

# Tooling Guide

## for High Reliability Electrical Systems

DMC DANIELS MANUFACTURING CORPORATION  
Tooling Guide for High Reliability Electrical Systems



**DMC** DANIELS MANUFACTURING CORPORATION<sup>®</sup>

An ISO9001:2015 and AS9100D Registered Company

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# Important Facts About Crimping

## TIME LINE FOR CRIMP TECHNOLOGY

- 1940s** All terminations were soldered (Hard-wired)
- 1953** AMP introduced Crimp Barrel Terminals
- 1957** Cannon Brothers experimented with Machined Contacts with Crimp Barrels for Crimping
- 1960** Buchanan introduced the 4 Indent Crimp Tool with a Ratchet (Ref: MS3191)
- 1963** MS3191-1 was published as the first Crimp Tool Standard
- 1965** MS3191-4 introduced by Daniels Manufacturing Corporation
- 1969** MIL-T-22520 published and dated to replace all previous specifications
- 1974** Changed to MIL-C-22520, and many Slash Sheets added
- 1996** Changed to MIL-DTL-22520
- Present** SAE AS22520

## CRIMPING: THEN AND NOW

The first multi-pin connectors were terminated by soldering the conductor to non-removable contacts. However, high temperature applications and the need for simple and reliable field service led to the introduction of connectors with removable contacts. These were crimped onto the conductor rather than being soldered.

The first standard crimp tool developed to crimp these new contacts was introduced in the early sixties. MS3191-1, a military drawing, defined this tool and its accessories. The MS3191-1 utilized a 4 indent crimp pattern together with a positive stop locator which controlled the travel of the indenters (crimp depth).

The MS3191-1 design was a compromise between simplicity of operation and crimp performance since the crimp depth for any given contact was not adjustable to accommodate the differing diameters of the conductors to which it would be crimped. It was, however, suitable for the crimp connectors of that era.

An improved tool design featuring independently adjustable crimp depths was soon introduced as MS3191-4. The MS3191-4 had an internal adjustment, totally independent of the locator, which permitted the selection of seven separate crimp depths, allowing optimal crimping of conductors ranging from AWG 12 to 26 regardless of the wire barrel size of

the contact.

MS3191-4 also introduced the use of the double tipped indenter to produce an 8 indent crimp pattern which has consistently achieved superior tensile pull off values and mechanical properties.

MS3191-4 introduced the concept of a turret head containing three locators which could be used without separating any of them from the basic crimp tool.

In 1969, two military specifications for crimp tools were developed to replace the existing military drawings. They were MIL-T-22520C (Navy) and MIL-T-83724 (USAF) which defined a standard size crimp tool similar to the MS3191-4, but with an expanded 8 step crimp depth range. These specifications also defined a miniature crimp tool to crimp conductors as small as AWG 32.

Both documents were combined in 1971 into MIL-C-22520D. All previous military standards for crimp tools were then cancelled including the MS3191. This list includes specifications for indent crimp tools, terminal lug crimp tools, pneumatic tools, coaxial cable crimp tools and other specialized crimp tools.

MIL-DTL-22520 established a single specification which set forth performance requirements for all crimp tools to be used on military standard electrical connectors. This eliminated the waste and confusion which accompanied the overlapping applications of many different "standard" crimp tools called out by a deluge of unrelated military drawings.

## THE CRIMPING CONCEPT

Crimping is a method of firmly attaching a terminal or contact end to an electrical conductor by pressure forming or reshaping a metal barrel together with the conductor. The forming of a satisfactory crimp depends on the correct combination of conductor, crimp barrel and tool.

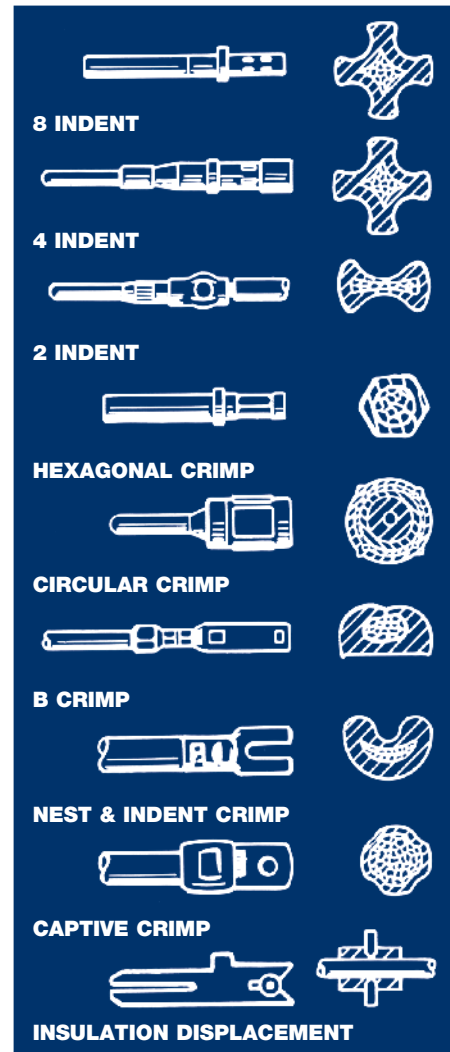
When applied with a properly matched tool, a union is established which has both good electrical and mechanical characteristics. The tool will provide these requirements consistently and reliably with repeatability assured by quality cycle controlled tooling. There are several common configurations of crimped joint; several examples are shown below.

The electrical resistance of a properly designed and controlled crimped joint should be equal to, or less than, the

resistance of an equal section of wire. Specifications state the requirements in terms of millivolt drop at a designated current.

The mechanical strength of a crimped joint and hence, its pull-out force (tensile strength), varies with the deformation applied (i.e. the crimp die of the tool determines the crimp configuration and deformation). Therefore, by properly shaping the deformation, a high pull-out force can be achieved, .

The dies in the tool determine the completed crimp configuration which is generally an element of contact and/or connector design. Some of the design considerations are: a) The type of contact, its size, shape, material and function, b) The type and size of wires to be accommodated, c) The type of tooling into which the configuration must be built.



# Wire Preparation

## PNEUMATIC WIRE STRIPPERS

The **WSP-1630**, **WSP-1014**, and **WSP-1626E** series Pneumatic Wire Strippers are the ultimate combination of performance, reliability, and portability. They were developed in cooperation with major aerospace contractors addressing their needs for a reliable, simple to operate, pneumatic wire stripper utilizing the blades and accessories that are approved for AS5768.

The **WSP-1630** Pneumatic Wire Stripper's Compact Design allows the hand-held tool to be used in confined areas (7" x 2.5"). The 1.5 lb weight and pneumatic actuation system minimize operator fatigue and carpal tunnel injuries.

Fast, smooth stripping operation results in maximum quality wire preparation at a production rate unattainable with hand operated

mechanical strippers.

Compatibility with common, commercially available stripper blades, grippers, and other components makes the unit economical, and it assures a wide range of applications with all types of wire. A Rotatable Head permits left or right hand operation and a Wire Stop may be used for precise, repeatable operations.

Adjustable Speed Control allows the operator to regulate the speed of the stripping operation by simply rotating the adjustment collar which is a part of the air hose. This enables greater accuracy and control of the wire stripper.

The **WSP-1626E** Pneumatic Wire Stripper is for hand held stripping of most insulated wire from 16-26 AWG. The tool accommodates Ergo Elite Stripmaster® Laminated blades and pads made by Ideal Industries, Inc. The wire stripper features a 360° rotatable head section.

The **WSP-1014** Pneumatic Wire Stripper is for hand held stripping of most insulated wire from 10-14 AWG. The tool accommodates Custom Stripmaster® and Custom Steel Stripmaster® industry standard blades and pads made by Ideal Industries, Inc. The wire stripper features a 360° rotatable head section that enables positioning of the head to most comfortable position for left or right-handed operators.

The **WSP-FSA** is a bench mount and foot pedal that is compatible with all DMC Pneumatic Wire Strippers.

## MANUAL WIRE STRIPPERS

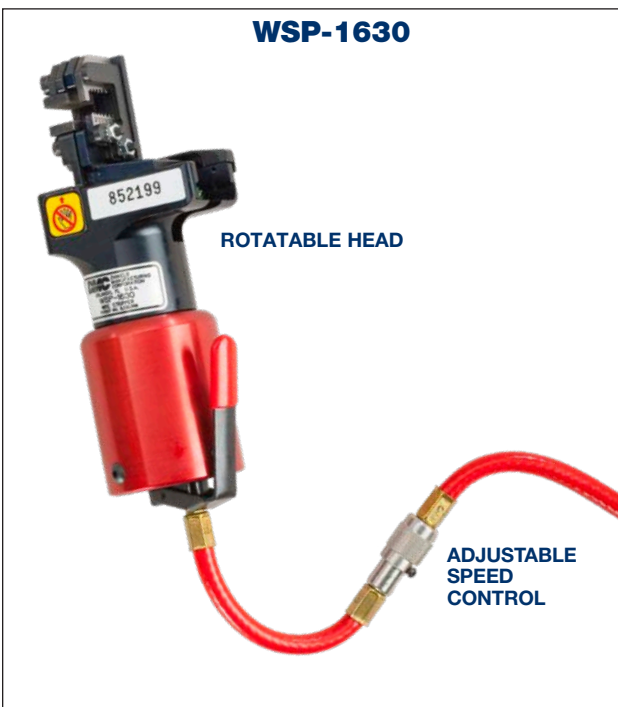
The Custom Stripmaster® and the Custom Stripmaster® Lite strip wire from 10-30 AWG. Each tool features cushioned, non-slip comfort-grip handles.

Both tools are available with an optional short stop latch and transparent wire stop. Each tool accommodates Custom Stripmaster® Laminated blades and pads made by Ideal Industries, Inc.

The Custom Stripmaster® Lite is three-quarters the size of Custom Stripmaster® Wire Stripper and requires one-third less hand pressure for each strip than the Custom Stripmaster.

The Ergo-Elite 55-1987 manual wire stripper is ergonomically engineered for superior comfort, balance and control. It is constructed of rigid polyurethane reinforced with carbon fiber providing excellent strength at 40% the weight of metal hand tools. It strips wire from 16-26 AWG. It is available with a transparent wire stop.

The Ergo-Elite 55-1987 features one-step stripping action. The tool grips, penetrates, and removes wire insulation with unmatched precision in one effortless squeeze. The Ergo-Elite 55-1987 accommodates Ergo-Elite Stripmaster® Laminated blades and pads made by Ideal Industries, Inc.



**FAST, ERGONOMIC OPERATION**



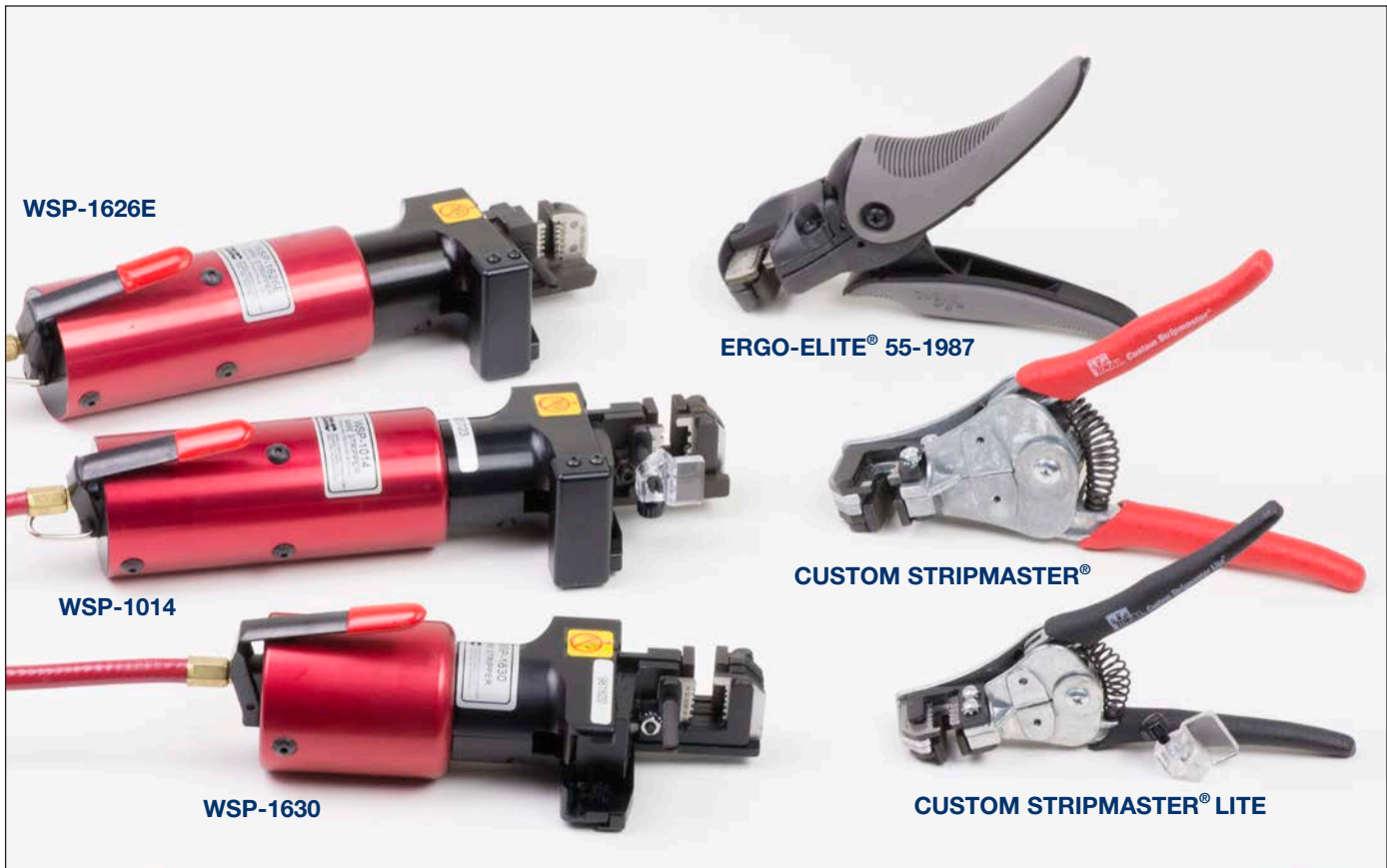
**WIRE STOP FOR PRECISE, REPEATABLE OPERATION**

### Features Include:

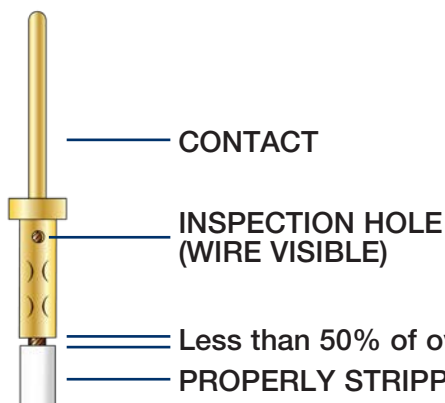
- Compact Design
- Minimize operator fatigue and carpal tunnel injuries
- Fast actuation
- Compatibility with common, commercially available stripper blades, grippers, and other components
- Rotatable Head permits left or right hand operation
- Wire Stop for precise, repeatable operations
- Adjustable Speed Control
- Optional WSP-FSA is a bench mount and foot pedal that is compatible with all DMC Pneumatic Wire Strippers



# Wire Preparation



Wire Preparation



## WIRE STRIPPING TECHNIQUE



1. Determine the proper length of insulation to be removed. Wire must be visible in inspection hole. Less than 50% of overall wire diameter clearance between insulation and contact barrel.
2. Insert wire into exact center of correct slot for wire size to be stripped. Each slot is marked with wire size.
3. Close handles together as close as possible.
4. To prevent birdcaging, partially open handles allowing grips to open, then remove wire before allowing handles to fully open.
5. Release handles, allowing wire holder to return to open position.
6. Remove stripped wire.
7. After stripping, strands of wire should be twisted firmly together in the same direction as the normal lay of the wire.
8. Stripped wire with nicked or cut strands is not acceptable.

# AS5768 Wire Stripper Info

## WIRE STRIPPER BLADES AND ACCESSORIES

| WIRE SPECIFICATION TOOL & BLADE  | MANUAL WIRE STRIPPER TOOL & BLADE (SAE P/N) | MANUAL WIRE STRIPPER TOOL ONLY P/N | PNEUMATIC WIRE STRIPPER TOOL ONLY P/N | WIRE STRIPPER BLADE ONLY (SAE P/N) | WIRE STRIPPER BLADE ONLY P/N | WIRE SIZE | NSN                                  |
|--|---|------------------------------------|---------------------------------------|------------------------------------|------------------------------|-----------|--------------------------------------|
| AS50861/1, /2, /4-/7, AS22759/2  | AS5768/1-T1                                 | 45-1147                            | WSP-1014                              | AS5768/1-B1                        | 45-1147-1                    | 10-14     | N/A                                  |
| AS50861/1, /2, /4-/7   | AS5768/1-T2                                 | 45-1302                            | WSP-1630                              | AS5768/1-B2                        | 45-1302-1                    | 16-22     | N/A                                  |
| AS22759/5, /6  | AS5768/1-T3                                 | 45-500                             | WSP-1630                              | AS5768/1-B3                        | 45-500-1                     | 16-22     | 5110-01-377-2272                     |
| AS22759/7, /8  | AS5768/1-T4                                 | 45-1500                            | WSP-1630                              | AS5768/1-B4                        | 45-1500-1                    | 16-22     | 5110-01-377-2237                     |
| AS22759/9-/12, /16, /17, /20-/23, /28-/35, /41-/46, AS81044/11-/13, AS85485/9-/12, MIL-DTL-81381/3, /4             | AS5768/1-T5                                 | 45-1611                            | WSP-1014                              | AS5768/1-B5                        | 45-1611-1                    | 10-14     | 5110-01-373-2486                     |
| AS22759/9-/12, /20-/23, /28-/31  | AS5768/1-T6                                 | 45-177                             | WSP-1630                              | AS5768/1-B6                        | L-5560                       | 16-26     | 5110-00-177-7286<br>5110-01-3772-181 |
| AS22759/9-/12, /20-/23, /28-/31, /34, /35, /41-/43, AS81044/7-/14, /21, /22, MIL-DTL-81381/3, /4, /7-/14, /21, /22 | AS5768/1-T7                                 | 45-178                             | WSP-1630                              | AS5768/1-B7                        | L-5561                       | 26-30     | 5110-00-145-8171                     |
| AS22759/11, /12, /16, /17, MIL-DTL-81381/11-/14, /22   | AS5768/1-T8                                 | 45-1654                            | WSP-1630                              | AS5768/1-B8                        | 45-1654-1                    | 16-26     | 5110-01-377-2245                     |
| AS22759/16, /17, /32-/35, /41-/46  | AS5768/1-T9                                 | 45-1987                            | WSP-1630                              | AS5768/1-B9                        | 45-1987-1                    | 16-26     | 5110-01-373-2487                     |
| AS22759/16, /17, /32-/35, /41-/46  | AS5768/1-T10                                | 45-1551                            | WSP-1630                              | AS5768/1-B10                       | 45-1551-1                    | 16-26     | 5110-01-377-2271                     |
| AS22759/18, /19, MIL-DTL-81381/11-/14, /22   | AS5768/1-T11                                | 45-1608                            | WSP-1014                              | AS5768/1-B11                       | 45-1608-1                    | 10-14     | 5110-01-377-2313                     |
| AS22759/80-/82, /91, /92, /180-/182, /191, /192  | AS5768/1-T12                                | 45-2542                            | WSP-1014                              | AS5768/1-B12                       | 45-2542-1                    | 10-14     | 5110-01-520-8380                     |
| AS22759/80-/82, /91, /92, /180-/182, /191, /192  | AS5768/1-T13                                | 45-2544                            | WSP-1630                              | AS5768/1-B13                       | 45-2544-1                    | 16-26     | N/A                                  |
| AS22759/86-/90, /186-/190  | AS5768/1-T14                                | 45-2541                            | WSP-1014                              | AS5768/1-B14                       | 45-2541-1                    | 10-14     | N/A                                  |
| AS22759/86-/90, /186-/190  | AS5768/1-T15                                | 45-2618                            | WSP-1630                              | AS5768/1-B15                       | 45-2618-1                    | 16-26     | 5110-01-520-8379<br>5110-01-530-2382 |
| AS81044/5-/7   | AS5768/1-T16                                | 45-170                             | WSP-1014                              | AS5768/1-B16                       | L-5210                       | 10-14     | 5110-01-380-9356                     |
| AS81044/5-/7   | AS5768/1-T17                                | 45-171                             | WSP-1014<br>WSP-1630                  | AS5768/1-B17                       | L-5211                       | 10-14     | 5110-01-373-2484                     |
| AS81044/8-/10  | AS5768/1-T18                                | 45-173                             | WSP-1014                              | AS5768/1-B18                       | L-5562                       | 10-14     | 5110-01-377-2167                     |
| AS81044/8-/10  | AS5768/1-T19                                | 45-174                             | WSP-1630                              | AS5768/1-B19                       | L-5563                       | 16-26     | 5110-01-377-2180                     |



# AS5768 Wire Stripper Info

## WIRE STRIPPER BLADES AND ACCESSORIES

| WIRE SPECIFICATION TOOL & BLADE                                     | MANUAL WIRE STRIPPER TOOL & BLADE (SAE P/N) | MANUAL WIRE STRIPPER TOOL ONLY P/N | PNEUMATIC WIRE STRIPPER TOOL ONLY P/N | WIRE STRIPPER BLADE ONLY (SAE P/N) | WIRE STRIPPER BLADE ONLY P/N | WIRE SIZE | NSN                                  |
|---|---|------------------------------------|---------------------------------------|------------------------------------|------------------------------|-----------|--------------------------------------|
| AS81044/11-/13, AS85485/9-/12 MIL-DTL-81381/3, /4                   | AS5768/1-T20                                | 45-1610                            | WSP-1630                              | AS5768/1-20                        | 45-1610-1                    | 16-26     | 5110-00-088-1598<br>5110-01-373-2485 |
| MIL-DTL-81381/1, /2, /5-/10, /17-/21                                | AS5768/1-T21                                | 45-1609                            | WSP-1014                              | AS5768/1-B21                       | 45-1609-1                    | 10-14     | 5110-01-380-9344                     |
| MIL-DTL-81381/17-/20  | AS5768/1-T22                                | 45-1672                            | WSP-1630                              | AS5768/1-B22                       | 45-1672-1                    | 16-26     | N/A                                  |
| AS85485/5-/8  | AS5768/1-T23                                | 45-1925                            | WSP-1014                              | AS5768/1-B23                       | 45-1925-1                    | 10-14     | 5110-01-380-9387                     |
| AS85485/5-/8  | AS5768/1-T24                                | 45-1924                            | WSP-1630                              | AS5768/1-B24                       | 45-1924-1                    | 16-26     | 5110-01-377-2247                     |
| AS22759/9, /10, /13-/15 MIL-DTL-81381/3, /4                         | AS5768/2-T1                                 | 45-638                             | N/A                                   | AS5768/2-B1                        | LB-918                       | 16-22     | N/A                                  |
| AS22759/9, /10, /13-/15 MIL-DTL-81381/3, /4                         | AS5768/2-T2                                 | 45-640                             | N/A                                   | AS5768/2-B2                        | LB-920                       | 24-30     | N/A                                  |
| AS22759/32, /34, /35, /41-/43 MIL-DTL-81381/1, /2, /6-/14, /17-/22  | AS5768/2-T3                                 | 45-2203                            | N/A                                   | AS5768/2-B3                        | 45-2203-1                    | 24-30     | N/A                                  |
| AS22759/32, /34, /35, /41-/43                                       | AS5768/2-T4                                 | 45-2133                            | N/A                                   | AS5768/2-B4                        | 45-2133-1                    | 16-24     | N/A                                  |
| AS22759/80, /81, /91, /92, /180-/182, /191, /192                    | AS5768/2-T5                                 | 45-2698                            | N/A                                   | AS5768/2-B5                        | 45-2698-1                    | 16-24     | N/A                                  |
| AS22759/80, /81, /91, /92, /180-/182, /191, /192                    | AS5768/2-T6                                 | 45-2692                            | N/A                                   | AS5768/2-B6                        | 45-2692-1                    | 20-26     | N/A                                  |
| AS22759/86-/90, /186-/190   | AS5768/2-T7                                 | 45-2243                            | N/A                                   | AS5768/2-B7                        | 45-2243-1                    | 16-24     | N/A                                  |
| AS22759/86-/90, /186-/190   | AS5768/2-T8                                 | 45-2297                            | N/A                                   | AS5768/2-B8                        | 45-2297-1                    | 20-26     | N/A                                  |
| AS81044/6, /7   | AS5768/2-T9                                 | 45-2204                            | N/A                                   | AS5768/2-B9                        | LB-2204-1                    | 16-24     | N/A                                  |
| AS81044/6, /7   | AS5768/2-T10                                | 45-2205                            | N/A                                   | AS5768/2-B10                       | LB-2205-1                    | 20-26     | N/A                                  |
| AS81044/12, /13, AS22759/40-/54                                     | AS5768/2-T11                                | 45-2133                            | N/A                                   | AS5768/2-B11                       | 45-2133-1                    | 16-24     | N/A                                  |
| AS81044/12, /13   | AS5768/2-T12                                | 45-2224                            | N/A                                   | AS5768/2-B12                       | 45-224-1                     | 24-30     | N/A                                  |
| MIL-DTL-81381/1, /2, /6-/14, /17-/22                                | AS5768/2-T13                                | 45-2124                            | N/A                                   | AS5768/2-B13                       | 45-2124-1                    | 16-24     | N/A                                  |
| AS22759/32-46/16/17 MIL-DTL-81044/11/12/13 BMS 13-48 (10, 8, 6 MIL) | N/A   | 55-1987 (ERGO ELITE)               | WSP-1626E                             | N/A                                | 55-1987-1                    | 16-26     | N/A                                  |

Wire Preparation

The Industry Standard for Wire Strippers (AS5768, Tool, Stripper, Electrical Insulation, General Specification For) was developed to organize, define, and provide QPL source management for wire strippers and blades used in Aerospace and Commercial applications. The AS5768 Specification is available from [www.SAE.org](http://www.SAE.org).

# Twist-Strip™ Outer Jacket Stripper

## TWIST-STRIP™ OUTER JACKET STRIPPER FOR SHIELDED TWISTED CABLE



### TSK8000 (M32610/01-01)

Cable Dia. Range .081" - .180"

### TSK8500

Cable Dia. Range .181" - .310"

### SAFER, FASTER, AND MORE ACCURATE THAN RAZOR BLADES

It is common for high-speed data cable to utilize two or more shielded twisted conductors. This type of cable is common in all digital electronic networks, and it requires new tooling disciplines. The challenge in designing a wire prep system of this type is the non-circular configuration of the cable, and the many types, variations, and stripping nuances of shielded, twisted, multi-wire cable.

### ELIMINATES IMPRECISE METHODS

Stripping multi-conductor wire cable is often done by hand with a razor blade. This is a dangerous and difficult way to remove the jacket from any type of electrical cable. A razor blade offers no method of controlling the depth of cut which will result in a poor quality strip, and cuts or scrapes on the shielding which lead to poor electrical bond and a likely place for corrosion.

### REDUCES RISK OF INJURY

Using a razor blade increases the probability of injury to the operator and constant tugging to remove the outer jacket which causes operator fatigue. Other methods for removal of the jacket like laser or thermal stripping produce hazardous work environments.

### TIME SAVING

The conventional "ring and slit" method for stripping shielded twisted cable is very time consuming and requires a highly skilled operator to successfully perform.

The DMC Twist-Strip™ product line gives the user a system with the maximum capabilities, while keeping the system portable, self-contained, affordable, and ergonomic. The precise blade adjustment, zero friction ball bearing design, articulating/locking arms, and changeable dies make the Twist-Strip™ very user-friendly and efficient when performing the difficult task of cable preparation.

### ADJUSTABLE (NEW FEATURE)

The TSK8000 and TSK8500 have adjustable blades that allow the tool to accommodate variances in the cable. Varying jacket thickness and cable diameter are two examples of common differences you may see in different lots of the same cable. Simple adjustments allow the user to set the cutting blades for a deeper or shallower score of the cable jacket.

### PRECISE

A cable track, precisely machined into each die set, creates a controlled rotation of the dies/blades as the cable is moved along the cable. A simple 90° bend of the cable results in the jacket halves separating for removal, reducing the amount of force needed to remove the jacket.

### CONSISTENT

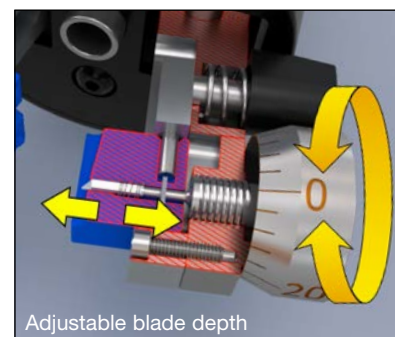
The repeatable function of the tool reduces operator error and is up to 3 to 5 times faster than conventional methods.



Traditional strip with razor blade



Potential damage with razor blade



Adjustable blade depth



3x's faster than razor blade



# TSK8000 Die Set Selection

## TSK8000 Die Set Part Numbering System - 1 Inner Conductor

| Tool Frame PN | Die Set PN | MIL Die Set PN | Conductors | Cable OD Range | Cable Lay |
|---------------|------------|----------------|------------|----------------|-----------|
| TSK8000       | TSD1070    | N/A            | 1          | .061 to .070"  | N/A       |
| TSK8000       | TSD1080    | N/A            | 1          | .071 to .080"  | N/A       |
| TSK8000       | TSD1090    | N/A            | 1          | .081 to .090"  | N/A       |
| TSK8000       | TSD1100    | N/A            | 1          | .091 to .100"  | N/A       |
| TSK8000       | TSD1110    | N/A            | 1          | .101 to .110"  | N/A       |
| TSK8000       | TSD1120    | N/A            | 1          | .111 to .120"  | N/A       |
| TSK8000       | TSD1130    | N/A            | 1          | .121 to .130"  | N/A       |
| TSK8000       | TSD1140    | N/A            | 1          | .131 to .140"  | N/A       |
| TSK8000       | TSD1150    | N/A            | 1          | .141 to .150"  | N/A       |
| TSK8000       | TSD1160    | N/A            | 1          | .151 to .160"  | N/A       |
| TSK8000       | TSD1170    | N/A            | 1          | .161 to .170"  | N/A       |
| TSK8000       | TSD1180    | N/A            | 1          | .171 to .180"  | N/A       |

## TSK8000 Die Set Part Numbering System - 2 Inner Conductors

| Tool Frame PN | Die Set PN | MIL Die Set PN | Conductors | Cable OD Range | Cable Lay |
|---------------|------------|----------------|------------|----------------|-----------|
| TSK8000       | TSD2090    | M32610/01-03   | 2          | .081 to .090"  | Left Lay  |
| TSK8000       | TSD2100    | M32610/01-04   | 2          | .091 to .100"  | Left Lay  |
| TSK8000       | TSD2110    | M32610/01-05   | 2          | .101 to .110"  | Left Lay  |
| TSK8000       | TSD2120    | M32610/01-06   | 2          | .111 to .120"  | Left Lay  |
| TSK8000       | TSD2130    | M32610/01-07   | 2          | .121 to .130"  | Left Lay  |
| TSK8000       | TSD2140    | M32610/01-08   | 2          | .131 to .140"  | Left Lay  |
| TSK8000       | TSD2150    | M32610/01-09   | 2          | .141 to .150"  | Left Lay  |
| TSK8000       | TSD2160    | M32610/01-10   | 2          | .151 to .160"  | Left Lay  |
| TSK8000       | TSD2170    | M32610/01-11   | 2          | .161 to .170"  | Left Lay  |
| TSK8000       | TSD2180    | M32610/01-12   | 2          | .171 to .180"  | Left Lay  |

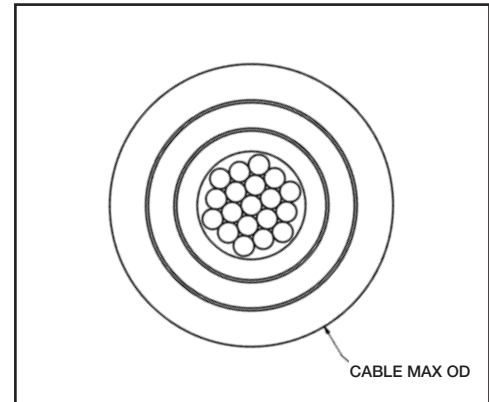
## TSK8000 Die Set Part Numbering System - 3 Inner Conductors

| Tool Frame PN | Die Set PN | MIL Die Set PN | Conductors | Cable OD Range | Cable Lay |
|---------------|------------|----------------|------------|----------------|-----------|
| TSK8000       | TSD3090    | M32610/01-13   | 3          | .081 to .090"  | Left Lay  |
| TSK8000       | TSD3100    | M32610/01-14   | 3          | .091 to .100"  | Left Lay  |
| TSK8000       | TSD3110    | M32610/01-15   | 3          | .101 to .110"  | Left Lay  |
| TSK8000       | TSD3120    | M32610/01-16   | 3          | .111 to .120"  | Left Lay  |
| TSK8000       | TSD3130    | M32610/01-17   | 3          | .121 to .130"  | Left Lay  |
| TSK8000       | TSD3140    | M32610/01-18   | 3          | .131 to .140"  | Left Lay  |
| TSK8000       | TSD3150    | M32610/01-19   | 3          | .141 to .150"  | Left Lay  |
| TSK8000       | TSD3160    | M32610/01-20   | 3          | .151 to .160"  | Left Lay  |
| TSK8000       | TSD3170    | M32610/01-21   | 3          | .161 to .170"  | Left Lay  |
| TSK8000       | TSD3180    | M32610/01-22   | 3          | .171 to .180"  | Left Lay  |

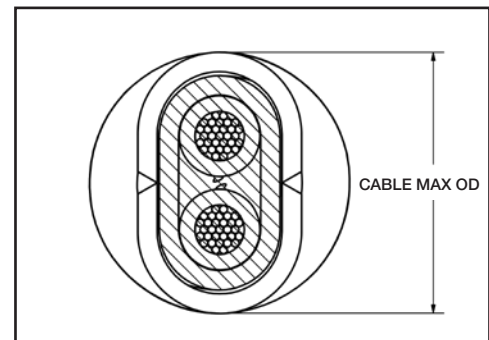
## TSK8000 Die Set Part Numbering System - 4 Inner Conductors

| Tool Frame PN | Die Set PN | MIL Die Set PN | Conductors | Cable OD Range | Cable Lay |
|---------------|------------|----------------|------------|----------------|-----------|
| TSK8000       | TSD4100    | N/A            | 4          | .091 to .100"  | Left Lay  |
| TSK8000       | TSD4110    | N/A            | 4          | .101 to .110"  | Left Lay  |
| TSK8000       | TSD4120    | N/A            | 4          | .111 to .120"  | Left Lay  |
| TSK8000       | TSD4130    | N/A            | 4          | .121 to .130"  | Left Lay  |
| TSK8000       | TSD4140    | N/A            | 4          | .131 to .140"  | Left Lay  |
| TSK8000       | TSD4150    | N/A            | 4          | .141 to .150"  | Left Lay  |
| TSK8000       | TSD4160    | N/A            | 4          | .151 to .160"  | Left Lay  |
| TSK8000       | TSD4170    | N/A            | 4          | .161 to .170"  | Left Lay  |
| TSK8000       | TSD4180    | N/A            | 4          | .171 to .180"  | Left Lay  |

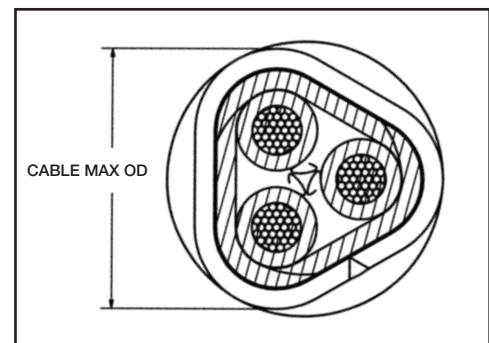
## Cable Measurement Method One Conductor



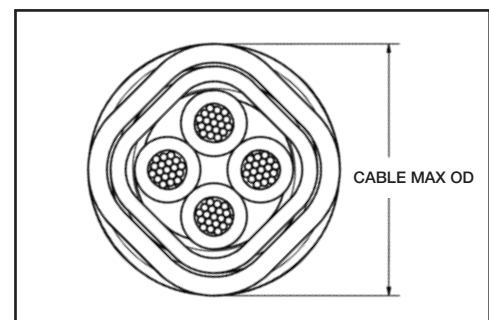
## Cable Measurement Method Two Conductor



## Cable Measurement Method Three Conductor



## Cable Measurement Method Four Conductor



Wire Preparation

# TSK8500 Die Set Selection

## TSK8500 Die Set Part Numbering System - 1 Inner Conductor

| Tool Frame PN | Die Set PN | # of Conductors | Cable OD Range | Cable Lay |
|---------------|------------|-----------------|----------------|-----------|
| TSK8500       | TSDL1190   | 1               | .181 to .190   | N/A       |
| TSK8500       | TSDL1200   | 1               | .191 to .200   | N/A       |
| TSK8500       | TSDL1210   | 1               | .201 to .210   | N/A       |
| TSK8500       | TSDL1220   | 1               | .211 to .220   | N/A       |
| TSK8500       | TSDL1230   | 1               | .221 to .230   | N/A       |
| TSK8500       | TSDL1240   | 1               | .231 to .240   | N/A       |
| TSK8500       | TSDL1250   | 1               | .241 to .250   | N/A       |
| TSK8500       | TSDL1260   | 1               | .251 to .260   | N/A       |
| TSK8500       | TSDL1270   | 1               | .261 to .270   | N/A       |
| TSK8500       | TSDL1280   | 1               | .271 to .280   | N/A       |
| TSK8500       | TSDL1290   | 1               | .281 to .290   | N/A       |
| TSK8500       | TSDL1300   | 1               | .291 to .300   | N/A       |
| TSK8500       | TSDL1310   | 1               | .301 to .310   | N/A       |

## TSK8500 Die Set Part Numbering System - 2 Inner Conductors

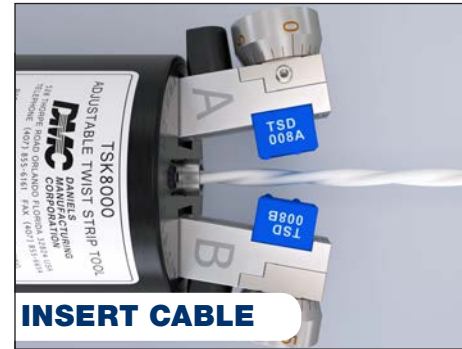
| Tool Frame PN | Die Set PN | # of Conductors | Cable OD Range | Cable Lay |
|---------------|------------|-----------------|----------------|-----------|
| TSK8500       | TSDL2190   | 2               | .181 to .190   | Left Lay  |
| TSK8500       | TSDL2200   | 2               | .191 to .200   | Left Lay  |
| TSK8500       | TSDL2210   | 2               | .201 to .210   | Left Lay  |
| TSK8500       | TSDL2220   | 2               | .211 to .220   | Left Lay  |
| TSK8500       | TSDL2230   | 2               | .221 to .230   | Left Lay  |
| TSK8500       | TSDL2240   | 2               | .231 to .240   | Left Lay  |
| TSK8500       | TSDL2250   | 2               | .241 to .250   | Left Lay  |
| TSK8500       | TSDL2260   | 2               | .251 to .260   | Left Lay  |
| TSK8500       | TSDL2270   | 2               | .261 to .270   | Left Lay  |
| TSK8500       | TSDL2280   | 2               | .271 to .280   | Left Lay  |
| TSK8500       | TSDL2290   | 2               | .281 to .290   | Left Lay  |
| TSK8500       | TSDL2300   | 2               | .291 to .300   | Left Lay  |
| TSK8500       | TSDL2310   | 2               | .301 to .310   | Left Lay  |

## TSK8500 Die Set Part Numbering System - 3 Inner Conductors

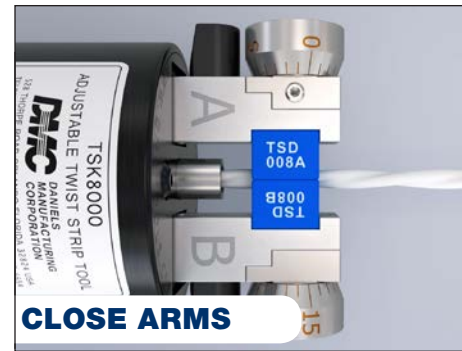
| Tool Frame PN | Die Set PN | # of Conductors | Cable OD Range | Cable Lay |
|---------------|------------|-----------------|----------------|-----------|
| TSK8500       | TSDL3190   | 3               | .181 to .190   | Left Lay  |
| TSK8500       | TSDL3200   | 3               | .191 to .200   | Left Lay  |
| TSK8500       | TSDL3210   | 3               | .201 to .210   | Left Lay  |
| TSK8500       | TSDL3220   | 3               | .211 to .220   | Left Lay  |
| TSK8500       | TSDL3230   | 3               | .221 to .230   | Left Lay  |
| TSK8500       | TSDL3240   | 3               | .231 to .240   | Left Lay  |
| TSK8500       | TSDL3250   | 3               | .241 to .250   | Left Lay  |
| TSK8500       | TSDL3260   | 3               | .251 to .260   | Left Lay  |
| TSK8500       | TSDL3270   | 3               | .261 to .270   | Left Lay  |
| TSK8500       | TSDL3280   | 3               | .271 to .280   | Left Lay  |
| TSK8500       | TSDL3290   | 3               | .281 to .290   | Left Lay  |
| TSK8500       | TSDL3300   | 3               | .291 to .300   | Left Lay  |
| TSK8500       | TSDL3310   | 3               | .301 to .310   | Left Lay  |

## TSK8500 Die Set Part Numbering System - 4 Inner Conductors

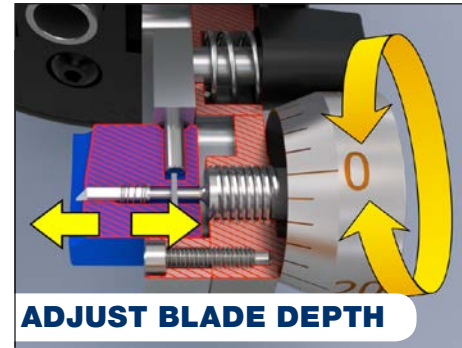
| Tool Frame PN | Die Set PN | # of Conductors | Cable OD Range | Cable Lay |
|---------------|------------|-----------------|----------------|-----------|
| TSK8500       | TSDL4190   | 4               | .181 to .190   | Left Lay  |
| TSK8500       | TSDL4200   | 4               | .191 to .200   | Left Lay  |
| TSK8500       | TSDL4210   | 4               | .201 to .210   | Left Lay  |
| TSK8500       | TSDL4220   | 4               | .211 to .220   | Left Lay  |
| TSK8500       | TSDL4230   | 4               | .221 to .230   | Left Lay  |
| TSK8500       | TSDL4240   | 4               | .231 to .240   | Left Lay  |
| TSK8500       | TSDL4250   | 4               | .241 to .250   | Left Lay  |
| TSK8500       | TSDL4260   | 4               | .251 to .260   | Left Lay  |
| TSK8500       | TSDL4270   | 4               | .261 to .270   | Left Lay  |
| TSK8500       | TSDL4280   | 4               | .271 to .280   | Left Lay  |
| TSK8500       | TSDL4290   | 4               | .281 to .290   | Left Lay  |
| TSK8500       | TSDL4300   | 4               | .291 to .300   | Left Lay  |
| TSK8500       | TSDL4310   | 4               | .301 to .310   | Left Lay  |



**INSERT CABLE**



**CLOSE ARMS**



**ADJUST BLADE DEPTH**



**STRIP CABLE JACKET**



**COMPLETED STRIP**



# Twist-Strip™ Kits

DMC works to provide the most comprehensive solutions for high speed data and shielded, twisted, multi-conductor cable preparation.

- TSK8000: Twist Strip Kit\* with TSK8000 (M32610/01-01) Only
- TSK8001: Twist Strip Kit\* with TSK8000 w/All (12) 1 Conductor Die Sets (Cable DIA range 0.061" to 0.180")
- TSK8002: Twist Strip Kit\* with TSK8000 (M32610/01-23) w/All (10) 2 Conductor Die Sets (Cable DIA range 0.081" to 0.180")
- TSK8003: Twist Strip Kit\* with TSK8000 (M32610/01-24) w/All (10) 3 Conductor Die Sets (Cable DIA range 0.081" to 0.180")
- TSK8004: Twist Strip Kit\* with TSK8000 w/All (9) 4 Conductor Die Sets (Cable DIA range 0.091" to 0.180")
- TSK8023: Twist Strip Kit\* with TSK8000 (M32610/01-25) w/All (20) 2 & 3 Conductor Die Sets (Cable DIA range 0.081" to 0.180")

- TSK8500: Twist Strip Kit\* with TSK8500 Only
- TSK8501: Twist Strip Kit\* with TSK8500 w/All (13) 1 Conductor Die Sets (Cable DIA range 0.181" to 0.310")
- TSK8502: Twist Strip Kit\* with TSK8500 w/All (13) 2 Conductor Die Sets (Cable DIA range 0.181" to 0.310")
- TSK8503: Twist Strip Kit\* with TSK8500 w/All (13) 3 Conductor Die Sets (Cable DIA range 0.181" to 0.310")
- TSK8504: Twist Strip Kit\* with TSK8500 w/All (13) 4 Conductor Die Sets (Cable DIA range 0.181" to 0.310")
- TSK8523: Twist Strip Kit\* with TSK8500 w/All (26) 2 & 3 Conductor Die Sets (Cable DIA range 0.181" to 0.310")

\*Includes case, TS8000-CIC or TS8500-CIC Cable Diameter Gauge Card, and accessories; in an organized, foam-lined insert. Individual die set part numbers are listed on page 7-8.



**DIE SET CONTAINER**



**TSK8000 (KIT)**  
DIE SETS SOLD SEPARATELY



**TSK8500 (KIT)**  
DIE SETS SOLD SEPARATELY

Wire Preparation

## CABLE DIAMETER GAUGE CARD

First the user must determine the "lay" of the sample cable. See illustration on right. Universal dies are designed for cable with a left twist. Dies designed for cable with a right twist have an "R" in the part number: TSKRXXX and TSLRXXX. Certain applications may need a custom die set. If die sets above are not suitable, call DMC at (407) 855-6161 for assistance.



**Cable Diameter Gauge Card**  
(TS8000-CIC/TS8500-CIC)

The Cable Diameter Gauge Card should be utilized to select a die set. The max OD and part number of the appropriate die set are shown next to each opening. Find the smallest opening in the gauge card that the cable freely passes through without getting snagged or stuck.

Select the corresponding die set to strip the selected cable.

**NOTE:** If the cable passes through the opening in the gauge card, but scrapes the sides of the ID of the opening or gets stuck, the user should select the next larger diameter die set.



**LEFT HAND LAY**  
"S" DIRECTION



**RIGHT HAND LAY**  
"Z" DIRECTION

# Indent Crimp Tools

## UPPER RANGE CRIMP TOOL AF8 M22520/1-01

The DMC **AF8**, qualified to MIL-DTL-22520/1 and AS22520/1, has virtually limitless application within the specified wire range of 12 through 26 AWG. Over one thousand turret heads are available to adapt the tool frame to your specific military or proprietary contact/wire combination. The 8 indent crimp, which is standard in the **AF8**, assures maximum mechanical and electrical strength in almost every closed barrel contact crimp. Special indent configurations and gaging are available upon request.

