 (6.22) | .085 (2.2)       | .025 (0.6)         | M81824/1-1 | Red                 |
|      |            | .045 (1.14) | .075 (1.90) | .490 (12.45) | .225 (5.72) |                  |                    |            |                     |
| 02   | 16–20 AWG  | .069 (1.75) | .106 (2.69) | .585 (14.86) | .280 (7.11) | .110 (2.8)       | .025 (0.6)         | M81824/1-2 | Blue                |
|      |            | .064 (1.63) | .101 (2.57) | .565 (14.35) | .260 (6.60) |                  |                    |            |                     |
| 03   | 12–16 AWG  | .102 (2.59) | .153 (3.89) | .585 (14.86) | .280 (7.11) | .170 (4.3)       | .025 (0.6)         | M81824/1-3 | Yellow              |
|      |            | .097 (2.46) | .147 (3.74) | .565 (14.35) | .260 (6.60) |                  |                    |            |                     |

## ASSEMBLY INSTRUCTIONS

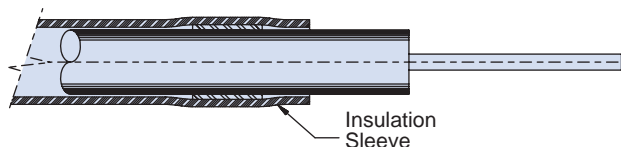
### Step A

- Strip wires per Table II. Ends must be cut cleanly and at right angles to the axial plane of the wire. The wire must not be deformed while making cuts.



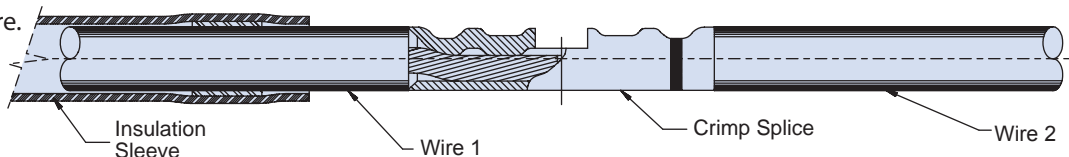
### Step B

- Slide Insulation Sleeve onto one of the wires



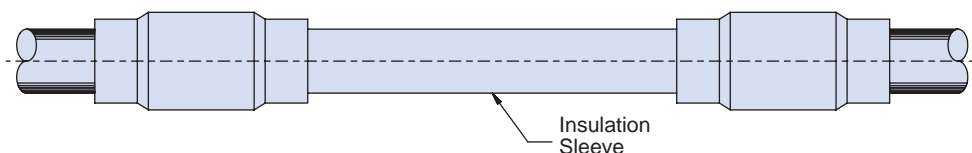
### Step C

- Insert one wire into barrel of crimp splice and crimp using crimp tool and dies listed in Table II.
- Repeat for second wire.



### Step D

- Slide Insulation Sleeve over the splice until centered.
- Apply heat using acceptable heat source for military equipment as qualified by the services for Class 2 splices. Sealing rings shall melt and insulation sleeve shall seal around crimp splice and wires.



| Part No.  | Wire Range     | F   | Crimp Tool Data   |
|-----------|----------------|-----|---|
| 070-00101 | 20, 22, 24, 26 | .24 | Crimp Tool: M22520/5-01<br>Crimp Dies: M22520/5-102, -103         |
| 070-00102 | 16, 18, 20     | .28 | OR<br>Crimp Tool: M22520/10-01<br>Crimp Dies: M22520/10-103, -104 |
| 070-00103 | 12, 14, 16     | .28 | OR<br>Crimp Tool: M22520/37-01<br>Crimp Dies: None                |

Dimensions in inches (millimeters) and are subject to change without notice.



## Backshell-to-Connector Assembly Tools

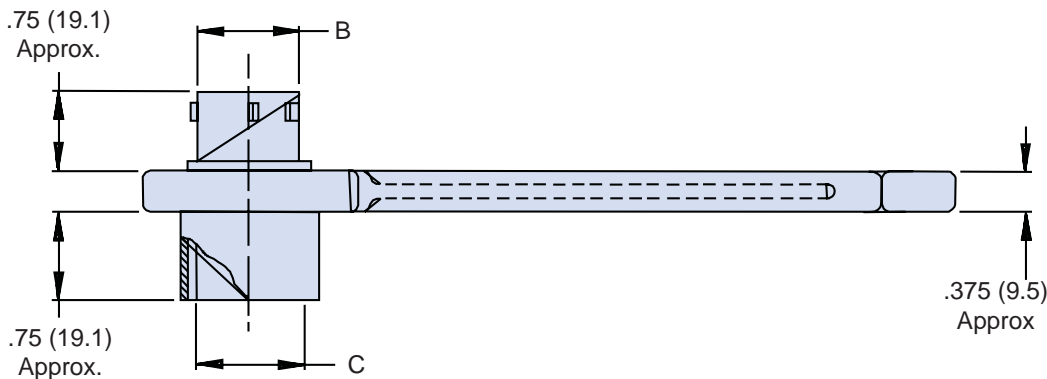
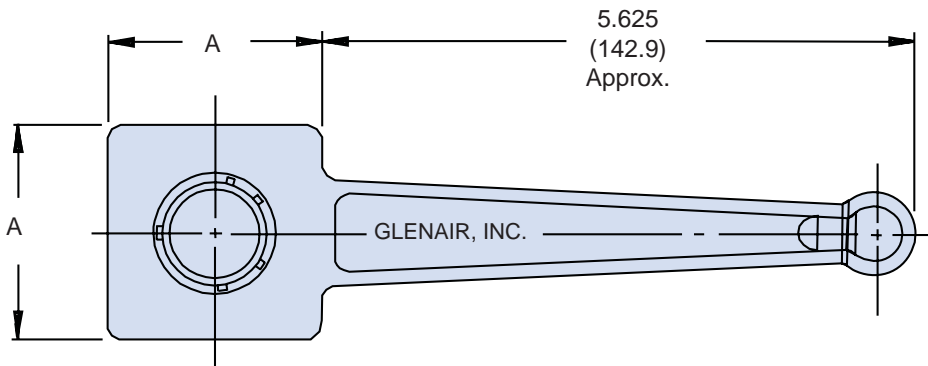
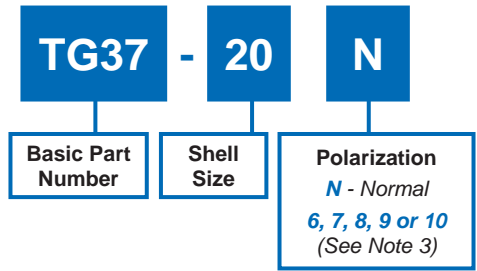


| Industry Specification Number | Part Identification Number | Military Part Number Superseded | Glenair Commercial Part Number | Description   | Glenair Connector Designator/Interface                                      | Page No. |
|-------------------------------|----------------------------|---------------------------------|--------------------------------|---|---|----------|
| --                            | --                         | --                              | TG37                           | Connector Wrench for MIL-DTL-26500 and MIL-DTL-83723 Series III   | MIL-DTL-26500;<br>MIL-DTL-83723 Series III                                  | H-2      |
| --                            | MS3481                     | --                              | TG39                           | Connector Wrench for MIL-DTL-26482, Ser. I & II; MIL-DTL-83723, Ser. I & NAS 1599                       | MIL-DTL-26482 Series I & II;<br>MIL-DTL-83723 Series I;<br>NAS 1599         | H-3      |
| --                            | --                         | --                              | TG47                           | Connector Wrench for MIL-DTL-22992, Classes C, J and R  | MIL-DTL-22992,<br>Classes C, J and R  | H-4      |
| --                            | --                         | --                              | TG48                           | Connector Wrench for MIL-DTL-38999, Series II   | MIL-DTL-38999 Series II   | H-5      |
| --                            | --                         | --                              | TG52                           | Connector Wrench for MIL-C-81511, Series II and IV  | MIL-C-81511 Series II & IV  | H-6      |
| --                            | --                         | --                              | TG60                           | Connector Wrench for MIL-DTL-27599 and MIL-DTL-38999, Series I  | MIL-DTL-27599;<br>MIL-DTL-38999 Series I                                    | H-7      |
| --                            | --                         | --                              | TG83                           | Wrench for SJT Connectors (LN29729)   | LN29729   | H-8      |
| --                            | --                         | --                              | TG90                           | Connector Wrench For MIL-DTL-38999, Ser III   | MIL-DTL-38999 Series III  | H-9      |
| --                            | --                         | --                              | 600B005                        | Plug and Receptacle Holder for MIL-DTL-501555 Series MS3100 Solder & Crimp and MIL-DTL-83723, Series II | MIL-DTL-50155 Series MS3100<br>Solder and Crimp;<br>MIL-DTL-83723 Series II | H-10     |
| --                            | --                         | --                              | 600C005                        | Plug and Receptacle Holder for MIL-DTL-22992 Classes C, J and R   | MIL-DTL-22992<br>Classes C, J and R   | H-11     |
| --                            | --                         | --                              | 600D005                        | Plug and Receptacle Holder for MIL-DTL-26482, Series I and II, MIL-DTL-83723, Series I and NAS 1599     | MIL-DTL-26482 Series I & II;<br>MIL-DTL-83723 Series I;<br>NAS 1599         | H-12     |
| --                            | --                         | --                              | 600E005                        | Plug and Receptacle Holder for MIL-DTL-26500 and MIL-DTL-83723 Series III                               | MIL-DTL-26500;<br>MIL-DTL-83723 Series III                                  | H-13     |
| --                            | --                         | --                              | 600F005                        | Plug and Receptacle Holder for MIL-DTL-27599 and MIL-DTL-38999 Series I                                 | MIL-DTL-27599;<br>MIL-DTL-38999 Series I                                    | H-14     |
| --                            | --                         | --                              | 600FF005                       | Plug and Receptacle Holder for MIL-DTL-38999, Series II   | MIL-DTL-38999 Series II   | H-15     |
| --                            | --                         | --                              | 600G005                        | Plug and Receptacle Holder for MIL-DTL-28840  | MIL-DTL-28840   | H-16     |
| --                            | --                         | --                              | 600H005                        | Plug and Receptacle Holder for MIL-DTL-38999, Series III  | MIL-DTL-38999 Series III  | H-17     |
| --                            | --                         | --                              | 600HH005                       | Plug and Receptacle Holder for MIL-DTL-38999, Series IV   | MIL-DTL-38999 Series IV   | H-18     |
| --                            | --                         | --                              | 600J005                        | Plug and Receptacle Holder for MIL-DTL-81511, Series I, II, III and IV                                  | MIL-DTL-81511<br>Series I, II, III & IV                                     | H-19     |

Dimensions in inches (millimeters) and are subject to change without notice.



