

# 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 I)

**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Superseded  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             |

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

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B

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.