For proper operation, the tool must be mated with one of the following optional accessories: a military standard or non-military turret head (TH-XXX Part No. Series), a military standard or non-military positioner (TP-XXX Part No. Series), or an adjustable positioner\*\* (Part No. UH2-5). This is done simply by orienting the head in the keyed position, and by tightening the hex socket screws provided as part of the head.

The precision ratchet controls cycling of the tool in both directions of handle movement. This assures the same accurate crimp every time. It's like having a quality control inspector at every work station.

Positive crimp depth is controlled by an 8 position selector knob conveniently located on the tool frame. The operator simply dials the desired step for the wire being used. This setting can be secured by use of a locking pin or safety wire.

The carefully engineered design achieves maximum mechanical advantage and the tool's light weight helps minimize operator fatigue.

A permanent dataplate is affixed to all turret heads and positioners. This plate lists specific contact part numbers, the corresponding position color code (for 3 position turret heads), and suggested selector depth settings for the wire size being used.

The adjustable head (P/N UH2-5) is ideally suited for lab work and prototype production applications. This head is attached in the same manner as explained above. The selected contact is inserted through the entry hole on the opposite side of the tool frame from the head. The height adjusting screw is then rotated until the contact is in the proper position for crimping. The screw can be secured with the locknut provided. Some testing will be necessary to determine the optimum selector setting for your contact/wire combination.

The **AF8** is approximately 9¾" x 2½" x 1¼" and weighs 15 oz.

## CRIMP TOOLS WITH CYCLE COUNTERS

Most shops perform "GO/NO-GO" inspection on crimp tools after a specific period of time. But the usage of crimp tools in production or maintenance operations is inconsistent, and during a given period of time, a tool can be used to terminate thousands of wires, or less than a hundred, maybe none at all. Ideally, tools should be gaged based on actual usage and not a period of time.

In order to assist with this, DMC has designed a series of tools which are fitted with ruggedized Digital Cycle Counters. The Cycle Counter version of the **AF8** is the **AF8-CC**. Cycle Counters allow users to manage the tool through the inspection cycle based on the number of crimp cycles (actual usage) rather than an arbitrary time period. This greatly increases the number of crimp tools in production by decreasing the number of crimp tools awaiting gaging and balances the use of each tool between inspection events.

Each time the handles are closed, whether crimping a contact or just cycling the tool, the cycle is counted. Gage inspection is accomplished with common "GO/NO-GO" gage and the tool is returned to production.



\*\*Adjustable positioner is not recommended for production operations



# Indent Crimp Tools



**GO GAGE**



**NO-GO GAGE**

Other than keeping the unit clean and properly stored when not in service, no operator maintenance is required. DMC offers complete factory service by knowledgeable technicians within a reasonable turnaround time. Complete instructions concerning the use, care and warranty are supplied with each tool. Additional copies are available on request.

Pneumatic versions of this tool are found on pages 14-15.



The DMC1186 tool kit contains the AF8 tool frame, tool gage, and all mil-spec positioners and turret heads. Also included in the DMC1186 are tool instruction sheets and a tool selection chart.

Periodic gaging is recommended to insure accurate calibration. This can be done easily by setting the tool selector knob to position #4, and checking indenter closure with the M22520/3-1 "GO/NO-GO" gage (DMC part no. G125).

| MILITARY P/N  | DMC P/N | DESCRIPTION            | NSN              |
|---------------|---------|------------------------|------------------|
| M22520/1-01   | AF8     | TOOL FRAME             | 5120-01-335-8571 |
| M22520/1-02   | TH1A    | TURRET                 | 5120-01-335-8834 |
| M22520/1-03   | TH4     | TURRET                 | 5120-01-335-8835 |
| M22520/1-04   | TH163   | TURRET                 | 5120-01-335-8836 |
| M22520/1-05   | UH2-5   | ADJUSTABLE POSITIONER* | 5120-01-335-8583 |
| M22520/1-06   | TP45    | POSITIONER             | 5120-01-335-8584 |
| M22520/1-07   | TP85    | POSITIONER             | 5120-01-335-8585 |
| M22520/1-08   | TH199S  | TURRET                 | 5120-00-016-7654 |
| M22520/1-09   | TP360   | POSITIONER             | 5120-01-335-8586 |
| M22520/1-10   | TP365   | POSITIONER             | 5120-01-335-8587 |
| M22520/1-11   | TP465   | POSITIONER             | 5120-01-335-8588 |
| M22520/1-12   | TH270   | TURRET                 | 5120-01-335-8838 |
| M22520/1-13   | TH285   | TURRET                 | 5120-01-036-9221 |
| M22520/1-14   | TH286   | TURRET                 | 5120-01-036-9222 |
| M22520/1-15   | TP485   | POSITIONER             | 5120-01-335-8589 |
| M22520/1-16   | TP513   | POSITIONER             | 5120-01-335-8590 |
| M22520/1-17   | TP651   | POSITIONER             | 5120-01-335-8591 |
| M22520/1-18** | TH343   | TURRET                 | 5120-01-361-9705 |
| M22520/3-1    | G125    | GAGE                   | 5220-01-016-6002 |
| N/A           | DMC1186 | M22520/1 Tool Kit      | N/A              |

\*Adjustable positioner is not recommended for production operations

\*\*QPL Pending



**STEP 1**  
**INSERT CONTACT**



**STEP 2**  
**INSERT PRE-STRIPPED WIRE**



**STEP 3**  
**CLOSE / OPEN HANDLE**



**STEP 4**  
**REMOVE TERMINATED WIRE ASSEMBLY**

# Miniature Adjustable Crimp Tools

## LOWER RANGE CRIMP TOOL AFM8 M22520/2-01

Qualified to MIL-DTL-22520/2 and AS22520/2, the DMC **AFM8** is designed for most of the miniature and sub-miniature connector types that are so widely used in electronic systems. The **AFM8** meets the need for a miniature tool accommodating wire sizes 20 through 32 AWG.

The **AFM8** gives a Mil-Standard 8 indent crimp, which assures maximum tensile and electrical strength. The cycle controlled precision ratchet assures consistently accurate crimps every time. The tool frame has a built-in 8 step selector knob for ease in dialing the correct crimp depth setting for the wire being used.

Positioners adapt the tool frame to a particular application. The data plate on each positioner designates which contacts the positioner accommodates for its wire size and indicates selector position. The positioner is easily removed and changed.

Periodic gaging is recommended to insure accurate calibration. This is easily accomplished with the M22520/3-1 "GO/NO-GO" gage (DMC part no. G125) on SEL setting #8. The **AFM8** is 6 3/4" in length and weighs approximately 10 oz.

Other than keeping the tool clean and properly stored when not in use, no operator maintenance is required. *Pneumatic versions of this tool are found on page 14-15.*

## CRIMP TOOLS WITH CYCLE COUNTERS

DMC has designed a series of tools which are fitted with ruggedized Digital Cycle Counters. The Cycle Counter version of the AFM8 is the AFM8-CC. Cycle Counters allow users to manage the tool through the inspection cycle based on the number of crimp cycles (actual usage) rather than an arbitrary time period. This greatly increases the number of crimp tools in production by decreasing the number of crimp tools awaiting gaging and balances the use of each tool between inspection events.



| MILITARY P/N  | DMC P/N | DESCRIPTION       | NSN              |
|---------------|---------|-------------------|------------------|
| M22520/2-01   | AFM8    | TOOL FRAME        | 5120-01-335-8572 |
| M22520/2-02   | K1S     | POSITIONER        | 5120-01-335-8592 |
| M22520/2-03   | K60S    | POSITIONER        | 5120-01-335-8593 |
| M22520/2-04   | K151    | POSITIONER        | 5120-01-335-8594 |
| M22520/2-05   | K3      | POSITIONER        | 5120-01-335-8595 |
| M22520/2-06   | K41     | POSITIONER        | 5120-01-335-8624 |
| M22520/2-07   | K40     | POSITIONER        | 5120-01-335-8625 |
| M22520/2-08   | K13-1   | POSITIONER        | 5120-01-335-8626 |
| M22520/2-09   | K42     | POSITIONER        | 5120-01-335-8627 |
| M22520/2-10   | K43     | POSITIONER        | 5120-01-335-8628 |
| M22520/2-11   | K287    | POSITIONER        | 5120-01-335-8629 |
| M22520/2-12   | K286    | POSITIONER        | 5120-01-335-8630 |
| M22520/2-13   | K338    | POSITIONER        | 5120-01-335-8631 |
| M22520/2-14   | K340    | POSITIONER        | 5120-01-335-8632 |
| M22520/2-15   | K341    | POSITIONER        | 5120-01-335-8633 |
| M22520/2-16   | K339    | POSITIONER        | 5120-01-335-8634 |
| M22520/2-17   | K342    | POSITIONER        | 5120-01-335-8635 |
| M22520/2-18   | K343    | POSITIONER        | 5120-01-335-8636 |
| M22520/2-19   | K330-2  | POSITIONER        | 5120-01-335-8637 |
| M22520/2-20   | K331-2  | POSITIONER        | 5120-01-335-8638 |
| M22520/2-21   | K332-2  | POSITIONER        | 5120-01-335-8609 |
| M22520/2-22   | K212    | POSITIONER        | 5120-01-335-8610 |
| M22520/2-23   | K267-1  | POSITIONER        | 5120-01-335-8611 |
| M22520/2-24   | K75S-1  | POSITIONER        | 5120-01-335-8612 |
| M22520/2-25   | K261-1  | POSITIONER        | 5120-01-335-8613 |
| M22520/2-26   | K262-1  | POSITIONER        | 5120-01-335-8614 |
| M22520/2-27   | K269-1  | POSITIONER        | 5120-01-335-8615 |
| M22520/2-28   | K373-1  | POSITIONER        | 5120-01-335-8616 |
| M22520/2-29   | K372-1  | POSITIONER        | 5120-01-335-8617 |
| M22520/2-30   | K404    | POSITIONER        | 5120-01-335-8618 |
| M22520/2-31   | K406    | POSITIONER        | 5120-01-335-8619 |
| M22520/2-32   | K496    | POSITIONER        | 5120-01-335-8620 |
| M22520/2-33   | K74S    | POSITIONER        | 5120-01-335-8621 |
| M22520/2-34   | K323    | POSITIONER        | 5120-01-335-8622 |
| M22520/2-35   | K532-1  | POSITIONER        | 5120-01-335-8623 |
| M22520/2-36   | K473    | POSITIONER        | 5120-01-335-8596 |
| M22520/2-37   | K709    | POSITIONER        | 5120-01-361-9666 |
| M22520/2-38** | K1561   | POSITIONER        | N/A              |
| M22520/2-39** | K1430-1 | POSITIONER        | N/A              |
| M22520/2-40** | K1457-1 | POSITIONER        | N/A              |
| M22520/3-1    | G125    | GAGE              | 5220-01-016-6002 |
| N/A           | SK2/2*  | ADJ. POSITIONER   | 5120-01-171-1569 |
| N/A           | DMC274  | M22520/2 TOOL KIT | 5180-01-259-0512 |

\*Adjustable positioner is not recommended for production operations

\*\*QPL Pending

# Middle Range Adjustable Crimp Tools



## MIDDLE RANGE INDENT CRIMP TOOL MH860 M22520/7-01

Qualified to MIL-DTL-22520/7 and AS22520/7, the DMC **MH860** is an addition to the military specification. It was developed to meet the demonstrated need for supporting the majority of electrical systems with one versatile crimp tool frame.

The **MH860** accepts the entire middle wire range of 16 through 28 AWG, with positioners which adapt it to virtually all applications consistent with others in the MIL-DTL-22520 family.

Pneumatic versions of this tool are found on pages 14-15.

The DMC123 tool kit contains the **MH860** tool frame, tool gage, and all mil-spec positioners. Also included in the DMC123 are tool instruction sheets and a tool selection chart.

Indent Crimp Tools

| MILITARY P/N  | DMC P/N | DESCRIPTION            | NSN              |
|---------------|---------|------------------------|------------------|
| M22520/7-01   | MH860   | TOOL FRAME             | 5120-01-335-8573 |
| M22520/7-02   | 86-1S   | POSITIONER             | 5120-01-335-8597 |
| M22520/7-03   | 86-2    | POSITIONER             | 5120-01-335-8598 |
| M22520/7-04   | 86-3    | POSITIONER             | 5120-01-335-8599 |
| M22520/7-05   | 86-4    | POSITIONER             | 5120-01-335-8600 |
| M22520/7-06   | 86-5    | POSITIONER             | 5120-01-335-8601 |
| M22520/7-07   | 86-6    | POSITIONER             | 5120-01-335-8602 |
| M22520/7-08   | 86-7    | POSITIONER             | 5120-01-335-8603 |
| M22520/7-09   | 86-11S  | POSITIONER             | 5120-01-335-8604 |
| M22520/7-10   | 86-12S  | POSITIONER             | 5120-01-335-8605 |
| M22520/7-11   | 86-19   | POSITIONER             | 5120-01-335-8606 |
| M22520/7-12   | 86-20   | POSITIONER             | 5120-01-335-8607 |
| M22520/7-13   | 86-21   | POSITIONER             | 5120-01-335-8608 |
| M22520/7-14** | 86-30-1 | POSITIONER             | N/A              |
| M22520/3-3    | G145    | GAGE                   | 5120-00-338-0378 |
| N/A           | 86-37   | ADJUSTABLE POSITIONER* | N/A              |
| N/A           | DMC123  | M22520/7 TOOL KIT      | 5180-01-355-5616 |

\*Adjustable positioner is not recommended for production operations

\*\*QPL Pending



## DMC123 Tool Kit

## CRIMP TOOLS WITH CYCLE COUNTERS

DMC has designed a series of tools which are fitted with ruggedized Digital Cycle Counters. The Cycle Counter version of the MH860 is the MH860-CC. Cycle Counters allow users to manage the tool through the inspection cycle based on the number of crimp cycles (actual usage) rather than an arbitrary time period. This greatly increases the number of crimp tools in production by decreasing the number of crimp tools awaiting gaging and balances the use of each tool between inspection events. See page 10 for more information.

| MIL-DTL-28840 TOOLING PART NUMBERS |            |                       |                  |
|------------------------------------|------------|-----------------------|------------------|
| MILITARY P/N                       | DMC P/N    | DESCRIPTION           | NSN              |
| M22520/34-01                       | 39-000     | BASIC CRIMP TOOL      | 5120-01-242-3516 |
| M22520/34-02                       | 39-102     | POSITIONER            | 5120-01-242-1041 |
| M22520/35                          | G345       | GAGE                  | 5220-01-392-1065 |
| M81969/33-01                       | DAK55-22SA | INST. TOOL (STRAIGHT) | 5120-01-230-1506 |
| M81969/33-02                       | DAK55-22JA | INST. TOOL (OFFSET)   | 5120-01-335-8666 |
| M81969/34-01                       | DRK56-22A  | REMOVAL TOOL          | 5120-01-230-1507 |
| N/A                                | DMC782     | MIL-C-28840 TOOL KIT  | 5180-01-363-1391 |



# Pneumatic Indent Crimp Tools

## PNEUMATIC INDENT CRIMP TOOLS

The DMC Pneumatic (Compressed Air Powered) Crimp tools **WA27F**, **WA22P** and **WA22** are direct equivalents of their corresponding hand tools. They use the same turret heads or positioners, gages and other accessories.

As production requirements grow, all that needs to be added is the tool frame itself. The resulting production capability can, in many instances, compare with an automated system costing thousands of dollars more.

These pneumatic tools are widely used in both military and proprietary programs. Their popularity has come about because of their unequaled reputation for trouble-free, dependable service, and their cost saving adaptability.

Whether upper, middle, lower, or mid-current range, the pneumatic tools fulfill the same precise crimp requirements as the hand models. They use the same indenter configuration, the same gaging dimensions and selector settings. No additional operator training is necessary. Accurate calibration is maintained by a unique 8 step machined steel block that holds gaging tolerances far longer than the usual adjustment screw method. This solid gaging means high output with less downtime.

The compact size and light weight of these tools allow them to be used easily as hand tools, as well as high production bench tools. The hand

trigger is designed for equal ease of use by right or left handed operators. Bench mounted, the optional foot valve allows hands-free operation. The bench mount will allow the tool to be secured at virtually any angle for individual comfort, thereby minimizing operator fatigue.

The Upper Range **WA27F** (equivalent to AF8) accommodates TH-xxx series turret heads or TP-xxx series positioners, length 10", diameter 2 3/4", weight 50 oz.

The Middle Range **WA22P** (equivalent to MH860) accommodates MIL-standard and commercial "86" series positioners, length 8", diameter 2 1/4", weight, 32 oz.

The Lower Range **WA22** (equivalent to AFM8) accommodates standard and commercial "K" series positioners, length 8", diameter 2 1/4", weight 32oz.

## SIDE SELECT PNEUMATIC CRIMP TOOLS

DMC Pneumatic tools are often mounted on a Bench Mount, and some find it inconvenient to set or check the setting of the crimp depth selector when the tool is mounted for benchtop use. DMC resolved this issue by creating a version of the tool which moves the crimp depth selector to the side of the tool in a "looking up" position. These tools have the same crimp depth settings as the original tools, but with the knob in a more convenient position: Adding "SS" to the part number of the WA Series Pneumatic Crimp Tools will

apply to the Side-Select versions. A retro fit kit is also available for converting standard tools to Side Select tools.

## CRIMP TOOLS WITH CYCLE COUNTERS

Most shops perform "GO/NO-GO" inspection on crimp tools after a specific period of time. But the usage of crimp tools in production or maintenance operations is inconsistent, and during a given period of time, a tool can be used to terminate thousands of wires, or less than a hundred, maybe none at all. Ideally, tools should be gaged based on actual usage and not a period of time.

In order to assist with this, DMC has designed a series of tools which are fitted with ruggedized Digital Cycle Counters that allow users to manage the tool through the inspection cycle based on the number of crimp cycles (actual usage) rather than an arbitrary time period. This greatly increases the number of crimp tools in production by decreasing the number of crimp tools awaiting gaging and balances the use of each tool between inspection events.

Each time the handles are closed, whether crimping a contact or just cycling the tool, the cycle is counted. Gage inspection is accomplished with common "GO/NO-GO" gage and the tool is returned to production.



# Pneumatic Indent Crimp Tools

## DMC PNEUMATIC TOOLS TO HAND TOOLS

| MILITARY PART #* | DMC PART #    | DESCRIPTION                                      | COMPARABLE HAND TOOL DMC PART # | COMPARABLE HAND TOOL MILITARY PART # |
|------------------|---------------|--|---------------------------------|--------------------------------------|
| M22520/28-01*    | WA22          | Indent Tool for Size 20-32 Wire                  | AFM8                            | M22520/2-01                          |
|                  | WA22CC        | Cycle Counter WA22                               | AFM8                            | M22520/2-01                          |
|                  | WA22LC-X1     | Smaller, lighter version for hand-held operation | AFM8                            | M22520/2-01                          |
|                  | WA22SS        | Side Select WA22                                 | AFM8                            | M22520/2-01                          |
|                  | WA22P         | Indent Tool for Size 16-28 Wire                  | MH860                           | M22520/7-01                          |
|                  | WA22PSS       | Side Select WA22P                                | MH860                           | M22520/7-01                          |
|                  | WA22H         | Ultra Precision Tool for Size 20-32 Wire         | MH800                           |                                      |
|                  | WA22AE        | Micro-Crimp Tool for Coax Inner Contacts         | MH992                           | M22520/46-01                         |
|                  | WA22U         | M28840 Connector Crimp Tool                      | 39-000                          |                                      |
|                  | WA27-300BT-EP | Indent Tool for Size 6-18 Wire                   | M300-BT                         |                                      |
| M22520/29-01*    | WA27F         | Indent Tool for Size 12-26 Wire                  | AF8                             | M22520/1-01                          |
|                  | WA27FCC       | Cycle Counter WA27F                              | AF8                             | M22520/1-01                          |
|                  | WA27FSS       | Side Select WA27F                                | AF8                             | M22520/1-01                          |
|                  | WA27LH        | Two Level Crimp Tool                             | LH8                             |                                      |
|                  | WA27R         | Outer Shield Crimp Tool (Size 12)                | GS200-1                         |                                      |
|                  | WA27T         | Outer Shield Crimp Tool (Size 16)                | GS100-1                         |                                      |

\*Contact DMC for QPL status



**WA27RF**

## PNEUMATIC TOOL ACCESSORIES

| MILITARY P/N* | DMC P/N    | DESCRIPTION                          |
|---------------|------------|--------------------------------------|
| M22520/30-01* | BM-2A      | Bench Mount                          |
| M22520/30-02* | WA10A*     | Foot Pedal                           |
|               | WA27RF     | Air Regulator and Filter             |
|               | WA27FSS-RK | Side-Select Conversion Kit for WA27F |
|               | WA22SS-RK  | Side-Select Conversion Kit for WA22  |

### WA27RF REGULATOR AND FILTER

Clean, consistent air pressure is required for precise tools in order to maintain their reliability and repeatability. It may require a regulator and filter in-line with the incoming compressed air supply. Multiple crimp tools can be attached to one regulator/air filter equipped line.

### WA10A FOOT VALVE

The foot valve, when installed in-line with an air supply, makes a portable system which is adaptable to any work bench. Air supply requirements are 80-120 PSI (5.5 to 8.2 bar) clean dry air. The system uses standard air fittings readily available in most shops.



### BM-2A BENCH MOUNT

The fully adjustable bench mount is compatible with most DMC power tools. The base measures 4" x 8" and can be used attached or unattached to the work surface.

### WA22-LC-X1 HAND-HELD PNEUMATIC CRIMP TOOL

The same basic WA22 tool that is commonly bench mounted for first end terminations is available in a lighter, more ergonomic version for hand-held operation. The WA22-LC-X1 tool features a smaller profile and lighter weight which makes it especially useful for second end terminations on vertical and horizontal wiring form boards. Most size 20 and smaller contacts can be terminated with this tool.



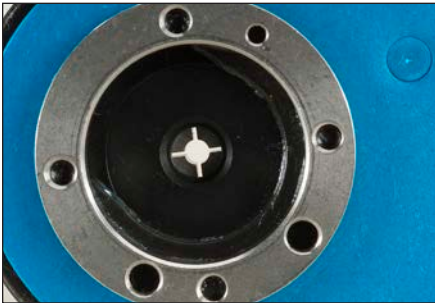
**BM-2A BENCH MOUNT**



**WA22-LC-X1**

# MIL Spec Circular Indent Crimp Tools

**MODELS: MH801, MH802, MH803, MH804, GS100-1 & GS200-1**



When special conditions call for a new tool design, we make every effort to utilize the components of existing tools which have been proven reliable both in field use and controlled test programs.

Such is the case with this tool series. The design of certain shielded contacts requires two additional crimping operations. One for the shield crimp sleeve, the other for the outer body. All of the tools give a concentric circular crimp configuration required by certain shielded contacts to insure compatibility with connector inserts and installing or removal tools in rear release applications, and/or maintain consistent electric impedance. Thus an indenter pattern which conforms to the appropriate military drawing (see chart for specific part numbers) was adapted to our familiar standard and miniature tool frames. (Note: On the MH801, MH802, MH803, and MH804 tools, in addition to the 4 opposing indenters, these tools also have 4 retainers which encompass the contact prior to the initiation of the crimping operation thus assuring concentricity.)

A full complement of positioners, inspection gages, and other accessories are available for these tool frames. The GS100-1 & GS200-1 tools are approximately 9 3/4" x 2 1/2" x 1 1/4" and weigh 15 oz each. The MH801, MH802, MH803, & MH804 tools are 6 3/4" in length and weigh approximately 10 oz each.

The technical section on pages 100 to 103 list the part numbers of standard M39029 contacts which require these tools; however, the concept may be adapted to other applications. Consult DMC for specific details.

Pneumatic versions of these tools are also available. Consult DMC for details.

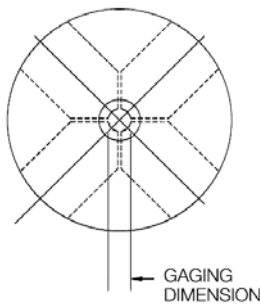
| MILITARY P/N | DMC P/N  | DESCRIPTION             | NSN              | PURPOSE                              |
|--------------|----------|-------------------------|------------------|--------------------------------------|
| M22520/4-01  | GS100-1  | TOOL FRAME              | 5120-01-335-8576 | Outer Contact Size 16                |
| M22520/4-02  | GP295    | POSITIONER              | 5120-01-335-8640 | MIL-C-39029/76 Pin, /77 SOC, /78 SOC |
|              | GS100    | TOOL FRAME & POSITIONER |                  |                                      |
| M22520/3-2   | G120     | GAGE                    | 5220-00-116-1911 |                                      |
|              | WA27T    | PNEUMATIC TOOL FRAME    |                  | Outer Contact Size 16                |
| M22520/31-01 | GS200-1  | TOOL FRAME              | 5120-01-335-8577 | Outer Contact Size 12                |
| M22520/31-02 | G2P330   | POSITIONER              | 5120-01-416-4799 | MIL-C-39029/27 SOC, /28 Pin, /75 SOC |
|              | GS200    | TOOL FRAME & POSITIONER | 5120-00-117-4709 |                                      |
| M22520/3-15  | G443     | GAGE                    | 5220-01-518-3433 |                                      |
|              | WA27R    | PNEUMATIC TOOL FRAME    |                  | Outer Contact Size 12                |
| M22520/19-01 | MH801    | TOOL FRAME              | 5120-00-124-3490 | Outer Contact Size 16                |
| M22520/19-02 | D16P-1M  | POSITIONER              | 5120-00-124-3351 | MIL-C-39029/19 Pin,                  |
| M22520/19-03 | D16S-1M  | POSITIONER              | 5120-00-124-3341 | MIL-C-39029/21 SOC                   |
| M22520/19-04 | D16LS-1M | POSITIONER              | 5120-01-335-8644 | MIL-C-39029/20 SOC                   |
| M22520/3-4   | G256     | GAGE (INDENTERS)        | --               |                                      |
| M22520/3-5   | G257     | GAGE (RETAINERS)        | --               |                                      |
| M22520/20-01 | MH802    | TOOL FRAME              | 5120-00-124-3469 | Shield Crimp Sleeve Size 16          |
| M22520/20-02 | D16/1-1M | POSITIONER              | 5120-00-124-3147 | MIL-C-39029/19 Pin                   |
| M22520/20-03 | D16/2-1M | POSITIONER              | 5120-00-124-3142 | MIL-C-39029/20 SOC, 21 SOC           |
| M22520/3-6   | G258     | GAGE (RETAINERS)        | --               |                                      |
| M22520/21-01 | MH803    | TOOL FRAME              | 5120-00-124-3484 | Outer Contact Size 12                |
| M22520/21-02 | D12P-1M  | POSITIONER              | 5120-00-124-3381 | MIL-C-39029/19 Pin                   |
| M22520/21-03 | D12S-1M  | POSITIONER              | 5120-00-124-3384 | MIL-C-39029/21 SOC                   |
| M22520/21-04 | D12LS-1M | POSITIONER              | 5120-00-124-3422 | MIL-C-39029/20 SOC                   |
| M22520/3-7   | G259     | GAGE (RETAINERS)        | --               |                                      |
| M22520/22-01 | MH804    | TOOL FRAME              | 5120-00-124-3487 | Shield Crimp Sleeve Size 12          |
| M22520/22-02 | D12/1-1M | POSITIONER              | 5120-01-335-8650 | MIL-C-39029/19 Pin, /21 SOC          |
| M22520/22-03 | D12/2-1M | POSITIONER              | 5120-00-124-3458 | MIL-C-39029/20 SOC                   |
| M22520/3-8   | G260     | GAGE (RETAINERS)        |                  |                                      |



# Circular Indent Crimp Tools

## CIRCULAR CRIMP TOOLS

DMC manufactures a range of Circular Indent Crimp Tools used primarily for outer shield terminations in contacts. These tools are capable of crimping a circle as small as 0.040" and as large as 0.262". Due to the nature of crimping a complete circle, with 4 equal segments each tool is specified for a certain diameter. See the charts on this page for diameter sizes and part numbers.



CIRCULAR INDENT CONFIGURATION

| CIRCULAR CRIMP TOOLS BY CRIMP DIMENSION |          |       |
|---|----------|-------|
| CIRCULAR CRIMP DIMENSION                | TOOL P/N | GAGE  |
| 0.040-0.045"                            | GS216    | G753  |
| 0.042-0.046"                            | GS210    | G925  |
| 0.059-0.064"                            | GS211    | G226  |
| 0.061-0.065"                            | GS205    | G450  |
| 0.065-0.099"                            | GS8-3    | G941  |
| 0.080-0.084"                            | GS212    | G732  |
| 0.086-0.090"                            | GS225    | G919  |
| 0.093-0.097"                            | GS221    | G881  |
| 0.096-0.100"                            | GS222    | G120  |
| 0.124-0.128"                            | GS223    | G917  |
| 0.140-0.144"                            | GS226    | G1056 |
| 0.142-0.146"                            | GS218    | G443  |
| 0.154-0.158"                            | GS201    | G446  |
| 0.156-0.160"                            | GS101    | G445  |
| 0.167-0.171"                            | GS227    | G1057 |
| 0.190-0.194"                            | GS219    | G848  |
| 0.197-0.201"                            | GS208    | G533  |
| 0.234-0.238"                            | GS213    | G926  |
| 0.258-0.262"                            | GS206    | G426  |

| CIRCULAR CRIMP TOOLS BY PART NUMBER |                          |       |
|-------------------------------------|--------------------------|-------|
| TOOL P/N                            | CIRCULAR CRIMP DIMENSION | GAGE  |
| GS101                               | 0.156-0.160"             | G445  |
| GS201                               | 0.154-0.158"             | G446  |
| GS205                               | 0.061-0.065"             | G450  |
| GS206                               | 0.258-0.262"             | G426  |
| GS208                               | 0.197-0.201"             | G533  |
| GS210                               | 0.042-0.046"             | G925  |
| GS211                               | 0.059-0.064"             | G226  |
| GS212                               | 0.080-0.084"             | G732  |
| GS213                               | 0.234-0.238"             | G926  |
| GS216                               | 0.040-0.045"             | G753  |
| GS218                               | 0.142-0.146"             | G443  |
| GS219                               | 0.190-0.194"             | G848  |
| GS221                               | 0.093-0.097"             | G881  |
| GS222                               | 0.096-0.100"             | G120  |
| GS223                               | 0.124-0.128"             | G917  |
| GS225                               | 0.086-0.090"             | G919  |
| GS226                               | 0.140-0.144"             | G1056 |
| GS227                               | 0.167-0.171"             | G1057 |
| GS8-3                               | 0.065-0.099"             | G941  |

Special Application Indent Crimp Tools



# Dedicated Application Circular Crimp Tools

## DEDICATED APPLICATION CIRCULAR CRIMP TOOLS

Some of our Circular Crimp Tools already have turrets or positioners designed to accommodate common contacts. See the tool selection charts below:

| DEDICATED APPLICATION CIRCULAR CRIMP TOOLS |  |                            |       |                       |
|--|--|----------------------------|-------|-----------------------|
| TOOL P/N                                   | APPLICATION  | CRIMP DIMENSION            | GAGE  | POSITIONERS AVAILABLE |
| GS100                                      | Tyco, Amphenol, & Radiall Contacts (See Chart)   | 0.096-0.100"               | G120  | 6                     |
| GS200                                      | Amphenol/Bendix, Radiall, & Tri-Star Contacts (See Chart Below)  | 0.142-0.146"               | G443  | 5                     |
| GS209                                      | Amphenol Intermediate Contacts<br>21-33197-10, 21-33198-10   | 0.154-0.158"               | G446  | 1                     |
| GS212                                      | Amphenol & Sabritec Contacts (See Chart Below)   | 0.080-0.084"               | G732  | 10                    |
| GS218                                      | Amphenol Contacts 10-589514-126,<br>NZGC-X50-12PB-5, NZGC-X50-12SB-5, NZGC-X75-<br>12PB-6, NZGC-X75-12SB-6 | 0.142-0.146"               | G443  | 1                     |
| GS222                                      | Positronic MC11NS, FC112N2S, FC112N2S-1565.0   | 0.096-0.100"               | G120  | 1                     |
| GS223                                      | Positronic FC610N2S, MC610NS,<br>SK4195, SK4196  | 0.124-0.128"               | G917  | 2                     |
| GS225                                      | Amphenol 21-33908-29, 21-33909-29  | 0.086-0.090"               | G919  | 1                     |
| GS227                                      | Deutsch Contact<br>59155-000-Socket, 59155-000-Pin   | 0.167- 0.171"              | G1057 | 1                     |
| GS2XE                                      | Unstripped Wire End Caps<br>Pneumatic Version: WA27XE-EP   | 0.123-0.129<br>0.134-0.140 | G719  | 1                     |
| GS8-3                                      | 8 Step Tool  | 0.065-0.099"               | G941  | 1                     |

### POSITIONER LIST FOR GS100

| POSITIONER | CONTACT MFG. & P/N  |
|------------|---|
| GP1256     | AMPHENOL 21-33655-5   |
| GP295      | SINGLE POSITIONER MIL-C-24308 OUTER PIN & SOC.                |
| GP385      | AMP P71-2979-3,4,5,6 , P71-2980-1,2                           |
| GP425      | AMP P71-2979-3, 4, 5, 6 & P71-2980-1, 2                       |
| GP475      | AMP P71-2979 , P71-2980                                       |
| GP926      | RADIALL EPX 617130, 617131, 617132,<br>617030, 617031, 617032 |

### POSITIONER LIST FOR GS212

| POSITIONER | CONTACT MFG. & P/N   |
|------------|--|
| GP1015     | DEUTSCH 533 433-4  |
| GP1120     | AMPHENOL 21-33908-3 ASS'Y                                  |
| GP1121     | AMPHENOL 21-33909-3 ASS'Y                                  |
| GP1243     | AMPHENOL 21-33754-2  |
| GP1613     | AMPHENOL 21-33908-25<br>& 21-33909-25                      |
| TH553      | Amphenol Intermediate Contacts L-38151-897,<br>L-38151-907 |
| TP1359     | SABRITEC SL-10   |
| TP1360     | SABRITEC SL-12   |
| TP1361     | SABRITEC SL-14   |
| TP1369     | SABRITEC SL-16   |

### POSITIONER LIST FOR GS200

| POSITIONER | CONTACT MFG. & P/N  |
|------------|---|
| GP1596     | TRI-STAR 317-16CX-091   |
| GP1256     | AMPHENOL 21-33655-5   |
| GP781      | INTERMEDIATE BRAID #10 TRIAXIAL CONTACT                       |
| GP926      | RADIALL EPX 617130, 617131, 617132,<br>617030, 617031, 617032 |
| G2P330     | #12 BENDIX COAX GS200   |

### POSITIONER LIST FOR GS223

| POSITIONER | CONTACT MFG. & P/N            |
|------------|-------------------------------|
| TP1386     | POSITRONIC FC610N2S & MC610NS |

### POSITIONER LIST FOR GS222

| POSITIONER | CONTACT MFG. & P/N                               |
|------------|--|
| TP1366     | POSITRONIC MC112NS; FC112N2S;<br>FC112N2S-1565.0 |

### POSITIONER LIST FOR GS209

| POSITIONER | CONTACT MFG. & P/N  |
|------------|---|
| TH551      | Amphenol 21-33197-10, 21-33198-10<br>Intermediate Contact |

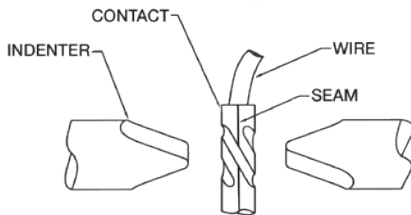
### POSITIONER LIST FOR GS225

| POSITIONER | CONTACT MFG. & P/N                 |
|------------|------------------------------------|
| GP1611     | AMPHENOL 21-33908-29 & 21-33909-29 |

# Special Application Indent Crimp Tooling

## BIASED CRIMP TOOLS (MODELS SC8 & MH993)

Our Biased Crimp tools have a 4 indent pattern with flat-tipped indenters that are offset at an angle of 45 degrees to produce a radial or spiral pattern around the wire barrel, typically used with seamed or formed barrel contacts. This indent pattern is also useful for holding springs (or spring like devices) to a tube or solid rod. We offer two Biased Crimp tools, the SC8 for sizes 12 thru 26 AWG and the MH993 for 20 thru 32 AWG.



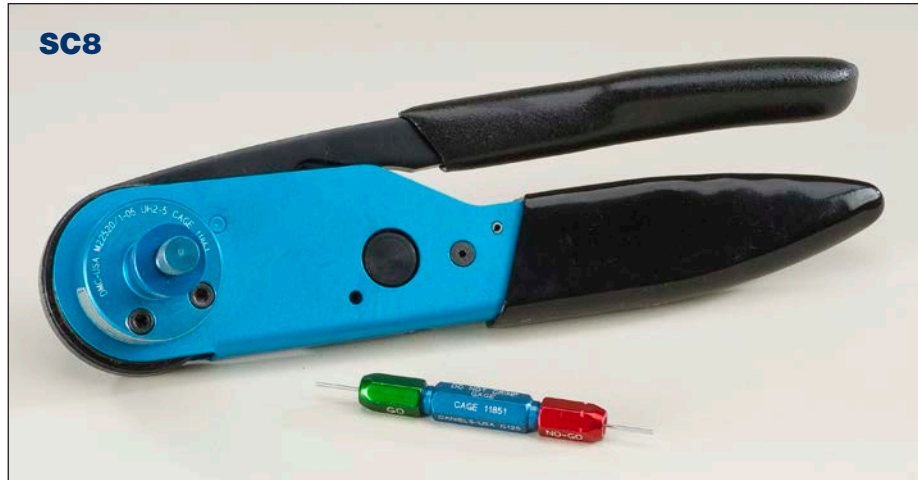
The model **SC8** has single flat-tipped indenters and accommodates wire sizes 12 thru 26 AWG (the miniature to sub-miniature range). It accommodates the TP series positioners and is easily identified by a distinctive black body and grey handle grip. It is 9¾" in length and weighs approximately 15 oz. Gaging is accomplished with the G125 "GO/NO-GO" gage.

The pneumatic power version of this tool is the WA27AJ.



The model **MH993** has double tipped indenters and accommodates wire sizes 20 thru 32 AWG (the miniature to sub-miniature range). It accommodates the K series positioners. It is 6¾" in length and weighs approximately 10 oz. Gaging is accomplished with the G125 "GO/NO-GO" gage.

The pneumatic power version of this tool is the WA22BC.



| SC8 BIASED CRIMP TOOL |             |                            |
|-----------------------|-------------|----------------------------|
| DMC P/N               | DESCRIPTION | PURPOSE                    |
| TP1189                | POSITIONER  | CONXALL 680-SG (SC8)       |
| TP1190                | POSITIONER  | CONXALL 586-SG (SC8)       |
| TP1191                | POSITIONER  | CONXALL 5053-20 GS (SC8)   |
| TP1621                | POSITIONER  | CONXALL 587-PGN5 & 586-SUN |
| G125                  | GAGE        | Go/No-Go Test for SC8      |



| MH993 BIASED CRIMP TOOL |             |                            |
|-------------------------|-------------|----------------------------|
| DMC P/N                 | DESCRIPTION | PURPOSE                    |
| K1287S                  | POSITIONER  | 610-110-101 Virginia Panel |
| K1732                   | POSITIONER  | 587-PGN5 CONXALL           |
| K1749                   | POSITIONER  | 587-PGN CONXALL            |
| K1819                   | POSITIONER  | 41023-10G1-1 ICON SYSTEMS  |
| G125                    | GAGE        | Go/No-Go Test for MH993    |



# Mid-Current Range Indent Crimp Tools



The M300BT is designed for pin and socket contacts, **AWG sizes 6-14**. This tool is available in a pneumatic version, P/N WA27-300BT-EP.

Special Application Indent Crimp Tools

| M300BT APPLICATIONS |  |
|---------------------|--|
| POSITIONER P/N      | CONTACT MFG. & PART NUMBER                           |
| SP587               | BURNDY RC14P1E0PI-RC12P1E0PI & RC10P1E0PI            |
| SP593               | SOCAPEX CONTACTS-SOURIAU 8400 TOOL                   |
| SP604               | DEUTSCH 047 1325 08 & 047 1326 08                    |
| SP708               | DEUTSCH 1841-5-5608 & 18-007-08-9056                 |
| SP858               | TYCO # 213552-2 2, 211161-1                          |
| TP1018              | ROSEMONT SST SLEEVE                                  |
| TP1029              | (MAC MISSILE SYSTEMS) U.S. NAVY                      |
| TP1031              | CROUSE HINDS 314263-110 PIN                          |
| TP1032              | CROUSE HINDS 314262-110 SOC.                         |
| TP1033              | BG SERVICE 22344-ASS'Y                               |
| TP1054              | CROUSE HINDS A600568 MINI-CHANGE STYLE III, 600565   |
| TP1055              | CROUSE HINDS A600568 STYLE MINI-LINE, 600566 GRN PIN |
| TP1059              | HARTING 09030006214, 09030006215                     |
| TP1060              | CROUSE HINDS P1315209-270, -260, -250, -240, -230    |
| TP1062              | CROUSE HINDS P314262-150, -140, -130, -120           |
| TP1064              | CROUSE HINDS P1315366-130, -120, -110                |
| TP1077              | DELTA TECH SLEEVE STOP / COIL                        |
| TP1097              | MULTI-CONTACT FRANCE 4FL 4 295 00                    |
| TP1111              | AMPHENOL SOCAPEX 17DM53745-201, 17DM53744-201        |
| TP1114              | HYPERTRONICS YSK035-058GT                            |
| TP1151              | TYCO 212007, 212008, 211159 & 211161                 |
| TP1159              | RADIALL 616366                                       |

| M300BT APPLICATIONS |  |
|---------------------|--|
| POSITIONER P/N      | CONTACT MFG. & PART NUMBER                 |
| TP1169              | BURNDY 82911679N                           |
| TP1188              | AMPHENOL SOCAPEX 900198-91                 |
| TP1193              | CKB S24923-000A3                           |
| TP1194              | CKB S24924-000 A3                          |
| TP1222              | WIELAND Z2 124 9521 0                      |
| TP1240              | REF. FISCHER WIRE & PLASTIC                |
| TP1286              | MULTI-CONTACT 7-1261-01e & 7-2102-08       |
| TP1318              | SOURIAU 8902-210 & 8902-225                |
| TP1378              | CORY CMP004-103 & FCT FMP004-              |
| TP1401              | GAUTHIER G7500-P10-A0                      |
| TP1404              | BURNDY 360J2224B7                          |
| TP714               | SOURIAU 8476-28, 57888, 62622              |
| TP799               | 8476-206                                   |
| TP800               | 8476-207                                   |
| TP823               | RADIALL 282 551                            |
| TP826               | ITT CANNON CDR897-0003, -0006              |
| TP827               | ITT CANNON CDR897-0004, -0007              |
| TP852               | CONTACT # E. F. JOHNSON P/N 12-2989-0528-7 |
| TP870               | ITT CANNON #031-0909-000, 031-0908-000     |
| TP887               | MULTI-CONTACT USA 05,0004                  |
| TP894               | INTERCONNEXION CB-148-8-P, CD132-8-S       |
| TP905               | JUPITER M-8-MS, K-8-MS OCETA               |
| TP907               | AECMA EN3155-044, EN3155-045               |
| TP908               | FRB CONNECTRON 0350-24                     |

| M300BT APPLICATIONS |  |
|---------------------|--|
| POSITIONER P/N      | CONTACT MFG. & PART NUMBER   |
| TP910               | FRB CONNECTRON 80-0200, 0200-47  |
| TP916               | SOURIAU 8819-118, 8819-119   |
| TP924               | SN 2377K100  |
| TP927               | LIVINGSTON 51469-1 (OCETA)   |
| TP929               | ELCON 702-31-01107   |
| TP936               | SOURIAU 8819-176 & -177  |
| TP967               | ITT CANNON 020436Y0000, 020437Y0000 SIZE 12  |
| TP968               | ITT CANNON 020434Y0000, 020435Y0000 SIZE 8 & 12  |
| TP978               | C.K.B. 0371-0004AS0, 0371-0003AS0  |
| TP982               | AMPHENOL 17-766-02   |
| TP986               | AIR LB P/N 001104-620 & 001104-630   |
| TH558               | BURNDY 3401040   |
| TH579               | Siemens Industrial Automation 6FX2003-5AA00 (Conductor) Siemens Industrial Automation 6FX2003-5AB00 (Insulation) |
| TH580               | Siemens Industrial Automation 6FX2003-5AC00 (16 & 12 Conductor, Insulation)                                      |
| TH581               | Siemens Industrial Automation 6FX2003-5AD00 (Conductor, Insulation)  |
| TH632               | Siemens Industrial Automation 6FX2003-5AC00 (10 & 8 Conductor, Insulation)                                       |
| TH640               | Siemens Industrial Automation 6FX2003-4AB00 (Conductor, Insulation)  |
| TH641               | Siemens Industrial Automation 6FX2003-4AC00 (16 & 12 Conductor, Insulation)                                      |

# Mid-Current Range Indent Crimp Tools



The M309 is designed for pin and socket contacts, AWG sizes 8-18. This tool is available in pneumatic versions, P/Ns WA27-309-2C, WA27-309, WA27-309-EP.

| M309 APPLICATIONS |  |
|-------------------|--|
| POSITIONER P/N    | CONTACT MFG. & PART NUMBER                           |
| TP1014            | REF EWC  |
| TP1058            | HARTING 09030006213                                  |
| TP1061            | CROUSE HINDS P1315209-210                            |
| TP1063            | CROUSE HINDS P314262-110                             |
| TP1067            | CROUSE HINDS 1463105-110, -120, 1463106-110, -120    |
| TP1071            | FCT FMP002P-, 002P-A, ETC.                           |
| TP1072            | FMP002 & -, 002S-A, ETC.                             |
| TP1073            | FCT FMP01-, FMP043S                                  |
| TP1074            | FCT FMP018S -, FMP043S                               |
| TP1075            | FMP018P -, 043P                                      |
| TP1087            | CROUSE HINDS 600221                                  |
| TP1094            | TYCO 193796-1, 193797-1, 193841-1, 19382-1           |
| TP1116            | POSITRONIC *C4008D, *C4012D, *C4016D                 |
| TP1122            | M50130A  |
| TP1123            | T & B 222-14-148 OR HARTING 0903006215               |
| TP1124            | TYCO 2-194035-2, -4, -5, -7, -8, & 3-19035-1, -0, -3 |
| TP1125            | TYCO 194032-5, -7                                    |
| TP1132            | SOURIAU 8291-1682, 8-1683N                           |
| TP1138            | CONMED 20063   |
| TP1141            | NABSON 062095  |

| M309 APPLICATIONS |   |
|-------------------|---|
| POSITIONER P/N    | CONTACT MFG. & PART NUMBER  |
| TP1150            | MULTI-CONTACT 32-0100 & 32-0500                                   |
| TP1152            | ODU 345 24 2315 401   |
| TP1156            | BOSTON SCIENTIFIC Corporation BURNDY CONNECTOR                    |
| TP1164            | SODERBER DS0009B  |
| TP1179            | HYPERTRONICS YPN025-002G, YSK025-003AH, YPN025-003G, YSK025-004AH |
| TP1214            | TYCO 212007-1 / 212008-1  |
| TP1221            | TYCO 194245   |
| TP1224            | TYCO 212013-1 & 212014-1  |
| TP1235            | TYCO 194189   |
| TP1244            | GM POWERTRAIN SOCKET CONTACT                                      |
| TP1247            | TYCO 193846-1   |
| TP1264            | CONEC 610FET1A  |
| TP1265            | CONEC 610FET2A  |
| TP1266            | BURNDY JVSP00080B & JVSS00080B                                    |
| TP1284            | HYPERTRONICS YSK025-031 & YPN025-024                              |
| TP1296            | WIELAND Z2 124 9521 0   |
| TP1317            | GEOSERVICES 4805-136  |
| TP1320            | RETCONN 22-1013 & 22-1036   |



The M300-25A is designed for Amphenol-Sine Starline pin and socket contacts, AWG sizes 10-18. This tool is available in a pneumatic version, P/N

| M300-25A APPLICATIONS |                                  |
|-----------------------|----------------------------------|
| POSITIONER P/N        | CONTACT MFG. & PART NUMBER       |
| TP682-1               | PYLE NAT. # 16 & #18             |
| TP683-1               | PYLE NAT. #12 PINS               |
| TP684-1               | PYLE NAT. #10 P&S, & #12 SOCKETS |

Special Application Indent Crimp Tools

# Mid-Current Range Adjustable Indent Crimp Tools



The **M310** is designed for pin and socket contacts, **AWG sizes 8-16** and has an enlarged crimp cavity to accommodate oversized contacts.