# TG37 Connector Wrench MIL-DTL-26500, MIL-DTL-83723 Series III



**TABLE I: Dash Number and Dimensions**

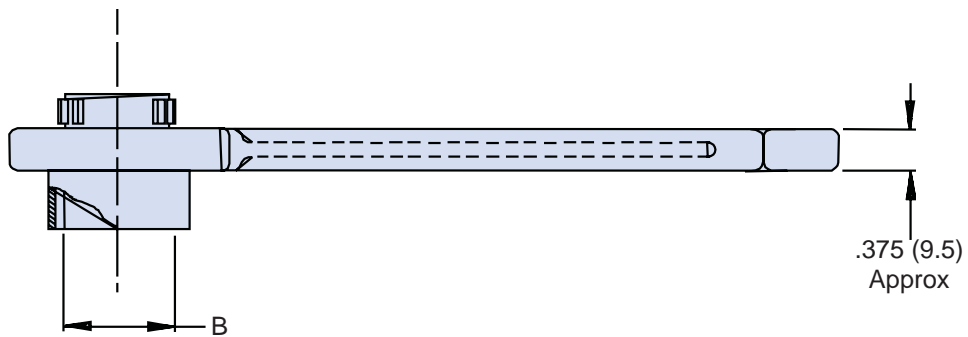
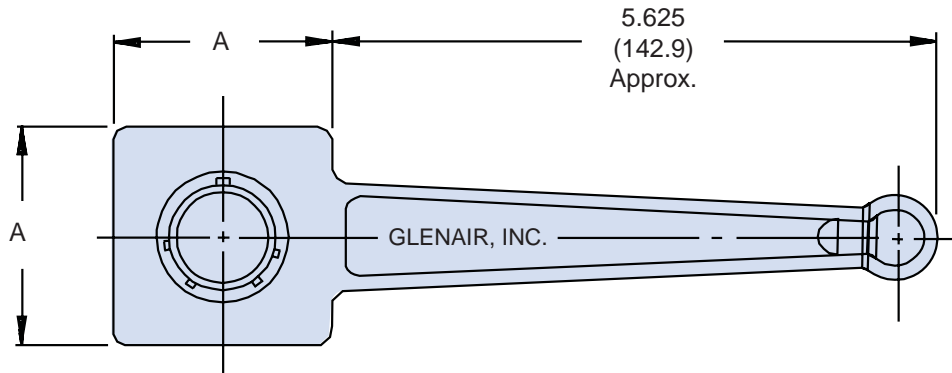
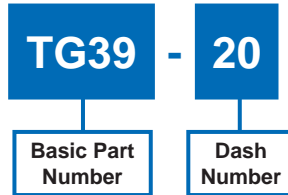
| Dash No. | A Dim<br>± .062(1.6) | B Dia<br>Ref | C Dia<br>Ref |
|----------|----------------------|--------------|--------------|
| 8        | 1.250 (31.8)         | .424 (10.8)  | .428 (10.9)  |
| 10       | 1.250 (31.8)         | .526 (13.4)  | .530 (13.5)  |
| 12       | 1.250 (31.8)         | .696 (17.7)  | .700 (17.8)  |
| 14       | 2.000 (50.8)         | .765 (19.4)  | .769 (19.5)  |
| 16       | 2.000 (50.8)         | .892 (22.7)  | .896 (22.8)  |
| 18       | 2.000 (50.8)         | .998 (25.3)  | 1.002 (25.5) |
| 20       | 2.000 (50.8)         | 1.123 (28.5) | 1.127 (28.6) |
| 22       | 2.000 (50.8)         | 1.248 (31.7) | 1.252 (31.8) |
| 24       | 2.000 (50.8)         | 1.373 (34.9) | 1.377 (35.0) |

**APPLICATION NOTES**

1. Metric dimensions (mm) are indicated in parentheses.
2. Material: Aluminum alloy with electroless nickel finish.
3. Polarization 10 not available for shell size 8.
4. Wrench has been designed to be used with both threaded and bayonet style connectors.

Dimensions in inches (millimeters) and are subject to change without notice.

**TG39**  
**Connector Wrench**  
 MIL-DTL26482 Series I and II, MIL-DTL-83723 Series I and NAS 1599



**TABLE I: Shell Size and Dimensions**

| Shell Size | A Dim<br>± .062 (1.6) | B Dia<br>Ref |
|------------|-----------------------|--------------|
| 8          | 1.250 (31.8)          | .362 (9.2)   |
| 10         | 1.250 (31.8)          | .490 (12.4)  |
| 12         | 1.250 (31.8)          | .607 (15.4)  |
| 14         | 1.250 (31.8)          | .732 (18.6)  |
| 16         | 2.000 (50.8)          | .857 (21.8)  |
| 18         | 2.000 (50.8)          | .962 (24.4)  |
| 20         | 2.000 (50.8)          | 1.087 (27.6) |
| 22         | 2.000 (50.8)          | 1.212 (30.8) |
| 24         | 2.000 (50.8)          | 1.337 (34.0) |

- APPLICATION NOTES**
1. Metric dimensions (mm) are indicated in parentheses.
  2. Material: Aluminum alloy with electroless nickel finish.

Dimensions in inches (millimeters) and are subject to change without notice.



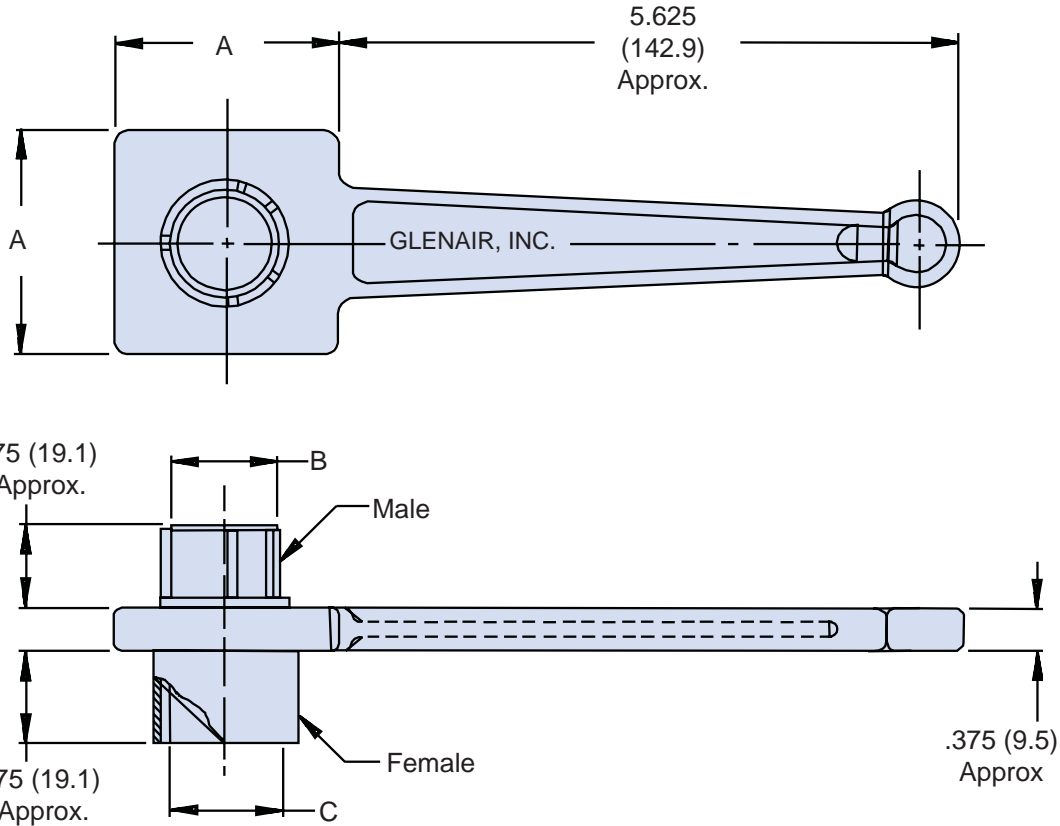


# TG47 Connector Wrench MIL-DTL-22992 Classes C, J & R

**TG47 - 20**

Basic Part  
Number

Dash  
Number



**TABLE I: Shell Size and Dimensions**

| Shell Size | A Dim<br>± .062 (1.6) | B Dia<br>Ref | C Dia<br>Ref |
|------------|-----------------------|--------------|--------------|
| 12         | 1.250 (31.8)          | .554 (14.1)  | .567 (14.4)  |
| 14         | 2.000 (50.8)          | .674 (17.1)  | .692 (17.6)  |
| 16         | 2.000 (50.8)          | .804 (20.4)  | .817 (20.8)  |
| 18         | 2.000 (50.8)          | .929 (23.6)  | .942 (23.9)  |
| 20         | 2.000 (50.8)          | 1.052 (26.7) | 1.068 (27.1) |
| 22         | 2.750 (69.9)          | 1.177 (29.9) | 1.192 (30.3) |
| 24         | 2.750 (69.9)          | 1.302 (33.1) | 1.317 (33.5) |
| 28         | 2.750 (69.9)          | 1.522 (38.7) | 1.536 (39.0) |
| 32         | 2.750 (69.9)          | 1.772 (45.0) | 1.786 (45.4) |
| 36         | 2.750 (69.9)          | 1.982 (50.3) | 2.005 (50.9) |

**APPLICATION NOTES**

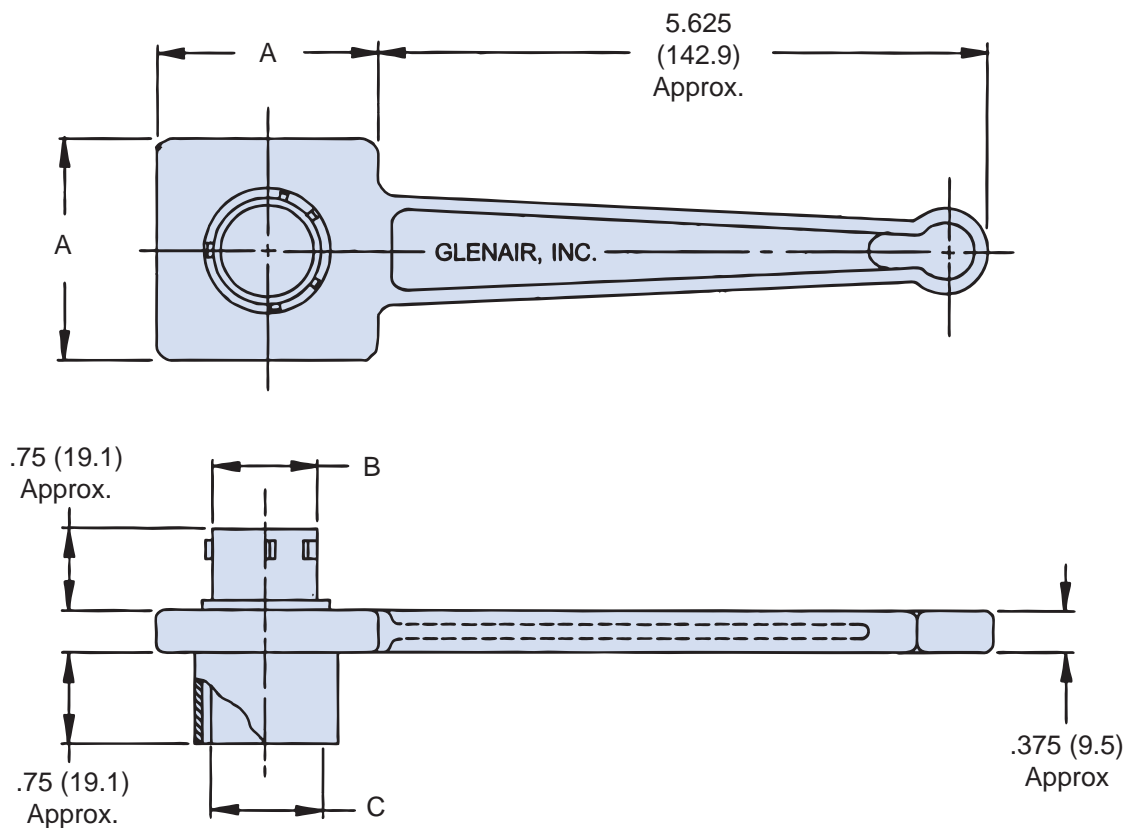
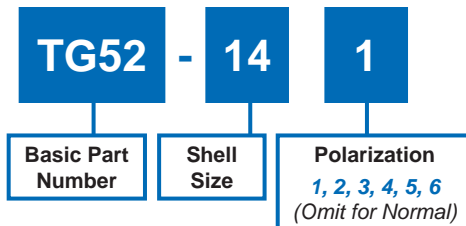
1. Metric dimensions (mm) are indicated in parentheses.
2. Material: Aluminum alloy with electroless nickel finish.

Dimensions in inches (millimeters) and are subject to change without notice.





# TG52 Connector Wrench MIL-C-81511 Series II & IV



**TABLE I: Shell Size and Dimensions**

| Shell Size | A Dim<br>± .062 (1.6) | B Dia<br>Ref | C Dia<br>Ref |
|------------|-----------------------|--------------|--------------|
| <b>8</b>   | 1.250 (31.8)          | .382 (9.7)   | .386 (9.8)   |
| <b>10</b>  | 1.250 (31.8)          | .507 (12.9)  | .511 (13.0)  |
| <b>14</b>  | 2.000 (50.8)          | .757 (19.2)  | .761 (19.3)  |
| <b>16</b>  | 2.000 (50.8)          | .883 (22.4)  | .887 (22.5)  |
| <b>18</b>  | 2.000 (50.8)          | 1.007 (25.6) | 1.011 (25.7) |

**APPLICATION NOTES**

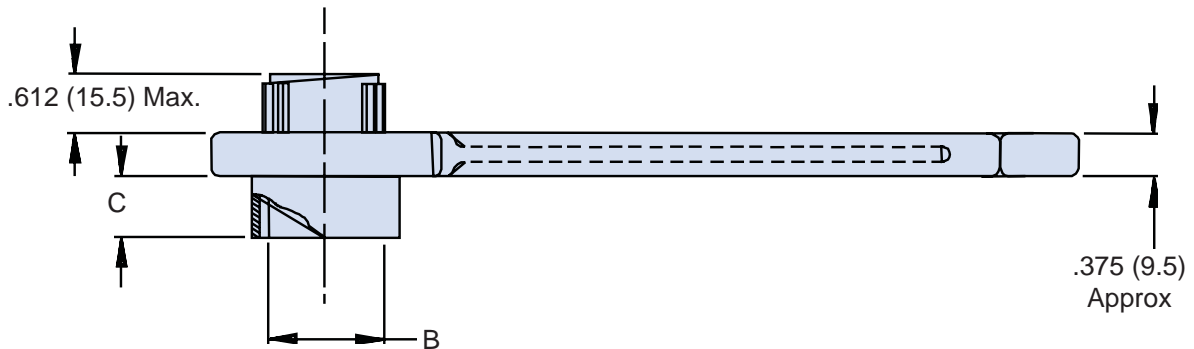
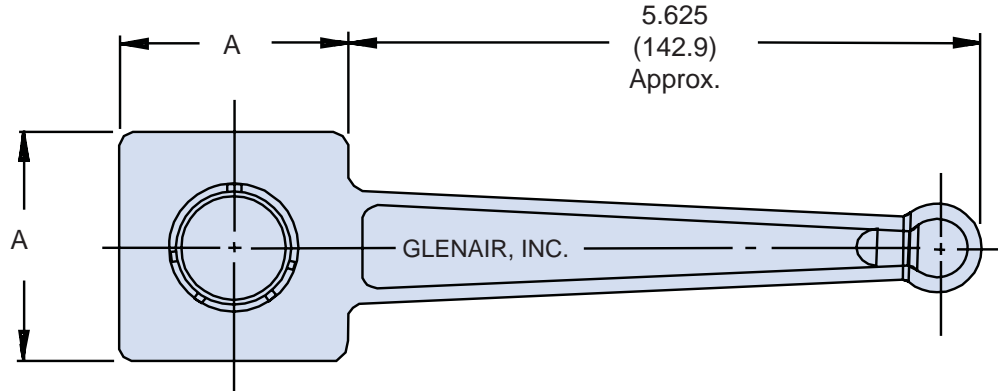
1. Metric dimensions (mm) are indicated in parentheses.
2. Material: Aluminum alloy with electroless nickel finish.

Dimensions in inches (millimeters) and are subject to change without notice.

**TG60**  
**Connector Wrench**  
 MIL-DTL-27599, MIL-DTL-38999 Series I



**TG60 - 15**  
 Basic Part Number      Shell size



**TABLE I: Shell Size and Dimensions**

| Shell Size | A Dim Ref    | B Dia Ref    | C Dia Ref   |
|------------|--------------|--------------|-------------|
| 9          | 1.250 (31.8) | .442 (11.2)  | .647 (16.4) |
| 11         | 1.250 (31.8) | .570 (14.5)  | .647 (16.4) |
| 13         | 1.250 (31.8) | .687 (17.4)  | .647 (16.4) |
| 15         | 2.000 (50.8) | .812 (20.6)  | .647 (16.4) |
| 17         | 2.000 (50.8) | .937 (23.8)  | .647 (16.4) |
| 19         | 2.000 (50.8) | 1.042 (26.5) | .647 (16.4) |
| 21         | 2.000 (50.8) | 1.167 (29.6) | .617 (15.7) |
| 23         | 2.000 (50.8) | 1.292 (32.8) | .617 (15.7) |
| 25         | 2.000 (50.8) | 1.417 (36.0) | .617 (15.7) |

**APPLICATION NOTES**

1. Metric dimensions (mm) are indicated in parentheses.
2. Material: Aluminum alloy with electroless nickel finish.

Dimensions in inches (millimeters) and are subject to change without notice.





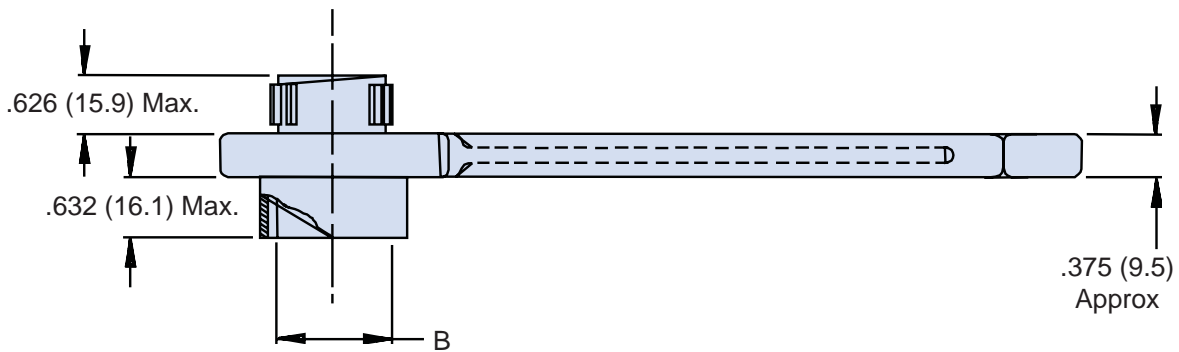
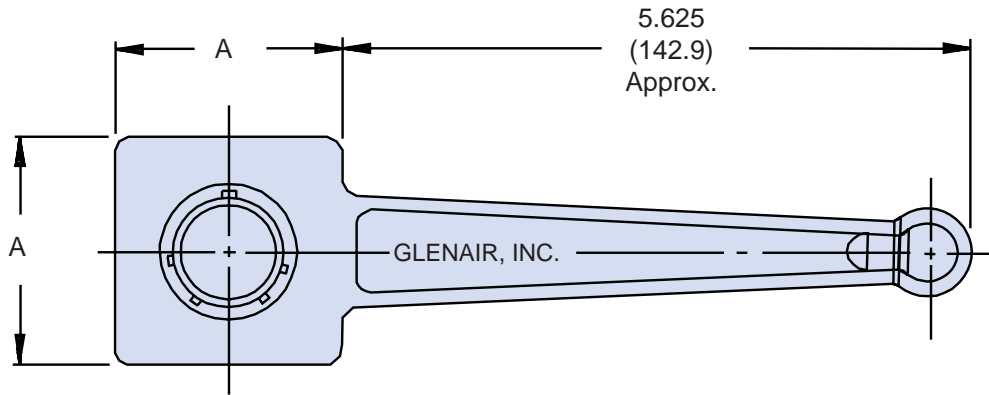
# TG83 Wrench for SJT Connectors (LN29729)

**TG83**

**20**

Basic Part  
Number

Shell  
size



**TABLE I: Shell Size and Dimensions**

| Shell Size | A Dim<br>± .062 (1.6) | B Dia<br>Ref |
|------------|-----------------------|--------------|
| 8          | 1.250 (31.8)          | .362 (9.2)   |
| 10         | 1.250 (31.8)          | .490 (12.4)  |
| 12         | 1.250 (31.8)          | .607 (15.4)  |
| 14         | 1.250 (31.8)          | .732 (18.6)  |
| 16         | 2.000 (50.8)          | .857 (21.8)  |
| 18         | 2.000 (50.8)          | .962 (24.4)  |
| 20         | 2.000 (50.8)          | 1.087 (27.6) |
| 22         | 2.000 (50.8)          | 1.212 (30.8) |
| 24         | 2.000 (50.8)          | 1.337 (34.0) |