The **M321** is designed for the rail transportation industry.

## M317 APPLICATIONS

| POSITIONER P/N | CONTACT MFG. & PART NUMBER  |
|----------------|---|
| TP1002         | CKB CC1000COM006, CC1000COF006  |
| TP1023         | CKB SE0801-109 & SE0801-108   |
| TP1024         | CKB S24296-000B3 & S24263-000B3   |
| TP1035         | CKB S24265-000A3  |
| TP1036         | CKB S24298-000A3  |
| TP1044         | SOURIAU 8819-176, -177 (SIMILAR TP936 EXCEPT FOR M317)  |
| TP1045         | SOURIAU 8819-118, 8819-119  |
| TP1052         | BURNDY J383S1K-0006A01, J383P1K-0006A01   |
| TP1065         | CKB SE1239-007 (P), SE0692-130 (S)  |
| TP1080         | CKB 669-65 & 669-67   |
| TP1131         | AMPHENOL SOCAPEX 17DM53744-201, -206, -207, 17DM53745-201, -207, -208                                       |
| TP1161         | F.C.F. 10A-8638PPC100X, 10A-8638PSC100X, 20A-8638PPC200X, 20A-8638PSC200X, 40A-8638PPC400X, 40A-8638PSC400X |
| TP1163         | FRB CONNECTRON 0200-47/80-0200  |
| TP1338         | CKB SOCKET CONTACT  |
| TP1339         | CKB PIN CONTACT   |
| TP805          | FRB CONTACTS 0350B11, -B12, -B13, 11-0350, 12-0350, 13-0350   |
| TP909          | FRB CONNECTRON 0200-42, 73-0200   |
| TP911          | FRB CONNECTRON 0300-21, 0300-17, 34-0300, 0300-23, 39-0300  |
| TP912          | FRB CONNECTRON 38 0300  |
| TP957          | HARTING 0932 000 6107, 6207, 6108, 6208   |
| TP971          | C.K.B. 0572-1016A4A   |

## M310 APPLICATIONS

| POSITIONER P/N | CONTACT MFG. & PART NUMBER                                  |
|----------------|---|
| TP1008         | US AIR F18008-08-9056                                       |
| TP1013         | TYCO 193796-1, 193797-1, 193841-1, 193842-1                 |
| TP1019         | TYCO 193837-1   |
| TP1020         | TYCO 193837-2, -3   |
| TP1021         | TYCO 193673-1   |
| TP1022         | TYCO 193673-2, -3   |
| TP1030         | 3M CD353  |
| TP1040         | ARRAY 806-0598-000 & 857-0590-130                           |
| TP1041         | ARRAY 806-0599-00A, -00B & 857-0591-130/A, -130/B           |
| TP1042         | ARRAY 806-0599-000 & 857-0591-130                           |
| TP1068         | TYCO 193990 & 193991 TYPE XII ("S" REMOVED PER AMP)         |
| TP1088         | TYCO 193991-1 & -3 ("S" REMOVED PER AMP)                    |
| TP1154         | REF. AC & E INDUSTRIES                                      |
| TP1162         | HYPERTRONICS YPN006-124H                                    |
| TP1216         | POSITRONIC INDUS.   |
| TP1232         | HYPERTRONICS YPN035-005, -006, -007, YSK035-009, -010, -011 |
| TP792          | HYPERTRONICS YPN015-031, YSK015-041                         |
| TP793          | HYPERTRONICS YSK025-011 + -02, YPN025-009 + -010            |

## M310 APPLICATIONS

| POSITIONER P/N | CONTACT MFG. & PART NUMBER                   |
|----------------|--|
| TP802          | FOR FRB CONTACTS 34-0300, 0300-12, 0300-17   |
| TP806          | FRB CONTACTS 0200-03, 0200-29, 0200-36 SOC.  |
| TP807          | FRB CONTACTS 31-0200, 58-0200, 64-0200 PIN   |
| TP813          | JUPITER CONTACTS BM-2611-5038ST-BF-201-150ST |
| TP814          | FOR FRB CONTACT 29-0300                      |
| TP880          | SMIT SLIKKERVEER #F-187306, #F-187307        |
| TP890          | FRB 0250-B-17G, -20G, 18-0250G, 20-0250G     |
| TP891          | FRB 13-0350G, 0350-B13G, 0350G, 0350-B-12G   |
| TP902          | HYPERTAC HST154 PIN, HST153 SOC              |
| TP935          | HYPERTRONICS YSK035-02G, ETC.                |
| TP942          | HYPERTRONICS YSK035-048                      |
| TP944          | TYCO M310 USE TP944-1 WITH WA27-309-EP       |
| TP965          | FRB CONNECTRON 0300-20, 0300-24              |
| TP974          | POSITRONICS                                  |
| TP999          | CONNEI 16600,16601                           |

## OTHER MID-RANGE TOOLS

The **M316** is designed for crimping Sundstrand Aviation contacts #5905143 onto 16 AWG solid wire.

The **M322** is designed for Therm-X Terminal Assembly (pin and socket) contacts.

The **M327** is designed for Greene Tweed 5672-1998 (pin and socket) contacts.





# Mid-Current Range Adjustable Indent Crimp Tools



**WA27-309-EP**



**WA27-300BT-EP**



For power supply and power management applications, DMC offers our Industrial Mid-Current Range Adjustable Crimp Tools which have virtually limitless applications within the specified **wire range of 6 through 18 AWG**. The tools are used widely in the marine, rail, power generation, solar, and heavy transportation industries.

The Mid-Current Range Adjustable Crimp Tools are similar to our Standard Adjustable Indent Crimp Tool but have an enlarged crimp cavity to accommodate mid-current power contacts. Turret heads and positioners are available to adapt the tool frames to your specific contact/wire combination. The 8 impression crimp assures absolute maximum tensile strength with almost every closed barrel contact. Special indent configurations are available upon request.

For proper operation, the tool must be mated with a multi-position turret head (or a single-position positioner). These are attached by orienting the positioner in the keyed position and by tightening the hex socket screws provided as part of the positioner.

A permanent dataplate is affixed to all turret heads and positioners. This plate lists specific contact part numbers, the corresponding position color code (for 3 position turret heads), and suggested selector depth settings for the wire size being used.

On most models, crimp depth is controlled by a position selector knob located

on the tool frame. The operator simply dials the desired step for the wire being used. This setting can be secured by use of a locking pin or safety wire.

As with our Military Standard crimp tools, the cycle controlled ratchet assures a complete crimp every time. The carefully engineered design achieves the absolute maximum mechanical advantage.

Periodic gaging is recommended to insure accurate calibration. This can be done easily by setting the tool selector knob to the designated position and checking indenter closure with the "GO/NO-GO" gage designated for each tool.

These tools measure 9<sup>3</sup>/<sub>4</sub>" x 2<sup>1</sup>/<sub>2</sub>" x 1<sup>1</sup>/<sub>4</sub>" approximately and weighs less than a pound.

**NOTE:** Crimping wires and contacts in this range requires increased hand force in comparison with other common hand crimpers, therefore use of this hand tool should be limited to short run production and maintenance applications. There is a specified indenter closure that can be confirmed with the "GO/NO-GO" gage designated for each tool.

These tools measure 9<sup>3</sup>/<sub>4</sub>" x 2<sup>1</sup>/<sub>2</sub>" x 1<sup>1</sup>/<sub>4</sub>" approximately and weighs less than a pound.

## MID-CURRENT RANGE PNEUMATIC TOOLS

**WA27-300BT-EP** is the pneumatic equivalent to the M300BT, length 15", diameter 2.75", weight 119 oz.

**WA27-309-2C** is the pneumatic equivalent to the M309, covering all 8 selector settings, length 12", diameter 2.75", weight 80 oz.

**WA27-309** is the pneumatic equivalent to the M309, covering the lower 4 selector settings for AWG sizes 12-18, length 10", diameter 2.75", weight 50 oz.

**WA27-309-EP** is the pneumatic equivalent to the M309, with an extra pneumatic cylinder which provides more power for crimping the upper 4 selector settings for AWG sizes 8-14, length 15", diameter 2.75", weight 119 oz.



The **M320** is designed for Siemens Industrial Automation contacts, 6FX2003 Series. The M320 crimps both the conductor and the insulation. This tool is not available in a pneumatic version.

## M320 APPLICATIONS

| POSITIONER P/N | CONTACT MFG. & PART NUMBER  |
|----------------|---|
| TH579-1        | Siemens Industrial Automation 6FX2003-5AA00 (Conductor)<br>Siemens Industrial Automation 6FX2003-5AB00 (Insulation) |
| TH580-1        | Siemens Industrial Automation 6FX2003-5AC00 (12 & 16 Conductor, Insulation)   |
| TH581-1        | Siemens Industrial Automation 6FX2003-5AD00 (Conductor, Insulation)   |

# Dedicated Application Indent Crimp Tooling

## TWO-LEVEL INDENT CRIMP TOOL FOR BURNDY YHMM SERIES CONTACTS (MODEL LH8)

The LH8 tool produces both conductor and insulation crimps simultaneously on Burndy YHMM series contacts used in many aircraft wiring systems (Boeing contact designations BACC47DE4 & BACC47DE5). It is functionally comparable to the Burndy M10S-1 crimp tool with S1 Die & SL-53 Stop Bushing (Combination).

The tool comes with a dedicated turret head positioner, LH281. It is gaged with gages G687 for the conductor & G743 for the insulation. The tool is approximately 9 $\frac{3}{4}$ " x 2 $\frac{1}{2}$ " x 1 $\frac{1}{4}$ " and weighs 15 oz. The pneumatic power version of this tool is the WA27LH.



## MIL-C-22442/32-1 CLAMPING RING CRIMP TOOL

The GS217 is designed to crimp clamping and retaining rings onto cable or wire in accordance with MIL-C-22442/32-1. The tool has 3 selector settings which crimp from 0.150 to 0.195". The tool is approximately 9 $\frac{3}{4}$ " x 2 $\frac{1}{2}$ " x 1 $\frac{1}{4}$ " and weighs 15 oz.

The pneumatic power version of this tool is the WA27AD. The assigned Turret Head is the SH556 which accepts cable diameters from 0.110" to 0.195". Positioner TP975 is also available to crimp Astrocom Electronics' Clamping Ring P/N 20822.



Other special indent tools are available, please consult DMC.

# Special Application Indent Crimp Tooling

## ULTRA PRECISION CRIMP TOOL (MODEL MH800)

All DMC tools are designed and built to the highest standards of precision and quality, but some applications call for more. One such case is contacts which have extremely thin wire barrel dimensions. The answer to this demand is the model **MH800** Ultra Precision Crimp Tool, which utilizes the same basic components as the Model AFM8 (M22520/2-01) Crimp Tool with tighter gaging tolerances and a special indenter tip configuration that assures a uniform flow of metal during the crimping operation.

The model **MH800** accommodates wire sizes 20 thru 32 AWG (the miniature to sub-miniature range). It accommodates the K series or M22520/2-XX positioners and is easily identified by a distinctive orange handle grip. It is 6¾" in length and weighs approximately 10 oz. Gaging is accomplished with the G100 "GO/NO-GO" gage. The pneumatic power version of this tool is the WA22H.



## MH820 S5 STEEL INDENTER CRIMP TOOL

The **MH820** S5 Steel Indenter Crimp Tool is similar to the AFM8 miniature adjustable indent crimp tool.

The **MH820** has 8 crimp settings from 0.011" to 0.038" and is gaged with the G212 Go/No-Go gage. The tool is 6¾" in

length and weighs approximately 10 oz. The pneumatic power version of this tool is the WA22M.

| MH800 POSITIONERS |             |  |
|-------------------|-------------|--|
| P/N               | DESCRIPTION | PURPOSE  |
| K4                | POSITIONER  | 2202-16-0101 PIN, 2203-8-0101 PIN STK Deutsch  |
| K5                | POSITIONER  | 2202-17-0101 SOC, 2203-9-0101 SOC STK Deutsch  |
| K30C              | POSITIONER  | TE/Deutsch Coax  |
| K127              | POSITIONER  | 2841-5-++00 RSM<br>2803-4-++00 RSM<br>100060-++TJ<br>2841-13-++00 RSM<br>2803-10-++00 RSM<br>Deutsch |
| G100              | GAGE        | Go/No-Go Test for MH800  |

Other Positioners Available

| MH820 POSITIONERS |             |                                  |
|-------------------|-------------|----------------------------------|
| P/N               | DESCRIPTION | PURPOSE                          |
| K277              | POSITIONER  | 221-759P, 357-301-03 Amphenol    |
| K1572SP           | POSITIONER  | 582-110-2828 (Socket) Amphenol   |
| K1573             | POSITIONER  | 582-110-28283 Amphenol           |
| K1740S            | POSITIONER  | ACB4P, ACB4S Center Contact Axon |
| G212              | GAGE        | Go/No-Go Test for MH820          |

Other Positioners Available



# Special Application Indent Crimp Tooling

To keep pace with the most recent developments in technology, DMC is often called upon to custom engineer tooling for the medical, telecommunication, electronics, aerospace, and alternative energy industries. Some of these applications require unique indent configurations, special materials, and multi-stage crimp terminations. Some of the special application tools we've developed are listed on the following pages.

DMC is ready and capable to help satisfy your tooling needs with custom engineered tools and dies. Contact us with your requirements.

## FINE TIPPED INDENTER TOOLS (MODELS MH835 & MH992)

The **MH835 & MH992** Fine Tipped Indenter tools are similar to the AFM8 miniature adjustable indent crimp tool, but have sharper indenter tips measuring .07 inches. The **MH835** tool produces a 4-indent crimp while the **MH992** tool produces an 8-indent crimp.

The **MH835** has 8 crimp settings from 0.0070" to 0.0325" and is gaged with the G619 Go/No-Go gage. The pneumatic power version of this tool is the **WA22BH**.

The **MH992** has 8 crimp settings from 0.0070" to 0.0330" and is gaged with the G822 Go/No-Go gage. The tool is 6¾" in length and weighs approximately 10 oz. The pneumatic power version of this tool is the **WA22AE**.

| MH835 POSITIONERS |             |                           |
|-------------------|-------------|---------------------------|
| P/N               | DESCRIPTION | PURPOSE                   |
| K1618             | POSITIONER  | 2999803003 Cinch          |
| K1643             | POSITIONER  | B882D05 ATI               |
| K1688S            | POSITIONER  | 92286 NDC Nitinol         |
| K1705             | POSITIONER  | D4601-L3 Signal Integrity |
| K1706             | POSITIONER  | E5656-H8 Signal Integrity |
| K1735S            | POSITIONER  | 100.005.955 Kistler       |
| K1754SP           | POSITIONER  | 8300-0165 Ulti-Mate       |
| K1761SP           | POSITIONER  | 30/30/00/000 Glenair      |
| K1762             | POSITIONER  | 31/30/00/000 Glenair      |
| G619              | GAGE        | Go/No-Go Test for MH835   |

Other Positioners Available

| MH992 POSITIONERS |             |   |
|-------------------|-------------|---|
| P/N               | DESCRIPTION | PURPOSE                                   |
| K1072             | POSITIONER  | Tri-Tech                                  |
| K1183S            | POSITIONER  | D1003, Eli Connectors                     |
| K1303S            | POSITIONER  | M39029/102-558 SKT TE Deutsch             |
| K1304             | POSITIONER  | M39029/103-559 PIN TE Deutsch             |
| K1360             | POSITIONER  | 21-33664-7M, 21-3365-7M Amphenol          |
| K1409             | POSITIONER  | Rosenberger                               |
| K1597             | POSITIONER  | Packets D-G Cook Inc                      |
| K1605             | POSITIONER  | 6362-223-1231 Deutsch                     |
| K1624             | POSITIONER  | 2999804004 Cinch                          |
| K1631             | POSITIONER  | 6362-226-1231, 6362-227-1231 Deutsch      |
| K1632             | POSITIONER  | Medical Implant Cochler                   |
| K1702S            | POSITIONER  | .028x.100LG Ferrule Accellent             |
| K1704S            | POSITIONER  | #12 Quadrax Pin/Socket W. L. Gore & Assoc |
| K1709S            | POSITIONER  | 3362-204-1231 Deutsch                     |
| K1721             | POSITIONER  | 859-006 Glenair                           |
| K1730S            | POSITIONER  | 857-000-280 Ultra Precision               |
| K1733S            | POSITIONER  | 3061-0-19-xx-21-xx10-0 Mill-Max           |
| K1734S            | POSITIONER  | ETH4-0011A-D ETH4-0012A-D Souriau         |
| K1739             | POSITIONER  | 1996972-2 Tyco                            |
| K1744             | POSITIONER  | 610870 Deutsch                            |
| K1751S            | POSITIONER  | TEM Samtec                                |
| K1752S            | POSITIONER  | C-295-XX-X Samtec                         |
| K1755             | POSITIONER  | 1996972-2 Tyco                            |
| G822              | GAGE        | Go/No-Go Test for MH992                   |

Other Positioners Available

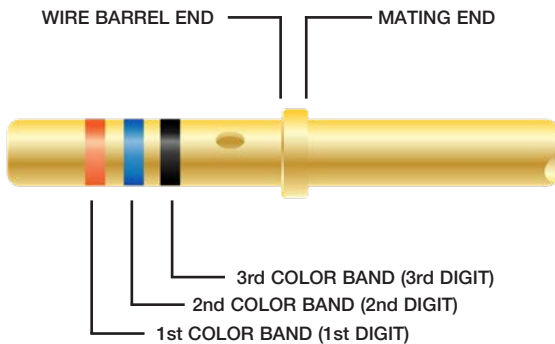


# Technical Application Guide For Contacts and Connectors

## TYPICAL CABLE CONNECTOR



## CONTACT COLOR CODE AND BIN\*



|                  |                  |
|------------------|------------------|
| 0 - Black (BLK)  | 5 - Green (GRE)  |
| 1 - Brown (BRN)  | 6 - Blue (BLU)   |
| 2 - Red (RED)    | 7 - Violet (VIO) |
| 3 - Orange (ORN) | 8 - Gray (GRA)   |
| 4 - Yellow (YEL) | 9 - White (WHI)  |

\*BASIC IDENTIFICATION NUMBER

- Example shown: 360 (Orange, Blue, Black)
- Manufacturers have the option of identifying contacts by stamping the BIN code on the shoulder or the wire barrel (size 16 and larger).

### DISCLAIMER OF LIABILITY

The information contained in this [Tooling Guide for High-Reliability Wiring Systems](#) has been compiled by DMC from various sources, including its own documentation. It is presented as an aid to assist DMC's own customers and potential customers in selecting appropriate tooling for the assembly and maintenance of electrical wiring systems.

While DMC believes this information to be accurate, due to the complexity and volume of the information presented, DMC MUST AND DOES DISCLAIM ANY WARRANTY FOR ITS ACCURACY.

IN NO EVENT SHALL DMC BE LIABLE FOR CONSEQUENTIAL, INCIDENTAL, SPECIAL OR OTHER TYPES OF DAMAGES, LOSS OF ANTICIPATED PROFITS OR FOR ANY OTHER DAMAGES RESULTING FROM THE USE OF THE INFORMATION PRESENTED HEREIN.

# M39029 Contact Quick Location Chart

| CONTACT PART NUMBER    | PAGE NUMBER    | CONTACT PART NUMBER    | PAGE NUMBER                | CONTACT PART NUMBER    | PAGE NUMBER                                | CONTACT PART NUMBER     | PAGE NUMBER        |
|------------------------|----------------|------------------------|----------------------------|------------------------|--|-------------------------|--------------------|
| M39029/1               | 62             | M39029/28 <sup>1</sup> | 41, 81                     | M39029/58              | 30, 39, 41, 42, 45, 46, 60, 64, 65, 66, 67 | M39029/90 <sup>1</sup>  | 42, 45, 46         |
| M39029/2               | 54             | M39029/29              | 49, 58, 99, 100            | M39029/59 <sup>1</sup> | 30,82                                      | M39029/91 <sup>1</sup>  | 45                 |
| M39029/3               | 54             | M39029/30              | 49, 58, 99, 100            | M39029/60 <sup>1</sup> | 30   | M39029/92 <sup>4</sup>  | Not Shown          |
| M39029/4               | 32, 56, 59, 60 | M39029/31              | 31, 33, 34, 38             | M39029/63              | 30   | M39029/93               | 57                 |
| M39029/5               | 32, 56, 59, 60 | M39029/32              | 31, 33, 34, 38             | M39029/64              | 30   | M39029/94               | 57                 |
| M39029/6 <sup>1</sup>  | CANCELED       | M39029/33              | 50                         | M39029/65              | CANCELED                                   | M39029/95               | CANCELED           |
| M39029/7 <sup>1</sup>  | 32, 80         | M39029/34              | 35                         | M39029/66              | CANCELED                                   | M39029/96 <sup>1</sup>  | CANCELED           |
| M39029/8               | 32, 80         | M39029/35              | 35                         | M39029/68              | CANCELED                                   | M39029/97 <sup>1</sup>  | 57                 |
| M39029/9 <sup>3</sup>  | 32, 53, 56     | M39029/36              | 35                         | M39029/69              | 61   | M39029/98 <sup>1</sup>  | 57                 |
| M39029/10 <sup>3</sup> | 53, 56         | M39029/37              | 35                         | M39029/70              | 61   | M39029/99 <sup>1</sup>  | CANCELED           |
| M39029/11              | 55             | M39029/38              | CANCELED                   | M39029/71 <sup>2</sup> | Wirewrap                                   | M39029/100 <sup>1</sup> | CANCELED           |
| M39029/12              | 55             | M39029/40              | CANCELED                   | M39029/72 <sup>2</sup> | Wirewrap                                   | M39029/101 <sup>4</sup> | Inactive           |
| M39029/13 <sup>1</sup> | CANCELED       | M39029/41              | CANCELED                   | M39029/73 <sup>1</sup> | 59   | M39029/102 <sup>1</sup> | 39, 41, 42, 46, 82 |
| M39029/14 <sup>1</sup> | CANCELED       | M39029/42              | CANCELED                   | M39029/74 <sup>1</sup> | 39, 42, 46                                 | M39029/103 <sup>1</sup> | 39, 42, 46         |
| M39029/15              | CANCELED       | M39029/43              | CANCELED                   | M39029/75 <sup>1</sup> | 39, 42, 45, 46, 82                         | M39029/104 <sup>1</sup> | CANCELED           |
| M39029/16              | 53             | M39029/44              | 48, 99, 100, 101           | M39029/76 <sup>1</sup> | 39, 42, 46, 82                             | M39029/105 <sup>1</sup> | CANCELED           |
| M39029/17              | 52             | M39029/45              | 48, 99,100, 102            | M39029/77 <sup>1</sup> | 39, 42, 46, 82                             | M39029/106              | CALL DMC           |
| M39029/18              | 52, 53         | M39029/46              | 48, 99, 100, 101, 102      | M39029/78 <sup>1</sup> | 39, 42, 46, 82                             | M39029/107              | CALL DMC           |
| M39029/19 <sup>1</sup> | 52, 80         | M39029/47              | 50, 51                     | M39029/79 <sup>1</sup> | Inactive                                   | M39029/108              | CANCELED           |
| M39029/20 <sup>1</sup> | 52, 80         | M39029/48              | 29, 50, 99, 100            | M39029/80 <sup>1</sup> | Inactive                                   | M39029/109              | CANCELED           |
| M39029/21 <sup>1</sup> | 80             | M39029/49              | 29, 99, 100                | M39029/83              | 37   | M39029/113              | 45                 |
| M39029/22              | 52, 53, 63,    | M39029/50 <sup>1</sup> | 59, 60, 81                 | M39029/84              | 37   | M39029/114              | 45                 |
| M39029/23 <sup>1</sup> | CALL DMC       | M39029/51 <sup>1</sup> | 59, 60, 81                 | M39029/85 <sup>3</sup> | 49, 58                                     | M39029/117              | 40, 43, 47         |
| M39029/24 <sup>1</sup> | CALL DMC       | M39029/54 <sup>1</sup> | 33, 81                     | M39029/86 <sup>3</sup> | CALL DMC                                   | M39029/118              | 40, 43, 47         |
| M39029/25 <sup>1</sup> | 31, 80         | M39029/55 <sup>1</sup> | 33, 81                     | M39029/87 <sup>3</sup> | 30, 39, 42, 46, 60                         | M39029/121              | 44                 |
| M39029/26 <sup>1</sup> | 31, 81         | M39029/56              | 39, 42, 45, 46, 100        | M39029/88 <sup>3</sup> | 39   | M39029/122              | 44                 |
| M39029/27 <sup>1</sup> | 41, 81         | M39029/57              | 30, 41, 60, 64, 65, 66, 67 | M39029/89 <sup>3</sup> | 30, 41, 60                                 |                         |                    |

<sup>1</sup>shielded or coax/twinax  
<sup>2</sup>not crimp barrel contacts

<sup>3</sup>thermocouple contacts  
<sup>4</sup>contacts for relay socket — not a connector

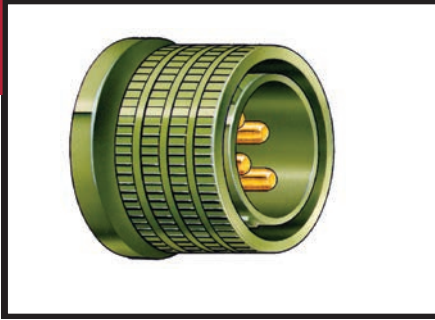
**QPL (Qualified Product List) sources listed in the following charts may change. Verify source QPL status at the following website: <https://www.navair.navy.mil/qpl/>**

DMC does not provide connectors, contacts or wiring components. Parts shown here are for reference only. See disclaimer of liability on page 27.

Application Guide Contacts & Connectors



# MIL-DTL-22992 CLASS L



## CIRCULAR HEAVY DUTY FRONT RELEASE CONTACTS

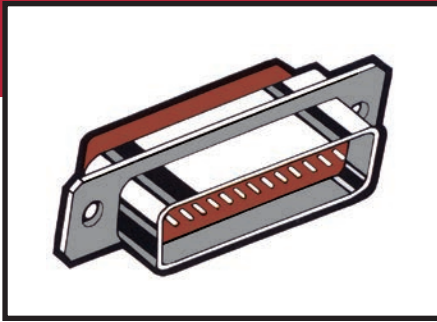
| CONNECTOR P/N | DESCRIPTION           | QPL SOURCES   |
|---------------|-----------------------|---|
| MS90555       | WALL MOUNT RECEPTACLE | AMPHENOL, SPACECRAFT COMPONENTS, SPI, LEXTM3 SYSTEMS, ROBERT TECHNOLOGIES |
| MS90556       | STRAIGHT PLUG         |   |
| MS90557       | IN-LINE RECEPTACLE    |   |
| MS90558       | WALL MOUNT PLUG       |   |

| CONTACTS | SIZE (AWG)                           |             | PIN/SKT. | PART NUMBER (CURRENT) | PART NUMBER (SUPERSEDED) | WIRE RANGE |     |
|----------|--------------------------------------|-------------|----------|-----------------------|--------------------------|------------|-----|
|          | MATING END                           | WIRE BARREL |          |                       |                          |            |     |
|          | 6                                    | 6           | P        | M39029/48-317         | MS90559-11               | 6          |     |
|          | 6N                                   | 6           | P        | M39029/48-318         | MS90559-12               | 6          |     |
|          | 6G                                   | 6           | P        | M39029/48-319         | MS90559-14               | 6          |     |
|          | 6                                    | 6           | S        | M39029/49-329         | MS90560-7                | 6          |     |
|          | 6G                                   | 6           | S        | M39029/49-330         | MS90560-8                | 6          |     |
|          | 4                                    | 4           | P        | M39029/48-320         | MS90559-8                | 4          |     |
|          | 4N                                   | 4           | P        | M39029/48-321         | MS90559-9                | 4          |     |
|          | 4G                                   | 4           | P        | M39029/48-322         | MS90559-13               | 4          |     |
|          | 4                                    | 4           | S        | M39029/49-331         | MS90560-5                | 4          |     |
|          | 4G                                   | 4           | S        | M39029/49-332         | MS90560-9                | 4          |     |
|          | 0                                    | 0           | P        | M39029/48-323         | MS90559-5                | 0          |     |
|          | 0N                                   | 0           | P        | M39029/48-324         | MS90559-6                | 0          |     |
|          | 0                                    | 0           | S        | M39029/49-333         | MS90560-3                | 0          |     |
|          | 2/0                                  | 2/0         | P        | M39029/48-325         | MS90559-3                | 2/0        |     |
|          | 2/0N                                 | 2/0         | P        | M39029/48-326         | MS90559-3                | 2/0        |     |
|          | 2/0                                  | 2/0         | S        | M39029/49-334         | MS90560-2                | 2/0        |     |
|          | 4/0                                  | 4/0         | P        | M39029/48-327         | MS90559-1                | 4/0        |     |
|          | 4/0N                                 | 4/0         | P        | M39029/48-328         | MS90559-2                | 4/0        |     |
|          | <b>TYPICAL CONTACT CONFIGURATION</b> | 4/0         | 4/0      | S                     | M39029/49-335            | MS90560-1  | 4/0 |

Application Guide Contacts & Connectors

| TOOL SELECTION |                      | CRIMP TOOL AND ACCESSORY |      |       |            |            | ASSEMBLY TOOLS |           |
|----------------|----------------------|--------------------------|------|-------|------------|------------|----------------|-----------|
| BIN*           | COLOR                | AF8                      | AFM8 | MH860 | WA23 (POS) | WA23 (DIE) | INSTALLING     | REMOVAL   |
| 317            | Orange-Brown-Violet  |                          |      |       | WA23-10    | WA23-3     | NONE REQ.      | DRK178-6A |
| 318            | Orange-Brown-Gray    |                          |      |       | WA23-10    | WA23-3     | NONE REQ.      | DRK178-6A |
| 319            | Orange-Brown-White   |                          |      |       | WA23-10    | WA23-3     | NONE REQ.      | DRK178-6A |
| 329            | Orange-Red-White     |                          |      |       | WA23-10    | WA23-3     | NONE REQ.      | DRK178-6A |
| 330            | Orange-Orange-Black  |                          |      |       | WA23-10    | WA23-3     | NONE REQ.      | DRK178-6A |
| 320            | Orange-Red-Black     |                          |      |       | WA23-12    | WA23-4     | NONE REQ.      | DRK178-5A |
| 321            | Orange-Red-Brown     |                          |      |       | WA23-12    | WA23-4     | NONE REQ.      | DRK178-5A |
| 322            | Orange-Red-Red       |                          |      |       | WA23-12    | WA23-4     | NONE REQ.      | DRK178-5A |
| 331            | Orange-Orange-Brown  |                          |      |       | WA23-12    | WA23-4     | NONE REQ.      | DRK178-5A |
| 332            | Orange-Orange-Red    |                          |      |       | WA23-12    | WA23-4     | NONE REQ.      | DRK178-5A |
| 323            | Orange-Red-Orange    |                          |      |       | WA23-14    | WA23-5     | NONE REQ.      | DRK178-3A |
| 324            | Orange-Red-Yellow    |                          |      |       | WA23-14    | WA23-5     | NONE REQ.      | DRK178-3A |
| 333            | Orange-Orange-Orange |                          |      |       | WA23-15    | WA23-5     | NONE REQ.      | DRK178-3A |
| 325            | Orange-Red-Green     |                          |      |       | WA23-15    | WA23-6     | NONE REQ.      | DRK178-2A |
| 326            | Orange-Red-Blue      |                          |      |       | WA23-15    | WA23-6     | NONE REQ.      | DRK178-2A |
| 334            | Orange-Orange-Yellow |                          |      |       | WA23-15    | WA23-6     | NONE REQ.      | DRK178-2A |
| 327            | Orange-Red-Violet    |                          |      |       | WA23-16    | WA23-7     | NONE REQ.      | DRK178-1A |
| 328            | Orange-Red-Gray      |                          |      |       | WA23-16    | WA23-7     | NONE REQ.      | DRK178-1A |
| 335            | Orange-Orange-Green  |                          |      |       | WA23-16    | WA23-7     | NONE REQ.      | DRK178-1A |

\*The three number suffix on M39029 series contacts is referred to as a "BIN" code. See page 27 for color strip association.  
DMC does not provide connectors, contacts or wiring components. Parts shown here are for reference only. See disclaimer of liability on page 27.



# MIL-DTL-24308

## MINIATURE RECTANGULAR RACK AND PANEL REAR RELEASE CONTACTS

| CONNECTOR P/N | DESCRIPTION                                  | QPL SOURCES   |
|---------------|--|---|
| M24308/2      | POLARIZED SHELL SOCKET CONTACTS              | ADI ELECTRONICS, AMPHENOL, C&K COMPONENTS SAS, CINCH CONNECTOR, CRISTEK INTERCONNECTS, ITT Cannon, POSITRONIC INDUSTRIES, SOURIAU, TE CONNECTIVITY, GLENAIR, CONTINENTAL - WIRT |
| M24308/4      | POLARIZED SHELL PIN CONTACTS                 |   |
| M24308/6      | POLARIZED SHELL SOCKET CONTACTS NON-MAGNETIC |   |
| M24308/8      | POLARIZED SHELL PIN CONTACTS NON-MAGNETIC    |   |

| CONTACTS                                    | SIZE (AWG) |             | PIN/SKT. | PART NUMBER*<br>(CURRENT) | PART NUMBER<br>(SUPERSEDED) | WIRE RANGE |
|---|------------|-------------|----------|---------------------------|-----------------------------|------------|
|   | MATING END | WIRE BARREL |          |                           |                             |            |
| <p><b>TYPICAL CONTACT CONFIGURATION</b></p> | 22         | 22D         | P        | M39029/58-360             | M24308/11-1                 | 20-24      |
|   | 22         | 22D         | S        | M39029/57-354             | M24308/10-1                 | 20-24      |
|   | 22         | 22D         | S        | M39029/58-986             | N/A                         |            |
|   | 22         | 22D         | P        | M39029/57-982             | N/A                         |            |
|   | 20         | 20          | P        | M39029/64-369             | M24308/13-1                 | 22-28      |
|   | 20         | 20          | S        | M39029/63-368             | M24308/12-1                 | 22-28      |
|   | 20         | 20          | P        | M39029/63-928             | N/A                         |            |
|   | 20         | 20          | S        | M39029/63-968             | N/A                         |            |

| TOOL SELECTION |                   | CRIMP TOOL AND ACCESSORY |       |         |            |            | ASSEMBLY TOOLS           |                          |
|----------------|-------------------|--------------------------|-------|---------|------------|------------|--------------------------|--------------------------|
| BIN*           | COLOR             | AF8                      | AFM8  | MH860   | WA23 (POS) | WA23 (DIE) | INSTALLING               | REMOVAL                  |
| 968            | WHITE-BLUE-GRAY   | TP585                    | K13-1 | 86-30-1 |            |            | DAK145<br>or M81969/1-02 | DRK145<br>or M81969/1-02 |
| 369            | ORANGE-BLUE-WHITE | TP585                    | K13-1 | 86-30-1 |            |            |                          |                          |
| 368            | ORANGE-BLUE-GRAY  | TP585                    | K13-1 | 86-30-1 |            |            |                          |                          |
| 928            | WHITE-RED-GRAY    | TP585                    | K13-1 | 86-30-1 |            |            |                          |                          |

\*The three number suffix on M39029 series contacts is referred to as a "BIN" code. See page 27 for color stripe association.

Contact M39029/59-366 (Shielded Socket) #8 cavity, see page 82.

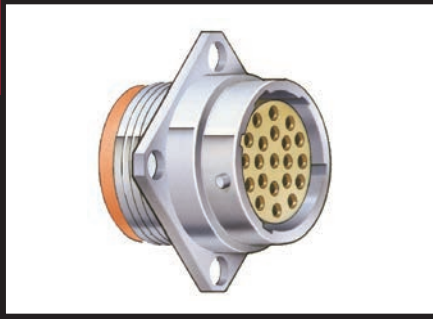
Contact M39029/60-367 (Shielded Pin) #8 cavity, see page 82.

Contact M39029/87 is a Thermocouple.

Contact M39029/89 is a Thermocouple.

NOTE: M24308/1, /3, /5, /7, /9, /23, /24, /27, /28, /29, /30, /31, /32, /33, /34, /35, /36, /37, /38, /39 & /40 are not crimp termination connectors. Use connector manufacturer instructions for assembly. M24308/25 & /26 are standards for mounting hardware.

# MIL-DTL-26482 SERIES 1



## CIRCULAR BAYONET COUPLING FRONT RELEASE CONTACTS

| CONNECTOR P/N | DESCRIPTION                   | QPL SOURCES   |
|---------------|-------------------------------|---|
| MS3120        | WALL MOUNT FLANGE RECEPTACLE  | AMPHENOL, ARRAY CONNECTORS,<br>BURNDY, ITT Cannon, VEAM, GLENAIR,<br>TE CONNECTIVITY, CORSAIR, SOURIAU, GINCH |
| MS3121        | CABLE CONNECTING PLUG         |   |
| MS3122        | BOX MOUNT FLANGE RECEPTACLE   |   |
| MS3124        | JAM NUT REAR MOUNT RECEPTACLE |   |
| MS3126        | STRAIGHT PLUG                 |   |
| MS3127        | BOX MOUNT FLANGE RECEPTACLE   |   |
| MS3128        | WALL MOUNT FLANGE RECEPTACLE  |   |

| CONTACTS                                 | SIZE (AWG)    |                | PIN/SKT. | PART NUMBER*<br>(CURRENT) | PART NUMBER<br>(SUPERSEDED) | WIRE<br>RANGE |
|--|---------------|----------------|----------|---------------------------|-----------------------------|---------------|
|  | MATING<br>END | WIRE<br>BARREL |          |                           |                             |               |
|  | 12            | 12             | P        | M39029/31-234             | MS3192-12-12A               | 12-14         |
|  | 12            | 12             | S        | M39029/32-253             | MS3193-12-12A               | 12-14         |
| <b>TYPICAL CONTACT<br/>CONFIGURATION</b> | 16            | 16             | P        | M39029/31-228             | MS3192-16-16A               | 16-20         |
|  | 16            | 16             | S        | M39029/32-247             | MS3193-16-16A               | 16-20         |
| <b>TYPICAL CONTACT<br/>CONFIGURATION</b> | 20            | 20             | P        | M39029/31-240             | MS3192-20A-20A              | 20-24         |
|  | 20            | 20             | S        | M39029/32-259             | MS3193-20A-20A              | 20-24         |

Application Guide Contacts & Connectors

| TOOL SELECTION |                   | CRIMP TOOL AND ACCESSORY |      |       |               |               | ASSEMBLY TOOLS |         |
|----------------|-------------------|--------------------------|------|-------|---------------|---------------|----------------|---------|
| BIN*           | COLOR             | AF8                      | AFM8 | MH860 | WA23<br>(POS) | WA23<br>(DIE) | INSTALLING     | REMOVAL |
| 234            | RED-ORANGE-YELLOW | TH1A                     |      |       |               |               | DAK12B         | DRK12B  |
| 253            | RED-GREEN-ORANGE  | TH1A                     |      |       |               |               | DAK12B         | DRK12B  |
| 228            | RED-RED-GRAY      | TH1A                     |      | 86-2  |               |               | DAK16B         | DRK16B  |
| 247            | RED-YELLOW-VIOLET | TH1A                     |      | 86-2  |               |               | DAK16B         | DRK16B  |
| 240            | RED-YELLOW-BLACK  | TH1A                     | K1S  | 86-1S |               |               | DAK20B**       | DRK20B  |
| 259            | RED-GREEN-WHITE   | TH1A                     | K1S  | 86-1S |               |               | DAK20B**       | DRK20B  |

\*The three number suffix on M39029 series contacts is referred to as a "BIN" code. See page 27 for color strip association.

Contact M39029/25-204 to 206 (Shielded Pin) #12 cavity, see page 80.

Contact M39029/26-207 to 209 (Shielded Socket) #12 cavity, see page 81.



# MIL-DTL-26482 SERIES 2



## CIRCULAR BAYONET COUPLING REAR RELEASE CONTACTS

| CONNECTOR P/N | DESCRIPTION                       | QPL SOURCES   |
|---------------|-----------------------------------|---|
| MS3470        | WALL MOUNT FLANGE RECEPTACLE      | AERO ELECTRIC, AMPHENOL, TE/DEUTSCH<br>BURNDY, ITT Cannon,<br>HERMETIC SEAL CORPORATION |
| MS3471        | CABLE CONNECTING PLUG             |   |
| MS3472        | WIDE FLANGE WALL MOUNT RECEPTACLE |   |
| MS3474        | JAM NUT REAR MOUNT RECEPTACLE     |   |
| MS3475        | PLUG RFI                          |   |
| MS3476        | STRAIGHT PLUG                     |   |

| CONTACTS  | SIZE (AWG)    |                | PIN/SKT. | PART NUMBER*<br>(CURRENT) | PART NUMBER<br>(SUPERSEDED) | WIRE<br>RANGE |
|---|---------------|----------------|----------|---------------------------|-----------------------------|---------------|
|   | MATING<br>END | WIRE<br>BARREL |          |                           |                             |               |
| <p><b>TYPICAL CONTACT<br/>CONFIGURATION</b></p> | 12            | 12             | P        | M39029/4-113              | M39029/4-12-12              | 12-14         |
|   | 12            | 12             | S        | M39029/5-118              | M39029/5-12-12              | 12-14         |
|   | 12            | 16             | P        | M39029/4-114              | M39029/4-12-16              | 16-20         |
|   | 12            | 16             | S        | M39029/5-119              | M39029/5-12-16              | 16-20         |
|   | 16            | 16             | P        | M39029/4-111              | M39029/4-16-16              | 16-20         |
|   | 16            | 16             | S        | M39029/5-116              | M39029/5-16-16              | 16-20         |
|   | 16            | 20             | P        | M39029/4-112              | M39029/4-16-20              | 20-24         |
|   | 16            | 20             | S        | M39029/5-117              | M39029/5-16-20              | 20-24         |
|   | 20            | 20             | P        | M39029/4-110              | M39029/4-20-20              | 20-24         |
|   | 20            | 20             | S        | M39029/5-115              | M39029/5-20-20              | 20-24         |

| TOOL SELECTION |                    | CRIMP TOOL AND ACCESSORY |      |       |               |               | ASSEMBLY TOOLS |           |
|----------------|--------------------|--------------------------|------|-------|---------------|---------------|----------------|-----------|
| BIN*           | COLOR              | AF8                      | AFM8 | MH860 | WA23<br>(POS) | WA23<br>(DIE) | INSTALLING     | REMOVAL   |
| 113            | BROWN-BROWN-ORANGE | TH1A                     |      |       |               |               | DAK83-12B      | DRK83-12B |
| 118            | BROWN-BROWN-GRAY   | TH1A                     |      |       |               |               | DAK83-12B      | DRK83-12B |
| 114            | BROWN-BROWN-YELLOW | TH1A                     |      | 86-2  |               |               | DAK83-12B      | DRK83-12B |
| 119            | BROWN-BROWN-WHITE  | TH1A                     |      | 86-2  |               |               | DAK83-12B      | DRK83-12B |
| 111            | BROWN-BROWN-BROWN  | TH1A                     |      | 86-2  |               |               | DAK83-16B      | DRK83-16B |
| 116            | BROWN-BROWN-BLUE   | TH1A                     |      | 86-2  |               |               | DAK83-16B      | DRK83-16B |
| 112            | BROWN-BROWN-RED    | TH1A                     |      | 86-2  |               |               | DAK83-16B      | DRK83-16B |
| 117            | BROWN-BROWN-VIOLET | TH1A                     |      | 86-2  |               |               | DAK83-16B      | DRK83-16B |
| 110            | BROWN-BROWN-BLACK  | TH1A                     | K1S  | 86-1S |               |               | DAK83-20B      | DRK83-20B |
| 115            | BROWN-BROWN-GREEN  | TH1A                     | K1S  | 86-1S |               |               | DAK83-20B      | DRK83-20B |

\*The three number suffix on M39029 series contacts is referred to as a "BIN" code. See page 27 for color stripe association.

Contact M39029/7-126 to 128 (Shielded Pin) #12 cavity, see page 80.

Contact M39029/8-129 to 131 (Shielded Socket) #12 cavity, see page 80.

Contact M39029/9-132 to 136 (Thermocouple Pin) #20 cavity, see page 80.



# MIL-DTL-26500

## CIRCULAR THREADED OR BAYONET COUPLING FRONT RELEASE CONTACTS

| CONNECTOR P/N | DESCRIPTION                  | QPL SOURCES   |
|---------------|------------------------------|---|
| MS24264       | FLANGE MOUNT RECEPTACLE      | AMPHENOL, BOEING (SPECIFICATION), CINCH, CONNECTOR INDUSTRIES, DETORONICS, Deutsch/TE, ELECTRONIC SEALS, GLASSEAL, HERMETIC SEAL Corporation, ITT Cannon, SEALTRON, SOURIAU |
| MS24265       | SINGLE HOLE MOUNT RECEPTACLE |   |
| MS24266       | STRAIGHT PLUG                |   |
| MS27613       | WALL MOUNT RECEPTACLE        |   |
| MS27614       | JAM NUT                      |   |
| MS27615       | PLUG                         |   |

| CONTACTS                                 | SIZE (AWG)    |                | PIN/SKT. | PART NUMBER*<br>(CURRENT) | PART NUMBER<br>(SUPERSEDED) | WIRE<br>RANGE |
|--|---------------|----------------|----------|---------------------------|-----------------------------|---------------|
|  | MATING<br>END | WIRE<br>BARREL |          |                           |                             |               |
| <br><b>TYPICAL CONTACT CONFIGURATION</b> | 12            | 12             | P        | M39029/31-235             | MS24254-12P                 | 12-14         |
|  | 12            | 12             | S        | M39029/32-254             | MS24255-12S                 | 12-14         |
|  | 16            | 16             | P        | M39029/31-229             | MS24254-16P                 | 16-20         |
|  | 16            | 16             | S        | M39029/32-248             | MS24255-16S                 | 16-20         |
|  | 20            | 20             | P        | M39029/31-627             | MS39029/31-241              | 20-24         |
|  | 20            | 20             | S        | M39029/32-260             | MS24255-20S                 | 20-24         |

| TOOL SELECTION |                                      | CRIMP TOOL AND ACCESSORY |            |              |               |               | ASSEMBLY TOOLS   |                  |
|----------------|--------------------------------------|--------------------------|------------|--------------|---------------|---------------|------------------|------------------|
| BIN*           | COLOR                                | AF8                      | AFM8       | MH860        | WA23<br>(POS) | WA23<br>(DIE) | INSTALLING       | REMOVAL          |
| 235<br>254     | RED-ORANGE-GREEN<br>RED-GREEN-YELLOW | TH1A<br>TH1A             |            |              |               |               | DAK12B<br>DAK12B | DRK12B<br>DRK12B |
| 229<br>248     | RED-RED-WHITE<br>RED-YELLOW-GRAY     | TH1A<br>TH1A             |            | 86-2<br>86-2 |               |               | DAK16B<br>DAK16B | DRK16B<br>DRK16B |
| 627<br>260     | BLUE-RED-VIOLET<br>RED-BLUE-BLACK    | TH1A<br>TH1A             | K1S<br>K1S | 86-2<br>86-2 |               |               | DAK20B<br>DAK20B | DRK20B<br>DRK20B |

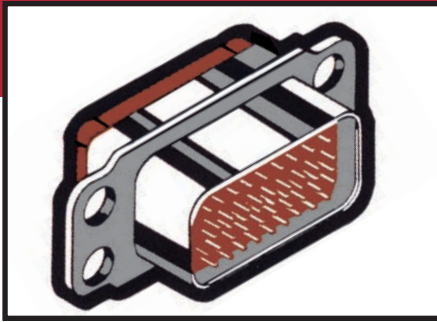
\*The three number suffix on M39029 series contacts is referred to as a "BIN" code. See page 27 for color stripe association.