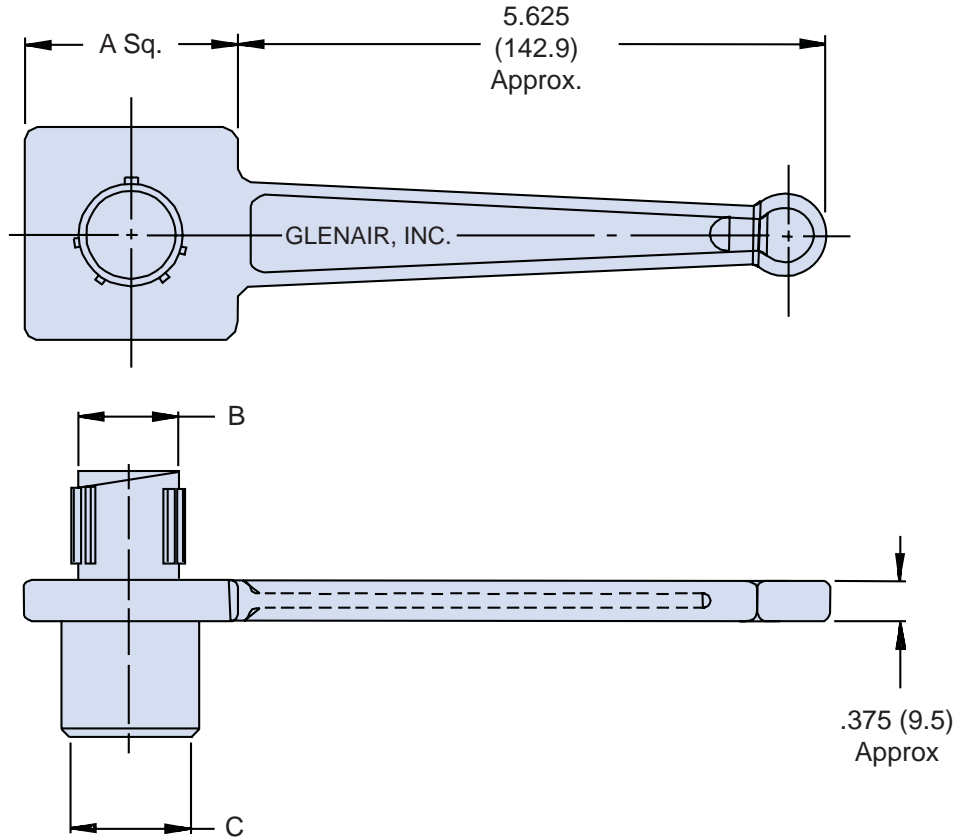
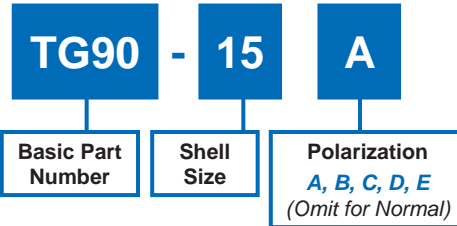
**APPLICATION NOTES**

1. Metric dimensions (mm) are indicated in parentheses.
2. Material: Aluminum alloy with electroless nickel finish.

Dimensions in inches (millimeters) and are subject to change without notice.

H

**TG90**  
**Connector Wrench**  
**MIL-DTL-38999 Series III**



**TABLE I: Shell Size and Dimensions**

| Shell Size | A Dim<br>± .062 (1.6) | B Dia<br>Ref | C Dia<br>Ref |
|------------|-----------------------|--------------|--------------|
| 09         | 1.250 (31.8)          | .438 (11.1)  | .441 (11.2)  |
| 11         | 1.250 (31.8)          | .566 (14.4)  | .569 (14.5)  |
| 13         | 1.250 (31.8)          | .678 (17.2)  | .682 (17.3)  |
| 15         | 2.000 (50.8)          | .802 (20.4)  | .811 (20.6)  |
| 17         | 2.000 (50.8)          | .928 (23.6)  | .931 (23.6)  |
| 19         | 2.000 (50.8)          | 1.032 (26.2) | 1.037 (26.3) |
| 21         | 2.000 (50.8)          | 1.155 (29.3) | 1.162 (29.5) |
| 23         | 2.750 (69.9)          | 1.283 (32.6) | 1.288 (32.7) |
| 25         | 2.750 (69.9)          | 1.407 (35.7) | 1.411 (35.8) |

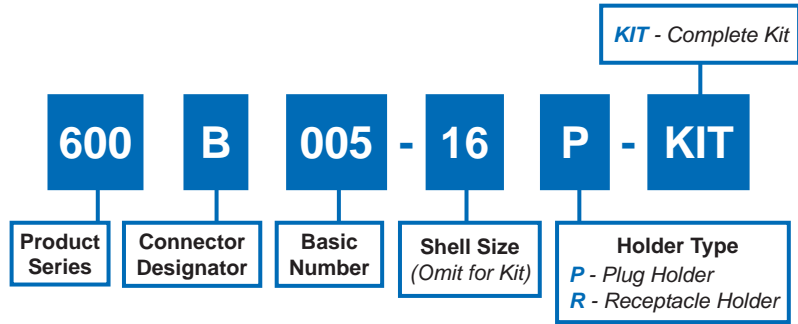
- APPLICATION NOTES**
1. Metric dimensions (mm) are indicated in parentheses.
  2. Material: Aluminum alloy with electroless nickel finish.



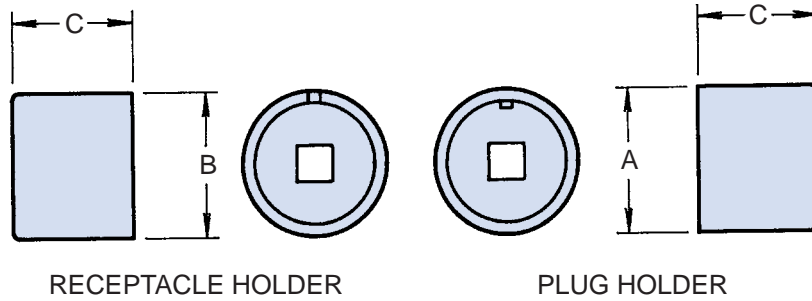
Dimensions in inches (millimeters) and are subject to change without notice.



**600B005**  
**Plug and Receptacle Holder**  
 AS50151 Series AS31001 Solder and Crimp,  
 MIL-DTL-83723 Series II



**NO POLARIZATION REQUIRED**



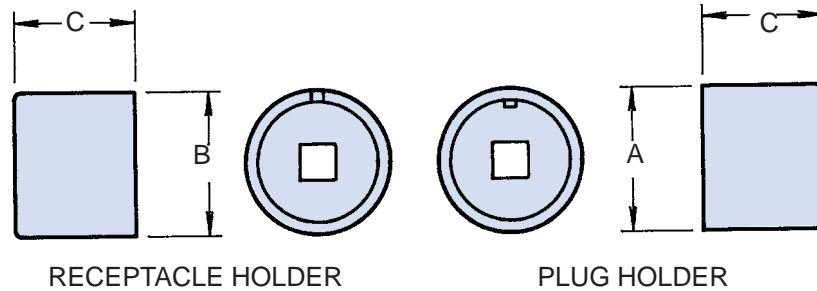
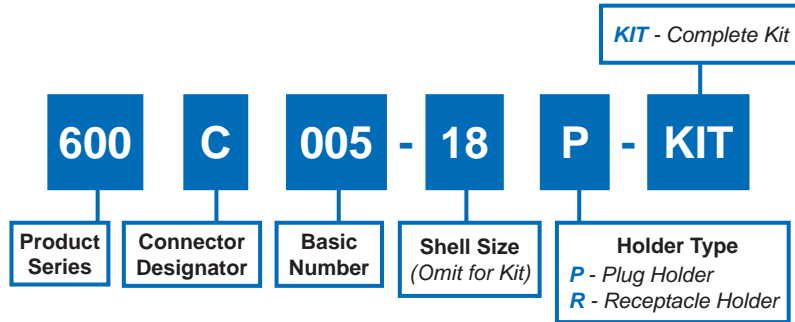
**TABLE I: Dash Number, Torque and Dimensions**

| Dash No. | Torque Max (In/lbs) | A Dia Max    | B Dia Max    | C Dim Max    |
|----------|---------------------|--------------|--------------|--------------|
| 08       | 60                  | .456 (11.6)  | .365 (9.3)   | 1.250 (31.8) |
| 10       | 80                  | .575 (14.6)  | .440 (11.2)  | 1.250 (31.8) |
| 12       | 110                 | .691 (17.6)  | .555 (14.1)  | 1.250 (31.8) |
| 14       | 120                 | .816 (20.7)  | .675 (17.1)  | 1.250 (31.8) |
| 16       | 120                 | .941 (23.9)  | .805 (20.4)  | 1.250 (31.8) |
| 18       | 120                 | 1.060 (26.9) | .930 (23.6)  | 1.250 (31.8) |
| 20       | 140                 | 1.185 (30.1) | 1.050 (26.7) | 1.250 (31.8) |
| 22       | 140                 | 1.310 (33.3) | 1.175 (29.8) | 1.250 (31.8) |
| 24       | 140                 | 1.435 (36.4) | 1.300 (33.0) | 1.250 (31.8) |
| 28       | 150                 | 1.685 (42.8) | 1.520 (38.6) | 1.250 (31.8) |
| 32       | 150                 | 1.935 (49.1) | 1.777 (45.0) | 1.250 (31.8) |
| 36       | 150                 | 2.177 (55.3) | 1.980 (50.3) | 1.250 (31.8) |

| APPLICATION NOTES  |
|--|
| 1. Also mates with MIL-C-83723, Series II.   |
| 2. Metric dimensions (mm) are indicated in parentheses.  |
| 3. Material: Case hardened carbon steel with electroless nickel finish.                            |
| 4. Receptacle and plug holder drives: 1/4" - Shell sizes 08, 10, 12; 3/8" - Shell sizes 14 and up. |

Dimensions in inches (millimeters) and are subject to change without notice.

**600C005**  
**Plug and Receptacle Holder**  
**MIL-DTL-22992 Classes C, J & R**



**TABLE I: Dash Number, Torque and Dimensions**

| Dash No. | Torque Max (In/lbs) | A Dia Max    | B Dia Max    | C Dim Max    |
|----------|---------------------|--------------|--------------|--------------|
| 12       | 110                 | .824 (20.9)  | .552 (14.0)  | 1.280 (32.5) |
| 14       | 120                 | .950 (24.1)  | .677 (17.2)  | 1.280 (32.5) |
| 16       | 120                 | 1.058 (26.9) | .802 (20.4)  | 1.280 (32.5) |
| 18       | 120                 | 1.183 (30.0) | .927 (23.5)  | 1.280 (32.5) |
| 20       | 140                 | 1.315 (33.4) | 1.053 (26.7) | 1.280 (32.5) |
| 22       | 140                 | 1.425 (36.2) | 1.177 (29.9) | 1.280 (32.5) |
| 24       | 140                 | 1.683 (42.7) | 1.302 (33.1) | 1.280 (32.5) |
| 28       | 150                 | 1.931 (49.0) | 1.521 (38.6) | 1.280 (32.5) |
| 32       | 150                 | 2.183 (55.4) | 1.771 (45.0) | 1.280 (32.5) |
| 36       | 150                 | 2.445 (62.1) | 1.990 (50.5) | 1.280 (32.5) |

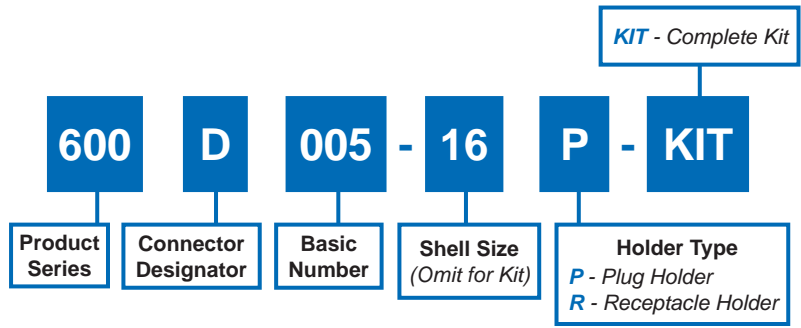
**APPLICATION NOTES**

1. Metric dimensions (mm) are indicated in parentheses.
2. Material: Case hardened carbon steel with electroless nickel finish.
3. Receptacle and plug holder drives: 1/4" - Shell size 12; 3/8" - Shell sizes 14 and up.
4. Consult Factory for larger sizes.

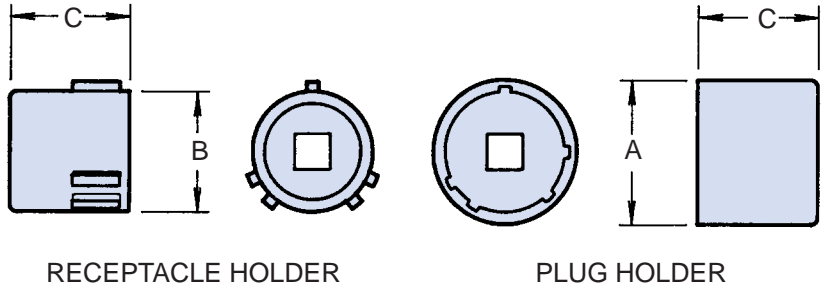
Dimensions in inches (millimeters) and are subject to change without notice.



**600D005**  
**Plug and Receptacle Holder**  
 MIL-DTL-26482 Series I & II,  
 MIL-DTL-83723 Series I and NAS 1599



**NO POLARIZATION REQUIRED**



RECEPTACLE HOLDER

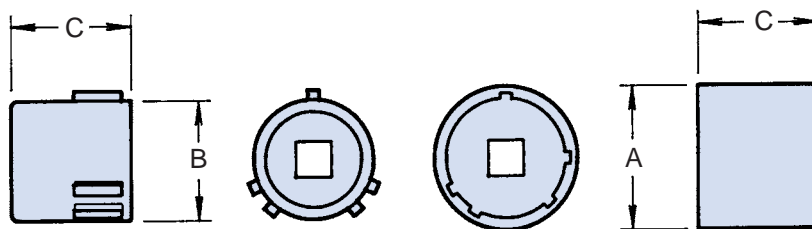
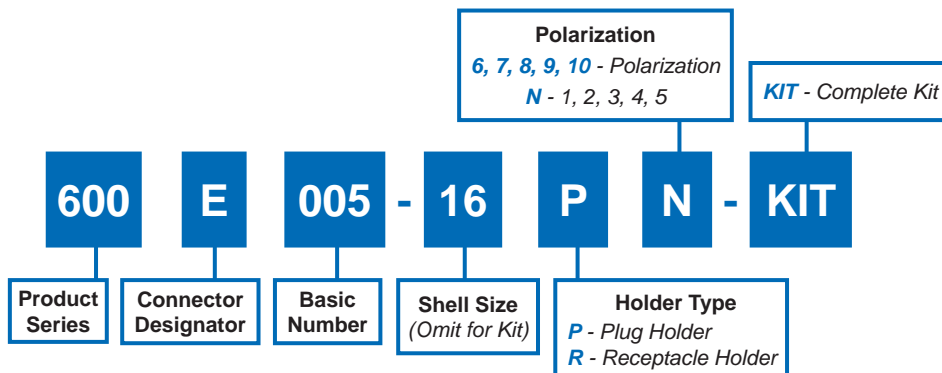
PLUG HOLDER

| TABLE I: Dash Number, Torque and Dimensions |                     |           |              |              |             |
|---|---------------------|-----------|--------------|--------------|-------------|
| Dash No.                                    | Torque Max (In/lbs) |           | A Dia Max    | B Dia Max    | C Dim Max   |
|   | Series I            | Series II |              |              |             |
| 08  | 40                  | 60        | .478 (12.1)  | .358 (9.1)   | .910 (23.1) |
| 10  | 40                  | 80        | .599 (15.2)  | .486 (12.3)  | .910 (23.1) |
| 12  | 40                  | 110       | .758 (19.3)  | .598 (15.2)  | .910 (23.1) |
| 14  | 40                  | 120       | .882 (22.4)  | .723 (18.4)  | .910 (23.1) |
| 16  | 40                  | 120       | 1.007 (25.6) | .848 (21.5)  | .910 (23.1) |
| 18  | 40                  | 120       | 1.133 (28.8) | .948 (24.1)  | .910 (23.1) |
| 20  | 80                  | 140       | 1.257 (31.9) | 1.073 (27.3) | .910 (23.1) |
| 22  | 80                  | 140       | 1.382 (35.1) | 1.198 (30.4) | .910 (23.1) |
| 24  | 80                  | 140       | 1.507 (38.3) | 1.323 (33.6) | .910 (23.1) |

| APPLICATION NOTES  |
|--|
| 1. Also mates with MIL-C-83723, Series I; 40M39569.  |
| 2. Metric dimensions (mm) are indicated in parentheses.  |
| 3. Material: Case hardened carbon steel with electroless nickel finish.                            |
| 4. Receptacle and plug holder drives: 1/4" - Shell sizes 08, 10, 12; 3/8" - Shell sizes 14 and up. |

Dimensions in inches (millimeters) and are subject to change without notice.

**600E005**  
**Plug and Receptacle Holder**  
**MIL-DTL-26500 and MIL-DTL-83723 Series III**



RECEPTACLE HOLDER

PLUG HOLDER

**TABLE I: Dash Number, Torque and Dimensions**

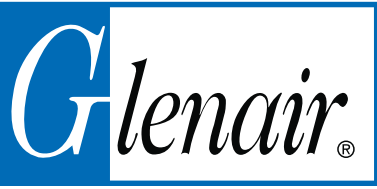
| Dash No. | Torque Max (In/lbs) | A Dia Max    | B Dia Max    | C Dim Max    |
|----------|---------------------|--------------|--------------|--------------|
| 08       | 60                  | .537 (13.6)  | .424 (10.8)  | 1.031 (26.2) |
| 10       | 80                  | .660 (16.8)  | .526 (13.4)  | 1.031 (26.2) |
| 12       | 110                 | .830 (21.1)  | .696 (17.7)  | 1.031 (26.2) |
| 14       | 120                 | .899 (22.8)  | .765 (19.4)  | 1.031 (26.2) |
| 16       | 120                 | 1.026 (26.1) | .892 (22.7)  | 1.031 (26.2) |
| 18       | 120                 | 1.132 (28.8) | .998 (25.3)  | 1.031 (26.2) |
| 20       | 140                 | 1.259 (32.0) | 1.123 (28.6) | 1.031 (26.2) |
| 22       | 140                 | 1.382 (35.1) | 1.248 (31.7) | 1.031 (26.2) |
| 24       | 140                 | 1.509 (38.3) | 1.373 (34.9) | 1.031 (26.2) |
| 28*      | 150                 | 1.740 (44.2) | 1.623 (41.2) | 1.031 (26.2) |

\* Non-Military standard shell size

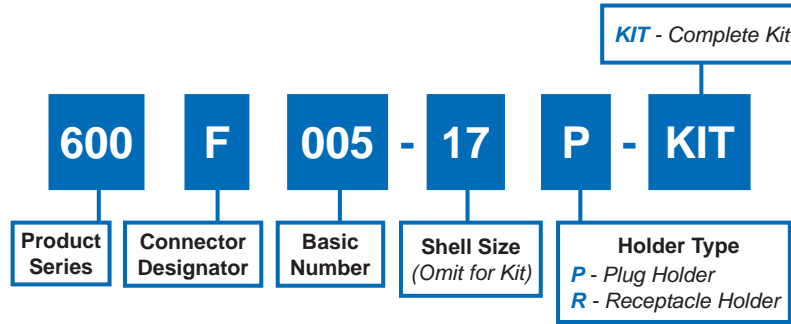
**APPLICATION NOTES**

1. Metric dimensions (mm) are indicated in parentheses.
2. Material: Case hardened carbon steel with electroless nickel finish.
3. Receptacle and plug holder drives: 1/4" - Shell sizes 08, 10, 12; 3/8" - Shell sizes 14 and up.

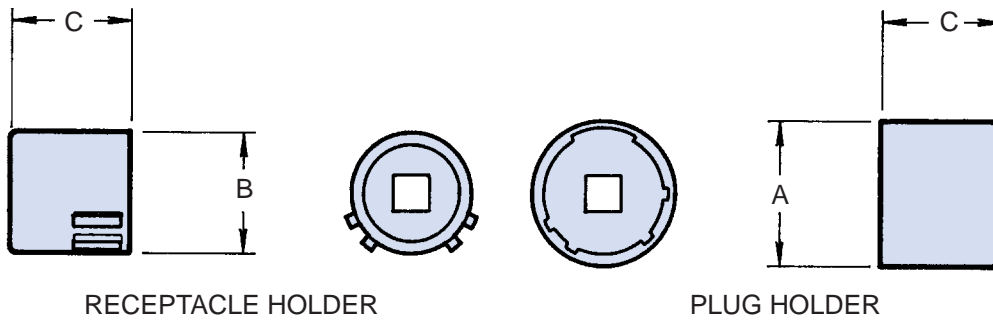
Dimensions in inches (millimeters) and are subject to change without notice.