Contact M39029/54-342 (Shielded Pin) #12 cavity, see page 81.

Contact M39029/54-343 (Shielded Pin) #8 cavity, see page 81.

Contact M39029/55-344 (Shielded Socket) #12 cavity, see page 81.

Contact M39029/55-345 (Shielded Socket) #8 cavity, see page 81.



# MIL-DTL-26518

CLASS R (INACTIVE, REFER TO MIL-DTL-83733)

## MINIATURE RECTANGULAR RACK AND PANEL FRONT RELEASE CONTACTS

| CONNECTOR P/N | DESCRIPTION | QPL SOURCES    |
|---------------|-------------|----------------|
| M24285        | RECEPTACLE  | NO CURRENT QPL |
| M24286        | PLUG        |                |

| CONTACTS                                     | SIZE (AWG)    |                | PIN/SKT. | PART NUMBER*<br>(CURRENT)      | PART NUMBER<br>(SUPERSEDED) | WIRE<br>RANGE  |
|--|---------------|----------------|----------|--------------------------------|-----------------------------|----------------|
|  | MATING<br>END | WIRE<br>BARREL |          |                                |                             |                |
| <br><b>TYPICAL CONTACT<br/>CONFIGURATION</b> | 12<br>12      | 12<br>12       | P<br>S   | M39029/31-235<br>M39029/32-254 | MS24254-12P<br>MS24255-12S  | 12-14<br>12-14 |
|  | 16<br>16      | 16<br>16       | P<br>S   | M39029/31-229<br>M39029/32-248 | MS24254-16P<br>MS24255-16S  | 16-20<br>16-20 |
|  | 20<br>20      | 20<br>20       | P<br>S   | M39029/31-241<br>M39029/32-260 | MS24254-20P<br>MS24255-20S  | 20-24<br>20-24 |

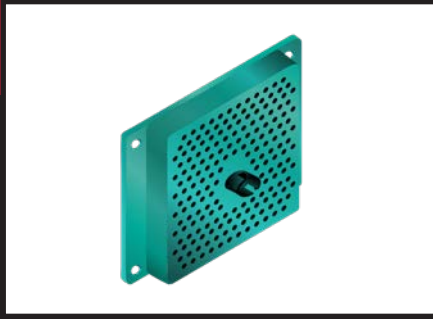
| TOOL SELECTION |                                      | CRIMP TOOL AND ACCESSORY |            |                |               |               | ASSEMBLY TOOLS   |                  |
|----------------|--------------------------------------|--------------------------|------------|----------------|---------------|---------------|------------------|------------------|
| BIN*           | COLOR                                | AF8                      | AFM8       | MH860          | WA23<br>(POS) | WA23<br>(DIE) | INSTALLING       | REMOVAL          |
| 235<br>254     | RED-ORANGE-GREEN<br>RED-GREEN-YELLOW | TH1A<br>TH1A             |            |                |               |               | DAK12B<br>DAK12B | DRK12B<br>DRK12B |
| 229<br>248     | RED-RED-WHITE<br>RED-YELLOW-GRAY     | TH1A<br>TH1A             |            | 86-2<br>86-2   |               |               | DAK16B<br>DAK16B | DRK16B<br>DRK16B |
| 241<br>260     | RED-YELLOW-BROWN<br>RED-BLUE-BLACK   | TH1A<br>TH1A             | K1S<br>K1S | 86-1S<br>86-1S |               |               | DAK20B<br>DAK20B | DRK20B<br>DRK20B |

| TOOL SELECTION |                                      | CRIMP TOOL AND ACCESSORY |            |                |               |               | ASSEMBLY TOOLS   |                  |
|----------------|--------------------------------------|--------------------------|------------|----------------|---------------|---------------|------------------|------------------|
| BIN*           | COLOR                                | AF8                      | AFM8       | MH860          | WA23<br>(POS) | WA23<br>(DIE) | INSTALLING       | REMOVAL          |
| 235<br>254     | RED-ORANGE-GREEN<br>RED-GREEN-YELLOW | TH1A<br>TH1A             |            |                |               |               | DAK12B<br>DAK12B | DRK12B<br>DRK12B |
| 229<br>248     | RED-RED-WHITE<br>RED-YELLOW-GRAY     | TH1A<br>TH1A             |            | 86-2<br>86-2   |               |               | DAK16B<br>DAK16B | DRK16B<br>DRK16B |
| 241<br>260     | RED-YELLOW-BROWN<br>RED-BLUE-BLACK   | TH1A<br>TH1A             | K1S<br>K1S | 86-1S<br>86-1S |               |               | DAK20B<br>DAK20B | DRK20B<br>DRK20B |

\*The three number suffix on M39029 series contacts is referred to as a "BIN" code. See page 27 for color stripe association.

DMC does not provide connectors, contacts or wiring components. Parts shown here are for reference only. See disclaimer of liability on page 27.





# MIL-DTL-28748

## RECTANGULAR RACK AND PANEL

| CONNECTOR P/N | DESCRIPTION                                    | QPL SOURCES   |
|---------------|--|---|
| M28748/3      | PIN CONTACTS SIZE 16 & 20                      | CONTINENTAL CONNECTOR CO., POSITRONIC INDUSTRIES, WINCHESTER ELECTRONICS, DELPHI CONNECTION SYSTEMS, J-TECH, INC. |
| M28748/4      | SOCKET CONTACTS SIZE 16 & 20                   |   |
| M28748/9      | PIN CONTACTS 16 POLARIZED CENTER SCREW LOCK    |   |
| M28748/10     | SOCKET CONTACTS 16 POLARIZED CENTER SCREW LOCK |   |
| M28748/13     | PIN CONTACTS 22                                |   |
| M28748/14     | SOCKET CONTACTS 22                             |   |

| CONTACTS                                 | SIZE (AWG) |             | PIN/SKT. | PART NUMBER* (CURRENT) | PART NUMBER (SUPERSEDED) | WIRE RANGE |
|--|------------|-------------|----------|------------------------|--------------------------|------------|
|  | MATING END | WIRE BARREL |          |                        |                          |            |
| <br><b>TYPICAL CONTACT CONFIGURATION</b> | 16         | 16          | P        | M39029/36-278          | MS17807-16-16            | 16-20      |
|  | 16         | 16          | S        | M39029/37-280          | MS17808-16-16            | 16-20      |
|  | 16         | 20          | P        | M39029/36-277          | MS17807-16-20            | 20-24      |
|  | 16         | 20          | S        | M39029/37-279          | MS17808-16-20            | 20-24      |
|  | 16         | 16          | P        | M39029/34-273          | MS17803-16-16            | 16-20      |
|  | 16         | 16          | S        | M39029/35-276          | MS17804-16-16            | 16-20      |
|  | 16         | 20          | P        | M39029/34-272          | MS17803-16-20            | 20-24      |
|  | 16         | 20          | S        | M39029/35-275          | MS17804-16-20            | 20-24      |
|  | 20         | 20          | P        | M39029/34-271          | MS17803-20-20            | 20-24      |
|  | 20         | 20          | S        | M39029/35-274          | MS17804-20-20            | 20-24      |
|  | 22         | 22          | P        | M39029/34-440          | M39029/34-22-22          | 22-26      |
|  | 22         | 22          | S        | M39029/35-441          | M39029/35-22-22          | 22-26      |

| TOOL SELECTION |                     | CRIMP TOOL AND ACCESSORY |      |        |            |            | ASSEMBLY TOOLS |            |
|----------------|---------------------|--------------------------|------|--------|------------|------------|----------------|------------|
| BIN*           | COLOR               | AF8                      | AFM8 | MH860  | WA23 (POS) | WA23 (DIE) | INSTALLING     | REMOVAL    |
| 278            | RED-VIOLET-GRAY     | TH4                      |      |        |            |            | DAK123A        | DRK124A    |
| 280            | RED-GRAY-BLACK      | TH4                      |      |        |            |            | DAK123A        | DRK124A    |
| 277            | RED-VIOLET-VIOLET   | TH4                      |      |        |            |            | DAK123A        | DRK124A    |
| 279            | RED-VIOLET-WHITE    | TH4                      |      |        |            |            | DAK123A        | DRK124A    |
| 273            | RED-VIOLET-ORANGE   | TH4                      |      | 86-146 |            |            | DAK123A        | DRK124A    |
| 276            | RED-VIOLET-BLUE     | TH4                      |      | 86-146 |            |            | DAK123A        | DRK124A    |
| 272            | RED-VIOLET-RED      | TH4                      |      | 86-146 |            |            | DAK123A        | DRK124A    |
| 275            | RED-VIOLET-GREEN    | TH4                      |      | 86-146 |            |            | DAK123A        | DRK124A    |
| 271            | RED-VIOLET-BROWN    | TH4                      |      | 86-146 |            |            | DAK123A        | DRK124A    |
| 274            | RED-VIOLET-YELLOW   | TH4                      |      | 86-146 |            |            | DAK123A        | DRK124A    |
| 440            | YELLOW-YELLOW-BLACK |                          | K280 |        |            |            | DAK123-22A     | DRK124-22A |
| 441            | YELLOW-YELLOW-BROWN |                          | K280 |        |            |            | DAK123-22A     | DRK124-22A |

\*The three number suffix on M39029 series contacts is referred to as a "BIN" code. See page 27 for color stripe association.


DMC does not provide connectors, contacts or wiring components. Parts shown here are for reference only. See disclaimer of liability on page 27.



# MIL-DTL-28804

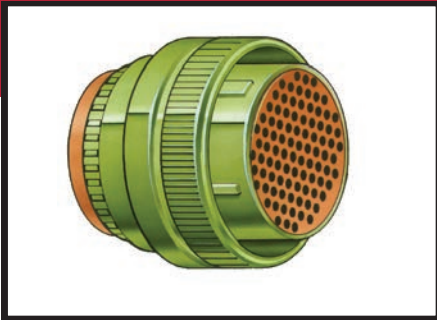
**RECTANGULAR  
POLARIZED CENTER JACKSCREW  
HIGH DENSITY  
REAR RELEASE CONTACT**

| CONNECTOR P/N | DESCRIPTION                                       | QPL SOURCES               |
|---------------|---|---------------------------|
| M28804/1      | NON-ENVIRONMENTAL RECEPTACLE (SOCKETS)            | DELPHI CONNECTION SYSTEMS |
| M28804/2      | NON-ENVIRONMENTAL PLUG (PINS)                     |                           |
| M28804/3      | ENVIRONMENTAL RECEPTACLE (SOCKETS)                |                           |
| M28804/4      | ENVIRONMENTAL PLUG (PINS)                         |                           |
| M28804/5      | ENVIRONMENTAL RECEPTACLE (SOCKETS) (POTTING TYPE) |                           |
| M28804/6      | ENVIRONMENTAL PLUG (PINS) (POTTING TYPE)          |                           |

| CONTACTS   | SIZE (AWG)    |                | PIN/SKT. | PART NUMBER*<br>(CURRENT) | PART NUMBER<br>(SUPERSEDED) | WIRE<br>RANGE |
|--|---------------|----------------|----------|---------------------------|-----------------------------|---------------|
|  | MATING<br>END | WIRE<br>BARREL |          |                           |                             |               |
|  <p><b>TYPICAL CONTACT<br/>CONFIGURATION</b></p> | 22            | 22D            | P        | M28804/9-1                |                             | 22-28         |
|  | 22            | 22D            | S        | M28804/10-1               |                             | 22-28         |

| TOOL SELECTION |       | CRIMP TOOL AND ACCESSORY |      |        |               |               | ASSEMBLY TOOLS |             |
|----------------|-------|--------------------------|------|--------|---------------|---------------|----------------|-------------|
| BIN*           | COLOR | AF8                      | AFM8 | MH860  | WA23<br>(POS) | WA23<br>(DIE) | INSTALLING     | REMOVAL     |
| --             | NONE  |                          | K473 | 86-193 |               |               | M81969/1-04    | M81969/1-04 |
| --             | NONE  |                          | K473 | 86-193 |               |               | M81969/1-04    | M81969/1-04 |

\*The three number suffix on M39029 series contacts is referred to as a "BIN" code. See page 27 for color stripe association.



# MIL-DTL-28840

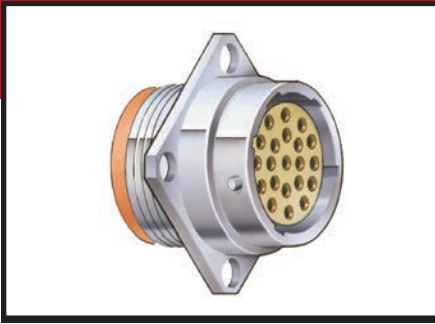
**CIRCULAR – THREADED COUPLING  
FRONT RELEASE CONTACTS  
HIGH DENSITY – HIGH SHOCK**

| CONNECTOR P/N | DESCRIPTION                        | QPL SOURCES |
|---------------|------------------------------------|-------------|
| M28840/10     | WALL MOUNT RECEPTACLE              | GLENAIR     |
| M28840/11     | CABLE CONNECTING RECEPTACLE        |             |
| M28840/12     | BOX MOUNT RECEPTACLE               |             |
| M28840/14     | JAM NUT MOUNT RECEPTACLE           |             |
| M28840/16     | STRAIGHT PLUG                      |             |
| M28840/17     | PLUG OPEN WIRE ASSEMBLY            |             |
| M28840/18     | PLUG OPEN WIRE ASSEMBLY 90° ELBOW  |             |
| M28840/19     | PLUG OPEN WIRE ASSEMBLY 45° ELBOW  |             |
| M28840/20     | WALL MOUNT ASSEMBLY STRAIGHT       |             |
| M28840/21     | CABLE CONVERTING ASSEMBLY STRAIGHT |             |
| M28840/26     | PLUG ASSEMBLY STRAIGHT             |             |
| M28840/28     | PLUG ASSEMBLY 90° ELBOW            |             |
| M28840/29     | PLUG ASSEMBLY 45° ELBOW            |             |

| CONTACTS                                 | SIZE (AWG)    |                | PIN/SKT. | PART NUMBER*<br>(CURRENT) | PART NUMBER<br>(SUPERSEDED) | WIRE<br>RANGE |
|--|---------------|----------------|----------|---------------------------|-----------------------------|---------------|
|  | MATING<br>END | WIRE<br>BARREL |          |                           |                             |               |
|  | 20            | 20             | P        | M39029/83-508             | M39029/83-20-20             | 20-24         |
|  | 20            | 20             | S        | M39029/84-509             | M39029/84-20-20             | 20-24         |
| <b>TYPICAL CONTACT<br/>CONFIGURATION</b> | 20            | 22             | P        | M39029/83-450             | M39029/83-20-22             | 22-26         |
|  | 20            | 22             | S        | M39029/84-452             | M39029/84-20-22             | 22-26         |
| <b>TYPICAL CONTACT<br/>CONFIGURATION</b> | 20            | 28             | P        | M39029/83-451             | M39029/83-20-28             | 28-32         |
|  | 20            | 28             | S        | M39029/84-453             | M39029/84-20-28             | 28-32         |

| TOOL SELECTION |   | CRIMP TOOL AND ACCESSORY |              |       |                  | ASSEMBLY TOOLS                                  |                        |
|----------------|---|--------------------------|--------------|-------|------------------|---|------------------------|
| BIN*           | COLOR                                     | AF8                      | AFM8         | MH860 | 39-000           | INSTALLING                                      | REMOVAL                |
| 508<br>509     | GREEN-BLACK-GRAY<br>GREEN-BLACK-WHITE     |                          | K534<br>K534 |       | 39-102<br>39-102 | DAK55-22SA (STRAIGHT) or<br>DAK55-22JA (OFFSET) | DRK56-22A<br>DRK56-22A |
| 450<br>452     | YELLOW-GREEN-BLACK<br>YELLOW-GREEN-RED    |                          | K534<br>K534 |       | 39-102<br>39-102 | DAK55-22SA (STRAIGHT) or<br>DAK55-22JA (OFFSET) | DRK56-22A<br>DRK56-22A |
| 451<br>453     | YELLOW-GREEN-BROWN<br>YELLOW-GREEN-ORANGE |                          | K534<br>K534 |       | 39-102<br>39-102 | DAK55-22SA (STRAIGHT) or<br>DAK55-22JA (OFFSET) | DRK56-22A<br>DRK56-22A |


\*The three number suffix on M39029 series contacts is referred to as a "BIN" code. See page 27 for color stripe association.



# MIL-C-38300

## CIRCULAR THREADED OR BAYONET COUPLING FRONT RELEASE CONTACTS

| CONNECTOR P/N | DESCRIPTION                  | QPL SOURCES    |
|---------------|------------------------------|----------------|
| MS24264       | FLANGE MOUNT RECEPTACLE      | NO QPL SOURCES |
| MS24265       | SINGLE HOLE MOUNT RECEPTACLE |                |
| MS24266       | STRAIGHT PLUG                |                |

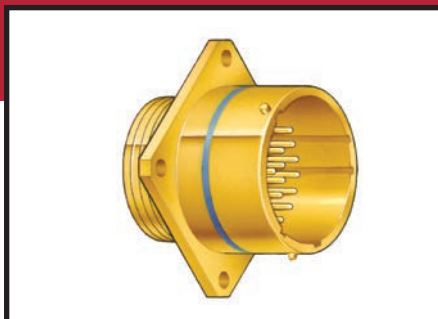
| CONTACTS   | SIZE (AWG) |             | PIN/SKT. | PART NUMBER*<br>(CURRENT)      | PART NUMBER<br>(SUPERSEDED) | WIRE RANGE     |
|--|------------|-------------|----------|--------------------------------|-----------------------------|----------------|
|  | MATING END | WIRE BARREL |          |                                |                             |                |
| <br><b>TYPICAL CONTACT CONFIGURATION</b> | 16         | 16          | P        | M39029/31-229<br>M39029/32-248 | MS24254-16P<br>MS24255-16S  | 16-20<br>16-20 |
|  | 16         | 16          | S        |                                |                             |                |
|  | 20         | 20          | P        | M39029/31-241<br>M39029/32-260 | MS24254-20P<br>MS24255-20S  | 20-24<br>20-24 |
|  | 20         | 20          | S        |                                |                             |                |

| TOOL SELECTION |                  | CRIMP TOOL AND ACCESSORY |      |       |            |            | ASSEMBLY TOOLS |         |
|----------------|------------------|--------------------------|------|-------|------------|------------|----------------|---------|
| BIN*           | COLOR            | AF8                      | AFM8 | MH860 | WA23 (POS) | WA23 (DIE) | INSTALLING     | REMOVAL |
| 229            | RED-RED-WHITE    | TH1A                     |      | 86-2  |            |            | DAK16B         | DHK16B  |
| 248            | RED-YELLOW-GRAY  | TH1A                     |      | 86-2  |            |            | DAK16B         | DHK16B  |
| 241            | RED-YELLOW-BROWN | TH1A                     | K1S  | 86-1S |            |            | DAK20B         | DHK20B  |
| 260            | RED-BLUE-BLACK   | TH1A                     | K1S  | 86-1S |            |            | DAK20B         | DHK20B  |

\*The three number suffix on M39029 series contacts is referred to as a "BIN" code. See page 27 for color stripe association.



# MIL-DTL-38999 SERIES 1 (PART 1 OF 2)



## SCOOP PROOF – CIRCULAR BAYONET COUPLING REAR RELEASE CONTACTS

| CONNECTOR P/N | DESCRIPTION                      | QPL SOURCES   |
|---------------|----------------------------------|---|
| MS27466       | WALL MOUNT FLANGE RECEPTACLE     | AMERICAN MICRO, AMPHENOL, AMPHENOL/<br>SOCAPEX, CORSAIR HI REL, DEUTSCH/TE,<br>ELECTRONIC SEALS, GLASSEAL, GLENAIR, ITT<br>CANNON, PLESSEY, RMS, SAE, SEALTRON, SOURIAU,<br>SPACECRAFT COMPONENTS |
| MS27467       | STRAIGHT PLUG                    |   |
| MS27468       | JAM NUT MOUNT RECEPTACLE         |   |
| MS27496       | RECEPTACLE                       |   |
| MS27505       | BOX MOUNT FLANGE RECEPTACLE      |   |
| MS27656       | BACK PANEL WALL MOUNT RECEPTACLE |   |

| CONTACTS  | SIZE (AWG)    |                | PIN/SKT. | PART NUMBER*<br>(CURRENT) | PART NUMBER<br>(SUPERSEDED) | WIRE<br>RANGE |
|---|---------------|----------------|----------|---------------------------|-----------------------------|---------------|
|   | MATING<br>END | WIRE<br>BARREL |          |                           |                             |               |
| <p><b>TYPICAL CONTACT<br/>CONFIGURATION</b></p> | 12            | 12             | P        | M39029/58-365             | MS27493-12                  | 12-14         |
|   | 12            | 12             | S        | M39029/56-353             | MS27490-12                  | 12-14         |
|   | 16            | 16             | P        | M39029/58-364             | MS27493-16                  | 16-20         |
|   | 16            | 16             | S        | M39029/56-352             | MS27490-16                  | 16-20         |
|   | 20            | 20             | P        | M39029/58-363             | MS27493-20                  | 20-24         |
|   | 20            | 20             | S        | M39029/56-351             | MS27490-20                  | 20-24         |
|   | 22            | 22             | P        | M39029/58-362             | MS27493-22                  | 22-26         |
|   | 22            | 22             | S        | M39029/56-350             | MS27490-22                  | 22-26         |
|   | 22            | 22M            | P        | M39029/58-361             | MS27493-22M                 | 24-28         |
|   | 22            | 22M            | S        | M39029/56-349             | MS27490-22M                 | 24-28         |
|   | 22            | 22D            | P        | M39029/58-360             | MS27493-22D                 | 22-28         |
|   | 22            | 22D            | S        | M39029/56-348             | MS27490-22D                 | 22-28         |
|   | 10            | 10             | P        | M39029/58-528             | —                           | 10            |
|   | 10            | 10             | S        | M39029/56-527             | —                           | 10            |

Application Guide Contacts & Connectors

| TOOL SELECTION |                     | CRIMP TOOL AND ACCESSORY |      |       |                 | ASSEMBLY TOOLS |            |
|----------------|---------------------|--------------------------|------|-------|-----------------|----------------|------------|
| BIN*           | COLOR               | AF8                      | AFM8 | MH860 | 1716P-1         | INSTALLING     | REMOVAL    |
| 365            | ORANGE-BLUE-GREEN   | TH163                    |      |       |                 | DAK95-12B      | DRK95-12B  |
| 353            | ORANGE-GREEN-ORANGE | TH163                    |      |       |                 | DAK95-12B      | DRK95-12B  |
| 364            | ORANGE-BLUE-YELLOW  | TH163                    |      | 86-3  |                 | DAK95-16B      | DRK95-16B  |
| 352            | ORANGE-GREEN-RED    | TH163                    |      | 86-3  |                 | DAK95-16B      | DRK95-16B  |
| 363            | ORANGE-BLUE-ORANGE  | TH163                    | K43  | 86-7  |                 | DAK95-20B      | DRK95-20B  |
| 351            | ORANGE-GREEN-BROWN  | TH163                    | K43  | 86-7  |                 | DAK95-20B      | DRK95-20B  |
| 362            | ORANGE-BLUE-RED     |                          | K42  | 86-6  |                 | DAK95-22B      | DRK95-22B  |
| 350            | ORANGE-GREEN-BLACK  |                          | K40  | 86-4  |                 | DAK95-22B      | DRK95-22B  |
| 361            | ORANGE-BLUE-BROWN   |                          | K42  | 86-6  |                 | DAK95-22MB     | DRK95-22MB |
| 349            | ORANGE-YELLOW-WHITE |                          | K40  | 86-4  |                 | DAK95-22MB     | DRK95-22MB |
| 360            | ORANGE-BLUE-BLACK   |                          | K42  | 86-6  |                 | DAK95-22MB     | DRK95-22MB |
| 348            | ORANGE-YELLOW-GRAY  |                          | K40  | 86-4  |                 | DAK95-22MB     | DRK95-22MB |
| 528            | GREEN-RED-GRAY      |                          |      |       | AFFIXED TO HEAD | DAK95-10B      | DRK95-10B  |
| 527            | GREEN-RED-VIOLET    |                          |      |       | AFFIXED TO HEAD | DAK95-10B      | DRK95-10B  |

\*The three number suffix on M39029 series contacts is referred to as a "BIN" code. See page 27 for color stripe association.

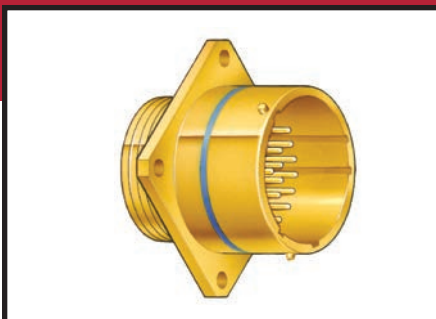
Contact M39029/74-423 (Shielded Socket) #12 cavity, solder.  
 Contact M39029/75-416 to 422 (Shielded Socket) #12 cavity, see page 82.  
 Contact M39029/76-424 to 427 (Shielded Pin) #16 cavity, see page 82.  
 Contact M39029/77-428 to 432 (Shielded Socket) #16 cavity, see page 82.  
 Contact M39029/78-433 to 425 (Shielded Socket) #16 cavity, see page 82.

Contact M39029/87 is a Thermocouple.  
 Contact M39029/88 is a Thermocouple.  
 Contact M39029/102 (Coaxial Pin, Size 12) See page 82.  
 Contact M39029/103 (Coaxial Socket, Size 12) See page 82.

DMC does not provide connectors, contacts or wiring components. Parts shown here are for reference only. See disclaimer of liability on page 27.

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## SERIES 1 (PART 2 OF 2)



### SCOOP PROOF – CIRCULAR BAYONET COUPLING REAR RELEASE CONTACTS

| CONTACTS  | SIZE (AWG)    |                | PIN/SKT.       | PART NUMBER*<br>(CURRENT) | PART NUMBER<br>(SUPERSEDED) | WIRE<br>RANGE |
|---|---------------|----------------|----------------|---------------------------|-----------------------------|---------------|
|   | MATING<br>END | WIRE<br>BARREL |                |                           |                             |               |
| <p><b>TYPICAL CONTACT<br/>CONFIGURATION</b></p> | 10            | 10             | S              | M39029/117-637            | --                          | 10            |
|   | 10            | 10             | S              | M39029/117-643            | --                          | 10            |
|   | 10            | 10             | P              | M39029/118-649            | --                          | 10            |
|   | 10            | 10             | P              | M39029/118-655            | --                          | 10            |
|   | 12            | 12             | S              | M39029/117-636            | --                          | 12-14         |
|   | 12            | 12             | S              | M39029/117-642            | --                          | 12-14         |
|   | 12            | 12             | P              | M39029/118-648            | --                          | 12-14         |
|   | 12            | 12             | P              | M39029/118-654            | --                          | 12-14         |
|   | 16            | 16             | S              | M39029/117-635            | --                          | 16-20         |
|   | 16            | 16             | S              | M39029/117-641            | --                          | 16-20         |
|   | 16            | 16             | P              | M39029/118-647            | --                          | 16-20         |
|   | 16            | 16             | P              | M39029/118-653            | --                          | 16-20         |
|   | 20            | 20             | S              | M39029/117-634            | --                          | 20-24         |
|   | 20            | 20             | S              | M39029/117-640            | --                          | 20-24         |
| 20  | 20            | P              | M39029/118-646 | --                        | 20-24                       |               |
| 20  | 20            | P              | M39029/118-652 | --                        | 20-24                       |               |
| 22  | 22D           | S              | M39029/117-632 | --                        | 22-28                       |               |
| 22  | 22D           | S              | M39029/117-638 | --                        | 22-28                       |               |
| 22  | 22D           | P              | M39029/118-644 | --                        | 22-28                       |               |
| 22  | 22D           | P              | M39029/118-650 | --                        | 22-28                       |               |

| TOOL SELECTION |                    | CRIMP TOOL AND ACCESSORY |      |       |                 | ASSEMBLY TOOLS |              |
|----------------|--------------------|--------------------------|------|-------|-----------------|----------------|--------------|
| BIN*           | COLOR              | AF8                      | AFM8 | MH860 | 1716P-1         | INSTALLING     | REMOVAL      |
| 637            | BLUE-ORANGE-VIOLET |                          |      |       | AFFIXED TO HEAD | M81969/14-05   | M81969/14-05 |
| 643            | BLUE-YELLOW-ORANGE |                          |      |       | AFFIXED TO HEAD | M81969/14-05   | M81969/14-05 |
| 649            | BLUE-YELLOW-WHITE  |                          |      |       | AFFIXED TO HEAD | M81969/14-05   | M81969/14-05 |
| 655            | BLUE-GREEN-GREEN   |                          |      |       | AFFIXED TO HEAD | M81969/14-05   | M81969/14-05 |
| 636            | BLUE-ORANGE-BLUE   | TH163                    |      |       |                 | DAK95-12B      | DRK95-12B    |
| 642            | BLUE-YELLOW-RED    | TH163                    |      |       |                 | DAK95-12B      | DRK95-12B    |
| 648            | BLUE-YELLOW-GRAY   | TH163                    |      |       |                 | DAK95-12B      | DRK95-16B    |
| 654            | BLUE-GREEN-YELLOW  | TH163                    |      |       |                 | DAK95-12B      | DRK95-16B    |
| 635            | BLUE-ORANGE-GREEN  | TH163                    |      | 86-3  |                 | DAK95-16B      | DRK95-16B    |
| 641            | BLUE-YELLOW-BROWN  | TH163                    |      | 86-3  |                 | DAK95-16B      | DRK95-16B    |
| 647            | BLUE-YELLOW-VIOLET | TH163                    |      | 86-3  |                 | DAK95-16B      | DRK95-16B    |
| 653            | BLUE-GREEN-ORANGE  | TH163                    |      | 86-3  |                 | DAK95-16B      | DRK95-16B    |
| 634            | BLUE-ORANGE-YELLOW | TH163                    | K43  |       |                 | DAK95-20B      | DRK95-20B    |
| 640            | BLUE-YELLOW-BLACK  | TH163                    | K43  |       |                 | DAK95-20B      | DRK95-20B    |
| 646            | BLUE-YELLOW-BLUE   | TH163                    | K43  |       |                 | DAK95-20B      | DRK95-20B    |
| 652            | BLUE-GREEN-RED     | TH163                    | K43  |       |                 | DAK95-20B      | DRK95-20B    |
| 632            | BLUE-ORANGE-RED    |                          | K40  | 86-4  |                 | DAK95-22MB     | DRK95-22MB   |
| 638            | BLUE-ORANGE-GRAY   |                          | K40  | 86-4  |                 | DAK95-22MB     | DRK95-22MB   |
| 644            | BLUE-YELLOW-YELLOW |                          | K42  | 86-6  |                 | DAK95-22MB     | DRK95-22MB   |
| 650            | BLUE-GREEN-BLACK   |                          | K42  | 86-6  |                 | DAK95-22MB     | DRK95-22MB   |

\*The three number suffix on M39029 series contacts is referred to as a "BIN" code. See page 27 for color stripe association.

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# MIL-DTL-38999 SERIES 2



## LOW SILHOUETTE – CIRCULAR BAYONET COUPLING REAR RELEASE CONTACTS

For Backshell Torquing Tools, see pages 73 & 74.

| CONNECTOR P/N | DESCRIPTION                      | QPL SOURCES   |
|---------------|----------------------------------|---|
| MS27472       | WALL MOUNT FLANGE RECEPTACLE     | AERO ELECTRIC, AMERICAN MICRO, AMPHENOL,<br>CONNECTOR INDUSTRIES, CORSAIR, DETORONICS,<br>ELECTRONIC SEALS, GLASSEAL, GLENAIR, HERMETIC SEAL<br>Corporation, HI REL, ITT CANNON, PLESSEY, SEALTRON,<br>SOURIAU, SPI |
| MS27473       | STRAIGHT PLUG                    |   |
| MS27474       | JAM NUT MOUNT RECEPTACLE         |   |
| MS27499       | BOX MOUNT RECEPTACLE             |   |
| MS27508       | BOX MOUNT FLANGE RECEPTACLE      |   |
| MS27497       | BACK PANEL WALL MOUNT RECEPTACLE |   |
| MS27484       | RFI PLUG                         |   |

| CONTACTS  | SIZE (AWG)    |                | PIN/SKT. | PART NUMBER*<br>(CURRENT) | PART NUMBER<br>(SUPERSEDED) | WIRE<br>RANGE |
|---|---------------|----------------|----------|---------------------------|-----------------------------|---------------|
|   | MATING<br>END | WIRE<br>BARREL |          |                           |                             |               |
| <p><b>TYPICAL CONTACT<br/>CONFIGURATION</b></p> | 12            | 12             | P        | M39029/58-365             | MS27493-12                  | 12-14         |
|   | 12            | 12             | S        | M39029/57-359             | MS27491-12                  | 12-14         |
|   | 16            | 16             | P        | M39029/58-364             | MS27493-16                  | 16-20         |
|   | 16            | 16             | S        | M39029/57-358             | MS27491-16                  | 16-20         |
|   | 20            | 20             | P        | M39029/58-363             | MS27493-10                  | 20-24         |
|   | 20            | 20             | S        | M39029/57-357             | MS27491-20                  | 20-24         |
|   | 22            | 22             | P        | M39029/58-362             | MS27493-22                  | 22-26         |
|   | 22            | 22             | S        | M39029/57-356             | MS27491-22                  | 22-26         |
|   | 22            | 22M            | P        | M39029/58-361             | MS27493-22M                 | 24-28         |
|   | 22            | 22M            | S        | M39029/57-355             | MS27491-22M                 | 24-28         |
|   | 22            | 22D            | P        | M39029/58-360             | MS27493-22D                 | 22-28         |
|   | 22            | 22D            | S        | M39029/57-354             | MS27491-22D                 | 22-28         |

| TOOL SELECTION |                     | CRIMP TOOL AND ACCESSORY |      |       |               |               | ASSEMBLY TOOLS |            |
|----------------|---------------------|--------------------------|------|-------|---------------|---------------|----------------|------------|
| BIN*           | COLOR               | AF8                      | AFM8 | MH860 | WA23<br>(POS) | WA23<br>(DIE) | INSTALLING     | REMOVAL    |
| 365            | ORANGE-BLUE-GREEN   | TH163                    |      |       |               |               | DAK95-12B      | DRK95-12B  |
| 359            | ORANGE-GREEN-WHITE  | TH163                    |      |       |               |               | DAK95-12B      | DRK95-12B  |
| 364            | ORANGE-BLUE-YELLOW  | TH163                    |      | 86-3  |               |               | DAK95-16B      | DRK95-16B  |
| 358            | ORANGE-GREEN-GRAY   | TH163                    |      | 86-3  |               |               | DAK95-16B      | DRK95-16B  |
| 363            | ORANGE-BLUE-ORANGE  | TH163                    | K43  | 86-7  |               |               | DAK95-20B      | DRK95-20B  |
| 357            | ORANGE-GREEN-VIOLET | TH163                    | K43  | 86-7  |               |               | DAK95-20B      | DRK95-20B  |
| 362            | ORANGE-BLUE-RED     |                          | K42  | 86-6  |               |               | DAK95-22B      | DRK95-22B  |
| 356            | ORANGE-GREEN-BLUE   |                          | K41  | 86-5  |               |               | DAK95-22B      | DRK95-22B  |
| 361            | ORANGE-BLUE-BROWN   |                          | K42  | 86-6  |               |               | DAK95-22MB     | DRK95-22MB |
| 355            | ORANGE-GREEN-GREEN  |                          | K41  | 86-5  |               |               | DAK95-22MB     | DRK95-22MB |
| 360            | ORANGE-BLUE-BLACK   |                          | K42  | 86-6  |               |               | DAK95-22MB     | DRK95-22MB |
| 354            | ORANGE-GREEN-YELLOW |                          | K41  | 86-5  |               |               | DAK95-22MB     | DRK95-22MB |

\*The three number suffix on M39029 series contacts is referred to as a "BIN" code. See page 27 for color stripe association.

Contact M39029/27-210 (Shielded Socket) #12 cavity, see page 81.

Contact M39029/28-271 (Shielded Pin) #12 cavity, see page 81.

Contact M39029/89 is a Thermocouple.

Contact M39029/102 (Coaxial Pin, Size 12), see page 82.

DMC does not provide connectors, contacts or wiring components. Parts shown here are for reference only. See disclaimer of liability on page 27.

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## SERIES 3 (PART 1 OF 3)



### TRI-START COUPLING CIRCULAR REAR RELEASE CONTACTS

| CONNECTOR P/N   | DESCRIPTION                  | QPL SOURCES   |
|-----------------|------------------------------|---|
| D38999/20       | WALL MOUNT FLANGE RECEPTACLE | AERO ELECTRIC, AMERICAN MICRO, AMPHENOL, AMPHENOL/SOCAPEX, CONESYS EUROPE, CORSAIR, DEUTSCH/TE, ELECTRONIC SEALS, G&H TECH/COOPER, HERMETIC SEAL, HI REL, ITT CANNON, PLESSEY, SEALTRON, SOURIAU, SPACECRAFT, GLENAIR |
| D38999/24 & /34 | JAM NUT MOUNT RECEPTACLE     |   |
| D38999/26       | STRAIGHT PLUG                |   |
| D38999/29 & /31 | LAYNARD RELEASE PLUG         |   |
| D38999/35       | WALL MOUNT RECEPTACLE        |   |
| D38999/36       | LAYNARD RELEASE PLUG         |   |

| CONTACTS                                    | SIZE (AWG) |             | PIN/SKT. | PART NUMBER*<br>(CURRENT) | PART NUMBER<br>(SUPERSEDED) | WIRE RANGE |
|---|------------|-------------|----------|---------------------------|-----------------------------|------------|
|   | MATING END | WIRE BARREL |          |                           |                             |            |
| <p><b>TYPICAL CONTACT CONFIGURATION</b></p> | 12         | 12          | P        | M39029/58-365             | MS27493-12                  | 12-14      |
|   | 12         | 12          | S        | M39029/56-353             | MS27490-12                  | 12-14      |
|   | 16         | 16          | P        | M39029/58-364             | MS27493-16                  | 16-20      |
|   | 16         | 16          | S        | M39029/56-352             | MS27490-16                  | 16-20      |
|   | 20         | 20          | P        | M39029/58-363             | MS27493-20                  | 20-24      |
|   | 20         | 20          | S        | M39029/56-351             | MS27490-20                  | 20-24      |
|   | 22         | 22          | P        | M39029/58-362             | MS27493-22                  | 22-26      |
|   | 22         | 22          | S        | M39029/56-350             | MS27490-22                  | 22-26      |
|   | 22         | 22M         | P        | M39029/58-361             | MS27493-22M                 | 24-28      |
|   | 22         | 22M         | S        | M39029/56-349             | MS27490-22M                 | 24-28      |
|   | 22         | 22D         | P        | M39029/58-360             | MS27493-22D                 | 22-28      |
|   | 22         | 22D         | S        | M39029/56-348             | MS27490-22D                 | 22-28      |
|   | 10         | 10          | P        | M39029/58-528             | —                           | 10         |
|   | 10         | 10          | S        | M39029/56-527             | —                           | 10         |

| TOOL SELECTION |                     | CRIMP TOOL AND ACCESSORY |      |       |                 | ASSEMBLY TOOLS |            |
|----------------|---------------------|--------------------------|------|-------|-----------------|----------------|------------|
| BIN*           | COLOR               | AF8                      | AFM8 | MH860 | 1716P-1         | INSTALLING     | REMOVAL    |
| 365            | ORANGE-BLUE-GREEN   | TH163                    |      |       |                 | DAK95-12B      | DRK95-12B  |
| 353            | ORANGE-GREEN-ORANGE | TH163                    |      |       |                 | DAK95-12B      | DRK95-12B  |
| 364            | ORANGE-BLUE-YELLOW  | TH163                    |      | 86-3  |                 | DAK95-16B      | DRK95-16B  |
| 352            | ORANGE-GREEN-RED    | TH163                    |      | 86-3  |                 | DAK95-16B      | DRK95-16B  |
| 363            | ORANGE-BLUE-ORANGE  | TH163                    | K43  | 86-7  |                 | DAK95-20B      | DRK95-20B  |
| 351            | ORANGE-GREEN-BROWN  | TH163                    | K43  | 86-7  |                 | DAK95-20B      | DRK95-20B  |
| 362            | ORANGE-BLUE-RED     |                          | K42  | 86-6  |                 | DAK95-22B      | DRK95-22B  |
| 350            | ORANGE-GREEN-BLACK  |                          | K40  | 86-4  |                 | DAK95-22B      | DRK95-22B  |
| 361            | ORANGE-BLUE-BROWN   |                          | K42  | 86-6  |                 | DAK95-22MB     | DRK95-22MB |
| 349            | ORANGE-YELLOW-WHITE |                          | K40  | 86-4  |                 | DAK95-22MB     | DRK95-22MB |
| 360            | ORANGE-BLUE-BLACK   |                          | K42  | 86-6  |                 | DAK95-22MB     | DRK95-22MB |
| 348            | ORANGE-YELLOW-GRAY  |                          | K40  | 86-4  |                 | DAK95-22MB     | DRK95-22MB |
| 528            | GREEN-RED-GRAY      |                          |      |       | AFFIXED TO HEAD | DAK95-10B      | DRK95-10B  |
| 527            | GREEN-RED-VIOLET    |                          |      |       | AFFIXED TO HEAD | DAK95-10B      | DRK95-10B  |

\* The three number suffix on M39029 series contacts is referred to as a "BIN" code. See page 27 for color stripe association.

Contact M39029/74-423 (Shielded Socket) #12 cavity, solder.  
 Contact M39029/75-416 to 432 (Shielded Socket) #12 cavity, see page 82.  
 Contact M39029/76-424 to 427 (Shielded Pin) #16 cavity, see page 82.  
 Contact M39029/77-428 to 431 (Shielded Socket) #16 cavity, see page 82.  
 Contact M39029/78-432 to 425 (Shielded Socket) #16 cavity, see page 82.  
 Contact M39029/87 and/88 are Thermocouples.

Contact M39029/90, 91, 113 and 114, see MIL-STD-1760 on page 45.  
 Contact M39029/102 (Coaxial Pin) Size 12. See page 82.  
 Contact M39029/103 (Coaxial Socket) Size 12. See page 82.

DMC does not provide connectors, contacts or wiring components. Parts shown here are for reference only. See disclaimer of liability on page 27.



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## SERIES 3 (PART 2 OF 3)



### TRI-START COUPLING CIRCULAR REAR RELEASE CONTACTS

| CONTACTS                                    | SIZE (AWG)    |                | PIN/SKT. | PART NUMBER*<br>(CURRENT) | PART NUMBER<br>(SUPERSEDED) | WIRE<br>RANGE |
|---|---------------|----------------|----------|---------------------------|-----------------------------|---------------|
|   | MATING<br>END | WIRE<br>BARREL |          |                           |                             |               |
| <p><b>TYPICAL CONTACT CONFIGURATION</b></p> | 10            | 10             | S        | M39029/117-637            | --                          | 10            |
|   | 10            | 10             | S        | M39029/117-643            | --                          | 10            |
|   | 10            | 10             | P        | M39029/118-649            | --                          | 10            |
|   | 10            | 10             | P        | M39029/118-655            | --                          | 10            |
|   | 12            | 12             | S        | M39029/117-636            | --                          | 12-14         |
|   | 12            | 12             | S        | M39029/117-642            | --                          | 12-14         |
|   | 12            | 12             | P        | M39029/118-648            | --                          | 12-14         |
|   | 12            | 12             | P        | M39029/118-654            | --                          | 12-14         |
|   | 16            | 16             | S        | M39029/117-635            | --                          | 16-20         |
|   | 16            | 16             | S        | M39029/117-641            | --                          | 16-20         |
|   | 16            | 16             | P        | M39029/118-647            | --                          | 16-20         |
|   | 16            | 16             | P        | M39029/118-653            | --                          | 16-20         |
|   | 20            | 20             | S        | M39029/117-634            | --                          | 20-24         |
|   | 20            | 20             | S        | M39029/117-640            | --                          | 20-24         |

Application Guide Contacts & Connectors

| TOOL SELECTION |                    | CRIMP TOOL AND ACCESSORY |      |       |                 | ASSEMBLY TOOLS |              |
|----------------|--------------------|--------------------------|------|-------|-----------------|----------------|--------------|
| BIN*           | COLOR              | AF8                      | AFM8 | MH860 | 1716P-1         | INSTALLING     | REMOVAL      |
| 637            | BLUE-ORANGE-VIOLET |                          |      |       | AFFIXED TO HEAD | M81969/14-05   | M81969/14-05 |
| 643            | BLUE-YELLOW-ORANGE |                          |      |       | AFFIXED TO HEAD | M81969/14-05   | M81969/14-05 |
| 649            | BLUE-YELLOW-WHITE  |                          |      |       | AFFIXED TO HEAD | M81969/14-05   | M81969/14-05 |
| 655            | BLUE-GREEN-GREEN   |                          |      |       | AFFIXED TO HEAD | M81969/14-05   | M81969/14-05 |
| 636            | BLUE-ORANGE-BLUE   | TH163                    |      |       |                 | DAK95-12B      | DRK95-12B    |
| 642            | BLUE-YELLOW-RED    | TH163                    |      |       |                 | DAK95-12B      | DRK95-12B    |
| 648            | BLUE-YELLOW-GRAY   | TH163                    |      |       |                 | DAK95-12B      | DRK95-16B    |
| 654            | BLUE-GREEN-YELLOW  | TH163                    |      |       |                 | DAK95-12B      | DRK95-16B    |
| 635            | BLUE-ORANGE-GREEN  | TH163                    |      | 86-3  |                 | DAK95-16B      | DRK95-16B    |
| 641            | BLUE-YELLOW-BROWN  | TH163                    |      | 86-3  |                 | DAK95-16B      | DRK95-16B    |
| 647            | BLUE-YELLOW-VIOLET | TH163                    |      | 86-3  |                 | DAK95-16B      | DRK95-16B    |
| 653            | BLUE-GREEN-ORANGE  | TH163                    |      | 86-3  |                 | DAK95-16B      | DRK95-16B    |
| 634            | BLUE-ORANGE-YELLOW | TH163                    | K43  |       |                 | DAK95-20B      | DRK95-20B    |
| 640            | BLUE-YELLOW-BLACK  | TH163                    | K43  |       |                 | DAK95-20B      | DRK95-20B    |
| 646            | BLUE-YELLOW-BLUE   | TH163                    | K43  |       |                 | DAK95-20B      | DRK95-20B    |
| 652            | BLUE-GREEN-RED     | TH163                    | K43  |       |                 | DAK95-20B      | DRK95-20B    |
| 632            | BLUE-ORANGE-RED    |                          | K40  | 86-4  |                 | DAK95-22MB     | DRK95-22MB   |
| 638            | BLUE-ORANGE-GRAY   |                          | K40  | 86-4  |                 | DAK95-22MB     | DRK95-22MB   |
| 644            | BLUE-YELLOW-YELLOW |                          | K42  | 86-6  |                 | DAK95-22MB     | DRK95-22MB   |
| 650            | BLUE-GREEN-BLACK   |                          | K42  | 86-6  |                 | DAK95-22MB     | DRK95-22MB   |

\*The three number suffix on M39029 series contacts is referred to as a "BIN" code. See page 27 for color stripe association.