**600F005**  
**Plug and Receptacle Holder**  
 MIL-DTL-27599, MIL-DTL-38999 Series I



**NO POLARIZATION REQUIRED**



**TABLE I: Dash Number, Torque and Dimensions**

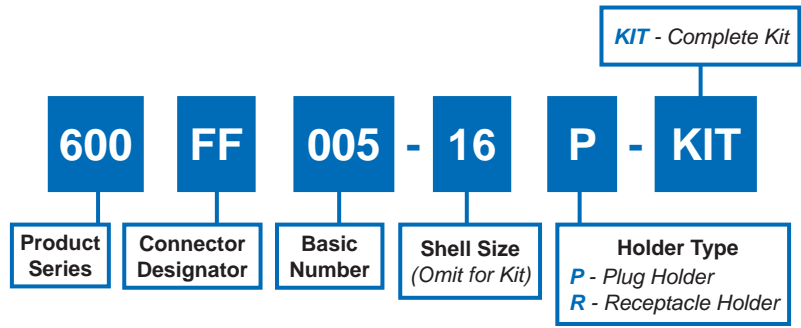
| Dash No. | Torque Max (In/lbs) | A Dia Max    | B Dia Max    | C Dim Max    |
|----------|---------------------|--------------|--------------|--------------|
| 09       | 40                  | .577 (14.7)  | .438 (11.1)  | 1.031 (26.2) |
| 11       | 40                  | .709 (18.0)  | .566 (14.4)  | 1.031 (26.2) |
| 13       | 40                  | .829 (21.1)  | .678 (17.2)  | 1.031 (26.2) |
| 15       | 40                  | .954 (24.2)  | .803 (20.4)  | 1.031 (26.2) |
| 17       | 40                  | 1.107 (28.1) | .928 (23.6)  | 1.031 (26.2) |
| 19       | 40                  | 1.190 (30.2) | 1.033 (26.2) | 1.031 (26.2) |
| 21       | 80                  | 1.315 (33.4) | 1.158 (29.4) | 1.031 (26.2) |
| 23       | 80                  | 1.440 (36.6) | 1.283 (32.6) | 1.031 (26.2) |
| 25       | 80                  | 1.565 (39.8) | 1.408 (35.8) | 1.031 (26.2) |

| APPLICATION NOTES  |
|--|
| 1. Metric dimensions (mm) are indicated in parentheses.  |
| 2. Material: Case hardened carbon steel with electroless nickel finish.                            |
| 3. Receptacle and plug holder drives: 1/4" - Shell sizes 08, 10, 12; 3/8" - Shell sizes 14 and up. |

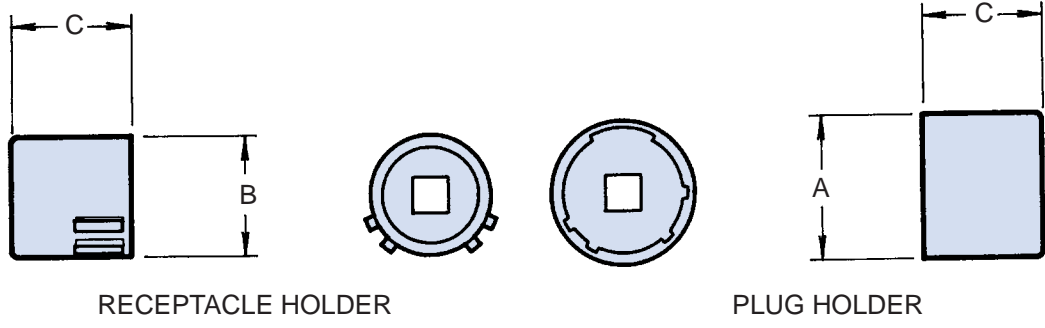
Dimensions in inches (millimeters) and are subject to change without notice.



**600FF005**  
**Plug and Receptacle Holder**  
**MIL-DTL-38999 Series II**



**NO POLARIZATION REQUIRED**



**TABLE I: Dash Number, Torque and Dimensions**

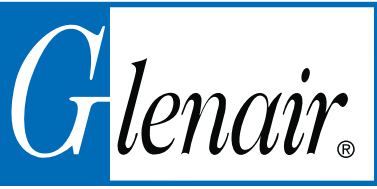
| Dash No. | Torque Max (In/lbs) | A Dia Max    | B Dia Max    | C Dim Max   |
|----------|---------------------|--------------|--------------|-------------|
| 08       | 40                  | .478 (12.1)  | .358 (9.1)   | .910 (23.1) |
| 10       | 40                  | .599 (15.2)  | .486 (12.3)  | .910 (23.1) |
| 12       | 40                  | .758 (19.3)  | .603 (15.3)  | .910 (23.1) |
| 14       | 40                  | .882 (22.4)  | .728 (18.5)  | .910 (23.1) |
| 16       | 40                  | 1.007 (25.6) | .853 (21.7)  | .910 (23.1) |
| 18       | 40                  | 1.133 (28.8) | .958 (24.3)  | .910 (23.1) |
| 20       | 80                  | 1.257 (31.9) | 1.083 (27.5) | .910 (23.1) |
| 22       | 80                  | 1.382 (35.1) | 1.208 (30.7) | .910 (23.1) |
| 24       | 80                  | 1.507 (38.3) | 1.333 (33.9) | .910 (23.1) |

**APPLICATION NOTES**

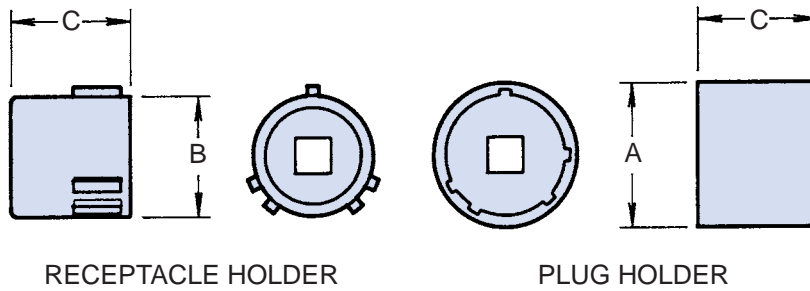
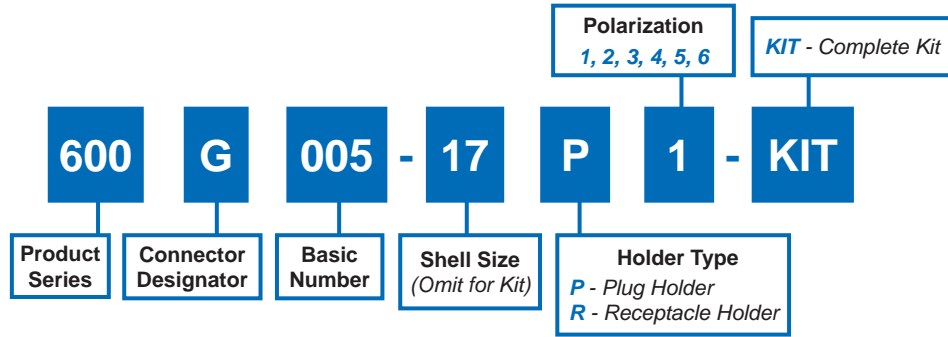
1. Also mates with 40M38277.
2. Metric dimensions (mm) are indicated in parentheses.
3. Material: Case hardened carbon steel with electroless nickel finish.
4. Receptacle and plug holder drives: 1/4" - Shell sizes 08, 10, 12; 3/8" - Shell sizes 14 and up.

Dimensions in inches (millimeters) and are subject to change without notice.





# 600G005 Plug and Receptacle Holder MIL-DTL-28840



**TABLE I: Dash Number, Torque and Dimensions**

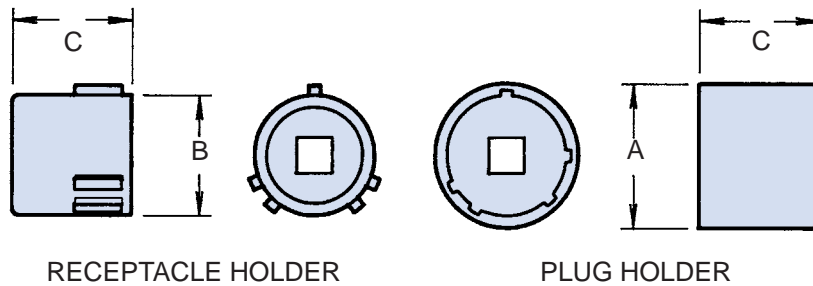
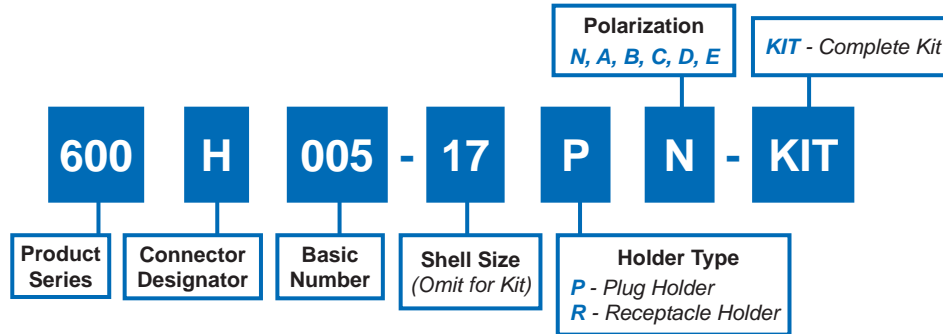
| Dash No. | Torque Max (In/lbs) | A Dia Max    | B Dia Max    | C Dim Max   |
|----------|---------------------|--------------|--------------|-------------|
| 11       | 80                  | .697 (17.7)  | .502 (12.8)  | .945 (24.0) |
| 13       | 110                 | .822 (20.8)  | .626 (15.9)  | .945 (24.0) |
| 15       | 120                 | .995 (25.3)  | .798 (20.3)  | .945 (24.0) |
| 17       | 120                 | 1.058 (26.9) | .868 (22.0)  | .945 (24.0) |
| 19       | 120                 | 1.245 (31.6) | 1.035 (26.3) | .945 (24.0) |
| 23       | 140                 | 1.433 (36.4) | 1.220 (31.0) | .945 (24.0) |
| 25       | 140                 | 1.558 (39.6) | 1.381 (35.1) | .945 (24.0) |
| 29       | 150                 | 1.745 (44.3) | 1.547 (39.3) | .945 (24.0) |
| 33       | 150                 | 1.933 (49.1) | 1.739 (44.2) | .945 (24.0) |

| APPLICATION NOTES  |
|--|
| 1. Metric dimensions (mm) are indicated in parentheses.  |
| 2. Material: Case hardened carbon steel with electroless nickel finish.                            |
| 3. Receptacle and plug holder drives: 1/4" - Shell sizes 08, 10, 12; 3/8" - Shell sizes 14 and up. |

Dimensions in inches (millimeters) and are subject to change without notice.

H

**600H005**  
**Plug and Receptacle Holder**  
**MIL-DTL-38999 Series III**



RECEPTACLE HOLDER

PLUG HOLDER

**TABLE I: Dash Number, Torque and Dimensions**

| Shell Size |              | Max Torque ( $\pm 5$ Inch Lbs) |           | A Dia        | B Dia        | C Dim        |
|------------|--------------|--------------------------------|-----------|--------------|--------------|--------------|
| Commercial | Military Ref | Metal                          | Composite | Max          | Max          | Max          |
| 09         | A            | 60                             | 35        | .577 (14.7)  | .438 (11.1)  | 1.031 (26.2) |
| 11         | B            | 80                             | 35        | .709 (18.0)  | .566 (14.4)  | 1.031 (26.2) |
| 13         | C            | 110                            | 40        | .829 (21.1)  | .678 (17.2)  | 1.031 (26.2) |
| 15         | D            | 120                            | 40        | .954 (24.2)  | .803 (20.4)  | 1.031 (26.2) |
| 17         | E            | 120                            | 40        | 1.107 (28.1) | .928 (23.6)  | 1.031 (26.2) |
| 19         | F            | 120                            | 40        | 1.190 (30.2) | 1.033 (26.2) | 1.031 (26.2) |
| 21         | G            | 140                            | 80        | 1.315 (33.4) | 1.158 (29.4) | 1.031 (26.2) |
| 23         | H            | 140                            | 80        | 1.440 (36.6) | 1.283 (32.6) | 1.031 (26.2) |
| 25         | J            | 140                            | 80        | 1.565 (39.8) | 1.408 (35.8) | 1.031 (26.2) |

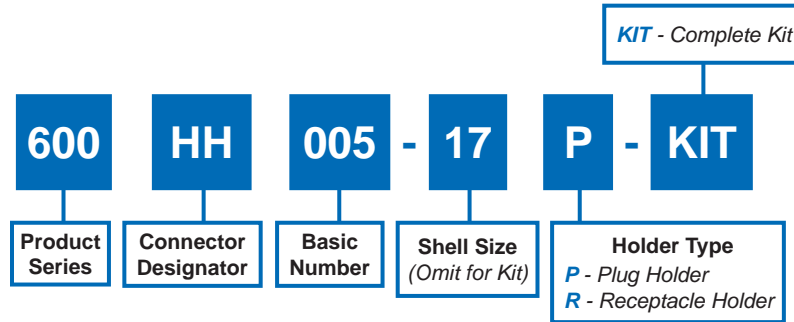
**APPLICATION NOTES**

1. Metric dimensions (mm) are indicated in parentheses.
2. Material: Case hardened carbon steel with electroless nickel finish.
3. Receptacle and plug holder drives:  
 1/4" - Shell sizes 08, 10, 12; 3/8" - Shell sizes 14 and up.
4. Composite values apply when using Glenair 600-091, 600-157 or 600-007 tools.