DMC does not provide connectors, contacts or wiring components. Parts shown here are for reference only. See disclaimer of liability on page 27.

# MIL-DTL-38999

## SERIES 3 (PART 3 OF 3)



### TRI-START COUPLING CIRCULAR REAR RELEASE CONTACTS

| CONTACTS                                 | SIZE (AWG)    |                | PIN/SKT.       | PART NUMBER*<br>(CURRENT) | PART NUMBER<br>(SUPERSEDED) | WIRE<br>RANGE |
|--|---------------|----------------|----------------|---------------------------|-----------------------------|---------------|
|  | MATING<br>END | WIRE<br>BARREL |                |                           |                             |               |
| <br><b>TYPICAL CONTACT CONFIGURATION</b> | 10            | 10             | S              | M39029/121-668            | --                          | 10            |
|  | 10            | 10             | P              | M39029/122-675            | --                          | 10            |
|  | 12            | 12             | S              | M39029/121-667            | --                          | 12-14         |
|  | 12            | 12             | P              | M39029/122-674            | --                          | 12-14         |
|  | 16            | 16             | S              | M39029/121-666            | --                          | 16-20         |
|  | 16            | 16             | P              | M39029/122-673            | --                          | 16-20         |
|  | 20            | 20             | S              | M39029/121-665            | --                          | 20-24         |
|  | 20            | 20             | P              | M39029/122-672            | --                          | 20-24         |
|  | 22            | 22D            | S              | M39029/121-664            | --                          | 22-28         |
|  | 22            | 22D            | P              | M39029/122-671            | --                          | 22-28         |
|  | 23            | 26             | S              | M39029/121-662            | --                          | 23-26         |
|  | 23            | 26             | P              | M39029/122-669            | --                          | 23-26         |
| 23                                       | 22            | S              | M39029/121-663 | --                        | 22-26                       |               |
| 23                                       | 22            | P              | M39029/122-670 | --                        | 22-26                       |               |

| TOOL SELECTION |  | CRIMP TOOL AND ACCESSORY |              |              |                                    | ASSEMBLY TOOLS             |                            |
|----------------|--|--------------------------|--------------|--------------|------------------------------------|----------------------------|----------------------------|
| BIN*           | COLOR                                  | AF8                      | AFM8         | MH860        | 1716P-1                            | INSTALLING                 | REMOVAL                    |
| 668<br>675     | BLUE-BLUE-GRAY<br>BLUE-VIOLET-GREEN    |                          |              |              | AFFIXED TO HEAD<br>AFFIXED TO HEAD | DAK95-10B<br>DAK95-10B     | DRK95-10B<br>DRK95-10B     |
| 667<br>674     | BLUE-BLUE-VIOLET<br>BLUE-VIOLET-YELLOW | TH163<br>TH163           |              |              |                                    | DAK95-12B<br>DAK95-12B     | DRK95-12B<br>DRK95-12B     |
| 666<br>673     | BLUE-BLUE-BLUE<br>BLUE-VIOLET-ORANGE   | TH163<br>TH163           |              | 86-3<br>86-3 |                                    | DAK95-16B<br>DAK95-16B     | DRK95-16B<br>DRK95-16B     |
| 665<br>672     | BLUE-BLUE-GREEN<br>BLUE-VIOLET-RED     | TH163<br>TH163           | K43<br>K43   |              |                                    | DAK95-20B<br>DAK95-20B     | DRK95-20B<br>DRK95-20B     |
| 664<br>671     | BLUE-BLUE-YELLOW<br>BLUE-VIOLET-BROWN  |                          | K40<br>K40   | 86-4<br>86-4 |                                    | DAK95-22MB<br>DAK95-22MB   | DRK95-22MB<br>DRK95-22MB   |
| 662<br>669     | BLUE-BLUE-RED<br>BLUE-BLUE-WHITE       |                          | K339<br>K339 |              |                                    | M81969/1-05<br>M81969/1-05 | M81969/1-05<br>M81969/1-05 |

\*The three number suffix on M39029 series contacts is referred to as a "BIN" code. See page 27 for color stripe association.

# MIL-STD-1760 (MIL-DTL-38999 - SERIES III VARIATION)



MIL-STD 1760 provides a common, cross platform, mechanical, electrical, and digital interface between weapons/external equipment stores and aircraft. The standard MIL-STD-1760 connector is used to transfer guidance information to weapons.

The standard connector for MIL-STD-1760 is D38999 Series III (Reference MIL-DTL-83538) Insert Arrangement #25-20. Lanyard Release Plug (/31), and Jam Nut or Flange Mount Receptacles (Also Rail Launch Configuration is available).

## POWER CONTACTS

| CONTACT PART NUMBER | TYPE | SIZE | CRIMP TOOL | POSITIONER     | INSERTION TOOL* | REMOVAL TOOL* |
|---------------------|------|------|------------|----------------|-----------------|---------------|
| M39029/58-363       | P    | 20   | AFM8       | K43            | DAK95-20B       | DRK95-20B     |
| M39029/56-351       | S    | 20   | AFM8       | K43            | DAK95-20B       | DRK95-20B     |
| M39029/58-364       | P    | 16   | AF8        | TH163          | DAK95-16B       | DRK95-16B     |
| M39029/56-352       | S    | 16   | AF8        | TH163          | DAK95-16B       | DRK95-16B     |
| M39029/58-528       | P    | 10   | 1716P-1    | N/A (Included) | DAK95-10B       | DRK95-10B     |
| M39029/56-527       | S    | 10   | 1716P-1    | N/A (Included) | DAK95-10B       | DRK95-10B     |

## COAXIAL CONTACTS

| CONTACT PART NUMBER | TYPE | SIZE | INNER CRIMP TOOL & POSITIONER |      | OUTER CRIMP TOOL & POSITIONER |        | INSERTION TOOL* | REMOVAL TOOL* |
|---------------------|------|------|-------------------------------|------|-------------------------------|--------|-----------------|---------------|
| M39029/28-211       | P    | 12   | AFM8                          | K323 | GS200-1                       | G2P330 | DAK264-12       | DRK264-12     |
| M39029/75-416       | S    | 12   | AFM8                          | K323 | GS200-1                       | G2P330 | DAK264-12       | DRK264-12     |
| M39029/28-409       | P    | 12   | AFM8                          | K323 | GS200-1                       | G2P330 | DAK264-12       | DRK264-12     |
| M39029/75-417       | S    | 12   | AFM8                          | K323 | GS200-1                       | G2P330 | DAK264-12       | DRK264-12     |

\* Insertion and Removal of Contacts in MIL-STD-1760 Applications require straight tools due to the restricted access of Lanyard Release Connectors. DAK264-XX Tweezer Type Tools have the same Tip configuration as the corresponding M81969/8-XXX Tools assigned to normal Contact Insertion and Removal operations in D38999, Series III Connectors.

## DATA BUS (CONCENTRIC TWINAX) CONTACTS

| CONTACT PART NUMBER                      | TYPE | SIZE | INNER CRIMP TOOL & POSITIONER |       | INTERMEDIATE CRIMP TOOL & DIE |                 | OUTER CRIMP TOOL & DIE |                  |
|--|------|------|-------------------------------|-------|-------------------------------|-----------------|------------------------|------------------|
| M39029/90-529                            | P    | 8    | AFM8                          | K709  | HX4                           | Y631 Cir/Indent | Y631 Hex Cavity        | --               |
| M39029/91-530                            | S    | 8    | AFM8                          | K709  | HX4                           | Y631 Cir/Indent | Y631 Hex Cavity        | --               |
| M39029/90-529<br>Alternate Pre-Assembled | P    | 8    | MH860                         | 86-19 | --                            | --              | Y631 Hex Cavity        | Y207P Hex Cavity |
| M39029/91-530<br>Alternate Pre-Assembled | S    | 8    | MH860                         | 86-19 | --                            | --              | Y631 Hex Cavity        | Y207P Hex Cavity |
| M39029/113-625                           | P    | 8    | AFM8                          | K709  | HX4                           | Y631 Cir/Indent | Y631 Hex Cavity        | --               |
| M39029/114-628                           | S    | 8    | AFM8                          | K709  | HX4                           | Y631 Cir/Indent | Y631 Hex Cavity        | --               |

All Size 8 Data Bus Contacts can be inserted with the DAK264-8 and Removed with DRK264-8 Straight Metal Tools (Tweezer Type).

Tool Kits are available for complete MIL-STD-1760 Wiring Support. Consult DMC for Details.

Lanyard Repair Tools and Components are available from DMC. Contact Customer Service for details.

DMC does not provide connectors, contacts or wiring components. Parts shown here are for reference only. See disclaimer of liability on page 27.


# MIL-DTL-38999

## SERIES 4 (PART 1 OF 2)



### BREECH LOCK COUPLING CIRCULAR REAR RELEASE CONTACTS

| CONNECTOR P/N | DESCRIPTION                  | QPL SOURCES   |
|---------------|------------------------------|---|
| D38999/40     | WALL MOUNT FLANGE RECEPTACLE | CORSAIR, G&H TECH/COOPER, AMPHENOL, AMPHENOL/SOCAPEX, AERO ELECTRIC, DEUTSCH/TE, ELECTRONIC SEALS, ITT CANNON, PLESSEY, AB CONNECTORS, HI REL, SEALTRON, HERMETIC SEAL, CONESYS EUROPE, AMERICAN MICRO, SPACECRAFT, SOURAIU |
| D38999/42     | BOX MOUNT FLANGE RECEPTACLE  |   |
| D38999/44     | JAM NUT MOUNT RECEPTACLE     |   |
| D38999/46     | STRAIGHT PLUG                |   |
| D38999/47     | STRAIGHT PLUG                |   |
| D38999/47     | CABLE MOUNT RECEPTACLE       |   |

| CONTACTS   | SIZE (AWG) |             | PIN/SKT. | PART NUMBER*<br>(CURRENT) | PART NUMBER<br>(SUPERSEDED) | WIRE RANGE |
|--|------------|-------------|----------|---------------------------|-----------------------------|------------|
|  | MATING END | WIRE BARREL |          |                           |                             |            |
|  <p><b>TYPICAL CONTACT CONFIGURATION</b></p> | 12         | 12          | P        | M39029/58-365             | MS27493-12                  | 12-14      |
|  | 12         | 12          | S        | M39029/56-353             | MS27490-12                  | 12-14      |
|  | 16         | 16          | P        | M39029/58-364             | MS27493-16                  | 16-20      |
|  | 16         | 16          | S        | M39029/56-352             | MS27490-16                  | 16-20      |
|  | 20         | 20          | P        | M39029/58-363             | MS27493-20                  | 20-24      |
|  | 20         | 20          | S        | M39029/56-351             | MS27490-20                  | 20-24      |
|  | 22         | 22          | P        | M39029/58-362             | MS27493-22                  | 22-26      |
|  | 22         | 22          | S        | M39029/56-350             | MS27490-22                  | 22-26      |
|  | 22         | 22M         | P        | M39029/58-361             | MS27493-22M                 | 24-28      |
|  | 22         | 22M         | S        | M39029/56-349             | MS27490-22M                 | 24-28      |
|  | 22         | 22D         | P        | M39029/58-360             | MS27493-22D                 | 22-28      |
|  | 22         | 22D         | S        | M39029/56-348             | MS27490-22D                 | 22-28      |

| TOOL SELECTION |                     | CRIMP TOOL AND ACCESSORY |      |       |         | ASSEMBLY TOOLS |            |
|----------------|---------------------|--------------------------|------|-------|---------|----------------|------------|
| BIN*           | COLOR               | AF8                      | AFM8 | MH860 | 1716P-1 | INSTALLING     | REMOVAL    |
| 365            | ORANGE-BLUE-GREEN   | TH163                    |      |       |         | DAK95-12B      | DRK95-12B  |
| 353            | ORANGE-GREEN-ORANGE | TH163                    |      |       |         | DAK95-12B      | DRK95-12B  |
| 364            | ORANGE-BLUE-YELLOW  | TH163                    |      | 86-3  |         | DAK95-16B      | DRK95-16B  |
| 352            | ORANGE-GREEN-RED    | TH163                    |      | 86-3  |         | DAK95-16B      | DRK95-16B  |
| 363            | ORANGE-BLUE-ORANGE  | TH163                    | K43  | 86-7  |         | DAK95-20B      | DRK95-20B  |
| 351            | ORANGE-GREEN-BROWN  | TH163                    | K43  | 86-7  |         | DAK95-20B      | DRK95-20B  |
| 362            | ORANGE-BLUE-RED     |                          | K42  | 86-6  |         | DAK95-22B      | DRK95-22B  |
| 350            | ORANGE-GREEN-BLACK  |                          | K40  | 86-4  |         | DAK95-22B      | DRK95-22B  |
| 361            | ORANGE-BLUE-BROWN   |                          | K42  | 86-6  |         | DAK95-22MB     | DRK95-22MB |
| 349            | ORANGE-YELLOW-WHITE |                          | K40  | 86-4  |         | DAK95-22MB     | DRK95-22MB |

\*The three number suffix on M39029 series contacts is referred to as a "BIN" code. See page 27 for color stripe association.

Contact M39029/74-423 (Shielded Socket) #12 cavity, solder.  
 Contact M39029/75-416 to -432 (Shielded Socket) #12 cavity, see page 82.  
 Contact M39029/76-424 to -427 (Shielded Pin) #16 cavity, see page 82.  
 Contact M39029/77-428 to -431 (Shielded Socket) #16 cavity, see page 82.  
 Contact M39029/78-432 to -425 (Shielded Socket) #16 cavity, see page 82.  
 Contact M39029/87 and /88 are Thermocouples.

Contact M39029/90, /91, /113 and /114, see MIL-STD-1760 on page 45.  
 Contact M39029/102 (Coaxial Pin) Size 12. See page 82.  
 Contact M39029/103 (Coaxial Socket) Size 12. See page 82.

DMC does not provide connectors, contacts or wiring components. Parts shown here are for reference only. See disclaimer of liability on page 27.



# MIL-DTL-38999

## SERIES 4 (PART 2 OF 2)



### BREECH LOCK COUPLING CIRCULAR REAR RELEASE CONTACTS

| CONTACTS                                    | SIZE (AWG)    |                | PIN/SKT. | PART NUMBER*<br>(CURRENT) | PART NUMBER<br>(SUPERSEDED) | WIRE<br>RANGE |
|---|---------------|----------------|----------|---------------------------|-----------------------------|---------------|
|   | MATING<br>END | WIRE<br>BARREL |          |                           |                             |               |
| <p><b>TYPICAL CONTACT CONFIGURATION</b></p> | 10            | 10             | S        | M39029/117-637            | --                          | 10            |
|   | 10            | 10             | S        | M39029/117-643            | --                          | 10            |
|   | 10            | 10             | P        | M39029/118-649            | --                          | 10            |
|   | 10            | 10             | P        | M39029/118-655            | --                          | 10            |
|   | 12            | 12             | S        | M39029/117-636            | --                          | 12-14         |
|   | 12            | 12             | S        | M39029/117-642            | --                          | 12-14         |
|   | 12            | 12             | P        | M39029/118-648            | --                          | 12-14         |
|   | 12            | 12             | P        | M39029/118-654            | --                          | 12-14         |
|   | 16            | 16             | S        | M39029/117-635            | --                          | 16-20         |
|   | 16            | 16             | S        | M39029/117-641            | --                          | 16-20         |
|   | 16            | 16             | P        | M39029/118-647            | --                          | 16-20         |
|   | 16            | 16             | P        | M39029/118-653            | --                          | 16-20         |
|   | 20            | 20             | S        | M39029/117-634            | --                          | 20-24         |
|   | 20            | 20             | S        | M39029/117-640            | --                          | 20-24         |

Application Guide Contacts & Connectors

| TOOL SELECTION |                    | CRIMP TOOL AND ACCESSORY |      |       |                 | ASSEMBLY TOOLS |              |
|----------------|--------------------|--------------------------|------|-------|-----------------|----------------|--------------|
| BIN*           | COLOR              | AF8                      | AFM8 | MH860 | 1716P-1         | INSTALLING     | REMOVAL      |
| 637            | BLUE-ORANGE-VIOLET |                          |      |       | AFFIXED TO HEAD | M81969/14-05   | M81969/14-05 |
| 643            | BLUE-YELLOW-ORANGE |                          |      |       | AFFIXED TO HEAD | M81969/14-05   | M81969/14-05 |
| 649            | BLUE-YELLOW-WHITE  |                          |      |       | AFFIXED TO HEAD | M81969/14-05   | M81969/14-05 |
| 655            | BLUE-GREEN-GREEN   |                          |      |       | AFFIXED TO HEAD | M81969/14-05   | M81969/14-05 |
| 636            | BLUE-ORANGE-BLUE   | TH163                    |      |       |                 | DAK95-12B      | DRK95-12B    |
| 642            | BLUE-YELLOW-RED    | TH163                    |      |       |                 | DAK95-12B      | DRK95-12B    |
| 648            | BLUE-YELLOW-GRAY   | TH163                    |      |       |                 | DAK95-12B      | DRK95-16B    |
| 654            | BLUE-GREEN-YELLOW  | TH163                    |      |       |                 | DAK95-12B      | DRK95-16B    |
| 635            | BLUE-ORANGE-GREEN  | TH163                    |      | 86-3  |                 | DAK95-16B      | DRK95-16B    |
| 641            | BLUE-YELLOW-BROWN  | TH163                    |      | 86-3  |                 | DAK95-16B      | DRK95-16B    |
| 647            | BLUE-YELLOW-VIOLET | TH163                    |      | 86-3  |                 | DAK95-16B      | DRK95-16B    |
| 653            | BLUE-GREEN-ORANGE  | TH163                    |      | 86-3  |                 | DAK95-16B      | DRK95-16B    |
| 634            | BLUE-ORANGE-YELLOW | TH163                    | K43  |       |                 | DAK95-20B      | DRK95-20B    |
| 640            | BLUE-YELLOW-BLACK  | TH163                    | K43  |       |                 | DAK95-20B      | DRK95-20B    |
| 646            | BLUE-YELLOW-BLUE   | TH163                    | K43  |       |                 | DAK95-20B      | DRK95-20B    |
| 652            | BLUE-GREEN-RED     | TH163                    | K43  |       |                 | DAK95-20B      | DRK95-20B    |
| 632            | BLUE-ORANGE-RED    |                          | K40  | 86-4  |                 | DAK95-22MB     | DRK95-22MB   |
| 638            | BLUE-ORANGE-GRAY   |                          | K40  | 86-4  |                 | DAK95-22MB     | DRK95-22MB   |
| 644            | BLUE-YELLOW-YELLOW |                          | K42  | 86-6  |                 | DAK95-22MB     | DRK95-22MB   |
| 650            | BLUE-GREEN-BLACK   |                          | K42  | 86-6  |                 | DAK95-22MB     | DRK95-22MB   |

\*The three number suffix on M39029 series contacts is referred to as a "BIN" code. See page 27 for color stripe association.

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# AS50151 (FORMERLY MIL-C-5015) SERIES 3400



## CIRCULAR THREADED COUPLING FRONT RELEASE CONTACTS

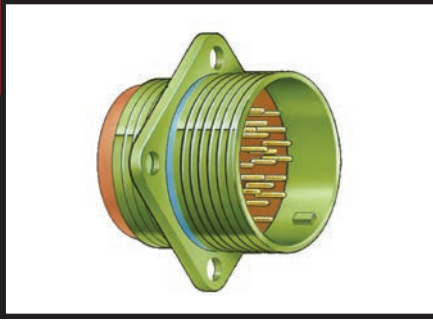
| CONNECTOR P/N | DESCRIPTION                     | QPL SOURCES   |
|---------------|---------------------------------|---|
| MS3400        | WALL MOUNT RECEPTACLE           | AERO-ELECTRIC CONNECTORS<br>CORSAIR ELECTRICAL<br>J-TECH, INC.<br>ELECSYS, INC. |
| MS3401        | CABLE CONNECTING RECEPTACLE     |   |
| MS3402        | BOX MOUNT RECEPTACLE            |   |
| MS3404        | JAM NUT MOUNT RECEPTACLE        |   |
| MS3406        | STRAIGHT PLUG                   |   |
| MS3408        | PLUG 90°                        |   |
| MS3409        | PLUG 45°                        |   |
| MS3412        | WALL MOUNT RECEPTACLE (AN TYPE) |   |

| CONTACTS                                    | SIZE (AWG) |             | PIN/SKT. | PART NUMBER*<br>(CURRENT) | PART NUMBER<br>(SUPERSEDED) | WIRE RANGE |
|---|------------|-------------|----------|---------------------------|-----------------------------|------------|
|   | MATING END | WIRE BARREL |          |                           |                             |            |
| <p><b>TYPICAL CONTACT CONFIGURATION</b></p> | 0          | 0           | P        | M39029/44-293             | MS90453-0-0                 | 0-2*       |
|   | 0          | 0           | S        | M39029/45-300             | MS90454-0-0                 | 0-2*       |
|   | 4          | 4           | P        | M39029/44-292             | MS90453-4-0                 | 4-6*       |
|   | 4          | 4           | S        | M39029/45-299             | MS90454-4-0                 | 4-6*       |
|   | 8          | 8           | P        | M39029/44-291             | MS90453-8-0                 | 8-10*      |
|   | 8          | 8           | S        | M39029/45-298             | MS90454-8-0                 | 8-10*      |
|   | 12         | 12          | P        | M39029/44-290             | MS90453-12-12               | 12-14      |
|   | 12         | 12          | S        | M39029/45-297             | MS90454-12-12               | 12-14      |
|   | 12         | 16          | P        | M39029/44-289             | MS90453-12-16               | 16-20      |
|   | 12         | 16          | S        | M39029/45-296             | MS90454-12-16               | 16-20      |
|   | 16         | 16          | P        | M39029/44-288             | MS90453-16-16               | 16-20      |
|   | 16         | 16          | S        | M39029/45-295             | MS90454-16-16               | 16-20      |
|   | 16         | 22          | P        | M39029/44-287             | MS90453-16-22               | 22-26      |
|   | 16         | 22          | S        | M39029/45-294             | MS90454-16-22               | 22-26      |

| TOOL SELECTION |  | CRIMP TOOL AND ACCESSORY |      |              |                  |                    | ASSEMBLY TOOLS         |                        |
|----------------|--|--------------------------|------|--------------|------------------|--------------------|------------------------|------------------------|
| BIN*           | COLOR                                  | AF8                      | AFM8 | MH860        | WA23 (POS)       | WA23 (DIE)         | INSTALLING             | REMOVAL                |
| 293<br>300     | RED-WHITE-ORANGE<br>ORANGE-BLACK-BLACK |                          |      |              | WA23-5<br>WA23-5 | WA23-13<br>WA23-13 | DAK55-0B<br>DAK55-0B   | DRK56-0B<br>DRK56-0B   |
| 292<br>299     | RED-WHITE-RED<br>RED-WHITE-WHITE       |                          |      |              | WA23-4<br>WA23-4 | WA23-11<br>WA23-11 | DAK55-4B<br>DAK55-4B   | DRK56-4B<br>DRK56-4B   |
| 291<br>298     | RED-WHITE-BROWN<br>RED-WHITE-GRAY      |                          |      |              | WA23-2<br>WA23-2 | WA23-9<br>WA23-9   | DAK55-8B<br>DAK55-8B   | DRK56-8B<br>DRK56-8B   |
| 290<br>297     | RED-WHITE-BLACK<br>RED-WHITE-VIOLET    | TH1A<br>TH1A             |      |              |                  |                    | DAK55-12A<br>DAK55-12A | DRK56-12A<br>DRK56-12A |
| 289<br>296     | RED-GRAY-WHITE<br>RED-WHITE-BLUE       | TH1A<br>TH1A             |      |              |                  |                    | DAK55-12A<br>DAK55-12A | DRK56-12A<br>DRK56-12A |
| 288<br>295     | RED-GRAY-GRAY<br>RED-WHITE-GREEN       | TH1A<br>TH1A             |      | 86-2<br>86-2 |                  |                    | DAK55-16A<br>DAK55-16A | DRK56-16A<br>DRK56-16A |
| 287<br>294     | RED-GRAY-VIOLET<br>RED-WHITE-YELLOW    | TH1A<br>TH1A             |      | 86-2<br>86-2 |                  |                    | DAK55-16A<br>DAK55-16A | DRK56-16A<br>DRK56-16A |

\*The three number suffix on M39029 series contacts is referred to as a "BIN" code. See page 27 for color stripe association.

DMC does not provide connectors, contacts or wiring components. Parts shown here are for reference only. See disclaimer of liability on page 27.



# AS50151 (FORMERLY MIL-C-5015) SERIES 3450

## CIRCULAR THREADED COUPLING REAR RELEASE CONTACTS

| CONNECTOR P/N | DESCRIPTION                 | QPL SOURCES   |
|---------------|-----------------------------|---|
| MS3450        | WALL MOUNT RECEPTACLE       | AERO-ELECTRIC CONNECTORS<br>ITT CANNON<br>J-TECH, INC.<br>AMPHENOL AEORSPACE<br>ELECSYS, INC.<br>CORSAIR ELECTRICAL |
| MS3451        | CABLE CONNECTING RECEPTACLE |   |
| MS3452        | BOX MOUNT RECEPTACLE        |   |
| MS3454        | JAM NUT MOUNT RECEPTACLE    |   |
| MS3456        | STRAIGHT PLUG               |   |
| MS3459        | SELF-LOCK COUPLING PLUG     |   |

| CONTACTS                                 | SIZE (AWG) |             | PIN/SKT. | PART NUMBER*<br>(CURRENT) | PART NUMBER<br>(SUPERSEDED)        | WIRE RANGE |
|--|------------|-------------|----------|---------------------------|------------------------------------|------------|
|  | MATING END | WIRE BARREL |          |                           |                                    |            |
| <br><b>TYPICAL CONTACT CONFIGURATION</b> | 12         | 12          | P        | M39029/29-213<br>—        | M39029/29-12-12<br>or MS3162-12-12 | 12-14      |
|  | 12         | 12          | S        | M39029/30-219<br>—        | M39029/30-12-12<br>or MS3163-12-12 | 12-14      |
|  | 16         | 16          | P        | M39029/29-212<br>—        | M39029/29-16-16<br>or MS3162-16-16 | 16-20      |
|  | 16         | 16          | S        | M39029/30-218<br>—        | M39029/30-16-16<br>or MS3163-16-16 | 16-20      |
|  | 8          | 8           | P        | M39029/29-214             | M39029/29-8-8                      | 8          |
|  | 8          | 8           | S        | M39029/30-220             | M39029/30-8-8                      | 8          |
|  | 4          | 4           | P        | M39029/29-215             | M39029/29-4-4                      | 4          |
|  | 4          | 4           | S        | M39029/30-221             | M39029/30-4-4                      | 4          |
|  | 0          | 0           | P        | M39029/29-216             | M39029/29-0-0                      | 0          |
|  | 0          | 0           | S        | M39029/30-222             | M39029/30-0-0                      | 0          |

| TOOL SELECTION |                                   | CRIMP TOOL AND ACCESSORY |      |       |                    |                  | ASSEMBLY TOOLS     |  |
|----------------|-----------------------------------|--------------------------|------|-------|--------------------|------------------|--------------------|--|
| BIN*           | COLOR                             | AF8                      | AFM8 | MH860 | WA23<br>(POS)      | WA23<br>(DIE)    | INSTALLING         | REMOVAL  |
| 213            | RED-BROWN-ORANGE                  | TH1A                     |      |       |                    |                  | DAK83-12B          | DRK83-12B  |
| 219            | RED-BROWN-WHITE                   | TH1A                     |      |       |                    |                  | DAK83-12B          | DRK83-12B  |
| 212<br>—       | RED-BROWN-RED                     | TH1A                     |      | 86-2  |                    |                  | DAK83-16B          | DRK83-16B  |
| 218<br>—       | RED-BROWN-GRAY                    | TH1A                     |      | 86-2  |                    |                  | DAK83-16B          | DRK83-16B  |
| 214<br>220     | RED-BROWN-YELLOW<br>RED-RED-BLACK |                          |      |       | WA23-9<br>WA23-9   | WA23-2<br>WA23-2 | BY HAND<br>BY HAND | DRK250-8 OR<br>M81969/14-06<br>DRK250-8 OR<br>M81969/14-06 |
| 215<br>221     | RED-BROWN-GREEN<br>RED-RED-BROWN  |                          |      |       | WA23-11<br>WA23-11 | WA23-4<br>WA23-4 | BY HAND<br>BY HAND | DRK250-4 OR<br>M81969/14-07<br>DRK250-4 OR<br>M81969/14-07 |

\*The three number suffix on M39029 series contacts is referred to as a "BIN" code. See page 27 for color stripe association.

Contacts M39029/85 and /86 are Thermocouples.

DMC does not provide connectors, contacts or wiring components. Parts shown here are for reference only. See disclaimer of liability on page 27.

# SAE AS81511 SERIES 1



## SCOOP PROOF\*\* CIRCULAR BAYONET COUPLING FRONT RELEASE CONTACTS

| CONNECTOR P/N   | DESCRIPTION                 | QPL SOURCES   |
|-----------------|-----------------------------|---------------|
| M81511/21 & /35 | FLANGE MOUNT RECEPTACLE     | NO QPL SOURCE |
| M81511/23 & /36 | JAM NUT RECEPTACLE          |               |
| M81511/25 & /37 | CABLE CONNECTING RECEPTACLE |               |
| M81511/26 & /38 | STRAIGHT PLUG               |               |

| CONTACTS                                 | SIZE (AWG) |             | PIN/SKT. | PART NUMBER*<br>(CURRENT) | PART NUMBER<br>(SUPERSEDED) | WIRE RANGE |
|--|------------|-------------|----------|---------------------------|-----------------------------|------------|
|  | MATING END | WIRE BARREL |          |                           |                             |            |
| <br><b>TYPICAL CONTACT CONFIGURATION</b> | 12         | 12          | P        | M39029/47-339             | MS90461B12-12               | 12-14      |
|  | 12         | 12          | S        | M39029/33-270             | MS3343B12-12                | 12-14      |
|  | 16         | 16          | P        | M39029/47-337             | MS90461B16-16               | 16-20      |
|  | 16         | 16          | S        | M39029/33-268             | MS3343B16-16                | 16-20      |
|  | 20         | 20          | P        | M39029/47-316             | MS90461B20-20               | 20-24      |
|  | 20         | 20          | S        | M39029/33-266             | MS3343B20-20                | 20-24      |
|  | 23         | 22          | P        | M39029/47-314             | MS90461B23-22               | 22-26      |
|  | 23         | 22          | S        | M39029/33-264             | MS3343B23-22                | 22-26      |
|  | 23         | 28          | P        | M39029/47-312             | MS90461B23-28               | 28-32      |
|  | 23         | 28          | S        | M39029/33-262             | MS3343B23-28                | 28-32      |

| TOOL SELECTION |                      | CRIMP TOOL AND ACCESSORY |      |        |            |            | ASSEMBLY TOOLS |            |
|----------------|----------------------|--------------------------|------|--------|------------|------------|----------------|------------|
| BIN*           | COLOR                | AF8                      | AFM8 | MH860  | WA23 (POS) | WA23 (DIE) | INSTALLING     | REMOVAL    |
| 339            | ORANGE-ORANGE-WHITE  | TH199S                   |      |        |            |            | DAK126-12A     | DRK125-12A |
| 270            | RED-VIOLET-BLACK     | TH199S                   |      |        |            |            | DAK126-12A     | DRK129-12A |
| 337            | ORANGE-ORANGE-VIOLET | TH199S                   |      | 86-12S |            |            | DAK126-16A     | DRK125-16A |
| 268            | RED-BLUE-GRAY        | TH199S                   |      | 86-12S |            |            | DAK126-16A     | DRK129-16A |
| 316            | ORANGE-BROWN-BLUE    | TH199S                   |      | 86-11S |            |            | DAK126-20A     | DRK125-20A |
| 266            | RED-BLUE-BLUE        | TH199S                   |      | 86-11S |            |            | DAK126-20A     | DRK129-20A |
| 314            | ORANGE-BROWN-YELLOW  |                          | K60S |        |            |            | DAK126-23A     | DRK125-23A |
| 264            | RED-BLUE-YELLOW      |                          | K60S |        |            |            | DAK126-23A     | DRK129-23A |
| 312            | ORANGE-BROWN-RED     |                          | K60S |        |            |            | DAK126-23A     | DRK125-23A |
| 262            | RED-BLUE-RED         |                          | K60S |        |            |            | DAK126-23A     | DRK129-23A |

\*The three number suffix on M39029 series contacts is referred to as a "BIN" code. See page 27 for color stripe association.

\*\*Scoop proof when pins are installed in the receptacle, but not when pins are installed in the plug.



# SAE AS81511 SERIES 2



**50% SCOOP PROOF\*\***  
**CIRCULAR BAYONET COUPLING**  
**FRONT RELEASE CONTACTS**

| CONNECTOR P/N  | DESCRIPTION                 | QPL SOURCES   |
|----------------|-----------------------------|---------------|
| M81511/1 & /31 | FLANGE MOUNT RECEPTACLE     | NO QPL SOURCE |
| M81511/3 & /32 | JAM NUT MOUNT RECEPTACLE    |               |
| M81511/5 & /33 | CABLE CONNECTING RECEPTACLE |               |
| M81511/6 & /34 | STRAIGHT PLUG               |               |

| CONTACTS                                    | SIZE (AWG)    |                | PIN/SKT. | PART NUMBER*<br>(CURRENT) | PART NUMBER<br>(SUPERSEDED) | WIRE<br>RANGE |
|---|---------------|----------------|----------|---------------------------|-----------------------------|---------------|
|   | MATING<br>END | WIRE<br>BARREL |          |                           |                             |               |
| <p><b>TYPICAL CONTACT CONFIGURATION</b></p> | 12            | 12             | P        | M39029/47-339             | MS90461A12-12               | 12-14         |
|   | 12            | 12             | S        | M39029/46-310             | MS90460B12-12               | 12-14         |
|   | 16            | 16             | P        | M39029/47-337             | MS90461B16-16               |               |
|   | 16            | 16             | S        | M39029/46-308             | MS90460B16-16               | 16-20         |
|   | 20            | 20             | P        | M39029/47-316             | MS90461B20-20               | 20-24         |
|   | 20            | 20             | S        | M39029/46-306             | MS90460B20-20               | 20-24         |
|   | 23            | 22             | P        | M39029/47-314             | MS90461B23-22               | 22-26         |
|   | 23            | 22             | S        | M39029/46-304             | MS90460B23-22               | 22-26         |
|   | 23            | 28             | P        | M39029/47-312             | MS90461B23-28               | 28-32         |
|   | 23            | 28             | S        | M39029/46-302             | MS90460B23-28               | 28-32         |

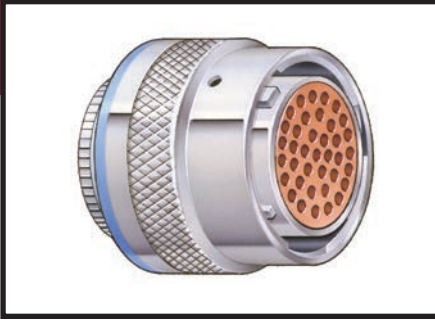
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| TOOL SELECTION |                      | CRIMP TOOL AND ACCESSORY |      |        |               |               | ASSEMBLY TOOLS |            |
|----------------|----------------------|--------------------------|------|--------|---------------|---------------|----------------|------------|
| BIN*           | COLOR                | AF8                      | AFM8 | MH860  | WA23<br>(POS) | WA23<br>(DIE) | INSTALLING     | REMOVAL    |
| 339            | ORANGE-ORANGE-WHITE  | TH199S                   |      |        |               |               | DAK126-12A     | DRK125-12A |
| 310            | ORANGE-BROWN-BLACK   | TH199S                   |      |        |               |               | DAK126-12A     | DRK129-12A |
| 337            | ORANGE-ORANGE-VIOLET | TH199S                   |      | 86-12S |               |               | DAK126-16A     | DRK125-16A |
| 308            | ORANGE-BLACK-GRAY    | TH199S                   |      | 86-12S |               |               | DAK126-16A     | DRK129-16A |
| 316            | ORANGE-BROWN-BLUE    | TH199S                   |      | 86-11S |               |               | DAK126-20A     | DRK125-20A |
| 306            | ORANGE-BLACK-BLUE    | TH199S                   |      | 86-11S |               |               | DAK126-20A     | DRK129-20A |
| 314            | ORANGE-BROWN-YELLOW  |                          | K60S |        |               |               | DAK126-23A     | DRK125-23A |
| 304            | ORANGE-BLACK-YELLOW  |                          | K60S |        |               |               | DAK126-23A     | DRK129-23A |
| 312            | ORANGE-BROWN-RED     |                          | K60S |        |               |               | DAK126-23A     | DRK125-23A |
| 302            | ORANGE-BLACK-RED     |                          | K60S |        |               |               | DAK126-23A     | DRK129-23A |

\*The three number suffix on M39029 series contacts is referred to as a "BIN" code. See page 27 for color stripe association.

\*\*Scoop proof when pins are installed in the receptacle, but not when pins are installed in the plug.

# SAE AS81511 SERIES 3



## SCOOP PROOF\*\* CIRCULAR BAYONET COUPLING REAR RELEASE CONTACTS

| CONNECTOR P/N | DESCRIPTION                 | QPL SOURCES |
|---------------|-----------------------------|-------------|
| M81511/41     | FLANGE MOUNT RECEPTACLE     | TE/DEUTSCH  |
| M81511/45     | CABLE CONNECTING RECEPTACLE |             |
| M81511/46     | STRAIGHT PLUG               |             |
| M81511/49     | JAM NUT MOUNT RECEPTACLE    |             |

| CONTACTS                                    | SIZE (AWG) |             | PIN/SKT. | PART NUMBER*<br>(CURRENT) | PART NUMBER<br>(SUPERSEDED) | WIRE RANGE |
|---|------------|-------------|----------|---------------------------|-----------------------------|------------|
|   | MATING END | WIRE BARREL |          |                           |                             |            |
| <p><b>TYPICAL CONTACT CONFIGURATION</b></p> | 12         | 12          | P        | M39029/18-180             | M39029/18-12-12             | 12-14      |
|   | 12         | 12          | S        | M39029/17-175             | M39029/17-12-12             | 12-14      |
|   | 16         | 16          | P        | M39029/18-179             | M39029/18-16-16             | 16-20      |
|   | 16         | 16          | S        | M39029/17-174             | M39029/17-16-16             | 16-20      |
|   | 16         | 16          | S        | M39029/22-193             | M39029/22-16-16             | 16-20      |
|   | 20         | 20          | P        | M39029/18-178             | M39029/18-20-20             | 16-20      |
|   | 20         | 20          | S        | M39029/17-173             | M39029/17-20-20             | 20-24      |
|   | 20         | 20          | S        | M39029/22-192             | M39029/22-20-20             | 20-24      |
|   | 22         | 22          | S        | M39029/22-191             | M39029/22-22-22             | 22-28      |
|   | 22         | 28          | S        | M39029/22-190             | M39029/22-22-28             | 28-32      |
|   | 23         | 22          | P        | M39029/18-177             | M39029/18-23-22             | 22-28      |
|   | 23         | 22          | S        | M39029/17-172             | M39029/17-23-22             | 22-28      |
|   | 23         | 28          | P        | M39029/18-176             | M39029/18-23-28             | 28-32      |
|   | 23         | 28          | S        | M39029/17-171             | M39029/17-23-28             | 28-32      |

| TOOL SELECTION |                     | CRIMP TOOL AND ACCESSORY |        |       |            |            | ASSEMBLY TOOLS |              |
|----------------|---------------------|--------------------------|--------|-------|------------|------------|----------------|--------------|
| BIN*           | COLOR               | AF8                      | AFM8   | MH860 | WA23 (POS) | WA23 (DIE) | INSTALLING     | REMOVAL      |
| 180            | BROWN-GRAY-BLACK    | TP360                    |        |       |            |            | M81969/16-03   | M81969/16-03 |
| 175            | BROWN-VIOLET-GREEN  | TP365                    |        |       |            |            | M81969/16-03   | M81969/16-03 |
| 179            | BROWN-VIOLET-WHITE  |                          | K341   | 86-2  |            |            | M81969/16-02   | M81969/16-02 |
| 174            | BROWN-VIOLET-YELLOW |                          | K343   | 86-2  |            |            | M81969/16-02   | M81969/16-02 |
| 193            | BROWN-WHITE-ORANGE  | TH343                    | K340   | 86-21 |            |            | M81969/16-02   | M81969/16-02 |
| 178            | BROWN-VIOLET-GRAY   |                          |        | 86-1S |            |            | M81969/16-01   | M81969/16-01 |
| 173            | BROWN-VIOLET-ORANGE | TH343                    | K342   | 86-1S |            |            | M81969/16-01   | M81969/16-01 |
| 192            | BROWN-WHITE-RED     |                          | K503   | 86-20 |            |            | M81969/16-01   | M81969/16-01 |
| 191            | BROWN-WHITE-BROWN   |                          | K330-3 | 86-19 |            |            | M81969/16-04   | M81969/16-04 |
| 190            | BROWN-WHITE-BLACK   |                          | K330-3 | 86-19 |            |            | M81969/16-04   | M81969/16-04 |
| 177            | BROWN-VIOLET-VIOLET |                          | K338   |       |            |            | M81969/16-04   | M81969/16-04 |
| 172            | BROWN-VIOLET-RED    |                          | K339   |       |            |            | M81969/16-04   | M81969/16-04 |
| 176            | BROWN-VIOLET-BLUE   |                          | K338   |       |            |            | M81969/16-04   | M81969/16-04 |
| 171            | BROWN-VIOLET-BROWN  |                          | K339   |       |            |            | M81969/16-04   | M81969/16-04 |

\*The three number suffix on M39029 series contacts is referred to as a "BIN" code. See page 27 for color stripe association.  
\*\*Scoop proof when pins are installed in the receptacle, but not when pins are installed in the plug.

Contact M39029/19-181 (Shielded Pin) #16 cavity, see page 80.  
Contact M39029/19-182 to 183 (Shielded Pin) #12 cavity, see page 80.  
Contact M39029/20-184 (Shielded Socket) #16 cavity, see page 80.  
Contact M39029/20-185 to 186 (Shielded Socket) #12 cavity, see page 80.

# SAE AS81511 SERIES 4



**50% SCOOP PROOF\*\*  
CIRCULAR  
REAR RELEASE CONTACTS**

| CONNECTOR P/N | DESCRIPTION                 | QPL SOURCES |
|---------------|-----------------------------|-------------|
| M81511/51     | FLANGE MOUNT RECEPTACLE     | TE/DEUTSCH  |
| M81511/53     | JAM NUT MOUNT RECEPTACLE    |             |
| M81511/55     | CABLE CONNECTING RECEPTACLE |             |
| M81511/56     | STRAIGHT PLUG               |             |

| CONTACTS                                     | SIZE (AWG)    |                | PIN/SKT. | PART NUMBER*<br>(CURRENT) | PART NUMBER<br>(SUPERSEDED) | WIRE<br>RANGE |
|--|---------------|----------------|----------|---------------------------|-----------------------------|---------------|
|  | MATING<br>END | WIRE<br>BARREL |          |                           |                             |               |
| <br><b>TYPICAL CONTACT<br/>CONFIGURATION</b> | 12            | 12             | P        | M39029/18-180             | M39029/18-12-12             | 12-14         |
|  | 12            | 12             | S        | M39029/16-170             | M39029/16-12-12             | 12-14         |
|  | 16            | 16             | P        | M39029/18-179             | M39029/18-16-16             | 16-20         |
|  | 16            | 16             | S        | M39029/16-169             | M39029/16-16-16             | 16-20         |
|  | 16            | 16             | S        | M39029/22-193             | M39029/22-16-16             | 16-20         |
|  | 20            | 20             | P        | M39029/18-178             | M39029/18-20-20             | 20-24         |
|  | 20            | 20             | S        | M39029/16-168             | M39029/16-20-20             | 20-24         |
|  | 20            | 20             | S        | M39029/22-192             | M39029/22-20-20             | 20-24         |
|  | 22            | 22             | S        | M39029/22-191             | M39029/22-22-22             | 22-28         |
|  | 22            | 28             | S        | M39029/22-190             | M39029/22-22-28             | 28-32         |
|  | 23            | 22             | P        | M39029/18-177             | M39029/18-23-22             | 22-28         |
|  | 23            | 22             | S        | M39029/16-167             | M39029/16-23-22             | 22-28         |
|  | 23            | 28             | P        | M39029/18-176             | M39029/18-23-28             | 28-32         |
|  | 23            | 28             | S        | M39029/16-166             | M39029/16-23-28             | 28-32         |

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| TOOL SELECTION |                     | CRIMP TOOL AND ACCESSORY |        |       |               |               | ASSEMBLY TOOLS |              |
|----------------|---------------------|--------------------------|--------|-------|---------------|---------------|----------------|--------------|
| BIN*           | COLOR               | AF8                      | AFM8   | MH860 | WA23<br>(POS) | WA23<br>(DIE) | INSTALLING     | REMOVAL      |
| 180            | BROWN-GRAY-BLACK    | TP360                    |        |       |               |               | M81969/16-03   | M81969/16-03 |
| 170            | BROWN-VIOLET-BLACK  | TP360                    |        |       |               |               | M81969/16-03   | M81969/16-03 |
| 179            | BROWN-VIOLET-WHITE  |                          | K341   | 86-2  |               |               | M81969/16-02   | M81969/16-02 |
| 169            | BROWN-BLUE-WHITE    |                          | K341   | 86-2  |               |               | M81969/16-02   | M81969/16-02 |
| 193            | BROWN-WHITE-ORANGE  |                          |        |       |               |               | M81969/16-02   | M81969/16-02 |
| 178            | BROWN-VIOLET-GRAY   |                          | K340   | 86-21 |               |               | M81969/16-01   | M81969/16-01 |
| 168            | BROWN-BLUE-GRAY     |                          | K340   |       |               |               | M81969/16-01   | M81969/16-01 |
| 192            | BROWN-WHITE-RED     | TH343                    | K503   | 86-20 |               |               | M81969/16-01   | M81969/16-01 |
| 191            | BROWN-WHITE-BROWN   |                          | K330-3 | 86-19 |               |               | M81969/16-04   | M81969/16-04 |
| 190            | BROWN-WHITE-BLACK   |                          | K330-3 | 86-19 |               |               | M81969/16-04   | M81969/16-04 |
| 177            | BROWN-VIOLET-VIOLET |                          | K338   |       |               |               | M81969/16-04   | M81969/16-04 |
| 167            | BROWN-BLUE-VIOLET   |                          | K338   |       |               |               | M81969/16-04   | M81969/16-04 |
| 176            | BROWN-VIOLET-BLUE   |                          | K338   |       |               |               | M81969/16-04   | M81969/16-04 |
| 166            | BROWN-BLUE-BLUE     |                          | K338   |       |               |               | M81969/16-04   | M81969/16-04 |

\*The three number suffix on M39029 series contacts is referred to as a "BIN" code. See page 27 for color stripe association.