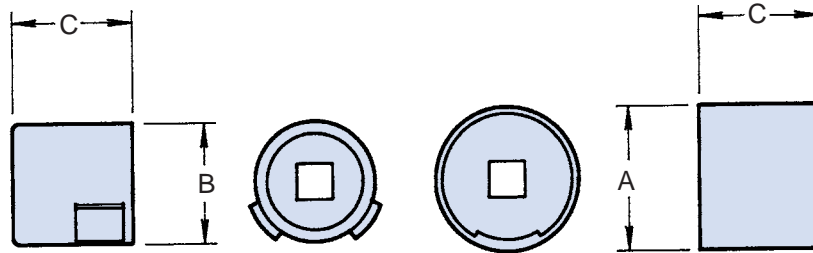
Dimensions in inches (millimeters) and are subject to change without notice.



# 600HH005 Plug and Receptacle Holder MIL-DTL-38999 Series IV



**NO POLARIZATION REQUIRED**



PLUG HOLDER

RECEPTACLE HOLDER

**TABLE I: Dash Number, Torque and Dimensions**

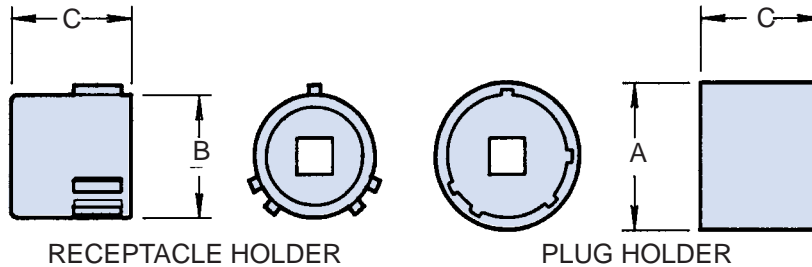
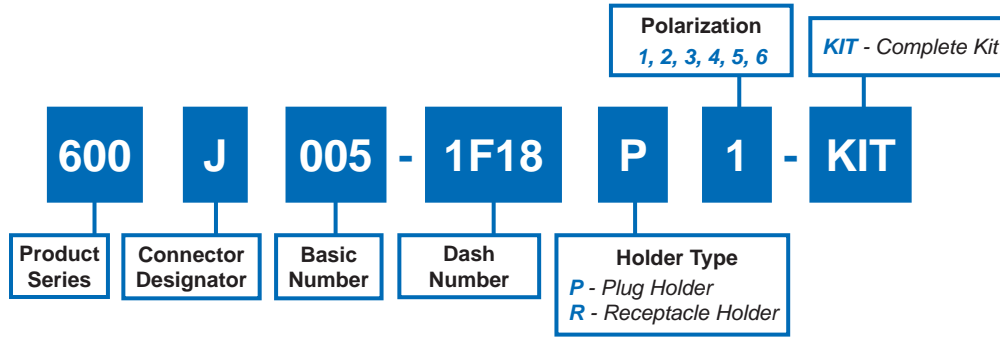
| Shell Size |              | Max Torque<br>(Inch Pounds) | A Dia<br>Max | B Dia<br>Max | C Dim<br>Max |
|------------|--------------|-----------------------------|--------------|--------------|--------------|
| Commercial | Military Ref |                             |              |              |              |
| 11         | B            | 80                          | .830 (21.1)  | .515 (13.1)  | 1.280 (32.5) |
| 13         | C            | 110                         | .950 (24.1)  | .650 (16.5)  | 1.280 (32.5) |
| 15         | D            | 120                         | 1.070 (27.2) | .775 (19.7)  | 1.280 (32.5) |
| 17         | E            | 120                         | 1.200 (30.5) | .901 (22.9)  | 1.280 (32.5) |
| 19         | F            | 120                         | 1.280 (32.5) | 1.015 (25.8) | 1.280 (32.5) |
| 21         | G            | 140                         | 1.400 (35.6) | 1.140 (29.0) | 1.280 (32.5) |
| 23         | H            | 140                         | 1.530 (38.9) | 1.265 (32.1) | 1.280 (32.5) |
| 25         | J            | 140                         | 1.660 (42.2) | 1.392 (35.4) | 1.280 (32.5) |

**APPLICATION NOTES**

1. Metric dimensions (mm) are indicated in parentheses.
2. Material: Case hardened carbon steel with electroless nickel finish.
3. Receptacle and plug holder drives: 1/4" - Shell sizes 11 and 13; 3/8" - Shell sizes 15 and up.

Dimensions in inches (millimeters) and are subject to change without notice.

**600J005**  
**Plug and Receptacle Holder**  
**MIL-DTL-81511 Series I, II, III & IV**



**SERIES I and III: Dash Number, Shell Size, Torque and Dimensions**

| Dash Number | Shell Size |              | Max Torque<br>(± 5 Inch Lbs) | A Dia<br>Max | B Dia<br>Max | C Dim<br>Max |
|-------------|------------|--------------|------------------------------|--------------|--------------|--------------|
|             | Commercial | Military Ref |                              |              |              |              |
| 1A08        | 08         | A            | 40                           | .556 (14.1)  | .394 (10.0)  | .950 (24.1)  |
| 1B10        | 10         | B            | 40                           | .681 (17.3)  | .519 (13.2)  | .950 (24.1)  |
| 1D14        | 14         | D            | 40                           | .931 (23.6)  | .769 (19.5)  | .950 (24.1)  |
| 1E16        | 16         | E            | 40                           | 1.058 (26.9) | .895 (22.7)  | .950 (24.1)  |
| 1F18        | 18         | F            | 40                           | 1.181 (30.0) | 1.019 (25.9) | .950 (24.1)  |
| 1G20        | 20         | G            | 40                           | 1.306 (33.2) | 1.144 (29.1) | .950 (24.1)  |
| 1H22        | 22         | H            | 40                           | 1.431 (36.3) | 1.269 (32.2) | .950 (24.1)  |
| 1J24        | 24         | J            | 40                           | 1.556 (39.5) | 1.394 (35.4) | .950 (24.1)  |

**SERIES II and IV: Dash Number, Shell Size, Torque and Dimensions**

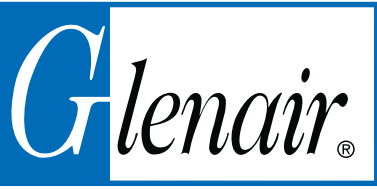
| Dash Number | Shell Size |              | Max Torque<br>(± 5 Inch Lbs) | A Dia<br>Max | B Dia<br>Max | C Dim<br>Max |
|-------------|------------|--------------|------------------------------|--------------|--------------|--------------|
|             | Commercial | Military Ref |                              |              |              |              |
| 2A08        | 08         | A            | 40                           | .544 (13.8)  | .374 (9.5)   | .950 (24.1)  |
| 2B10        | 10         | B            | 40                           | .669 (17.0)  | .499 (12.7)  | .950 (24.1)  |
| 2D14        | 14         | D            | 40                           | .919 (23.3)  | .749 (19.0)  | .950 (24.1)  |
| 2E16        | 16         | E            | 40                           | 1.045 (26.5) | .875 (22.2)  | .950 (24.1)  |
| 2F18        | 18         | F            | 40                           | 1.169 (29.7) | .999 (25.4)  | .950 (24.1)  |

**APPLICATION NOTES**

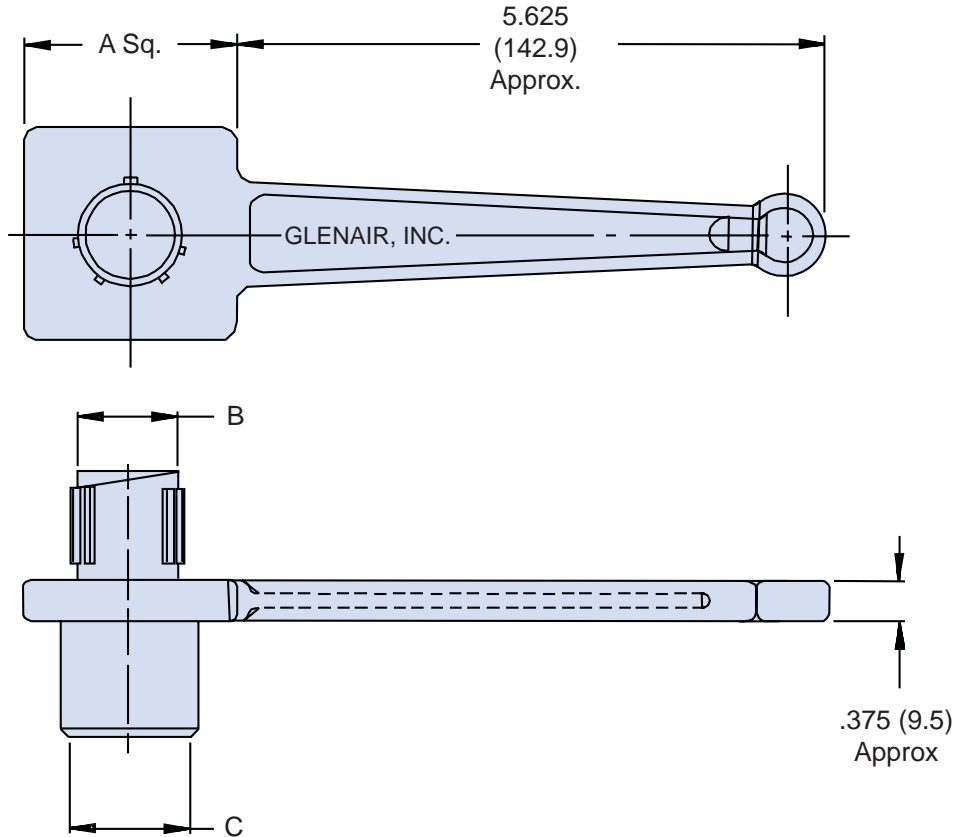
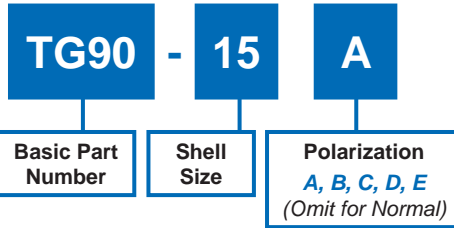
1. Metric dimensions (mm) are indicated in parentheses.
2. Material: Case hardened carbon steel with electroless nickel finish.
3. Receptacle and plug holder drives:  
 1/4" - Shell sizes 08, 10 and 12; 3/8" - Shell sizes 14 and up.