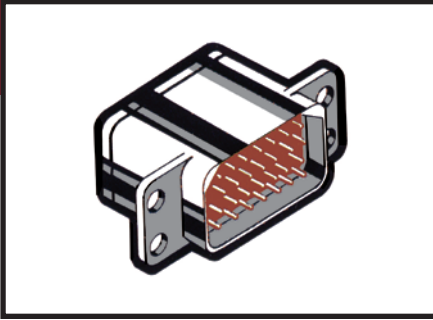
\*\*Scoop proof when pins are installed in the receptacle, but not when pins are installed in the plug.

Contact M39029/7-126 to 128 (Shielded Pin) #12 cavity, see page 80.  
 Contact M39029/8-129 to 131 (Shielded Socket) #12 cavity, see page 80.  
 Contact M39029/9-132 to 136 (Thermocouple Pin) #20 cavity.  
 Contact M39029/9-129 to 131 (Shielded Socket) #16 cavity.  
 Contact M39029/10-126 to 128 (Shielded Pin) #20 cavity.  
 Contact M39029/10-129 to 131 (Shielded Socket) #16 cavity.

DMC does not provide connectors, contacts or wiring components. Parts shown here are for reference only. See disclaimer of liability on page 27.


# MIL-DTL-81659

## SERIES 1 (INACTIVE)



### RECTANGULAR FRONT RELEASE CONTACTS

| CONNECTOR P/N                 | DESCRIPTION  | QPL SOURCES    |
|-------------------------------|--|----------------|
| M81659/1<br>THRU<br>M81659/27 | RECEPTACLE OR PLUG, TYPE 1 AND 2<br>CLASS 1 AND 2<br>SHELL DESIGNATOR A OR B | NO QPL SOURCES |

| CONTACTS   | SIZE (AWG)    |                | PIN/SKT. | PART NUMBER*<br>(CURRENT)    | PART NUMBER<br>(SUPERSEDED)      | WIRE<br>RANGE  |
|--|---------------|----------------|----------|------------------------------|----------------------------------|----------------|
|  | MATING<br>END | WIRE<br>BARREL |          |                              |                                  |                |
| <br><b>TYPICAL CONTACT<br/>CONFIGURATION</b> | 16<br>16      | 16<br>16       | P<br>S   | M39029/2-106<br>M39029/3-109 | M39029/2-16-16<br>M39029/3-16-16 | 16-20<br>16-20 |
|  | 20<br>20      | 20<br>20       | P<br>S   | M39029/2-105<br>M39029/3-108 | M39029/2-20-20<br>M39029/3-20-20 | 20-24<br>20-24 |
|  | 22<br>22      | 22<br>22       | P<br>S   | M39029/2-104<br>M39029/3-107 | M39029/2-22-22<br>M39029/3-22-22 | 22-26<br>22-26 |

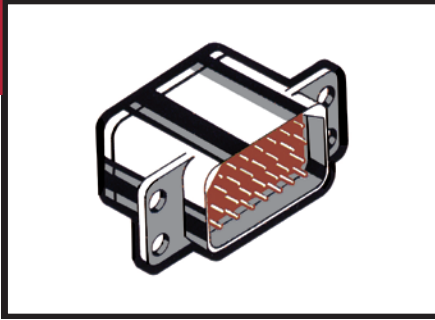
| TOOL SELECTION |  | CRIMP TOOL AND ACCESSORY |              |              |               |               | ASSEMBLY TOOLS             |                            |
|----------------|--|--------------------------|--------------|--------------|---------------|---------------|----------------------------|----------------------------|
| BIN*           | COLOR                                    | AF8                      | AFM8         | MH860        | WA23<br>(POS) | WA23<br>(DIE) | INSTALLING                 | REMOVAL                    |
| 106<br>109     | BROWN-BLACK-BLUE<br>BROWN-BLACK-WHITE    | TH1A<br>TH1A             |              | 86-2<br>86-2 |               |               | DAK55-16A<br>DAK55-16A     | DRK56-16A<br>DRK56-16A     |
| 105<br>108     | BROWN-BLACK-GREEN<br>BROWN-BLACK-GRAY    | TH1A<br>TH1A             | K287<br>K287 |              |               |               | Consult DMC<br>Consult DMC | Consult DMC<br>Consult DMC |
| 104<br>107     | BROWN-BLACK-YELLOW<br>BROWN-BLACK-VIOLET |                          | K287<br>K287 |              |               |               | Consult DMC<br>Consult DMC | Consult DMC<br>Consult DMC |

\*The three number suffix on M39029 series contacts is referred to as a "BIN" code. See page 27 for color stripe association.

DMC does not provide connectors, contacts or wiring components. Parts shown here are for reference only. See disclaimer of liability on page 27.



# SAE AS81659 SERIES 2 (ARINC 404)



## RECTANGULAR REAR RELEASE CONTACTS

| CONNECTOR P/N                  | DESCRIPTION   | QPL SOURCES                 |
|--------------------------------|---|-----------------------------|
| M81659/29<br>THRU<br>M81659/72 | RECEPTACLE OR PLUG, TYPE 2, 3 AND 4<br>CLASS 1 AND 2<br>SHELL DESIGNATOR A OR B | ITT CANNON<br>RADIALL, S.A. |

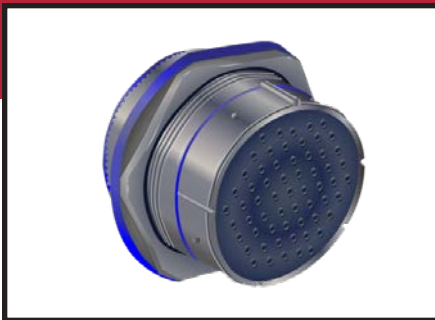
| CONTACTS   | SIZE (AWG)    |                | PIN/SKT. | PART NUMBER*<br>(CURRENT) | PART NUMBER<br>(SUPERSEDED) | WIRE<br>RANGE |
|--|---------------|----------------|----------|---------------------------|-----------------------------|---------------|
|  | MATING<br>END | WIRE<br>BARREL |          |                           |                             |               |
| <br><br><b>TYPICAL CONTACT<br/>CONFIGURATION</b> | 12            | 12             | P        | M39029/11-147             | M39029/11-12-12             | 12-14         |
|  | 12            | 12             | S        | M39029/12-151             | M39029/12-12-12             | 12-14         |
|  | 16            | 16             | P        | M39029/11-146             | M39029/11-16-16             | 16-20         |
|  | 16            | 16             | S        | M39029/12-150             | M39029/12-16-16             | 16-20         |
|  | 20            | 20             | P        | M39029/11-145             | M39029/11-20-20             | 20-24         |
|  | 20            | 20             | S        | M39029/12-149             | M39029/12-20-20             | 20-24         |
|  | 22            | 22             | P        | M39029/11-144             | M39029/11-22-22             | 22-26         |
|  | 22            | 22             | S        | M39029/12-148             | M39029/12-22-22             | 22-26         |

| TOOL SELECTION |  | CRIMP TOOL AND ACCESSORY |                  |                    |               |               | ASSEMBLY TOOLS                     |                            |
|----------------|--|--------------------------|------------------|--------------------|---------------|---------------|------------------------------------|----------------------------|
| BIN*           | COLOR                                    | AF8                      | AFM8             | MH860              | WA23<br>(POS) | WA23<br>(DIE) | INSTALLING                         | REMOVAL                    |
| 147<br>151     | BROWN-YELLOW-VIOLET<br>BROWN-GREEN-BROWN | TP465<br>TP465           |                  |                    |               |               | None Designated<br>None Designated | DRK337<br>DRK337           |
| 146<br>150     | BROWN-YELLOW-BLUE<br>BROWN-GREEN-BLACK   | TH1A<br>TH1A             |                  | 86-2<br>86-2       |               |               | M81969/1-03<br>M81969/1-03         | M81969/1-03<br>M81969/1-03 |
| 145<br>149     | BROWN-YELLOW-GREEN<br>BROWN-YELLOW-WHITE |                          | K13-1<br>K13-1   | 86-30-1<br>86-30-1 |               |               | M81969/1-02<br>M81969/1-02         | M81969/1-02<br>M81969/1-02 |
| 144<br>148     | BROWN-YELLOW-YELLOW<br>BROWN-YELLOW-GRAY |                          | K267-1<br>K267-1 | 86-137<br>86-137   |               |               | M81969/1-01<br>M81969/1-01         | M81969/1-01<br>M81969/1-01 |

\*The three number suffix on M39029 series contacts is referred to as a "BIN" code. See page 27 for color stripe association.

DMC does not provide connectors, contacts or wiring components. Parts shown here are for reference only. See disclaimer of liability on page 27.

# MIL-C-81703 SERIES 3



## CIRCULAR RACK & PANEL OR PUSH PULL COUPLING REAR RELEASE CONTACTS

| CONNECTOR P/N | DESCRIPTION                  | QPL SOURCES |
|---------------|------------------------------|-------------|
| MS3445        | PLUG RACK & PANEL            | TE/DEUTSCH  |
| MS3424        | WALL MOUNT FLANGE RECEPTACLE |             |
| MS3446        | PLUG RACK & PANEL            |             |
| MS3464        | JAM NUT MOUNT RECEPTACLE     |             |
| MS3467        | STRAIGHT PLUG                |             |
| MS3468        | PLUG LANYARD COUPLING        |             |

| CONTACTS                                     | SIZE (AWG)    |                | PIN/SKT. | PART NUMBER*<br>(CURRENT) | PART NUMBER<br>(SUPERSEDED) | WIRE<br>RANGE |
|--|---------------|----------------|----------|---------------------------|-----------------------------|---------------|
|  | MATING<br>END | WIRE<br>BARREL |          |                           |                             |               |
| <br><b>TYPICAL CONTACT<br/>CONFIGURATION</b> | 12            | 12             | P        | M39029/4-113              | M39029/4-12-12              | 12-14         |
|  | 12            | 12             | S        | M39029/5-118              | M39029/5-12-12              | 12-14         |
|  | 12            | 16             | P        | M39029/4-114              | M39029/4-12-16              | 16-20         |
|  | 12            | 16             | S        | M39029/5-119              | M39029/5-12-16              | 16-20         |
|  | 16            | 16             | P        | M39029/4-111              | M39029/4-16-16              | 16-20         |
|  | 16            | 16             | S        | M39029/5-116              | M39029/5-16-16              | 16-20         |
|  | 16            | 20             | P        | M39029/4-112              | M39029/4-16-20              | 20-24         |
|  | 16            | 20             | S        | M39029/5-117              | M39029/5-16-20              | 20-24         |
|  | 20            | 20             | P        | M39029/4-110              | M39029/4-20-20              | 20-24         |
|  | 20            | 20             | S        | M39029/5-115              | M39029/5-20-20              | 20-24         |

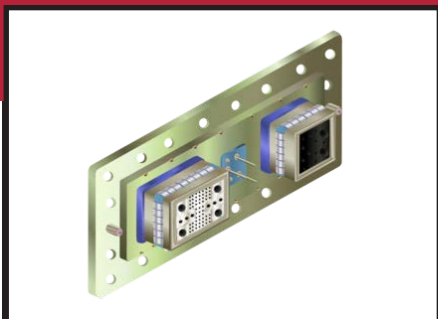
| TOOL SELECTION |                    | CRIMP TOOL AND ACCESSORY |      |       |               |               | ASSEMBLY TOOLS |           |
|----------------|--------------------|--------------------------|------|-------|---------------|---------------|----------------|-----------|
| BIN*           | COLOR              | AF8                      | AFM8 | MH860 | WA23<br>(POS) | WA23<br>(DIE) | INSTALLING     | REMOVAL   |
| 113            | BROWN-BROWN-ORANGE | TH1A                     |      |       |               |               | DAK83-12B      | DRK83-12B |
| 118            | BROWN-BROWN-GRAY   | TH1A                     |      |       |               |               | DAK83-12B      | DRK83-12B |

\*The three number suffix on M39029 series contacts is referred to as a "BIN" code. See page 27 for color stripe association.

Contact M39029/7-126 to 128 (Shielded Pin) #12 cavity, see page 80.  
 Contact M39029/8-129 to 131 (Shielded Socket) #12 cavity, see page 80.  
 Contact M39029/9-132 to 136 (Thermocouple Pin) #20 cavity.  
 Contact M39029/9-129 to 131 (Shielded Socket) #16 cavity.  
 Contact M39029/10-126 to 128 (Shielded Pin) #20 cavity.  
 Contact M39029/10-129 to 131 (Shielded Socket) #16 cavity.


DMC does not provide connectors, contacts or wiring components. Parts shown here are for reference only. See disclaimer of liability on page 27.

# DOD-C-83527 (ARINC 600)



## RECTANGULAR RACK AND PANEL REAR RELEASE CONTACTS

| CONNECTOR P/N                | DESCRIPTION                              | QPL SOURCES                                     |
|------------------------------|--|---|
| M83527/1<br>THRU<br>M83527/6 | Receptacle or Plug<br>Shell Size 2, 3, 4 | Tyco Electronics (AMP)<br>Souriau<br>ITT Cannon |

| CONTACTS   | SIZE (AWG)    |                | PIN/SKT. | PART NUMBER*<br>(CURRENT) | PART NUMBER<br>(SUPERSEDED) | WIRE<br>RANGE |
|--|---------------|----------------|----------|---------------------------|-----------------------------|---------------|
|  | MATING<br>END | WIRE<br>BARREL |          |                           |                             |               |
| <br><b>TYPICAL CONTACT<br/>CONFIGURATION</b> | 22            | 22             | P        | M39029/93-597             |                             | 22-26         |
|  | 22            | 22             | S        | M39029/94-601             |                             | 22-26         |
|  | 20            | 20             | P        | M39029/93-598             |                             | 20-24         |
|  | 20            | 20             | S        | M39029/94-602             |                             | 20-24         |
|  | 16            | 16             | P        | M39029/93-539             |                             | 16-20         |
|  | 16            | 16             | S        | M39029/94-603             |                             | 16-20         |
|  | 12            | 12             | P        | M39029/93-540             |                             | 12-14         |
|  | 12            | 12             | S        | M39029/94-604             |                             | 12-14         |

| TOOL SELECTION |                    | CRIMP TOOL AND ACCESSORY |        |         |               |               | ASSEMBLY TOOLS |             |
|----------------|--------------------|--------------------------|--------|---------|---------------|---------------|----------------|-------------|
| BIN*           | COLOR              | AF8                      | AFM8   | MH860   | WA23<br>(POS) | WA23<br>(DIE) | INSTALLING     | REMOVAL     |
| 597            | GREEN-WHITE-VIOLET |                          | K267-1 | 86-137  |               |               | M81969/1-01    | M81969/1-01 |
| 601            | BLUE-BLACK-BROWN   |                          | K267-1 | 86-137  |               |               | M81969/1-01    | M81969/1-01 |
| 598            | GREEN-WHITE-GRAY   | TP585                    | K13-1  | 86-30-1 |               |               | M81969/1-02    | M81969/1-02 |
| 602            | BLUE-BLACK-RED     | TP585                    | K13-1  | 86-30-1 |               |               | M81969/1-02    | M81969/1-02 |
| 539            | GREEN-ORANGE-WHITE | TH1A                     |        | 86-2    |               |               | M81969/1-03    | M81969/1-03 |
| 603            | BLUE-BLACK-ORANGE  | TH1A                     |        | 86-2    |               |               | M81969/1-03    | M81969/1-03 |
| 540            | GREEN-YELLOW-BLACK | TP465                    |        |         |               |               |                | DRK337      |
| 604            | BLUE-BLACK-YELLOW  | TP465                    |        |         |               |               |                | DRK337      |

\*The three number suffix on M39029 series contacts is referred to as a "BIN" code. See page 27 for color stripe association.

Contact M39029/95-545 (Shielded Socket) #8 Cavity, consult DMC for status.  
 Contact M39029/96-546 (Shielded Pin) #8 Cavity, consult DMC for status.  
 Contact M39029/97-547 (Shielded Pin) #1 Cavity, consult DMC for status.  
 Contact M39029/98-548 (Shielded Socket) #1 Cavity, consult DMC for status.  
 Contact M39029/99-549 (Shielded Socket) #5 Cavity, consult DMC for status.  
 Contact M39029/100-550 (Shielded Socket) #5 Cavity, consult DMC for status.

DMC does not provide connectors, contacts or wiring components. Parts shown here are for reference only. See disclaimer of liability on page 27.

# MIL-DTL-83723 SERIES 2



## CIRCULAR THREADED COUPLING REAR RELEASE CONTACTS

| CONNECTOR P/N | DESCRIPTION                                 | QPL SOURCES                         |
|---------------|---|-------------------------------------|
| M83723/17     | CABLE CONNECTING RECEPTACLE SOCKET CONTACTS | AERO-ELECTRIC, AMPHENOL, ITT CANNON |
| M83723/18     | CABLE CONNECTING RECEPTACLE PIN CONTACTS    |                                     |
| M83723/19     | WALL MOUNT RECEPTACLE SOCKET CONTACTS       |                                     |
| M83723/20     | WALL MOUNT RECEPTACLE PIN CONTACTS          |                                     |
| M83723/21     | BOX MOUNT RECEPTACLE SOCKET CONTACTS        |                                     |
| M83723/22     | BOX MOUNT RECEPTACLE PIN CONTACTS           |                                     |
| M83723/23     | PLUG SOCKET CONTACTS                        |                                     |
| M83723/24     | PLUG PIN CONTACTS                           |                                     |

| CONTACTS                                 | SIZE (AWG)    |                | PIN/SKT. | PART NUMBER*<br>(CURRENT) | PART NUMBER<br>(SUPERSEDED) | WIRE<br>RANGE |
|--|---------------|----------------|----------|---------------------------|-----------------------------|---------------|
|  | MATING<br>END | WIRE<br>BARREL |          |                           |                             |               |
|  | 12            | 12             | P        | M39029/29-213             | M39029/29-12-12             | 12-14         |
|  | 12            | 12             | S        | M39029/30-219             | M39029/30-12-12             | 12-14         |
| <b>TYPICAL CONTACT<br/>CONFIGURATION</b> | 16            | 16             | P        | M39029/29-212             | M39029/29-16-16             | 16-20         |
|  | 16            | 16             | S        | M39029/30-218             | M39029/30-16-16             | 16-20         |

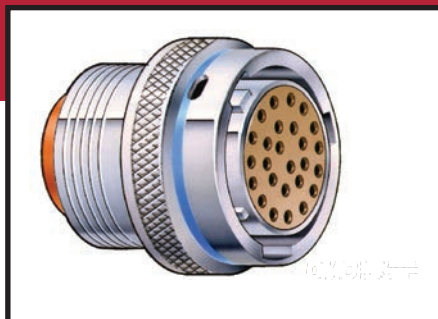
| TOOL SELECTION |                  | CRIMP TOOL AND ACCESSORY |      |       |               |               | ASSEMBLY TOOLS |           |
|----------------|------------------|--------------------------|------|-------|---------------|---------------|----------------|-----------|
| BIN*           | COLOR            | AF8                      | AFM8 | MH860 | WA23<br>(POS) | WA23<br>(DIE) | INSTALLING     | REMOVAL   |
| 213            | RED-BROWN-ORANGE | TH1A                     |      |       |               |               | DAK83-12B      | DRK83-12B |
| 219            | RED-BROWN-WHITE  | TH1A                     |      |       |               |               | DAK83-12B      | DRK83-12B |
| 212            | RED-BROWN-RED    | TH1A                     |      | 86-2  |               |               | DAK83-16B      | DRK83-16B |
| 218            | RED-BROWN-GRAY   | TH1A                     |      | 86-2  |               |               | DAK83-16B      | DRK83-16B |

\*The three number suffix on M39029 series contacts is referred to as a "BIN" code. See page 27 for color stripe association.  
Contacts M39029/85 and /86 are Thermocouples. Consult DMC for more info.

DMC does not provide connectors, contacts or wiring components. Parts shown here are for reference only. See disclaimer of liability on page 27.



# MIL-DTL-83723 SERIES 3



## CIRCULAR BAYONET AND THREADED COUPLING REAR RELEASE CONTACTS

| CONNECTOR P/N                          | DESCRIPTION             | QPL SOURCES   |
|--|-------------------------|---|
| M83723/71, /72, /82, /83,              | FLANGE MOUNT RECEPTACLE | AERO ELECTRIC, AMPHENOL, PYLE NATIONAL,<br>TE CONNECTIVITY, J-TECH, HI-REL CONNECTORS,<br>ITT CANNON, JOURIAU |
| M83723/73, 74, /84, /85                | JAM NUT RECEPTACLE      |   |
| M83723/75, 76, /77                     | STRAIGHT PLUG, BAYONET  |   |
| M83723/78, /86, 87, /91, /92, /95, /96 | STRAIGHT PLUG, THREADED |   |

| CONTACTS  | SIZE (AWG)    |                | PIN/SKT. | PART NUMBER*<br>(CURRENT) | PART NUMBER<br>(SUPERSEDED)       | WIRE<br>RANGE |
|---|---------------|----------------|----------|---------------------------|-----------------------------------|---------------|
|   | MATING<br>END | WIRE<br>BARREL |          |                           |                                   |               |
| <p><b>TYPICAL CONTACT<br/>CONFIGURATION</b></p> | 12            | 12             | P        | M39029/4-113              | M39029/4-12-12<br>or M83723-33B12 | 12-14         |
|   | 12            | 12             | S        | M39029/5-118              | M39029/5-12-12<br>or M83723-34B12 | 12-14         |
|   | 12            | 16             | P        | M39029/4-114              | M39029/4-12-16                    | 16-20         |
|   | 12            | 16             | S        | M39029/5-119              | or M39029/5-12-16                 | 16-20         |
|   | 16            | 16             | P        | M39029/4-111              | M39029/4-16-16<br>or M83723-33B16 | 16-20         |
|   | 16            | 16             | S        | M39029/5-116              | M39029/5-16-16<br>or M83723-34B16 | 16-20         |
|   | 16            | 20             | P        | M39029/4-112              | M39029/4-16-20                    | 20-24         |
|   | 16            | 20             | S        | M39029/5-117              | or M39029/5-16-20                 | 20-24         |
|   | 20            | 20             | P        | M39029/4-110              | M39029/4-20-20<br>or M83723-33B20 | 20-24         |
|   | 20            | 20             | S        | M39029/5-115              | M39029/5-20-20<br>or M83723-34B20 | 20-24         |

| TOOL SELECTION |                    | CRIMP TOOL AND ACCESSORY |      |       |               |               | ASSEMBLY TOOLS |           |
|----------------|--------------------|--------------------------|------|-------|---------------|---------------|----------------|-----------|
| BIN*           | COLOR              | AF8                      | AFM8 | MH860 | WA23<br>(POS) | WA23<br>(DIE) | INSTALLING     | REMOVAL   |
| 113            | BROWN-BROWN-ORANGE | TH1A                     |      |       |               |               | DAK83-12B      | DRK83-12B |
| 118            | BROWN-BROWN-GRAY   | TH1A                     |      |       |               |               | DAK83-12B      | DRK83-12B |
| 114            | BROWN-BROWN-YELLOW | TH1A                     |      | 86-2  |               |               | DAK83-16B      | DRK83-16B |
| 119            | BROWN-BROWN-WHITE  | TH1A                     |      | 86-2  |               |               | DAK83-16B      | DRK83-16B |
| 111            | BROWN-BROWN-BROWN  | TH1A                     |      | 86-2  |               |               | DAK83-16B      | DRK83-16B |
| 116            | BROWN-BROWN-BLUE   | TH1A                     |      | 86-2  |               |               | DAK83-16B      | DRK83-16B |
| 112            | BROWN-BROWN-RED    | TH1A                     |      | 86-2  |               |               | DAK83-16B      | DRK83-16B |
| 117            | BROWN-BROWN-VIOLET | TH1A                     |      | 86-2  |               |               | DAK83-16B      | DRK83-16B |
| 110            | BROWN-BROWN-BLACK  | TH1A                     | K1S  | 86-1S |               |               | DAK83-20B      | DRK83-20B |
| 115            | BROWN-BROWN-GREEN  | TH1A                     | K1S  | 86-1S |               |               | DAK83-20B      | DRK83-20B |

\*The three number suffix on M39029 series contacts is referred to as a "BIN" code. See page 27 for color stripe association.

Contact M39029/50 to 340 (Shielded Pin) #12 cavity, see page 81.

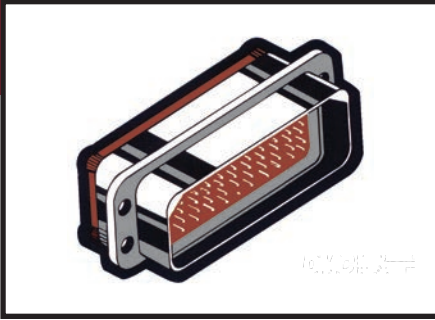
Contact M39029/51-341 to 415 (Shielded Socket) #12 cavity, see page 81.

Contact M39029/73-396 to 398 (Shielded Socket) #12 cavity, solder termination.

Contact M39029/74-399 to 401 (Shielded Pin) #12 cavity, solder termination.


DMC does not provide connectors, contacts or wiring components. Parts shown here are for reference only. See disclaimer of liability on page 27.

# MIL-DTL-83733



## RECTANGULAR MINIATURE RACK AND PANEL REAR RELEASE CONTACTS

| CONNECTOR P/N | DESCRIPTION                    | QPL SOURCES               |
|---------------|--------------------------------|---------------------------|
| M83733/1      | STANDARD HOLE MOUNT            | DELPHI CONNECTION SYSTEMS |
| M83733/2      | GUIDE PINS AND SPRING MOUNT    |                           |
| M83733/3      | GUIDE SOCKETS                  |                           |
| M83733/4      | CAPTIVE SPRINGS                |                           |
| M83733/5      | BUSHING MOUNT                  |                           |
| M83733/6      | CLINCH NUT MOUNT               |                           |
| M83733/7      | GUIDE SOCKETS AND SPRING MOUNT |                           |
| M83733/8      | GUIDE PINS                     |                           |
| M83733/9      | STAGGERED STANDARD HOLE MOUNT  |                           |
| M83733/10     | STAGGERED BUSHING MOUNT        |                           |
| M83733/11     | STAGGERED CLINCH NUT MOUNT     |                           |
| M83733/12     | STAGGERED SPRING MOUNT         |                           |

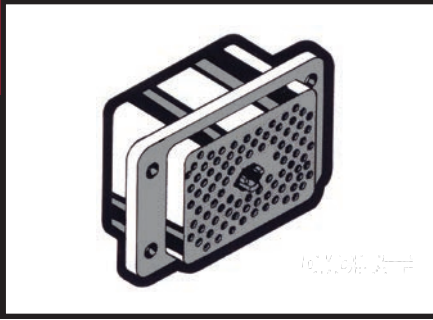
| CONTACTS  | SIZE (AWG)    |                | PIN/SKT. | PART NUMBER*<br>(CURRENT) | PART NUMBER<br>(SUPERSEDED) | WIRE<br>RANGE |
|---|---------------|----------------|----------|---------------------------|-----------------------------|---------------|
|   | MATING<br>END | WIRE<br>BARREL |          |                           |                             |               |
| <br><b>TYPICAL CONTACT<br/>CONFIGURATION</b> | 12            | 12             | P        | M39029/4-113              | M39029/4-12-12              | 12-14         |
|   | 12            | 12             | S        | M39029/5-118              | M39029/5-12-12              | 12-14         |
|   | 16            | 16             | P        | M39029/4-111              | M39029/4-16-16              | 16-20         |
|   | 16            | 16             | S        | M39029/5-116              | M39029/5-16-16              | 16-20         |
|   | 20            | 20             | P        | M39029/4-110              | M39029/4-20-20              | 20-24         |
|   | 20            | 20             | S        | M39029/5-115              | M39029/5-20-20              | 20-24         |
|   | 22            | 22D            | P        | M39029/58-360             | MS27494-22D                 | 22-28         |
|   | 22            | 22D            | S        | M39029/57-354             | MS27492-22D                 | 22-28         |

| TOOL SELECTION |                    | CRIMP TOOL AND ACCESSORY |      |       |               |               | ASSEMBLY TOOLS |              |
|----------------|--------------------|--------------------------|------|-------|---------------|---------------|----------------|--------------|
| BIN*           | COLOR              | AF8                      | AFM8 | MH860 | WA23<br>(POS) | WA23<br>(DIE) | INSTALLING     | REMOVAL      |
| 113            | BROWN-BROWN-ORANGE | TH1A                     |      |       |               |               | M81969/14-04   | M81969/14-04 |
| 118            | BROWN-BROWN-GRAY   | TH1A                     |      |       |               |               | M81969/14-04   | M81969/14-04 |
| 111            | BROWN-BROWN-BROWN  | TH1A                     |      | 86-2  |               |               | M81969/14-03   | M81969/14-03 |
| 116            | BROWN-BROWN-BLUE   | TH1A                     |      | 86-2  |               |               | M81969/14-03   | M81969/14-03 |

\*The three number suffix on M39029 series contacts is referred to as a "BIN" code. See page 27 for color stripe association.

Contact M39029/50-340 (Shielded Pin) #12 cavity, see page 81.  
 Contact M39029/51-341 (Shielded Socket) #12 cavity, see page 81.  
 Contact M39029/87 is a Thermocouple.  
 Contact M39029/89 is a Thermocouple.

DMC does not provide connectors, contacts or wiring components. Parts shown here are for reference only. See disclaimer of liability on page 27.



# SAE AS85028

## RECTANGULAR – INDIVIDUAL CONTACT SEALING POLARIZED CENTER JACK SCREW PULL THRU INSERTION CONTACTS\*\*

| CONNECTOR P/N | DESCRIPTION                  | QPL SOURCES               |
|---------------|------------------------------|---------------------------|
| M85028/1      | CRIMP REMOVABLE PIN CONTACTS | DELPHI CONNECTION SYSTEMS |
| M85028/2      | CRIMP REMOVABLE SOC CONTACTS |                           |

| CONTACTS | SIZE (AWG)    |                | PIN/SKT. | PART NUMBER*<br>(CURRENT) | PART NUMBER<br>(SUPERSEDED) | WIRE<br>RANGE |
|----------|---------------|----------------|----------|---------------------------|-----------------------------|---------------|
|          | MATING<br>END | WIRE<br>BARREL |          |                           |                             |               |
|          | 16            | 16             | P        | M39029/70-389             | M39029/70-3                 | 16-20         |
|          | 16            | 16             | S        | M39029/69-386             | M39029/69-3                 | 16-20         |
|          | 16            | 20             | P        | M39029/70-388             | M39029/70-2                 | 20-24         |
|          | 16            | 20             | S        | M39029/69-385             | M39029/69-2                 | 20-24         |
|          | 16            | 24             | P        | M39029/70-387             | M39029/70-1                 | 24-28         |
|          | 16            | 24             | S        | M39029/69-384             | M39029/69-1                 | 24-28         |

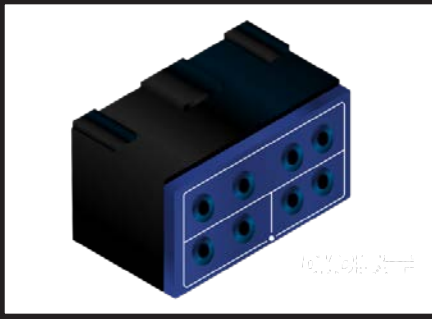
| TOOL SELECTION |                    | CRIMP TOOL AND ACCESSORY |      |       |               |               | ASSEMBLY TOOLS |         |
|----------------|--------------------|--------------------------|------|-------|---------------|---------------|----------------|---------|
| BIN*           | COLOR              | AF8                      | AFM8 | MH860 | WA23<br>(POS) | WA23<br>(DIE) | INSTALLING**   | REMOVAL |
| 389            | ORANGE-GRAY-WHITE  | TP651                    |      |       |               |               | DAK1-16P       | DRK222  |
| 386            | ORANGE-GRAY-BLUE   | TP651                    |      |       |               |               | DAK1-16S       | DRK222  |
| 388            | ORANGE-GRAY-GRAY   | TP651                    |      |       |               |               | DAK1-16P       | DRK222  |
| 385            | ORANGE-GRAY-GREEN  | TP651                    |      |       |               |               | DAK1-16S       | DRK222  |
| 387            | ORANGE-GRAY-VIOLET | TP651                    |      |       |               |               | DAK1-16P       | DRK222  |
| 384            | ORANGE-GRAY-YELLOW | TP651                    |      |       |               |               | DAK1-16S       | DRK222  |

\*The three number suffix on M39029 series contacts is referred to as a "BIN" code. See page 27 for color stripe association.

\*\* Due to the sealing grommet on the contact wire barrel, it requires a special tool which is inserted through the connector, attached to the mating end of the contact, and then "pulled" into the connector. A release on the tool is actuated and the tool can be removed from the contact.

DMC does not provide connectors, contacts or wiring components. Parts shown here are for reference only. See disclaimer of liability on page 27.

# SAE AS81714 SERIES 1



## TERMINAL JUNCTIONS

| CONNECTOR P/N | DESCRIPTION           | QPL SOURCES  |
|---------------|-----------------------|--|
| M81714/1      | FEEDBACK TYPE SIZE 22 | AMPHENOL PCD,<br>AMP TYCO<br>DME ELECTRONICS<br>TE/DEUTSCH |
| M81714/2      | FEEDBACK TYPE SIZE 20 |  |
| M81714/3      | FEEDBACK TYPE SIZE 16 |  |
| M81714/4      | FEEDBACK TYPE SIZE 12 |  |
| M81714/6      | FEEDBACK TYPE SIZE 22 |  |
| M81714/7      | FEEDBACK TYPE SIZE 20 |  |
| M81714/8      | FEEDBACK TYPE SIZE 16 |  |
| M81714/9      | FEEDBACK TYPE SIZE 12 |  |
| M81714/11     | SPLICES               |  |
| M81714/12     | DOUBLE SPLICES        |  |
| M81714/15     | TERMINAL GROUNDING    |  |

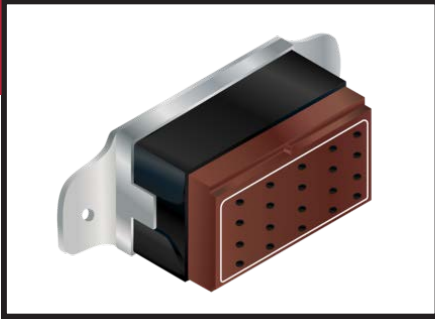
| CONTACTS | SIZE (AWG)                               |                | PIN/SKT. | PART NUMBER*<br>(CURRENT) | PART NUMBER<br>(SUPERSEDED) | WIRE<br>RANGE   |       |
|----------|--|----------------|----------|---------------------------|-----------------------------|-----------------|-------|
|          | MATING<br>END                            | WIRE<br>BARREL |          |                           |                             |                 |       |
|          | 12                                       | 12             | P        | M39029/1-103              | M39029/1-12-12              | 12-14           |       |
|          | 14                                       | 16             | P        | M39029/1-102              | M39029/1-14-16              | 16-20           |       |
|          | 16                                       | 20             | P        | M39029/1-101              | M39029/1-16-20              | 20-24           |       |
|          | 16                                       | 22             | P        | M39029/1-100              | M39029/1-16-22              | 22-26           |       |
|          | <b>TYPICAL CONTACT<br/>CONFIGURATION</b> | 20             | 22D      | P                         | M39029/1-507                | M39029/1-20-22D | 22-28 |

| TOOL SELECTION |  | CRIMP TOOL AND ACCESSORY |              |       |               |               | ASSEMBLY TOOLS            |                           |
|----------------|--|--------------------------|--------------|-------|---------------|---------------|---------------------------|---------------------------|
| BIN*           | COLOR                                  | AF8                      | AFM8         | MH860 | WA23<br>(POS) | WA23<br>(DIE) | INSTALLING                | REMOVAL                   |
| 103<br>102     | BROWN-BLACK-ORANGE<br>BROWN-BLACK-RED  | TH1A<br>TH1A             |              |       |               |               | DAK83-12B<br>DAK83-16B    | DRK83-12B<br>DRK83-16B    |
| 101<br>100     | BROWN-BLACK-BROWN<br>BROWN-BLACK-BLACK | TH1A                     | K287<br>K287 |       |               |               | DAK83-20B<br>M81969/14-11 | DRK83-20B<br>M81969/14-11 |
| 507            | GREEN-BLACK-VIOLET                     |                          | K496-1       |       |               |               | M81969/14-01              | M81969/14-01              |

\*The three number suffix on M39029 series contacts is referred to as a "BIN" code. See page 27 for color stripe association.

DMC does not provide connectors, contacts or wiring components. Parts shown here are for reference only. See disclaimer of liability on page 27.






# SAE AS81714 SERIES 2

## COMMON TERMINATION SYSTEM

| CONNECTOR P/N | DESCRIPTION                               | QPL SOURCES  |
|---------------|---|--|
| M81714/60     | FEEDBACK TYPE, BUSSING MODULES            | AMPHENOL PCD, AMP TYCO, TE CONNECTIVITY, DME ELECTRONICS |
| M81714/61     | FEEDBACK TYPE, BUSSING MODULES            |  |
| M81714/63     | STUD MOUNTED, SECTIONAL GROUNDING MODULES |  |
| M81714/65     | IN-LINE WIRE TO WIRE JUNCTIONS            |  |
| M81714/67     | TRACK MOUNT (RACK ASSEMBLY)               |  |

| CONTACTS  | SIZE (AWG) |             | PIN/SKT. | PART NUMBER* (CURRENT)         | PART NUMBER (SUPERSEDED)           | WIRE RANGE     |
|---|------------|-------------|----------|--------------------------------|------------------------------------|----------------|
|   | MATING END | WIRE BARREL |          |                                |                                    |                |
| <br><b>TYPICAL CONTACT CONFIGURATION</b> | 12<br>16   | 12<br>16    | S<br>S   | M39029/22-605<br>M39029/22-193 | —<br>M39029/22-16-16               | 12-14<br>16-20 |
|   | 20<br>22   | 20<br>22    | S<br>S   | M39029/22-192<br>M39029/22-191 | M39029/22-20-20<br>M39029/22-22-22 | 20-24<br>28-32 |
|   | 22         | 28          | S        | M39029/22-190                  | M39029/22-22-28                    | 28-32          |

| TOOL SELECTION |  | CRIMP TOOL AND ACCESSORY |                |                |            |            | ASSEMBLY TOOLS            |                           |
|----------------|--|--------------------------|----------------|----------------|------------|------------|---------------------------|---------------------------|
| BIN*           | COLOR                                  | AF8                      | AFM8           | MH860          | WA23 (POS) | WA23 (DIE) | INSTALLING                | REMOVAL**                 |
| 605<br>193     | BLUE-BLACK-GREEN<br>BROWN-WHITE-ORANGE | TH343<br>TH343           |                | 86-21          |            |            | DAK83-12B<br>DAK83-16B    | DRK83-12B<br>DRK83-16B    |
| 192<br>191     | BROWN-WHITE-RED<br>BROWN-WHITE-BROWN   | TH343                    | K503<br>K330-3 | 86-20<br>86-19 |            |            | DAK83-20B<br>M81969/14-01 | DRK83-20B<br>M81969/14-01 |
| 190            | BROWN-WHITE-BLACK                      |                          | K330-3         | 86-19          |            |            | M81969/14-01              | M81969/14-01              |

\*The three number suffix on M39029 series contacts is referred to as a "BIN" code. See page 27 for color stripe association.

\*\*M81714/69 is a module removal tool (used to remove terminal junction blocks from the rack/carrier).

DMC does not provide connectors, contacts or wiring components. Parts shown here are for reference only. See disclaimer of liability on page 27.

# MICRO CONNECTORS SERIES 801



**SPECIFICATIONS:**

**COUPLING METHOD:** DOUBLE-START ACME THREAD CONNECTORS  
**KEYING POSITIONS:** A (NORMAL), B, C, D, E, F

**MANUFACTURER:** AMPHENOL  
GLENAIR  
**SERIES:** 2M801  
801

| SHELL MATERIAL  | FINISH   |
|-----------------|--|
| Aluminum        | Black Anodize, Electroless Nickel, Cadmium Olive Drab Chromate, Zinc-Nickel w/ Black Chromate, Zinc-Nickel w/ Olive Drab Chromate, Nickel-PTFE |
| Stainless Steel | Passivated   |

| CONTACT PART NUMBER | CONTACT MILITARY PART NUMBER | CONTACT TYPE | CONTACT SIZE | WIRE SIZE | COLOR BAND |       |        |
|---------------------|------------------------------|--------------|--------------|-----------|------------|-------|--------|
| 2M809-001/809-001   |                              | Pin          | 23           | 22-28     | N/A        | N/A   | N/A    |
| 2M809-042/809-042   |                              | Pin          | 23           | 26-30     | Blue       | N/A   | N/A    |
| 2M809-002/809-002   |                              | Socket       | 23           | 22-28     | N/A        | N/A   | N/A    |
| 2M809-043/809-043   |                              | Socket       | 23           | 26-30     | N/A        | N/A   | N/A    |
| 2M809-204/809-204   |                              | Pin          | 20HD         | 20-24     | N/A        | N/A   | N/A    |
| 2M809-205/809-205   |                              | Socket       | 20HD         | 20-24     | N/A        | N/A   | N/A    |
|                     | M39029/58-363                | Pin          | 20           | 20-24     | Orange     | Blue  | Orange |
|                     | M39029/57-357                | Socket       | 20           | 20-24     | Orange     | Green | Violet |
|                     | M39029/58-364                | Pin          | 16           | 16-20     | Orange     | Blue  | Yellow |
|                     | M39029/57-358                | Socket       | 16           | 16-20     | Orange     | Green | Gray   |
|                     | M39029/58-365                | Pin          | 12           | 12-14     | Orange     | Blue  | Green  |
|                     | M39029/57-359                | Socket       | 12           | 12-14     | Orange     | Green | White  |

| CONTACT PART NUMBER | CONTACT MILITARY PART NUMBER | HAND CRIMP TOOL | PNEUMATIC TOOL | POSITIONER (GLENAIR) | POSITIONER (AMPHENOL) | INSERTION TOOL | REMOVAL TOOL |
|---------------------|------------------------------|-----------------|----------------|----------------------|-----------------------|----------------|--------------|
| 2M809-001/809-001   |                              | AFM8            | WA22           | K1989                | K1989-1               | DAK225-22      | --           |
| 2M809-042/809-042   |                              | AFM8            | WA22           | K1989                | K1989-1               | DAK225-22      | --           |
| 2M809-002/809-002   |                              | AFM8            | WA22           | K1989                | K1989-1               | DAK225-22      | --           |
| 2M809-043/809-043   |                              | AFM8            | WA22           | K1989                | K1989-1               | DAK225-22      | --           |
| 2M809-204/809-204   |                              | AFM8            | WA22           | K1859                | K1859-1               | 2M809-206      | --           |
| 2M809-205/809-205   |                              | AFM8            | WA22           | K1859                | K1859-1               | 2M809-206      | --           |
|                     | M39029/58-363                | AFM8            | WA22           | K43                  | K43                   | DAK95-20B      | DRK95-20B    |
|                     | M39029/57-357                | AFM8            | WA22           | K43                  | K43                   | DAK95-20B      | DRK95-20B    |
|                     | M39029/58-364                | AF8             | WA27F          | TH163                | TH163                 | DAK95-16B      | DRK95-16B    |
|                     | M39029/57-358                | AF8             | WA27F          | TH163                | TH163                 | DAK95-16B      | DRK95-16B    |
|                     | M39029/58-365                | AF8             | WA27F          | TH163                | TH163                 | DAK95-12B      | DRK95-12B    |
|                     | M39029/57-359                | AF8             | WA27F          | TH163                | TH163                 | DAK95-12B      | DRK95-12B    |

DMC does not provide connectors, contacts or wiring components. Parts shown here are for reference only. See disclaimer of liability on page 27.

# MICRO CONNECTORS

## SERIES 803



**SPECIFICATIONS:**  
**COUPLING METHOD:** 1/4 TURN BAYONET COUPLING  
**KEYING POSITIONS:** N (NORMAL), X, Y, Z

**MANUFACTURER:**  
**AMPHENOL**  
**GLENAIR**

**SERIES:**  
**2M803**  
**803**

| SHELL MATERIAL  | FINISH   |
|-----------------|--|
| Aluminum        | Black Anodize, Electroless Nickel, Cadmium Olive Drab Chromate, Zinc-Nickel w/ Black Chromate, Zinc-Nickel w/ Olive Drab Chromate, Nickel-PTFE |
| Stainless Steel | Passivated   |

| CONTACT PART NUMBER | CONTACT MILITARY PART NUMBER | CONTACT TYPE | CONTACT SIZE | WIRE SIZE | COLOR BAND |       |        |
|---------------------|------------------------------|--------------|--------------|-----------|------------|-------|--------|
| 2M809-001/809-001   |                              | Pin          | 23           | 22-28     | N/A        | N/A   | N/A    |
| 2M809-042/809-042   |                              | Pin          | 23           | 26-30     | Blue       | N/A   | N/A    |
| 2M809-002/809-002   |                              | Socket       | 23           | 22-28     | N/A        | N/A   | N/A    |
| 2M809-043/809-043   |                              | Socket       | 23           | 26-30     | N/A        | N/A   | N/A    |
| 2M809-204/809-204   |                              | Pin          | 20HD         | 20-24     | N/A        | N/A   | N/A    |
| 2M809-205/809-205   |                              | Socket       | 20HD         | 20-24     | N/A        | N/A   | N/A    |
|                     | M39029/58-363                | Pin          | 20           | 20-24     | Orange     | Blue  | Orange |
|                     | M39029/57-357                | Socket       | 20           | 20-24     | Orange     | Green | Violet |
|                     | M39029/58-364                | Pin          | 16           | 16-20     | Orange     | Blue  | Yellow |
|                     | M39029/57-358                | Socket       | 16           | 16-20     | Orange     | Green | Gray   |
|                     | M39029/58-365                | Pin          | 12           | 12-14     | Orange     | Blue  | Green  |
|                     | M39029/57-359                | Socket       | 12           | 12-14     | Orange     | Green | White  |

| CONTACT PART NUMBER | CONTACT MILITARY PART NUMBER | HAND CRIMP TOOL | PNEUMATIC TOOL | POSITIONER (GLENAIR) | POSITIONER (AMPHENOL) | INSERTION TOOL | REMOVAL TOOL |
|---------------------|------------------------------|-----------------|----------------|----------------------|-----------------------|----------------|--------------|
| 2M809-001/809-001   |                              | AFM8            | WA22           | K1989                | K1989-1               | DAK225-22      | --           |
| 2M809-042/809-042   |                              | AFM8            | WA22           | K1989                | K1989-1               | DAK225-22      | --           |
| 2M809-002/809-002   |                              | AFM8            | WA22           | K1989                | K1989-1               | DAK225-22      | --           |
| 2M809-043/809-043   |                              | AFM8            | WA22           | K1989                | K1989-1               | DAK225-22      | --           |
| 2M809-204/809-204   |                              | AFM8            | WA22           | K1859                | K1859-1               | 2M809-206      | --           |
| 2M809-205/809-205   |                              | AFM8            | WA22           | K1859                | K1859-1               | 2M809-206      | --           |
|                     | M39029/58-363                | AFM8            | WA22           | K43                  | K43                   | DAK95-20B      | DRK95-20B    |
|                     | M39029/57-357                | AFM8            | WA22           | K43                  | K43                   | DAK95-20B      | DRK95-20B    |
|                     | M39029/58-364                | AF8             | WA27F          | TH163                | TH163                 | DAK95-16B      | DRK95-16B    |
|                     | M39029/57-358                | AF8             | WA27F          | TH163                | TH163                 | DAK95-16B      | DRK95-16B    |
|                     | M39029/58-365                | AF8             | WA27F          | TH163                | TH163                 | DAK95-12B      | DRK95-12B    |
|                     | M39029/57-359                | AF8             | WA27F          | TH163                | TH163                 | DAK95-12B      | DRK95-12B    |

Application Guide Contacts & Connectors

DMC does not provide connectors, contacts or wiring components. Parts shown here are for reference only. See disclaimer of liability on page 27.

# MICRO CONNECTORS SERIES 804



**SPECIFICATIONS:**

**COUPLING METHOD:** PUSH-PULL QUICK-DISCONNECT  
**KEYING POSITIONS:** A (NORMAL), B, C, D, E, F

**MANUFACTURER:**  
**AMPHENOL**  
**GLENAIR**

**SERIES:**  
2M804  
804

| SHELL MATERIAL  | FINISH   |
|-----------------|--|
| Aluminum        | Black Anodize, Electroless Nickel, Cadmium Olive Drab Chromate, Zinc-Nickel w/ Black Chromate, Zinc-Nickel w/ Olive Drab Chromate, Nickel-PTFE |
| Stainless Steel | Passivated   |

| CONTACT PART NUMBER | CONTACT MILITARY PART NUMBER | CONTACT TYPE | CONTACT SIZE | WIRE SIZE | COLOR BAND |       |        |
|---------------------|------------------------------|--------------|--------------|-----------|------------|-------|--------|
| 2M809-001/809-001   |                              | Pin          | 23           | 22-28     | N/A        | N/A   | N/A    |
| 2M809-042/809-042   |                              | Pin          | 23           | 26-30     | Blue       | N/A   | N/A    |
| 2M809-002/809-002   |                              | Socket       | 23           | 22-28     | N/A        | N/A   | N/A    |
| 2M809-043/809-043   |                              | Socket       | 23           | 26-30     | N/A        | N/A   | N/A    |
| 2M809-204/809-204   |                              | Pin          | 20HD         | 20-24     | N/A        | N/A   | N/A    |
| 2M809-205/809-205   |                              | Socket       | 20HD         | 20-24     | N/A        | N/A   | N/A    |
|                     | M39029/58-363                | Pin          | 20           | 20-24     | Orange     | Blue  | Orange |
|                     | M39029/57-357                | Socket       | 20           | 20-24     | Orange     | Green | Violet |
|                     | M39029/58-364                | Pin          | 16           | 16-20     | Orange     | Blue  | Yellow |
|                     | M39029/57-358                | Socket       | 16           | 16-20     | Orange     | Green | Gray   |
|                     | M39029/58-365                | Pin          | 12           | 12-14     | Orange     | Blue  | Green  |
|                     | M39029/57-359                | Socket       | 12           | 12-14     | Orange     | Green | White  |

| CONTACT PART NUMBER | CONTACT MILITARY PART NUMBER | HAND CRIMP TOOL | PNEUMATIC TOOL | POSITIONER (GLENAIR) | POSITIONER (AMPHENOL) | INSERTION TOOL | REMOVAL TOOL |
|---------------------|------------------------------|-----------------|----------------|----------------------|-----------------------|----------------|--------------|
| 2M809-001/809-001   |                              | AFM8            | WA22           | K1989                | K1989-1               | DAK225-22      | --           |
| 2M809-042/809-042   |                              | AFM8            | WA22           | K1989                | K1989-1               | DAK225-22      | --           |
| 2M809-002/809-002   |                              | AFM8            | WA22           | K1989                | K1989-1               | DAK225-22      | --           |
| 2M809-043/809-043   |                              | AFM8            | WA22           | K1989                | K1989-1               | DAK225-22      | --           |
| 2M809-204/809-204   |                              | AFM8            | WA22           | K1859                | K1859-1               | 2M809-206      | --           |
| 2M809-205/809-205   |                              | AFM8            | WA22           | K1859                | K1859-1               | 2M809-206      | --           |
|                     | M39029/58-363                | AFM8            | WA22           | K43                  | K43                   | DAK95-20B      | DRK95-20B    |
|                     | M39029/57-357                | AFM8            | WA22           | K43                  | K43                   | DAK95-20B      | DRK95-20B    |
|                     | M39029/58-364                | AF8             | WA27F          | TH163                | TH163                 | DAK95-16B      | DRK95-16B    |
|                     | M39029/57-358                | AF8             | WA27F          | TH163                | TH163                 | DAK95-16B      | DRK95-16B    |
|                     | M39029/58-365                | AF8             | WA27F          | TH163                | TH163                 | DAK95-12B      | DRK95-12B    |
|                     | M39029/57-359                | AF8             | WA27F          | TH163                | TH163                 | DAK95-12B      | DRK95-12B    |

DMC does not provide connectors, contacts or wiring components. Parts shown here are for reference only. See disclaimer of liability on page 27.



# MICRO CONNECTORS

## SERIES 805



**SPECIFICATIONS:**  
**COUPLING METHOD:** TRIPLE-START ACME THREAD  
**KEYING POSITIONS:** A (NORMAL), B, C, D

**MANUFACTURER:** AMPHENOL  
**GLENAIR**  
**SERIES:** 2M805  
 805

| SHELL MATERIAL  | FINISH   |
|-----------------|--|
| Aluminum        | Black Anodize, Electroless Nickel, Cadmium Olive Drab Chromate, Zinc-Nickel w/ Black Chromate, Zinc-Nickel w/ Olive Drab Chromate, Nickel-PTFE |
| Stainless Steel | Passivated   |

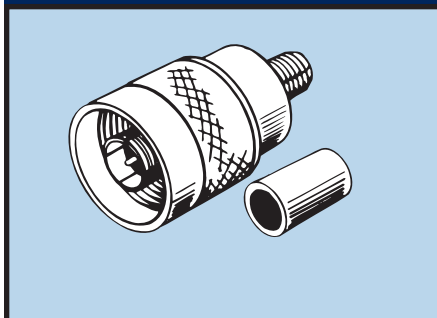
| CONTACT PART NUMBER | CONTACT MILITARY PART NUMBER | CONTACT TYPE | CONTACT SIZE | WIRE SIZE | COLOR BAND |       |        |
|---------------------|------------------------------|--------------|--------------|-----------|------------|-------|--------|
| 2M809-001/809-001   |                              | Pin          | 23           | 22-28     | N/A        | N/A   | N/A    |
| 2M809-042/809-042   |                              | Pin          | 23           | 26-30     | Blue       | N/A   | N/A    |
| 2M809-002/809-002   |                              | Socket       | 23           | 22-28     | N/A        | N/A   | N/A    |
| 2M809-043/809-043   |                              | Socket       | 23           | 26-30     | N/A        | N/A   | N/A    |
| 2M809-204/809-204   |                              | Pin          | 20HD         | 20-24     | N/A        | N/A   | N/A    |
| 2M809-205/809-205   |                              | Socket       | 20HD         | 20-24     | N/A        | N/A   | N/A    |
|                     | M39029/58-363                | Pin          | 20           | 20-24     | Orange     | Blue  | Orange |
|                     | M39029/57-357                | Socket       | 20           | 20-24     | Orange     | Green | Violet |
|                     | M39029/58-364                | Pin          | 16           | 16-20     | Orange     | Blue  | Yellow |
|                     | M39029/57-358                | Socket       | 16           | 16-20     | Orange     | Green | Gray   |
|                     | M39029/58-365                | Pin          | 12           | 12-14     | Orange     | Blue  | Green  |
|                     | M39029/57-359                | Socket       | 12           | 12-14     | Orange     | Green | White  |

| CONTACT PART NUMBER | CONTACT MILITARY PART NUMBER | HAND CRIMP TOOL | PNEUMATIC TOOL | POSITIONER (GLENAIR) | POSITIONER (AMPHENOL) | INSERTION TOOL | REMOVAL TOOL |
|---------------------|------------------------------|-----------------|----------------|----------------------|-----------------------|----------------|--------------|
| 2M809-001/809-001   |                              | AFM8            | WA22           | K1989                | K1989-1               | DAK225-22      | --           |
| 2M809-042/809-042   |                              | AFM8            | WA22           | K1989                | K1989-1               | DAK225-22      | --           |
| 2M809-002/809-002   |                              | AFM8            | WA22           | K1989                | K1989-1               | DAK225-22      | --           |
| 2M809-043/809-043   |                              | AFM8            | WA22           | K1989                | K1989-1               | DAK225-22      | --           |
| 2M809-204/809-204   |                              | AFM8            | WA22           | K1859                | K1859-1               | 2M809-206      | --           |
| 2M809-205/809-205   |                              | AFM8            | WA22           | K1859                | K1859-1               | 2M809-206      | --           |
|                     | M39029/58-363                | AFM8            | WA22           | K43                  | K43                   | DAK95-20B      | DRK95-20B    |
|                     | M39029/57-357                | AFM8            | WA22           | K43                  | K43                   | DAK95-20B      | DRK95-20B    |
|                     | M39029/58-364                | AF8             | WA27F          | TH163                | TH163                 | DAK95-16B      | DRK95-16B    |
|                     | M39029/57-358                | AF8             | WA27F          | TH163                | TH163                 | DAK95-16B      | DRK95-16B    |
|                     | M39029/58-365                | AF8             | WA27F          | TH163                | TH163                 | DAK95-12B      | DRK95-12B    |
|                     | M39029/57-359                | AF8             | WA27F          | TH163                | TH163                 | DAK95-12B      | DRK95-12B    |

Application Guide Contacts & Connectors

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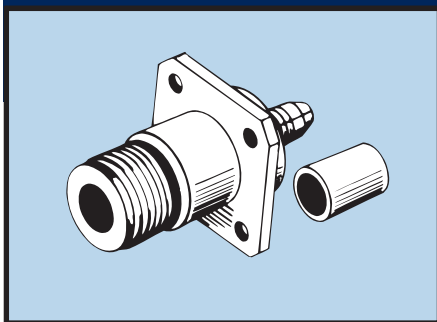
# R.F. Connectors Tool Selection Guide



## MIL-DTL-39012/1 SERIES N

| CONNECTOR TYPE | CONNECTOR MILITARY PART NO. |
|----------------|-----------------------------|
| PLUG           | M39012/01-0501              |
|                | M39012/01-0502              |
|                | M39012/01-0503              |

| CONTACT GUIDE             |              |        |           |     | APPLICABLE CABLE RG-/U | M22520/1-01 CRIMP TOOL | M22520/5-01 CRIMP TOOL | POSITIONER OR DIE                                  |
|---------------------------|--------------|--------|-----------|-----|------------------------|------------------------|------------------------|--|
| CONTACT MILITARY PART NO. | I.C. OR O.F. | PIN OR | COLORBAND |     |                        |                        |                        |  |
|                           |              |        | □         | ○   |                        |                        |                        |  |
| M39012/1-10               | I.C.         | P      | RED       | BLA | 165/393                | AF8                    |                        | TH285  |
| M39012/1-50               | O.F.         | -      | -         | -   | 393                    | -                      | HX4                    | Y110P & Y178 (Closure A)                           |
| M39012/1-51               | O.F.         | -      | -         | -   | 165                    | -                      | HX4                    | Y110P & Y178 (Closure A)                           |
| M39012/1-11               | I.C.         | P      | BLU       | BLA | 142/400/303            | -                      | HX4                    | Y110P (Closure B)                                  |
| M39012/1-52               | O.F.         | -      | -         | -   | 142/400                | -                      | HX4                    | Y197, Y205P, Y209P (Closure A) or Y142 (Closure B) |
| M39029/1-53               | O.F.         | -      | -         | -   | 303                    | -                      | HX4                    | Y197, Y205P, Y209P (Closure A) or Y142 (Closure B) |



## MIL-DTL-39012/2 SERIES N

| CONNECTOR TYPE                        | CONNECTOR MILITARY PART NO. |
|---------------------------------------|-----------------------------|
| PLUG AND RECEPTACLE<br>FLANGE MOUNTED | M39012/02-0501              |
|                                       | M39012/02-0511              |
|                                       | M39012/02-0502              |
|                                       | M39012/02-0512              |
|                                       | M39012/02-0503              |
|                                       | M39012/02-0513              |

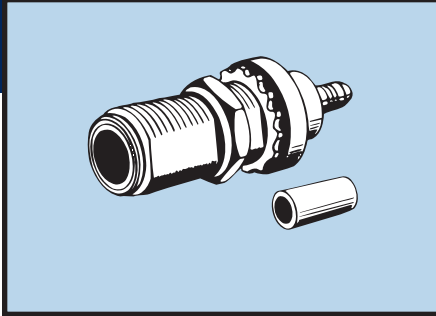
| CONTACT GUIDE             |              |        |           |     | APPLICABLE CABLE RG-/U | M22520/1-01 CRIMP TOOL | M22520/5-01 CRIMP TOOL | POSITIONER OR DIE                                  |
|---------------------------|--------------|--------|-----------|-----|------------------------|------------------------|------------------------|--|
| CONTACT MILITARY PART NO. | I.C. OR O.F. | PIN OR | COLORBAND |     |                        |                        |                        |  |
|                           |              |        | □         | ○   |                        |                        |                        |  |
| M39012/2-10               | I.C.         | S      | RED       | BRO | 393/165                | AF8                    | -                      | TH285  |
| M39012/2-50               | O.F.         | -      | -         | -   | 393                    | -                      | HX4                    | Y110P (Closure A) or Y178                          |
| M39012/2-51               | O.F.         | -      | -         | -   | 165                    | -                      | HX4                    | Y110P (Closure A) or Y178                          |
| M39012/2-11               | I.C.         | S      | BLU       | BRO | 142/400/303            | AF8                    | -                      | TH285  |
| M39012/2-52               | O.F.         | -      | -         | -   | 142/400                | -                      | HX4                    | Y197, Y205P, Y209P (Closure A) or Y142 (Closure B) |
| M39012/2-53               | O.F.         | -      | -         | -   | 303                    | -                      | HX4                    | Y197, Y205P, Y209P (Closure A) or Y142 (Closure B) |

I.C. - Inner Contact, O.F. - Outer Ferrule

□ = Closest to Mating End ○ = Closest to Wire Entry

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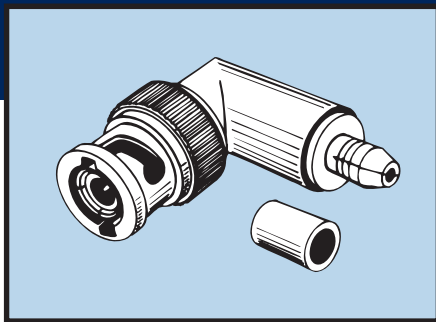
# R.F. Connectors Tool Selection Guide



## MIL-DTL-39012/3 SERIES N

| CONNECTOR TYPE  | CONNECTOR MILITARY PART NO. |
|-----------------|-----------------------------|
| JAM NUT MOUNTED | M39012/03-0501              |
|                 | M39012/03-0502              |
|                 | M39012/03-0503              |

| CONTACT GUIDE             |              |        |           |     | APPLICABLE CABLE RG-/U | M22520/1-01 CRIMP TOOL | M22520/5-01 CRIMP TOOL | POSITIONER OR DIE                                  |
|---------------------------|--------------|--------|-----------|-----|------------------------|------------------------|------------------------|--|
| CONTACT MILITARY PART NO. | I.C. OR O.F. | PIN OR | COLORBAND |     |                        |                        |                        |  |
|                           |              |        | □         | ○   |                        |                        |                        |  |
| M39012/3-10               | I.C.         | S      | RED       | RED | 165/393                | AF8                    | -                      | TH286  |
| M39012/3-50               | O.F.         | -      | -         | -   | 393                    | -                      | HX4                    | Y110P (Closure A) or Y178                          |
| M39012/3-51               | O.F.         | -      | -         | -   | 165                    | -                      | HX4                    | Y110P (Closure A) or Y178                          |
| M39012/3-11               | I.C.         | S      | BLU       | RED | 142/400/303            | AF8                    | -                      | TH286  |
| M39012/3-52               | O.F.         | -      | -         | -   | 142/400                | -                      | HX4                    | Y197, Y205P, Y209P (Closure A) or Y142 (Closure B) |
| M39012/3-53               | O.F.         | -      | -         | -   | 303                    | -                      | HX4                    | Y197, Y205P, Y209P (Closure A) or Y142 (Closure B) |



## MIL-DTL-39012/5 SERIES N

| CONNECTOR TYPE   | CONNECTOR MILITARY PART NO. |
|------------------|-----------------------------|
| PLUG RIGHT ANGLE | M39012/05-0501              |
|                  | M39012/05-0502              |
|                  | M39012/05-0503              |

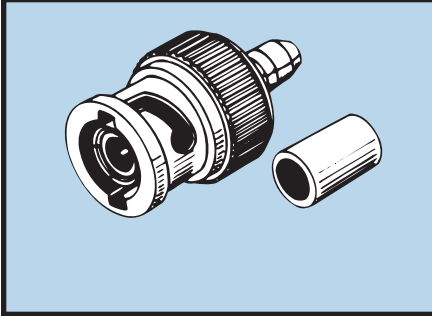
| CONTACT GUIDE             |              |        |           |     | APPLICABLE CABLE RG-/U | M22520/1-01 CRIMP TOOL | M22520/5-01 CRIMP TOOL | POSITIONER OR DIE                                  |
|---------------------------|--------------|--------|-----------|-----|------------------------|------------------------|------------------------|--|
| CONTACT MILITARY PART NO. | I.C. OR O.F. | PIN OR | COLORBAND |     |                        |                        |                        |  |
|                           |              |        | □         | ○   |                        |                        |                        |  |
| M39012/3-10               | I.C.         | S      | RED       | RED | 165/393                | AF8                    | -                      | TH286  |
| M39012/3-50               | O.F.         | -      | -         | -   | 393                    | -                      | HX4                    | Y110P (Closure A) or Y178                          |
| M39012/3-51               | O.F.         | -      | -         | -   | 165                    | -                      | HX4                    | Y110P (Closure A) or Y178                          |
| M39012/3-11               | I.C.         | S      | BLU       | RED | 142/400/303            | AF8                    | -                      | TH286  |
| M39012/3-52               | O.F.         | -      | -         | -   | 142/400                | -                      | HX4                    | Y197, Y205P, Y209P (Closure A) or Y142 (Closure B) |
| M39012/3-53               | O.F.         | -      | -         | -   | 303                    | -                      | HX4                    | Y197, Y205P, Y209P (Closure A) or Y142 (Closure B) |

I.C. - Inner Contact, O.F. - Outer Ferrule

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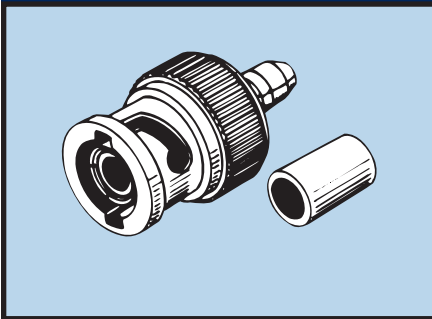
# R.F. Connectors Tool Selection Guide



## MIL-DTL-39012/16 SERIES BNC

| CONNECTOR TYPE | CONNECTOR MILITARY PART NO. |
|----------------|-----------------------------|
| PLUG           | M39012/16-0501              |
|                | M39012/16-0502              |
|                | M39012/16-0503              |
|                | M39012/16-0504              |

| CONTACT MILITARY PART NO. | CONTACT GUIDE |        |           |     | APPLICABLE CABLE RG-/U | M22520/1-01 CRIMP TOOL | M22520/5-01 CRIMP TOOL | POSITIONER OR DIE                                     |
|---------------------------|---------------|--------|-----------|-----|------------------------|------------------------|------------------------|---|
|                           | I.C. OR O.F.  | PIN OR | COLORBAND |     |                        |                        |                        |   |
|                           |               |        | □         | ○   |                        |                        |                        |   |
| M39012/16-12              | I.C.          | P      | ORA       | YEL | 122                    | AF8                    | -                      | TH270   |
| M39012/16-50              | O.F.          | -      | -         | -   | 122/180                | -                      | HX4                    | Y204P (Closure A)<br>or Y197, Y140 (Closure B)        |
| M39012/16-11              | I.C.          | P      | BLU       | YEL | 180                    | AF8                    | -                      | TH270   |
| M39012/16-10              | I.C.          | P      | RED       | YEL | 142/400/303            | AF8                    | -                      | TH270   |
| M39012/16-51              | O.F.          | -      | -         | -   | 142/400                | -                      | HX4                    | Y197, Y205P, Y209P (Closure A)<br>or Y142 (Closure B) |
| M39012/16-52              | O.F.          | -      | -         | -   | 303                    | -                      | HX4                    | Y197, Y205P, Y209P (Closure A)<br>or Y142 (Closure B) |



## MIL-DTL-39012/17 SERIES BNC

| CONNECTOR TYPE | CONNECTOR MILITARY PART NO. |
|----------------|-----------------------------|
| PLUG           | M39012/17-0501              |
|                | M39012/17-0502              |
|                | M39012/17-0503              |
|                | M39012/17-0504              |

| CONTACT MILITARY PART NO. | CONTACT GUIDE |        |           |     | APPLICABLE CABLE RG-/U | M22520/1-01 CRIMP TOOL | M22520/5-01 CRIMP TOOL | POSITIONER OR DIE                                     |
|---------------------------|---------------|--------|-----------|-----|------------------------|------------------------|------------------------|---|
|                           | I.C. OR O.F.  | PIN OR | COLORBAND |     |                        |                        |                        |   |
|                           |               |        | □         | ○   |                        |                        |                        |   |
| M39012/17-12              | I.C.          | S      | ORA       | GRE | 122                    | AF8                    | -                      | TH270   |
| M39012/17-50              | O.F.          | -      | -         | -   | 122/180                | -                      | HX4                    | Y204P (Closure A) or Y197, Y140 (Closure B)           |
| M39012/17-11              | I.C.          | S      | BLU       | GRE | 180                    | AF8                    | -                      | TH270   |
| M39012/17-10              | I.C.          | S      | RED       | GRE | 142/400/303            | AF8                    | -                      | TH270   |
| M39012/17-51              | O.F.          | -      | -         | -   | 142/400                | -                      | HX4                    | Y197, Y205P, Y209P (Closure A)<br>or Y142 (Closure B) |
| M39012/16-52              | O.F.          | -      | -         | -   | 303                    | -                      | HX4                    | Y197, Y205P, Y209P (Closure A)<br>or Y142 (Closure B) |

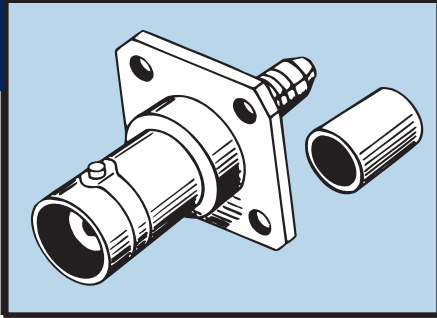
I.C. - Inner Contact, O.F. - Outer Ferrule

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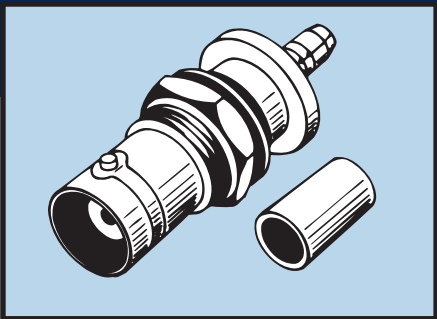
# R.F. Connectors Tool Selection Guide



## MIL-DTL-39012/18 SERIES BNC

| CONNECTOR TYPE                | CONNECTOR MILITARY PART NO. |
|-------------------------------|-----------------------------|
| RECEPTACLE,<br>FLANGE MOUNTED | M39012/18-0501              |
|                               | M39012/18-0502              |
|                               | M39012/18-0503              |
|                               | M39012/18-0504              |

| CONTACT GUIDE                |              |           |           |     | APPLICABLE<br>CABLE<br>RG-/U | M22520/1-01<br>CRIMP TOOL | M22520/5-01<br>CRIMP TOOL | POSITIONER<br>OR DIE                               |
|------------------------------|--------------|-----------|-----------|-----|------------------------------|---------------------------|---------------------------|--|
| CONTACT<br>MILITARY PART NO. | I.C. OR O.F. | PIN<br>OR | COLORBAND |     |                              |                           |                           |  |
|                              |              |           | □         | ○   |                              |                           |                           |  |
| M39012/18-12                 | I.C.         | S         | ORA       | GRE | 122                          | AF8                       | -                         | TH270  |
| M39012/18-50                 | O.F.         | -         | -         | -   | 122/180                      | -                         | HX4                       | Y204P (Closure A) or Y197, Y140 (Closure B)        |
| M39012/18-11                 | I.C.         | S         | BLU       | GRE | 180                          | AF8                       | -                         | TH270  |
| M39012/18-10                 | I.C.         | S         | RED       | GRE | 142/400/303                  | AF8                       | -                         | TH270  |
| M39012/18-51                 | O.F.         | -         | -         | -   | 142/400                      | -                         | HX4                       | Y197, Y205P, Y209P (Closure A) or Y142 (Closure B) |
| M39012/18-52                 | O.F.         | -         | -         | -   | 303                          | -                         | HX4                       | Y197, Y205P, Y209P (Closure A) or Y142 (Closure B) |



## MIL-DTL-39012/19 SERIES BNC

| CONNECTOR TYPE  | CONNECTOR MILITARY PART NO. |
|-----------------|-----------------------------|
| JAM NUT MOUNTED | M39012/19-0501              |
|                 | M39012/19-0502              |
|                 | M39012/19-0503              |
|                 | M39012/19-0504              |

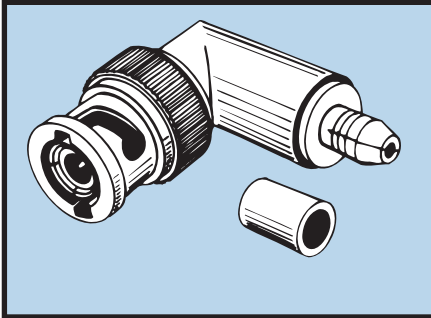
| CONTACT GUIDE                |              |           |           |     | APPLICABLE<br>CABLE<br>RG-/U | M22520/1-01<br>CRIMP TOOL | M22520/5-01<br>CRIMP TOOL | POSITIONER<br>OR DIE                               |
|------------------------------|--------------|-----------|-----------|-----|------------------------------|---------------------------|---------------------------|--|
| CONTACT<br>MILITARY PART NO. | I.C. OR O.F. | PIN<br>OR | COLORBAND |     |                              |                           |                           |  |
|                              |              |           | □         | ○   |                              |                           |                           |  |
| M39012/19-12                 | I.C.         | S         | ORA       | BLU | 122                          | AF8                       | -                         | TH270  |
| M39012/19-11                 | I.C.         | S         | BLU       | BLU | 180                          | AF8                       | -                         | TH270  |
| M39012/19-50                 | O.F.         | -         | -         | -   | 180                          | -                         | HX4                       | Y204P (Closure A) or Y197, Y140 (Closure B)        |
| M39012/19-10                 | I.C.         | S         | RED       | BLU | 142/400/303                  | AF8                       | -                         | TH270  |
| M39012/19-51                 | O.F.         | -         | -         | -   | 142/400                      | -                         | HX4                       | Y197, Y205P, Y209P (Closure A) or Y142 (Closure B) |
| M39012/19-52                 | O.F.         | -         | -         | -   | 303                          | -                         | HX4                       | Y197, Y205P, Y209P (Closure A) or Y142 (Closure B) |

I.C. - Inner Contact, O.F. - Outer Ferrule

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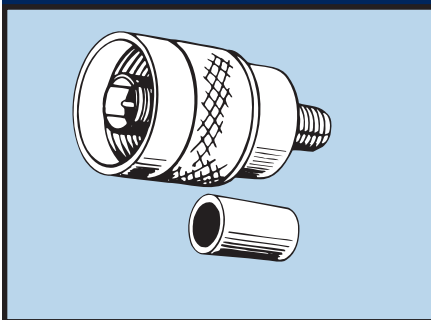
# R.F. Connectors Tool Selection Guide



## MIL-DTL-39012/20 SERIES BNC

| CONNECTOR TYPE      | CONNECTOR MILITARY PART NO. |
|---------------------|-----------------------------|
| PLUG<br>RIGHT ANGLE | M39012/20-0501              |
|                     | M39012/20-0502              |
|                     | M39012/20-0503              |
|                     | M39012/20-0504              |

| CONTACT GUIDE                |              |           |           |     | APPLICABLE<br>CABLE<br>RG-/U | M22520/1-01<br>CRIMP TOOL | M22520/5-01<br>CRIMP TOOL | POSITIONER<br>OR DIE                                  |
|------------------------------|--------------|-----------|-----------|-----|------------------------------|---------------------------|---------------------------|---|
| CONTACT<br>MILITARY PART NO. | I.C. OR O.F. | PIN<br>OR | COLORBAND |     |                              |                           |                           |   |
|                              |              |           | □         | ○   |                              |                           |                           |   |
| M39012/20-12                 | I.C.         | P         | ORA       | VIO | 122                          | AF8                       | -                         | TH270   |
| M39012/20-11                 | I.C.         | P         | BLU       | VIO | 180                          | AF8                       | -                         | TH270   |
| M39012/20-50                 | O.F.         | -         | -         | -   | 122/180                      | -                         | HX4                       | Y204P (Closure A)<br>or Y197, Y140 (Closure B)        |
| M39012/20-10                 | I.C.         | P         | RED       | VIO | 142/400/303                  | AF8                       | -                         | TH270   |
| M39012/20-51                 | O.F.         | -         | -         | -   | 142/400                      | -                         | HX4                       | Y197, Y205P, Y209P (Closure A)<br>or Y142 (Closure B) |
| M39012/20-52                 | O.F.         | -         | -         | -   | 303                          | -                         | HX4                       | Y197, Y205P, Y209P (Closure A)<br>or Y142 (Closure B) |



## MIL-DTL-39012/26 SERIES TNC

| CONNECTOR TYPE      | CONNECTOR MILITARY PART NO. |
|---------------------|-----------------------------|
| PLUG<br>PIN CONTACT | M39012/26-0501              |
|                     | M39012/26-0502              |
|                     | M39012/26-0503              |
|                     | M39012/26-0504              |

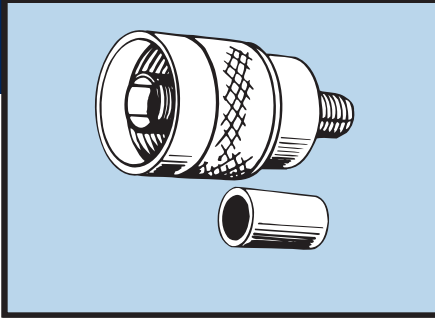
| CONTACT GUIDE                |              |           |           |     | APPLICABLE<br>CABLE<br>RG-/U | M22520/1-01<br>CRIMP TOOL | M22520/5-01<br>CRIMP TOOL | POSITIONER<br>OR DIE                                  |
|------------------------------|--------------|-----------|-----------|-----|------------------------------|---------------------------|---------------------------|---|
| CONTACT<br>MILITARY PART NO. | I.C. OR O.F. | PIN<br>OR | COLORBAND |     |                              |                           |                           |   |
|                              |              |           | □         | ○   |                              |                           |                           |   |
| M39012/26-12                 | I.C.         | P         | ORN       | YEL | 122                          | AF8                       | -                         | TH270   |
| M39012/26-11                 | I.C.         | P         | BLU       | YEL | 180                          | AF8                       | -                         | TH270   |
| M39012/26-50                 | O.F.         | -         | -         | -   | 180/122                      | -                         | HX4                       | Y204P (Closure A) or Y197, Y140<br>(Closure B)        |
| M39012/26-10                 | I.C.         | P         | RED       | YEL | 142/400/303                  | AF8                       | -                         | TH270   |
| M39012/26-51                 | O.F.         | -         | -         | -   | 142/400                      | -                         | HX4                       | Y197, Y205P, Y209P (Closure A)<br>or Y142 (Closure B) |
| M39012/26-52                 | O.F.         | -         | -         | -   | 303                          | -                         | HX4                       | Y197, Y205P, Y209P (Closure A)<br>or Y142 (Closure B) |

I.C. - Inner Contact, O.F. - Outer Ferrule

□ = Closest to Mating End ○ = Closest to Wire Entry

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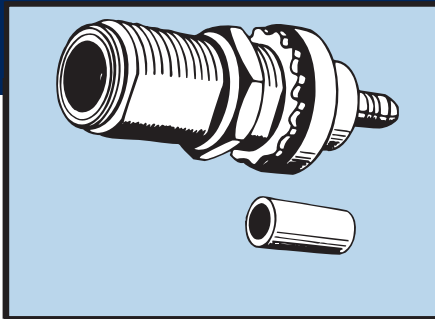
# R.F. Connectors Tool Selection Guide



## MIL-DTL-39012/27 SERIES TNC

| CONNECTOR TYPE | CONNECTOR MILITARY PART NO. |
|----------------|-----------------------------|
| PLUG           | M39012/27-0501              |
|                | M39012/27-0502              |
|                | M39012/27-0503              |
|                | M39012/27-0504              |

| CONTACT GUIDE                |              |           |           |     | APPLICABLE<br>CABLE<br>RG-/U | M22520/1-01<br>CRIMP TOOL | M22520/5-01<br>CRIMP TOOL | POSITIONER<br>OR DIE                                  |
|------------------------------|--------------|-----------|-----------|-----|------------------------------|---------------------------|---------------------------|---|
| CONTACT<br>MILITARY PART NO. | I.C. OR O.F. | PIN<br>OR | COLORBAND |     |                              |                           |                           |   |
|                              |              |           | □         | ○   |                              |                           |                           |   |
| M39012/27-12                 | I.C.         | S         | ORN       | GRE | 122                          | AF8                       | -                         | TH270   |
| M39012/27-11                 | I.C.         | S         | BLU       | GRE | 180                          | AF8                       | -                         | TH270   |
| M39012/27-50                 | O.F.         | -         | -         | -   | 180/122                      | -                         | HX4                       | Y204P (Closure A)<br>or Y197, Y140 (Closure B)        |
| M39012/27-10                 | I.C.         | S         | RED       | GRE | 142/303                      | AF8                       | -                         | TH270   |
| M39012/27-51                 | O.F.         | -         | -         | -   | 142                          | -                         | HX4                       | Y197, Y205P, Y209P (Closure A)<br>or Y142 (Closure B) |
| M39012/27-52                 | O.F.         | -         | -         | -   | 303                          | -                         | HX4                       | Y197, Y205P, Y209P (Closure A)<br>or Y142 (Closure B) |



## MIL-DTL-39012/28 SERIES TNC

| CONNECTOR TYPE  | CONNECTOR MILITARY PART NO. |
|-----------------|-----------------------------|
| JAM NUT MOUNTED | M39012/28-0501              |
|                 | M39012/28-0502              |
|                 | M39012/28-0503              |
|                 | M39012/28-0504              |

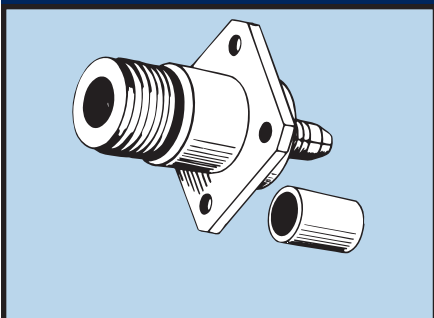
| CONTACT GUIDE                |              |           |           |     | APPLICABLE<br>CABLE<br>RG-/U | M22520/1-01<br>CRIMP TOOL | M22520/5-01<br>CRIMP TOOL | POSITIONER<br>OR DIE                                  |
|------------------------------|--------------|-----------|-----------|-----|------------------------------|---------------------------|---------------------------|---|
| CONTACT<br>MILITARY PART NO. | I.C. OR O.F. | PIN<br>OR | COLORBAND |     |                              |                           |                           |   |
|                              |              |           | □         | ○   |                              |                           |                           |   |
| M39012/28-12                 | I.C.         | S         | ORN       | BLU | 122                          | AF8                       | -                         | TH270   |
| M39012/28-11                 | I.C.         | S         | BLU       | BLU | 180                          | AF8                       | -                         | TH270   |
| M39012/28-50                 | O.F.         | -         | -         | -   | 122/180                      | -                         | HX4                       | Y204P (Closure A)<br>or Y197, Y140 (Closure B)        |
| M39012/28-10                 | I.C.         | S         | RED       | BLU | 142/303                      | AF8                       | -                         | TH270   |
| M39012/28-51                 | O.F.         | -         | -         | -   | 142                          | -                         | HX4                       | Y197, Y205P, Y209P (Closure A)<br>or Y142 (Closure B) |
| M39012/28-52                 | O.F.         | -         | -         | -   | 303                          | -                         | HX4                       | Y197, Y205P, Y209P (Closure A)<br>or Y142 (Closure B) |

I.C. - Inner Contact, O.F. - Outer Ferrule

□ = Closest to Mating End ○ = Closest to Wire Entry

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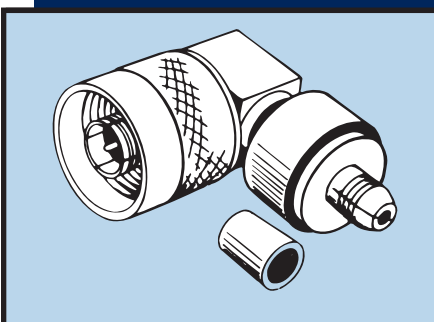
# R.F. Connectors Tool Selection Guide



## MIL-DTL-39012/29 SERIES TNC

| CONNECTOR TYPE            | CONNECTOR MILITARY PART NO. |
|---------------------------|-----------------------------|
| RECEPTACLE FLANGE MOUNTED | M39012/29-0501              |
|                           | M39012/29-0502              |
|                           | M39012/29-0503              |
|                           | M39012/29-0504              |

| CONTACT GUIDE             |              |        |           |     | APPLICABLE CABLE RG-U | M22520/1-01 CRIMP TOOL | M22520/5-01 CRIMP TOOL | POSITIONER OR DIE                                  |
|---------------------------|--------------|--------|-----------|-----|-----------------------|------------------------|------------------------|--|
| CONTACT MILITARY PART NO. | I.C. OR O.F. | PIN OR | COLORBAND |     |                       |                        |                        |  |
|                           |              |        | □         | ○   |                       |                        |                        |  |
| M39012/29-12              | I.C.         | S      | ORN       | GRE | 122                   | AF8                    | -                      | TH270  |
| M39012/29-11              | I.C.         | S      | BLU       | GRE | 180                   | AF8                    | -                      | TH270  |
| M39012/29-50              | O.F.         | -      | -         | -   | 122/180               | -                      | HX4                    | Y204P (Closure A) or Y197, Y140 (Closure B)        |
| M39012/29-10              | I.C.         | S      | RED       | GRE | 142/303               | AF8                    | -                      | TH270  |
| M39012/29-51              | O.F.         | -      | -         | -   | 142                   | -                      | HX4                    | Y197, Y205P, Y209P (Closure A) or Y142 (Closure B) |
| M39012/29-52              | O.F.         | -      | -         | -   | 303                   | -                      | HX4                    | Y197, Y205P, Y209P (Closure A) or Y142 (Closure B) |



## MIL-DTL-39012/30 SERIES TNC

| CONNECTOR TYPE   | CONNECTOR MILITARY PART NO. |
|------------------|-----------------------------|
| PLUG RIGHT ANGLE | M39012/30-0501              |
|                  | M39012/30-0502              |
|                  | M39012/30-0503              |
|                  | M39012/30-0504              |

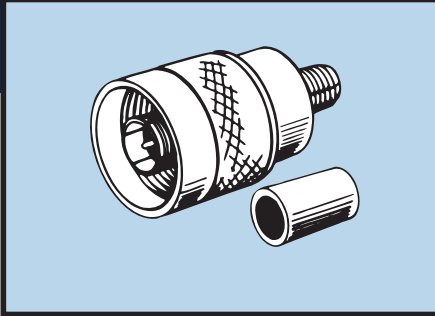
| CONTACT GUIDE             |              |        |           |     | APPLICABLE CABLE RG-U | M22520/1-01 CRIMP TOOL | M22520/5-01 CRIMP TOOL | POSITIONER OR DIE                                  |
|---------------------------|--------------|--------|-----------|-----|-----------------------|------------------------|------------------------|--|
| CONTACT MILITARY PART NO. | I.C. OR O.F. | PIN OR | COLORBAND |     |                       |                        |                        |  |
|                           |              |        | □         | ○   |                       |                        |                        |  |
| M39012/29-12              | I.C.         | S      | ORN       | GRE | 122                   | AF8                    | -                      | TH270  |
| M39012/29-11              | I.C.         | S      | BLU       | GRE | 180                   | AF8                    | -                      | TH270  |
| M39012/29-50              | O.F.         | -      | -         | -   | 122/180               | -                      | HX4                    | Y204P (Closure A) or Y197, Y140 (Closure B)        |
| M39012/29-10              | I.C.         | S      | RED       | GRE | 142/303               | AF8                    | -                      | TH270  |
| M39012/29-51              | O.F.         | -      | -         | -   | 142                   | -                      | HX4                    | Y197, Y205P, Y209P (Closure A) or Y142 (Closure B) |
| M39012/29-52              | O.F.         | -      | -         | -   | 303                   | -                      | HX4                    | Y197, Y205P, Y209P (Closure A) or Y142 (Closure B) |

I.C. - Inner Contact, O.F. - Outer Ferrule

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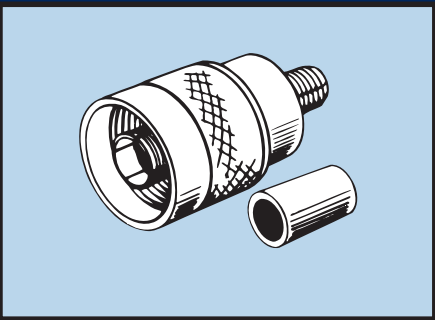
# R.F. Connectors Tool Selection Guide



## MIL-DTL-39012/35 SERIES SC

| CONNECTOR TYPE      | CONNECTOR MILITARY PART NO. |
|---------------------|-----------------------------|
| PLUG<br>PIN CONTACT | M39012/35-0501              |
|                     | M39012/35-0502              |
|                     | M39012/35-0503              |

| CONTACT GUIDE                |              |           |           |     | APPLICABLE<br>CABLE<br>RG-/U | M22520/1-01<br>CRIMP TOOL | M22520/5-01<br>CRIMP TOOL | POSITIONER<br>OR DIE                                  |
|------------------------------|--------------|-----------|-----------|-----|------------------------------|---------------------------|---------------------------|---|
| CONTACT<br>MILITARY PART NO. | I.C. OR O.F. | PIN<br>OR | COLORBAND |     |                              |                           |                           |   |
|                              |              |           | □         | ○   |                              |                           |                           |   |
| M39012/35-10                 | I.C.         | P         | RED       | GRA | 214/225/393                  | AF8                       | -                         | TH286   |
| M39012/35-50                 | O.F.         | -         | -         | -   | 214/225/393                  | -                         | HX4                       | Y110P (Closure A)                                     |
| M39012/35-11                 | I.C.         | P         | BLU       | GRA | 213                          | AF8                       | -                         | TH286   |
| M39012/35-51                 | O.F.         | -         | -         | -   | 213                          | -                         | HX4                       | Y197, Y205P, Y209P (Closure A)<br>or Y142 (Closure B) |
| M39012/35-52                 | O.F.         | -         | -         | -   | 142/400                      | -                         | HX4                       | Y197, Y205P, Y209P (Closure A)<br>or Y142 (Closure B) |



## MIL-DTL-39012/36 SERIES SC

| CONNECTOR TYPE | CONNECTOR MILITARY PART NO. |
|----------------|-----------------------------|
| PLUG           | M39012/36-0501              |
|                | M39012/36-0502              |
|                | M39012/36-0503              |

| CONTACT GUIDE                |              |           |           |     | APPLICABLE<br>CABLE<br>RG-/U | M22520/1-01<br>CRIMP TOOL | M22520/5-01<br>CRIMP TOOL | POSITIONER<br>OR DIE                                  |
|------------------------------|--------------|-----------|-----------|-----|------------------------------|---------------------------|---------------------------|---|
| CONTACT<br>MILITARY PART NO. | I.C. OR O.F. | PIN<br>OR | COLORBAND |     |                              |                           |                           |   |
|                              |              |           | □         | ○   |                              |                           |                           |   |
| M39012/36-10                 | I.C.         | S         | RED       | WHI | 214/225/393                  | AF8                       | -                         | TH286   |
| M39012/36-50                 | O.F.         | -         | -         | -   | 214/225/393                  | -                         | HX4                       | Y110P (Closure A) or Y178                             |
| M39012/36-51                 | O.F.         | -         | -         | -   | 213                          | -                         | HX4                       | Y110P (Closure A) or Y178                             |
| M39012/36-11                 | I.C.         | S         | BLU       | WHI | 142/400                      | AF8                       | -                         | TH286   |
| M39012/36-52                 | O.F.         | -         | -         | -   | 142/400                      | -                         | HX4                       | Y197, Y205P, Y209P (Closure A)<br>or Y142 (Closure B) |

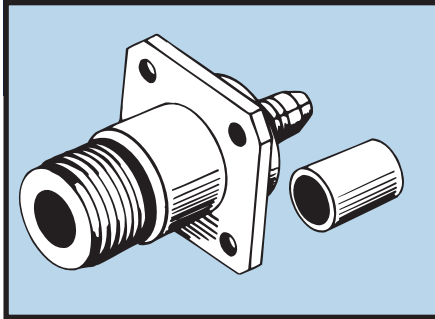
I.C. - Inner Contact, O.F. - Outer Ferrule

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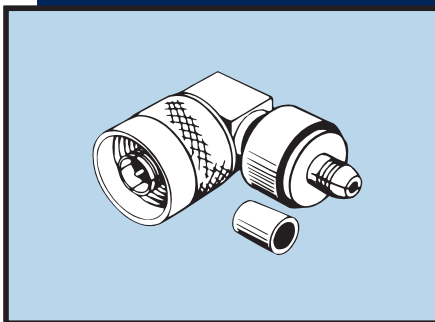
# R.F. Connectors Tool Selection Guide



## MIL-DTL-39012/38 SERIES SC

| CONNECTOR TYPE            | CONNECTOR MILITARY PART NO. |
|---------------------------|-----------------------------|
| RECEPTACLE FLANGE MOUNTED | M39012/38-0501              |
|                           | M39012/38-0502              |
|                           | M39012/38-0503              |

| CONTACT GUIDE             |              |        |           |     | APPLICABLE CABLE RG-/U | M22520/1-01 CRIMP TOOL | M22520/5-01 CRIMP TOOL | POSITIONER OR DIE                                  |
|---------------------------|--------------|--------|-----------|-----|------------------------|------------------------|------------------------|--|
| CONTACT MILITARY PART NO. | I.C. OR O.F. | PIN OR | COLORBAND |     |                        |                        |                        |  |
|                           |              |        | □         | ○   |                        |                        |                        |  |
| M39012/38-10              | I.C.         | P      | RED       | WHI | 165/393                | AF8                    | -                      | TH286  |
| M39012/38-50              | O.F.         | -      | -         | -   | 393                    | -                      | HX4                    | Y110P (Closure A) or Y178                          |
| M39012/38-51              | O.F.         | -      | -         | -   | 165                    | -                      | HX4                    | Y110P (Closure A) or Y178                          |
| M39012/38-11              | I.C.         | P      | BLU       | WHI | 142/400                | AF8                    | -                      | TH286  |
| M39012/38-52              | O.F.         | -      | -         | -   | 142/400                | -                      | HX4                    | Y197, Y205P, Y209P (Closure A) or Y142 (Closure B) |