Dimensions in inches (millimeters) and are subject to change without notice.





# TG90 Connector Wrench MIL-DTL-38999 Series III



| TABLE I: Shell Size and Dimensions |                       |              |              |
|------------------------------------|-----------------------|--------------|--------------|
| Shell Size                         | A Dim<br>± .062 (1.6) | B Dia<br>Ref | C Dia<br>Ref |
| 09                                 | 1.250 (31.8)          | .438 (11.1)  | .441 (11.2)  |
| 11                                 | 1.250 (31.8)          | .566 (14.4)  | .569 (14.5)  |
| 13                                 | 1.250 (31.8)          | .678 (17.2)  | .682 (17.3)  |
| 15                                 | 2.000 (50.8)          | .802 (20.4)  | .811 (20.6)  |
| 17                                 | 2.000 (50.8)          | .928 (23.6)  | .931 (23.6)  |
| 19                                 | 2.000 (50.8)          | 1.032 (26.2) | 1.037 (26.3) |
| 21                                 | 2.000 (50.8)          | 1.155 (29.3) | 1.162 (29.5) |
| 23                                 | 2.750 (69.9)          | 1.283 (32.6) | 1.288 (32.7) |
| 25                                 | 2.750 (69.9)          | 1.407 (35.7) | 1.411 (35.8) |

| APPLICATION NOTES   |
|---|
| 1. Metric dimensions (mm) are indicated in parentheses.     |
| 2. Material: Aluminum alloy with electroless nickel finish. |

Dimensions in inches (millimeters) and are subject to change without notice.

## Military Standard Backshells and Accessories Quick-Reference Part Number to Page Number Index



| Part Number | Page                                      |
|-------------|---|
| AS25042     | <b>G-2</b>                                |
| AS25043     |   |
| AS50151     | <b>G-8</b>                                |
| AS81511/13  | <b>F-2</b>                                |
| AS81511/14  | <b>F-3</b>                                |
| AS81511/14  | <b>F-5</b>                                |
| AS81511/17  | <b>F-7</b>                                |
| AS81511/18  |   |
| AS81511/19  | <b>F-8</b>                                |
| AS81511/20  | <b>F-9</b>                                |
| AS81511/29  | <b>F-7</b>                                |
| AS81511/30  | <b>F-10</b>                               |
| AS85049/1   | <b>B-2</b>                                |
| AS85049/2   | <b>B-3</b>                                |
| AS85049/3   | <b>B-4</b><br><b>B-5</b><br><b>B-6</b>    |
| AS85049/4   | <b>B-7</b><br><b>B-9</b><br><b>B-11</b>   |
| AS85049/5   | <b>B-13</b><br><b>B-15</b><br><b>B-17</b> |
| AS85049/6   | <b>B-19</b>                               |
| AS85049/7   | <b>B-21</b>                               |
| AS85049/8   | <b>B-23</b>                               |
| AS85049/9   | <b>B-25</b>                               |
| AS85049/10  | <b>B-27</b>                               |
| AS85049/11  | <b>B-31</b>                               |
| AS85049/14  | <b>B-35</b>                               |
| AS85049/15  | <b>B-36</b>                               |
| AS85049/16  | <b>B-36</b>                               |
| AS85049/17  | <b>B-37</b>                               |
| AS85049/18  | <b>B-38</b>                               |
| AS85049/19  | <b>B-39</b>                               |
| AS85049/20  | <b>B-41</b>                               |
| AS85049/21  | <b>B-42</b>                               |
| AS85049/23  | <b>B-43</b>                               |
| AS85049/24  | <b>B-45</b>                               |
| AS85049/25  | <b>B-47</b>                               |
| AS85049/26  | <b>B-51</b><br><b>B-52</b>                |
| AS85049/27  | <b>B-53</b>                               |
| AS85049/28  | <b>B-54</b>                               |

| Part Number | Page                                      |
|-------------|---|
| AS85049/29  | <b>B-55</b>                               |
| AS85049/30  | <b>B-56</b>                               |
| AS85049/31  | <b>B-57</b>                               |
| AS85049/33  | <b>B-58</b>                               |
| AS85049/34  | <b>B-59</b>                               |
| AS85049/36  | <b>B-60</b>                               |
| AS85049/37  | <b>B-61</b>                               |
| AS85049/38  | <b>B-62</b>                               |
| AS85049/39  | <b>B-63</b>                               |
| AS85049/41  | <b>B-64</b>                               |
| AS85049/42  | <b>B-65</b>                               |
| AS85049/43  | <b>B-66</b>                               |
| AS85049/44  | <b>B-67</b>                               |
| AS85049/45  | <b>B-68</b>                               |
| AS85049/46  | <b>B-69</b>                               |
| AS85049/47  | <b>B-70</b>                               |
| AS85049/48  | <b>B-71</b><br><b>B-72</b><br><b>B-73</b> |
| AS85049/49  | <b>B-74</b>                               |
| AS85049/50  | <b>B-75</b>                               |
| AS85049/51  | <b>B-76</b>                               |
| AS85049/52  | <b>B-77</b>                               |
| AS85049/53  | <b>B-78</b>                               |
| AS85049/54  |   |
| AS85049/55  |   |
| AS85049/56  | <b>B-79</b>                               |
| AS85049/57  |   |
| AS85049/58  | <b>B-80</b>                               |
| AS85049/59  | <b>B-81</b>                               |
| AS85049/60  | <b>B-82</b><br><b>B-83</b>                |
| AS85049/61  | <b>B-84</b>                               |
| AS85049/62  | <b>B-85</b>                               |
| AS85049/63  | <b>B-86</b>                               |
| AS85049/69  | <b>B-87</b>                               |
| AS85049/74  | <b>B-88</b>                               |
| AS85049/75  | <b>B-89</b>                               |
| AS85049/76  | <b>B-90</b>                               |
| AS85049/77  | <b>B-91</b>                               |
| AS85049/78  | <b>B-92</b>                               |
| AS85049/79  | <b>B-93</b>                               |
| AS85049/80  | <b>B-94</b>                               |

| Part Number   | Page   |
|---------------|--|
| AS85049/81    | <b>B-96</b>  |
| AS85049/82    | <b>B-97</b>  |
| AS85049/83    |  |
| AS85049/84    |  |
| AS85049/85    | <b>B-99</b>  |
| AS85049/86    |  |
| AS85049/87    |  |
| AS85049/88    | <b>B-101</b>   |
| AS85049/89    |  |
| AS85049/90    |  |
| AS85049/91    | <b>B-103</b>   |
| AS85049/92    |  |
| AS85049/93    | <b>B-104</b>   |
| AS85049/94    | <b>B-105</b>   |
| AS85049/95    | <b>B-106</b>   |
| AS85049/96    | <b>B-107</b>   |
| AS85049/103   | <b>B-108</b>   |
| AS85049/104   | <b>B-110</b>   |
| AS85049/105   | <b>B-112</b>   |
| AS85049/109   | <b>B-114</b>   |
| AS85049/111   | <b>B-116</b>   |
| AS85049/112   | <b>B-118</b>   |
| AS85049/114   | <b>B-120</b>   |
| AS85049/115   | <b>B-122</b>   |
| AS85049/118   | <b>B-124</b>   |
| AS85049/120   | <b>B-126</b>   |
| AS85049/121   | <b>B-128</b>   |
| AS85049/123   | <b>B-130</b>   |
| AS85049/124   | <b>B-132</b>   |
| AS85049/126   | <b>B-134</b>   |
| AS85049/127   | <b>B-136</b>   |
| AS85049/128-3 | <b>B-137</b>   |
| AS85049/128-4 |  |
| AS85049/130   | <b>B-138</b>   |
| AS85049/139   | <b>B-140</b>   |
| AS85049/140   | <b>B-142</b><br><b>B-144</b><br><b>B-146</b><br><b>B-148</b> |
| AS85049/141   | <b>B-150</b><br><b>B-152</b><br><b>B-154</b>                 |
| AS85049/142   | <b>B-156</b><br><b>B-158</b><br><b>B-160</b>                 |

| Part Number      | Page                                   |
|------------------|--|
| MIL-DTL-26500    | <b>G-5</b>                             |
| MIL-DTL-26500    | <b>G-6</b>                             |
| MIL-DTL-28840/1  | <b>D-2</b>                             |
| MIL-DTL-28840/2  | <b>D-3</b>                             |
| MIL-DTL-28840/3  | <b>D-4</b>                             |
| MIL-DTL-28840/4  | <b>D-5</b>                             |
| MIL-DTL-28840/5  | <b>D-6</b>                             |
| MIL-DTL-28840/6  | <b>D-7</b><br><b>D-8</b>               |
| MIL-DTL-28840/7  | <b>D-9</b>                             |
| MIL-DTL-28840/8  | <b>D-10</b><br><b>D-11</b>             |
| MIL-DTL-28840/9  | <b>D-12</b><br><b>D-13</b>             |
| MIL-DTL-28840/13 | <b>D-14</b>                            |
| MIL-DTL-28840/15 |  |
| MIL-DTL-28840/22 | <b>D-15</b>                            |
| MIL-DTL-28840/23 | <b>D-16</b>                            |
| MIL-DTL-28840/24 | <b>D-17</b>                            |
| MIL-DTL-38999    | <b>C-2</b>                             |
| MIL-DTL-38999    |  |
| MIL-DTL-38999    | <b>C-3</b>                             |
| MIL-DTL-38999/22 | <b>C-4</b>                             |
| MIL-DTL-38999/28 | <b>C-5</b>                             |
| MIL-DTL-38999/32 | <b>C-6</b>                             |
| MIL-DTL-38999/33 |  |
| MIL-DTL-38999/50 | <b>C-7</b>                             |
| MIL-DTL-83513/05 | <b>G-15</b>                            |
| MIL-DTL-83538/9  | <b>G-16</b>                            |
| MIL-DTL-83723/27 | <b>E-2</b>                             |
| MIL-DTL-83723/35 | <b>E-3</b><br><b>E-4</b><br><b>E-5</b> |
| MIL-DTL-83723/50 | <b>E-6</b>                             |
| MIL-DTL-83723/59 | <b>E-7</b>                             |
| MIL-DTL-83723/60 |  |
| MIL-DTL-83723/59 | <b>E-8</b>                             |
| MIL-DTL-83723/60 |  |
| MIL-DTL-83723/70 | <b>E-9</b>                             |
| MIL-S-81824/1    | <b>G-17</b>                            |
| MS17349          | <b>G-3</b>                             |
| MS17350          |  |
| MS27291          | <b>G-4</b>                             |

Dimensions in inches (millimeters) and are subject to change without notice.





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