## MIL-DTL-39012/39 SERIES SC

| CONNECTOR TYPE   | CONNECTOR MILITARY PART NO. |
|------------------|-----------------------------|
| PLUG RIGHT ANGLE | M39012/39-0501              |
|                  | M39012/39-0502              |
|                  | M39012/39-0503              |

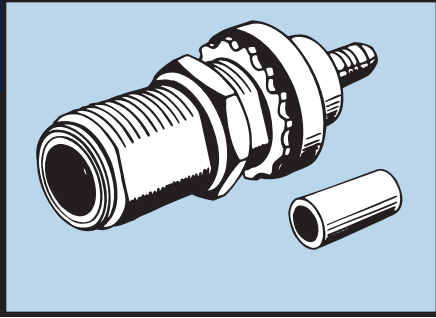
| CONTACT GUIDE             |              |        |           |     | APPLICABLE CABLE RG-/U | M22520/1-01 CRIMP TOOL | M22520/5-01 CRIMP TOOL | POSITIONER OR DIE                                  |
|---------------------------|--------------|--------|-----------|-----|------------------------|------------------------|------------------------|--|
| CONTACT MILITARY PART NO. | I.C. OR O.F. | PIN OR | COLORBAND |     |                        |                        |                        |  |
|                           |              |        | □         | ○   |                        |                        |                        |  |
| M39012/39-10              | I.C.         | P      | RED       | ORN | 214/393/165/213        | AF8                    | -                      | TH285  |
| M39012/39-50              | O.F.         | -      | -         | -   | 214/393                | -                      | HX4                    | Y110P (Closure A) or Y178                          |
| M39012/39-51              | O.F.         | -      | -         | -   | 165/213                | -                      | HX4                    | Y110P (Closure A) or Y178                          |
| M39012/39-11              | I.C.         | P      | BLU       | ORN | 142/223/400            | AF8                    | -                      | TH285  |
| M39012/39-52              | O.F.         | -      | -         | -   | 142/223/400            | -                      | HX4                    | Y197, Y205P, Y209P (Closure A) or Y142 (Closure B) |

I.C. - Inner Contact, O.F. - Outer Ferrule

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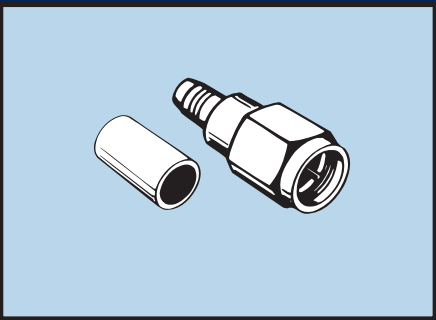
# R.F. Connectors Tool Selection Guide



## MIL-DTL-39012/40 SERIES SC

| CONNECTOR TYPE  | CONNECTOR MILITARY PART NO. |
|-----------------|-----------------------------|
| JAM NUT MOUNTED | M39012/40-0501              |
|                 | M39012/40-0502              |
|                 | M30912/40-0503              |

| CONTACT GUIDE             |              |        |           |     | APPLICABLE CABLE RG-/U | M22520/1-01 CRIMP TOOL | M22520/5-01 CRIMP TOOL | POSITIONER OR DIE                                  |
|---------------------------|--------------|--------|-----------|-----|------------------------|------------------------|------------------------|--|
| CONTACT MILITARY PART NO. | I.C. OR O.F. | PIN OR | COLORBAND |     |                        |                        |                        |  |
|                           |              |        | □         | ○   |                        |                        |                        |  |
| M39012/40-10              | I.C.         | S      | RED       | GLD | 165/393                | AF8                    | -                      | TH286  |
| M39012/40-50              | O.F.         | -      | -         | -   | 393                    | -                      | HX4                    | Y110P (Closure A) or Y178                          |
| M39012/40-51              | O.F.         | -      | -         | -   | 165                    | -                      | HX4                    | Y110P (Closure A) or Y178                          |
| M39012/40-11              | I.C.         | S      | BLU       | GLD | 142/400                | AF8                    | -                      | TH286  |
| M39012/40-52              | O.F.         | -      | -         | -   | 142/400                | -                      | HX4                    | Y197, Y205P, Y209P (Closure A) or Y142 (Closure B) |



## MIL-DTL-39012/55 SERIES SMA

| CONNECTOR TYPE      | CONNECTOR MILITARY PART NO. |
|---------------------|-----------------------------|
| PLUG<br>PIN CONTACT | M39012/55-3502              |
|                     | M39012/55-4502              |

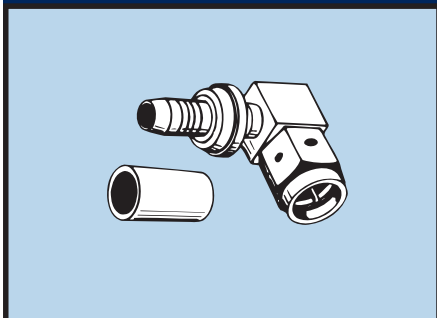
| CONTACT GUIDE             |              |        |           |     | APPLICABLE CABLE RG-/U | M22520/1-01 CRIMP TOOL | M22520/5-01 CRIMP TOOL | POSITIONER OR DIE                                  |
|---------------------------|--------------|--------|-----------|-----|------------------------|------------------------|------------------------|--|
| CONTACT MILITARY PART NO. | I.C. OR O.F. | PIN OR | COLORBAND |     |                        |                        |                        |  |
|                           |              |        | □         | ○   |                        |                        |                        |  |
| M39012/55-10              | I.C.         | P      | RED       | SIL | 142/400                | AF8                    | -                      | TP485  |
| M39012/55-50              | O.F.         | -      | -         | -   | 142/400                | -                      | HX4                    | Y197, Y205P, Y209P (Closure A) or Y142 (Closure B) |

I.C. - Inner Contact, O.F. - Outer Ferrule

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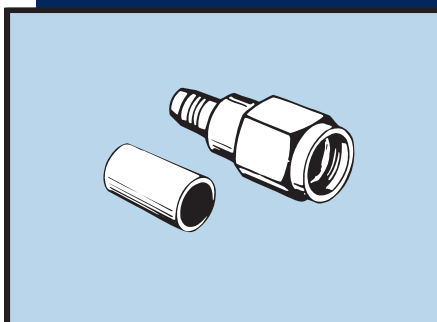
# R.F. Connectors Tool Selection Guide



## MIL-DTL-39012/56 SERIES SMA

| CONNECTOR TYPE   | CONNECTOR MILITARY PART NO. |
|------------------|-----------------------------|
| PLUG RIGHT ANGLE | M39012/56-3502              |
|                  | M39012/56-4502              |

| CONTACT GUIDE                |              |           |           |     | APPLICABLE<br>CABLE<br>RG-/U | M22520/1-01<br>CRIMP TOOL | M22520/5-01<br>CRIMP TOOL | POSITIONER<br>OR DIE                                  |
|------------------------------|--------------|-----------|-----------|-----|------------------------------|---------------------------|---------------------------|---|
| CONTACT<br>MILITARY PART NO. | I.C. OR O.F. | PIN<br>OR | COLORBAND |     |                              |                           |                           |   |
|                              |              |           | □         | ○   |                              |                           |                           |   |
| M39012/56-10                 | I.C.         | P         | RED       | MRN | 142/400                      | AF8                       | -                         | TP485   |
| M39012/56-50                 | O.F.         | -         | -         | -   | 142/400                      | -                         | HX4                       | Y197, Y205P, Y209P (Closure A)<br>or Y142 (Closure B) |



## MIL-DTL-39012/57 SERIES SMA

| CONNECTOR TYPE         | CONNECTOR MILITARY PART NO. |
|------------------------|-----------------------------|
| PLUG<br>SOCKET CONTACT | M39012/57-3502              |
|                        | M39012/57-4502              |

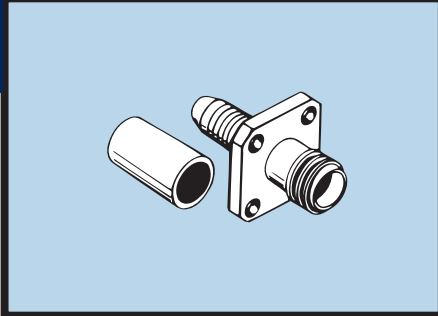
| CONTACT GUIDE                |              |           |           |     | APPLICABLE<br>CABLE<br>RG-/U | M22520/1-01<br>CRIMP TOOL | M22520/5-01<br>CRIMP TOOL | POSITIONER<br>OR DIE                                  |
|------------------------------|--------------|-----------|-----------|-----|------------------------------|---------------------------|---------------------------|---|
| CONTACT<br>MILITARY PART NO. | I.C. OR O.F. | PIN<br>OR | COLORBAND |     |                              |                           |                           |   |
|                              |              |           | □         | ○   |                              |                           |                           |   |
| M39012/57-10                 | I.C.         | S         | RED       | MRN | 142/400                      | AF8                       | -                         | TP485   |
| M39012/57-50                 | O.F.         | -         | -         | -   | 142/400                      | -                         | HX4                       | Y197, Y205P, Y209P (Closure A)<br>or Y142 (Closure B) |

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# R.F. Connectors Tool Selection Guide

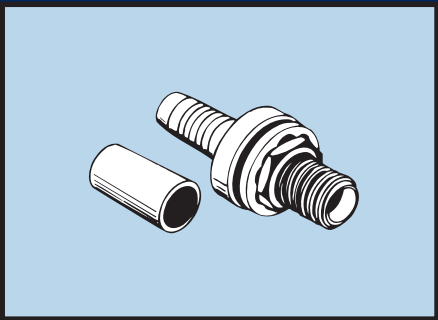


## MIL-DTL-39012/58 SERIES SMA

| CONNECTOR TYPE            | CONNECTOR MILITARY PART NO. |
|---------------------------|-----------------------------|
| RECEPTACLE FLANGE MOUNTED | M39012/58-3502              |
|                           | M39012/58-4502              |

| CONTACT GUIDE             |              |        |           |     | APPLICABLE CABLE RG-/U | M22520/1-01 CRIMP TOOL | M22520/5-01 CRIMP TOOL | POSITIONER OR DIE                                  |
|---------------------------|--------------|--------|-----------|-----|------------------------|------------------------|------------------------|--|
| CONTACT MILITARY PART NO. | I.C. OR O.F. | PIN OR | COLORBAND |     |                        |                        |                        |  |
|                           |              |        | □         | ○   |                        |                        |                        |  |
| M39012/58-10              | I.C.         | S      | RED       | MRN | 142/400                | AF8                    | -                      | TP485  |
| M39012/58-50              | O.F.         | -      | -         | -   | 142/400                | -                      | HX4                    | Y197, Y205P, Y209P (Closure A) or Y142 (Closure B) |

R.F. Connectors



## MIL-DTL-39012/59 SERIES SMA

| CONNECTOR TYPE  | CONNECTOR MILITARY PART NO. |
|-----------------|-----------------------------|
| JAM NUT MOUNTED | M39012/59-3502              |
|                 | M39012/59-4502              |

| CONTACT GUIDE             |              |        |           |     | APPLICABLE CABLE RG-/U | M22520/1-01 CRIMP TOOL | M22520/5-01 CRIMP TOOL | POSITIONER OR DIE                                  |
|---------------------------|--------------|--------|-----------|-----|------------------------|------------------------|------------------------|--|
| CONTACT MILITARY PART NO. | I.C. OR O.F. | PIN OR | COLORBAND |     |                        |                        |                        |  |
|                           |              |        | □         | ○   |                        |                        |                        |  |
| M39012/59-10              | I.C.         | S      | RED       | MRN | 142/400                | AF8                    | -                      | TP485  |
| M39012/59-50              | O.F.         | -      | -         | -   | 142/400                | -                      | HX4                    | Y197, Y205P, Y209P (Closure A) or Y142 (Closure B) |

I.C. - Inner Contact, O.F. - Outer Ferrule

□ = Closest to Mating End ○ = Closest to Wire Entry

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# M39029 Coaxial/Shielded Contact (Connector Series) Tool Selection Guide

| CONTACT  |             | INNER         |            | OUTER         |                   | ASSEMBLY TOOLS  |              |
|--|-------------|---------------|------------|---------------|-------------------|-----------------|--------------|
| BIN CODE   | CAVITY SIZE | CRIMPING TOOL | POSITIONER | CRIMPING TOOL | POSITIONER OR DIE | INSTALLING TOOL | REMOVAL TOOL |
| <b>M39029/6 PIN CONTACT (SAE AS81511 Series 1 &amp; 2) CANCELED</b>                  |             |               |            |               |                   |                 |              |
| <b>M39029/7 PIN CONTACT (MIL-DTL-26482 Series 2 &amp; MIL-DTL-81703 Series 3)</b>    |             |               |            |               |                   |                 |              |
| 126  | 12          | AFM8          | K269-1     | HX4           | Y203              | DAK83-12B       | DRK83-12B    |
| 127  | 12          | AFM8          | K269-1     | HX4           | Y203              | DAK83-12B       | DRK83-12B    |
| 128  | 12          | AFM8          | K269-1     | HX4           | Y203              | DAK83-12B       | DRK83-12B    |
| <b>M39029/8 SOCKET CONTACT (MIL-DTL-26482 Series 2 &amp; MIL-DTL-81703 Series 3)</b> |             |               |            |               |                   |                 |              |
| 129  | 12          | AFM8          | K269-1     | HX4           | Y203              | DAK83-12B       | DRK83-12B    |
| 130  | 12          | AFM8          | K269-1     | HX4           | Y203              | DAK83-12B       | DRK83-12B    |
| 131  | 12          | AFM8          | K269-1     | HX4           | Y203              | DAK83-12B       | DRK83-12B    |
| <b>M39029/13 SOCKET CONTACT (SAE AS81511 Series 1) CANCELED</b>                      |             |               |            |               |                   |                 |              |
| <b>M39029/14 SOCKET CONTACT (SAE AS81511 Series 2) CANCELED</b>                      |             |               |            |               |                   |                 |              |
| <b>M39029/19 PIN CONTACT (SAE AS81511 Series 3 &amp; 4)</b>                          |             |               |            |               |                   |                 |              |
| 181  | 16          | AFM8          | K373-1     | MH801         | D16P-1M           | M81969/16-02    | M81969/16-02 |
|  |             | AFM8          | K373-1     | MH801         | D16P-1M           |                 |              |
| 182  | 12          | AFM8          | K372-1     | MH803         | D12P-1M           | M81969/16-03    | M81969/16-03 |
|  |             | AFM8          | K372-1     | MH803         | D12P-1M           |                 |              |
| 183  | 12          | AFM8          | K373-1     | MH803         | D12P-1M           | M81969/16-03    | M81969/16-03 |
|  |             | AFM8          | K373-1     | MH803         | D12P-1M           |                 |              |
|  |             | AFM8          | K372-1     | MH803         | D12P-1M           |                 |              |
| <b>M39029/20 SOCKET CONTACT (SAE AS81511 Series 3)</b>                               |             |               |            |               |                   |                 |              |
| 184  | 16          | AFM8          | K373-1     | MH801         | D16LS-1M          | M81969/16-02    | M81969/16-02 |
|  |             | AFM8          | K373-1     | MH801         | D16LS-1M          |                 |              |
| 185  | 12          | AFM8          | K372-1     | MH803         | D12LS-1M          | M81969/16-03    | M81969/16-03 |
|  |             | AFM8          | K372-1     | MH803         | D12LS-1M          |                 |              |
| 186  | 12          | AFM8          | K372-1     | MH803         | D12LS-1M          | M81969/16-03    | M81969/16-03 |
|  |             | AFM8          | K372-1     | MH803         | D12LS-1M          |                 |              |
|  |             | AFM8          | K372-1     | MH803         | D12LS-1M          |                 |              |
| <b>M39029/21 SOCKET CONTACT (SAE AS81511 Series 4)</b>                               |             |               |            |               |                   |                 |              |
| 187  | 16          | AFM8          | K373-1     | MH801         | D16S-1M           | M81969/16-02    | M81969/16-02 |
|  |             | AFM8          | K373-1     | MH801         | D16S-1M           |                 |              |
| 188  | 12          | AFM8          | K372-1     | MH803         | D12S-1M           | M81969/16-03    | M81969/16-03 |
|  |             | AFM8          | K372-1     | MH803         | D12S-1M           |                 |              |
| 189  | 12          | AFM8          | K372-1     | MH801         | D16S-1M           | M81969/16-03    | M81969/16-03 |
|  |             | AFM8          | K372-1     | MH801         | D16S-1M           |                 |              |
|  |             | AFM8          | K372-1     | MH803         | D12S-1M           |                 |              |
| <b>M39029/25-PIN CONTACT (MIL-DTL-26482 Series 1)</b>                                |             |               |            |               |                   |                 |              |
| 204  | 12          | AFM8          | K496       | HX4           | Y189              | DAK12B          | DRK12B       |
| 205  | 12          | AFM8          | K496       | None          | None              |                 |              |
| 206  | 12          | AFM8          | K496       | HX4           | Y189              |                 |              |

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# Coaxial/Shielded Contact Tool Selection Guide

| CONTACT   |             | INNER         |            | OUTER         |                   | ASSEMBLY TOOLS  |              |
|---|-------------|---------------|------------|---------------|-------------------|-----------------|--------------|
| BIN CODE  | CAVITY SIZE | CRIMPING TOOL | POSITIONER | CRIMPING TOOL | POSITIONER OR DIE | INSTALLING TOOL | REMOVAL TOOL |
| <b>M39029/26 SOCKET CONTACT (MIL-DTL-26482 Series 1)</b>            |             |               |            |               |                   |                 |              |
| 207   | 12          | AFM8          | K323       | HX4           | Y189              | DAK12B          | DRK12B       |
| 208   | 12          | AFM8          | K323       | None          | None              |                 |              |
| 209   | 12          | AFM8          | K323       | HX4           | Y189              |                 |              |
| <b>M39029/27 SOCKET CONTACT (MIL-DTL-38999 Series 2)</b>            |             |               |            |               |                   |                 |              |
| 210   | 12          | AFM8          | K323       | GS200-1       | G2P330            | DAK95-12B       | DRK95-12B    |
| 402   | 12          | AFM8          | K323       | GS200-1       | G2P330            | DAK95-12B       | DRK95-12B    |
| 403   | 12          |               |            |               |                   |                 |              |
| 404   | 12          |               |            |               |                   |                 |              |
| 405   | 12          |               |            |               |                   |                 |              |
| 406   | 12          |               |            |               |                   |                 |              |
| 407   | 12          |               |            |               |                   |                 |              |
| 408   | 12          |               |            |               |                   |                 |              |
| <b>M39029/28 PIN CONTACT (MIL-DTL-38999 Series 1, 2, 3 &amp; 4)</b> |             |               |            |               |                   |                 |              |
| 211   | 12          | AFM8          | K323       | GS200-1       | G2P330            | DAK95-12B       | DRK95-12B    |
| 409   | 12          | AFM8          | K323       | GS200-1       | G2P330            | DAK95-12B       | DRK95-12B    |
| 410   | 12          |               |            |               |                   |                 |              |
| 411   | 12          |               |            |               |                   |                 |              |
| 412   | 12          |               |            |               |                   |                 |              |
| 413   | 12          |               |            |               |                   |                 |              |
| 414   | 12          |               |            |               |                   |                 |              |
| 415   | 12          |               |            |               |                   |                 |              |
| <b>M39029/50 SOCKET CONTACT (MIL-DTL-83733)</b>                     |             |               |            |               |                   |                 |              |
| 340   | 12          | AFM8          | K404       | HX4           | Y215              | DAK83-12B       | DRK83-12B    |
|   |             |               |            | HX3           | X101              |                 |              |
| <b>M39029/51 SOCKET CONTACT (MIL-DTL-83733)</b>                     |             |               |            |               |                   |                 |              |
| 341   | 12          | AFM8          | K404       | HX4           | Y215              | DAK83-12B       | DRK83-12B    |
|   |             |               |            | HX3           | X101              |                 |              |
| <b>M39029/54 PIN CONTACT (MIL-DTL-26500 and MIL-DTL-26518)</b>      |             |               |            |               |                   |                 |              |
| 342   | 12          | AFM8          | K404       | HX4           | Y215              | DAK-12B         | DRK12B       |
|   |             |               |            | HX3           | X101              |                 |              |
| 343   | 8           | AFM8          | K75S       | HX4           | Y189              | DAK55-8B        | DRK56-8B     |
|   |             |               |            | HX3           | X125              |                 |              |
| <b>M39029/55 SOCKET CONTACT (MIL-DTL-26500 and MIL-DTL-26518)</b>   |             |               |            |               |                   |                 |              |
| 344   | 12          | AFM8          | K745       | HX4           | Y215              | DAK12B          | DRK12B       |
|   |             |               |            | HX3           | X101              |                 |              |
| 345   | 12          | AFM8          | K75S-1     | HX4           | Y189              | DAK12B          | DRK12B       |
|   |             |               |            | HX3           | X125              |                 |              |

R.F. Connectors

# Coaxial/Shielded Contact Tool Selection Guide

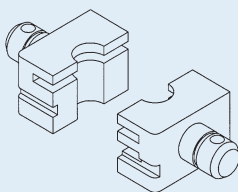
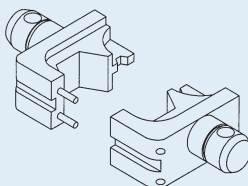
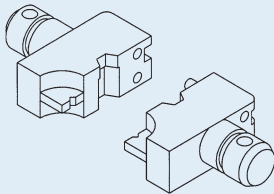
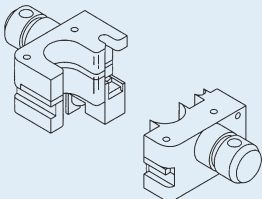
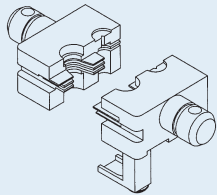
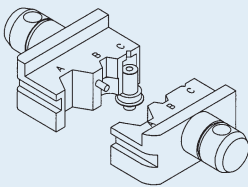
| CONTACT  |             | INNER  |                          | OUTER         |                   | ASSEMBLY TOOLS  |              |
|--|-------------|--|--------------------------|---------------|-------------------|-----------------|--------------|
| BIN CODE   | CAVITY SIZE | CRIMPING TOOL  | POSITIONER               | CRIMPING TOOL | POSITIONER OR DIE | INSTALLING TOOL | REMOVAL TOOL |
| <b>M39029/59 Socket CONTACT (MIL-DTL-24308)</b>                              |             |  |                          |               |                   |                 |              |
| 366  | 8           | AFM8   | K406                     | HX4           | Y197              | DAK95-8B        | DRK95-8B     |
|  |             |  |                          | HX3           | X102              |                 |              |
| <b>M39029/60 PIN CONTACT (MIL-DTL-38999 Series 1, 3, &amp; 4)</b>            |             |  |                          |               |                   |                 |              |
| 367  | 8           | AFM8   | K406                     | HX4           | Y197              | DAK95-8B        | DRK95-8B     |
|  |             |  |                          | HX3           | X102              |                 |              |
| <b>M39029/75 SOCKET CONTACT (MIL-DTL-38999 Series 1, 3, &amp; 4)</b>         |             |  |                          |               |                   |                 |              |
| 416  | 12          | AFM8   | K323                     | GS200-1       | G2P330            | DAK95-12B       | DRK95-12B    |
| 417  |             |  |                          |               |                   |                 |              |
| 418  |             |  |                          |               |                   |                 |              |
| 419  |             |  |                          |               |                   |                 |              |
| 420  |             |  |                          |               |                   |                 |              |
| 421  |             |  |                          |               |                   |                 |              |
| 422  |             |  |                          |               |                   |                 |              |
| 423  |             |  |                          |               |                   |                 |              |
| <b>M39029/76 PIN CONTACT (MIL-DTL-38999 Series 1, 2, 3 &amp; 4)</b>          |             |  |                          |               |                   |                 |              |
| 424  | 16          | AFM8   | K532-1                   | GS100-1       | GP295             | DAK95-16B       | DRK95-16B    |
| 425  |             |  |                          |               |                   |                 |              |
| 426  |             |  |                          |               |                   |                 |              |
| 427  |             |  |                          |               |                   |                 |              |
| <b>M39029/77 SOCKET CONTACT (MIL-DTL- 38999 Series 1, 3, &amp; 4)</b>        |             |  |                          |               |                   |                 |              |
| 428  | 16          | AFM8   | K532-1                   | GS100-1       | GP295             | DAK95-16B       | DRK95-16B    |
| 429  |             |  |                          |               |                   |                 |              |
| 430  |             |  |                          |               |                   |                 |              |
| 431  |             |  |                          |               |                   |                 |              |
| <b>M39029/78 SOCKET CONTACT (MIL-DTL-38999 Series 2 &amp; MIL-DTL-24308)</b> |             |  |                          |               |                   |                 |              |
| 432  | 16          | AFM8   | K532-1                   | GS100-1       | GP295             | DAK95-16B       | DRK95-16B    |
| 433  |             |  |                          |               |                   |                 |              |
| 434  |             |  |                          |               |                   |                 |              |
| 435  |             |  |                          |               |                   |                 |              |
| <b>M39029/79 PIN CONTACT (MIL-DTL-28748/9)</b>                               |             |  |                          |               |                   |                 |              |
| 436  | 16          | HX3-530  | N/A                      | HX3-530       | N/A               | DAK16B          | DRK597       |
| 437  | 16          | HX3-530  | N/A                      | HX3-530       | N/A               | DAK16B          | DRK597       |
| <b>M39029/80 SOCKET CONTACT (MIL-DTL-28748/10)</b>                           |             |  |                          |               |                   |                 |              |
| 438  | 16          | HX3-530  | N/A                      | HX3-530       | N/A               | DAK16B          | DRK597       |
| 439  | 16          | HX3-530  | N/A                      | HX3-530       | N/A               | DAK16B          | DRK597       |
| <b>M39029/102 PIN CONTACT (MIL-DTL-38999 Series 1, 3 &amp; 4)</b>            |             |  |                          |               |                   |                 |              |
| 558  | 12          | MH992 (TE/DEUTCH)<br>AFM8 (TRISTAR)<br>MH992(AMPHENOL) | K1303S<br>K1430<br>K1360 | HX4           | Y196 (A)          | DAK95-12B       | DRK95-12B    |
| <b>M39029/103 SOCKET CONTACT (MIL-DTL-38999 Series 1, 3 &amp; 4)</b>         |             |  |                          |               |                   |                 |              |
| 559  | 12          | MH992 (TE/DEUTCH)<br>AFM8 (TRISTAR)<br>MH992(AMPHENOL) | K1304<br>K1453<br>K1360  | HX4           | Y196 (A)          | DAK95-12B       | DRK95-12B    |

# Y-Dies For A Full Range of Capabilities

Y Dies

DMC constantly adds new crimp die designs that are comparable to connector and terminal supplier dies or tools. A few of the popular “Y” die applications are featured in the following chart. For more options, contact DMC.

## TYPICAL DIE CONFIGURATIONS



| MFR. TOOL              | DMC   | MFR. TOOL                 | DMC    | MFR. TOOL              | DMC     | MFR. TOOL            | DMC   |
|------------------------|-------|---------------------------|--------|------------------------|---------|----------------------|-------|
| TE (AMP) 220009-1-B    | Y827  | TE (AMP) 9036402A         | Y929   | IT CANNON 995-0002-228 | Y793    | MS25312-1            | Y510  |
| TE (AMP) 220015-1      | Y587  | AMPHENOL 227-1221-6001    | Y951   | IT CANNON APK 15 & 25  | Y831    | MS25312-2            | Y509  |
| TE (AMP) 220045-2      | Y588  | AMPHENOL 227-1228         | Y240S  | IT CANNON BUCH. 612992 | Y331    | MS25312-3            | Y508  |
| TE (AMP) 220066-1      | Y586  | AMPHENOL 227-1242         | Y323S  | IT CANNON CCT-406M     | Y321    | MS25312-4            | Y507  |
| TE (AMP) 227-1400      | Y800P | AMPHENOL 227-125          | Y129   | IT CANNON CCT-C1       | Y316    | MS27143              | Y627  |
| TE (AMP) 277-980-3     | Y773P | AMPHENOL 227-1350         | Y324S  | IT CANNON CCT-C10      | Y320    | MS27144              | Y627  |
| TE (AMP) 45158-2       | Y717  | AMPHENOL 227-1351-1       | Y325   | IT CANNON CCT-C2       | Y555    | MS27148              | Y627  |
| TE (AMP) 45238-2       | Y721  | AMPHENOL 227-1351-2       | Y344   | IT CANNON CCT-C3       | Y317    | RADIALL R282 235 901 | Y915  |
| TE (AMP) 45239-2       | Y720  | AMPHENOL 227-1351-3       | Y326   | IT CANNON CCT-C5       | Y318    | RADIALL R282230      | Y342  |
| TE (AMP) 45240-2       | Y719  | AMPHENOL 227-1351-4       | Y346   | IT CANNON CCT-C6       | Y319    | TE (RAYCHEM) AD1377  | Y516  |
| TE (AMP) 45241-2       | Y718  | AMPHENOL 227-1351-5       | Y347   | IT CANNON CCT-C7A      | Y557    | T&B WT232            | Y173  |
| TE (AMP) 46673         | Y751A | AMPHENOL 227-1351-6       | Y348   | IT CANNON CCT-C8       | Y558    | T&B RA18-188         | Y580  |
| TE (AMP) 46673-1       | Y751B | AMPHENOL 227-1354         | Y355S  | IT CANNON CCT-C9       | Y559    | T&B WT157N           | Y689  |
| TE (AMP) 46988         | Y752  | AMPHENOL 227-1355         | Y356S  | IT CANNON CCT-CKM1     | Y560    | T&B WT200            | Y119  |
| TE (AMP) 49935         | Y788  | AMPHENOL 227-1358         | Y357   | IT CANNON CCT-CX2      | Y556    | T&B WT200-06-08      | Y360  |
| TE (AMP) 501295-1      | Y923  | AMPHENOL 227-1392-03      | Y488S  | IT CANNON CCT-DM       | Y322    | T&B WT200-06-11      | Y443  |
| TE (AMP) 52561         | Y934A | AMPHENOL 227-1395         | Y654   | DEUTSCH 20055          | Y380    | T&B WT201-03-10      | Y410  |
| TE (AMP) 58237-1       | Y902  | AMPHENOL 227-1402         | Y677   | KINGS /0-3             | Y397    | T&B WT202-06-08      | Y409  |
| TE (AMP) 58237-2       | Y897  | AMPHENOL 227-1403         | Y493   | KINGS 683-51559        | Y467    | T&B WT202-06-08      | Y411  |
| TE (AMP) 58238-2-A     | Y896  | AMPHENOL 227-1409         | Y688PS | KINGS 1002             | Y464    | T&B WT203            | Y198  |
| TE (AMP) 58249-1       | Y692  | AMPHENOL 227-1414         | Y780   | KINGS 1061             | Y575    | T&B WT209, 409       | Y211  |
| TE (AMP) 543424-2      | Y906  | AMPHENOL 227-200          | Y133   | KINGS 1077             | Y828P   | T&B WT210, 410       | Y212  |
| TE (AMP) 543424-7      | Y904  | AMPHENOL 227-350          | Y132   | KINGS 1078             | Y609    | T&B WT215            | Y139  |
| TE (AMP) 543424-5      | Y903  | AMPHENOL 227-375          | Y131   | KINGS 1079             | Y630P   | T&B WT216            | Y138  |
| TE (AMP) 543424-6      | Y905  | AMPHENOL 227-400          | Y130P  | KINGS 2002             | Y269    | T&B WT218            | Y145  |
| TE (AMP) 58423-1       | Y810P | AMPHENOL 227-425          | Y134   | KINGS 2012             | Y277    | T&B WT226            | Y169  |
| TE (AMP) 58423-2       | Y811P | AMPHENOL 227-600          | Y225   | KINGS 2021             | Y339    | T&B WT227            | Y170  |
| TE (AMP) 59215         | Y619  | AMPHENOL 227-911          | Y442   | KINGS 2024             | Y423    | T&B WT229            | Y178P |
| TE (AMP) 59250         | Y1060 | AMPHENOL 227-911          | Y623   | KINGS 2042             | Y209P   | T&B WT230            | Y179  |
| TE (AMP) 59275         | Y1061 | AMPHENOL 227-980-1        | Y685   | KINGS 2061             | Y572    | T&B WT231            | Y180  |
| TE (AMP) 59255         | Y753  | AMPHENOL 227-980-2        | Y686   | KINGS 2062             | K575    | T&B WT233            | Y242  |
| TE (AMP) 59459         | Y745  | AMPHENOL 227-980-5        | Y787P  | KINGS 2062             | Y762P   | T&B WT234            | Y293  |
| TE (AMP) 59461         | Y794  | AMPHENOL 294-1832         | Y200P  | KINGS 2063             | Y617    | T&B WT235            | Y246  |
| TE (AMP) 59493-1       | Y843  | AMPHENOL 294-532          | Y200P  | KINGS 2064             | Y574    | T&B WT238            | Y245  |
| TE (AMP) 59508         | Y748  | AMPHENOL 294GB-5031       | Y731   | KINGS 2067             | Y573    | T&B WT311            | Y243  |
| TE (AMP) 59962-1       | Y1997 | AMPHENOL 48-326           | Y477   | KINGS 2067             | Y760P   | T&B WT400            | Y203  |
| TE (AMP) 69149-1       | Y732  | AMPHENOL 611X1151         | Y336   | KINGS 2081             | Y613    | T&B WT400            | Y215  |
| TE (AMP) 69223-1       | Y733  | AMPHENOL 611X1275-1       | Y564   | KINGS 2082             | Y600    | T&B WT400-02-08      | Y219  |
| TE (AMP) 69224-1       | Y734  | AMPHENOL 790-5185         | Y255S  | KINGS 2101             | Y633    | T&B WT401            | Y201  |
| TE (AMP) 69266-1       | Y735  | AMPHENOL 790-5284         | Y257   | KINGS 2103             | Y680    | T&B WT401, 406, 411  | Y292  |
| TE (AMP) 69339         | Y589  | AMPHENOL 790-5285         | Y254   | KINGS 2105             | Y634    | T&B WT402            | Y214  |
| TE (AMP) 69352         | Y749  | AMPHENOL 790-5431         | Y250   | KINGS 2127             | Y635    | T&B WT406            | Y216  |
| TE (AMP) 69355         | Y750  | ASTRO. 613876             | Y328   | KINGS 2128             | Y636    | T&B WT406M           | Y321  |
| TE (AMP) 69363         | Y590  | ASTRO. 615550             | Y330   | KINGS 2140             | Y837P   | T&B WT411            | Y190  |
| TE (AMP) 69365-3       | Y950  | BURNDY MR8PV-2            | Y530   | KINGS 2162             | Y679    | T&B WT414            | Y191  |
| TE (AMP) 69408         | Y736  | BURNDY MR8-PVS            | Y524   | KINGS 2168             | Y932    | T&B WT419            | Y192  |
| TE (AMP) 69422         | Y737  | BURNDY N14HET-25          | Y881   | KINGS 2175             | Y940    | TROMPETER CD5-10     | Y776  |
| TE (AMP) 69423         | Y738  | BURNDY N14RT-10           | Y818   | KINGS 2177             | Y825    | TROMPETER CD5-11     | Y777  |
| TE (AMP) 69424         | Y739  | BURNDY N22RVMT-10         | Y512   | KINGS 2180             | Y829P   | TROMPETER CD5-8      | Y778  |
| TE (AMP) 69425         | Y740  | BURNDY N22RVMT-15         | Y817   | KINGS 2207             | Y888    | TROMPETER CD5-12     | Y789F |
| TE (AMP) 69429         | Y741  | BURNDY YAV9C-L36          | Y948   | KINGS 2211             | Y889    | TROMPETER CD5-13     | Y803  |
| TE (AMP) 69471         | Y742  | IT CANNON 249-1400-000    | Y249P  | KINGS 2212             | Y890    | TROMPETER CD5-4      | Y631  |
| TE (AMP) 69477-4       | Y938  | IT CANNON 304-0445-000    | Y894   | KINGS 2213             | Y891    | TROMPETER CD5-7      | Y775  |
| TE (AMP) 69493         | Y743  | IT CANNON 317-1795-000    | Y694   | KINGS 2213             | Y910    | TROMPETER CD5-9      | Y687  |
| TE (AMP) 69493-1       | Y744  | IT CANNON 317-2071-000    | Y824   | KINGS 2214             | Y892    | WALTER KIDDE M616229 | Y412  |
| TE (AMP) 69646         | Y746  | IT CANNON 317-7178-000    | Y830   | KINGS 2216             | Y893    |                      |       |
| TE (AMP) 69646         | Y537  | IT CANNON 990-001-391/392 | Y358   | KINGS 2229             | Y911    |                      |       |
| TE (AMP) 69726         | Y1998 | IT CANNON 995-0001-761    | Y704   | MAC PANEL 452303       | Y430-MP |                      |       |
| TE (AMP) 69811         | Y747  | IT CANNON 995-0002-113    | Y702   | MOLEX 8657-5001/2      | Y922    |                      |       |
| TE (AMP) 85-35181-SK11 | Y692  | IT CANNON 995-0002-143    | Y708   | MOLEX 86760-5003       | Y926    |                      |       |

Others Available. Consult DMC.

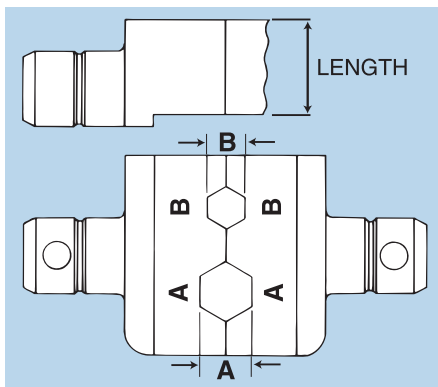
DMC does not provide connectors, contacts or wiring components. Parts shown here are for reference only. See disclaimer of liability on page 27.

# Open Frame Crimp Tools

## M22520/5-01 (HX4) M22520/10-01 (HX3)

The DMC HX4 and HX3 series crimp tools feature a system of interchangeable dies which eliminate the need for separate fixed die crimp tools for each and every different application. Many maintenance and production organizations have standardized on one of these models, thus eliminating the cost associated with maintaining and calibrating bulky inventories of single purpose, dedicated tools.

### TYPICAL DIE SET



Tremendous flexibility and cost advantages exist with this crimping system due to the wide variety of military and proprietary interchangeable dies available for these tool frames. As new requirements evolve, a new set of dies is all that's required to meet the demand.

Crimping dies are snapped into the tool frame and retained in place by internal spring clips. They may be permanently secured, if desired, by pressing a roll pin into the holes provided.

The tool frames are equipped with a positive ratchet assembly which controls complete handle movement in both directions.

Hexagonal crimp dies are available in a variety of combinations having single, double, and even triple cavity design. These dies accommodate most coaxial and triaxial connectors and contacts conforming to MIL-DTL-39012, AS39029, and numerous proprietary configurations. Other designs are available for coaxial connections requiring different termination techniques.

Dies in various crimp patterns are also available for insulated and uninsulated terminal lugs, wire splices and end caps relating to M7928, MS17143, MS25036, MS25181, MS27429, MS25274, MS20659, M81824, MS21003 through MS21015, and commercial part numbers. Several power contacts too large for conventional hand tools are also covered by interchangeable dies for the standard tool frame (HX4).

If your application requirement is not already covered by one of our standard dies our engineering department will be pleased to discuss a design to suit your needs.

The HX4 is 11" in length and weighs approximately 21 oz. The HX3 is 9" in length and weighs 11 oz.

## DMC169A (M83521/7-01) & DMC169 (M83507/9-01) TOOL KITS

The DMC169A and DMC169 tool kits consist of an HX4, Blade Micrometer, and 27 die sets. Each tool kit covers Mil-Spec shielding ferrules (MS21980/MS21981) and Mil-Spec coaxial contacts (M39029/6/13/14, M39029/7/8, M83733/13/14 and ON089558).



# Open Frame Crimp Tool Die Part Numbers

| DIE P/N    |                    |                           | DIE CLOSURE DIMENSIONS           |        |        |        |
|------------|--------------------|---------------------------|----------------------------------|--------|--------|--------|
| DMC P/N *  | MILITARY P/N       | NATIONAL STOCK NO. N.S.N. | A HEX.                           | LENGTH | B HEX. | LENGTH |
| <b>HX4</b> | <b>M22520/5-01</b> | <b>5120-01-335-8575</b>   | <b>Standard Crimp Tool Frame</b> |        |        |        |
| Y200P      | M22520/5-02        | 5120-01-335-8244          | .091                             | .090   | .068   | .270   |
| Y196       | M22520/5-03        | 5120-01-335-8245          | .128                             | .325   | .105   | .325   |
| Y152       | M22520/5-04        | 5120-01-335-8246          | .138                             | .090   | .118   | .270   |
| Y197       | M22520/5-05        | 5120-01-335-8247          | .213                             | .325   | .178   | .325   |
| Y203       | M22520/5-06        | 5120-01-335-8248          | .128                             | .094   |        |        |
| Y195       | M22520/5-07        | 5120-01-335-8249          | .255                             | .325   |        |        |
| Y215       | M22520/5-08        | 5120-01-335-8250          | .128                             | .375   |        |        |
| Y204P      | M22520/5-09        | 5120-01-335-8251          | .178                             | .400   | .068   | .093   |
| Y189       | M22520/5-10        | 5120-01-335-8252          | .160                             | .400   |        |        |
| Y205P      | M22520/5-11        | 5120-01-335-8253          | .213                             | .400   | .068   | .093   |
| Y206P      | M22520/5-13        | 5120-00-133-0585          | .255                             | .400   | .068   | .093   |
| Y207P      | M22520/5-15        | 5120-01-335-8255          | .263                             | .400   | .068   | .093   |
| Y193       | M22520/5-17        | 5120-00-133-0597          | .118                             | .375   |        |        |
| Y142       | M22520/5-19        | 5120-01-335-8257          | .255                             | .400   | .213   | .400   |
| Y149       | M22520/5-21        | 5120-01-335-8258          | .475                             | .400   |        |        |
| Y145       | M22520/5-23        | 5120-01-335-8259          | .384                             | .400   |        |        |
| Y110P      | M22520/5-25        | 5120-01-335-8260          | .429                             | .400   | .100   | .120   |
| Y151       | M22520/5-27        | 5120-01-335-8261          | .532                             | .400   |        |        |
| Y109P      | M22520/5-29        | 5120-01-335-8262          | .324                             | .400   | .100   | .120   |
| Y150       | M22520/5-31        | 5120-01-335-8263          | .501                             | .400   |        |        |
| Y136       | M22520/5-33        | 5120-01-335-8264          | .343                             | .400   | .105   | .400   |
| Y137       | M22520/5-35        | 5120-01-335-8265          | .324                             | .400   | .128   | .400   |
| Y138       | M22520/5-37        | 5120-01-335-8266          | .314                             | .400   | .151   | .400   |
| Y139       | M22520/5-39        | 5120-01-335-8267          | .309                             | .400   | .160   | .400   |
| Y140       | M22520/5-41        | 5120-01-335-8268          | .290                             | .400   | .178   | .400   |
| Y141       | M22520/5-43        | 5120-01-335-8269          | .268                             | .400   | .197   | .400   |
| Y143       | M22520/5-45        | 5120-01-335-8270          | .231                             | .400   | .218   | .400   |
| Y144       | M22520/5-47        | 5120-01-335-8271          | .359                             | .400   |        |        |
| Y146       | M22520/5-49        | 5120-00-133-0644          | .401                             | .400   |        |        |
| Y147       | M22520/5-51        | 5120-00-116-3040          | .431                             | .400   |        |        |
| Y148       | M22520/5-53        | 5120-01-335-8294          | .454                             | .400   |        |        |
| Y102       | M22520/5-55        | 5120-01-335-8295          | .324                             | .400   |        |        |
| Y209P      | M22520/5-57        | 5120-01-335-8296          | .213                             | .400   | .100   | .120   |
| Y208P      | M22520/5-59        | 5120-01-335-8297          | .255                             | .400   | .100   | .120   |
| Y178       | M22520/5-61        | 5120-01-335-8298          | .429                             | .400   |        |        |
| Y314P      | M22520/5-63        | 5120-01-335-8299          | .263                             | .400   | .091   | .090   |

| DIE P/N   |                |                           | DIE CLOSURE DIMENSIONS                                    |        |        |        |
|-----------|----------------|---------------------------|---|--------|--------|--------|
| DMC P/N * | MILITARY P/N   | NATIONAL STOCK NO. N.S.N. | A HEX.  | LENGTH | B HEX. | LENGTH |
| Y501      | M22520/5-100   | 5120-00-126-0860          | Pre-Insulated Terminal Crimp 26-10 AWG                    |        |        |        |
| Y527      | M22520/5-101   | 5120-01-335-8301          | Pre-Insulated Splice Crimp 26-20 AWG                      |        |        |        |
| Y539      | M22520/5-102   | 5120-01-335-8302          | Splice Crimp 12-1 6 AWG                                   |        |        |        |
| Y540      | M22520/5-103   | 5120-01-335-8303          | Splice Crimp 16-26 AWG                                    |        |        |        |
| Y631      | M22520/5-105   | 5120-01-361-9554          | .218  | .307   |        |        |
| Y692      | M22520/5-104   | --                        | --  |        |        |        |
| Y1115     | M22520/5-106** | --                        | Adjustable Insulation Terminal Crimp for Red 18-22 AWG    |        |        |        |
| Y1116     | M22520/5-107** | --                        | Adjustable Insulation Terminal Crimp for Blue 14-16 AWG   |        |        |        |
| Y1117     | M22520/5-108** | --                        | Adjustable Insulation Terminal Crimp for Yellow 10-12 AWG |        |        |        |

| HX3   | M22520/10-01  | 5120-00-117-4830 | Miniature Crimp Tool Frame      |      |      |      |
|-------|---------------|------------------|---------------------------------|------|------|------|
| X115S | M22520/10-02  | 5120-01-335-8304 | .091                            | .090 | .068 | .270 |
| X103  | M22520/10-03  | 5120-01-335-8305 | .255                            | .325 |      |      |
| X123  | M22520/10-04  | 5120-01-335-8277 | .138                            | .090 | .118 | .270 |
| X101  | M22520/10-05  | 5120-01-335-8278 | .128                            | .325 | .105 | .325 |
| X125  | M22520/10-06  | 5120-01-335-8279 | .160                            | .400 |      |      |
| X102  | M22520/10-07  | 5120-01-335-8280 | .213                            | .325 | .178 | .325 |
| X140  | M22520/10-08  | 5120-01-335-8281 | .128                            | .093 |      |      |
| X129  | M22520/10-09  | 5120-01-335-8282 | .118                            | .327 |      |      |
| X136  | M22520/10-10  | 5120-01-335-8283 | .128                            | .375 |      |      |
| X225  | M22520/10-11  | 5120-01-335-8284 | .105                            | .400 |      |      |
| X118  | M22520/10-13  | 5120-01-335-8285 | .128                            | .400 |      |      |
| X226  | M22520/10-15  | 5120-01-335-8286 | .151                            | .400 |      |      |
| X149  | M22520/10-17  | 5120-01-335-8287 | .178                            | .400 |      |      |
| X147  | M22520/10-19  | 5120-01-335-8288 | .197                            | .400 |      |      |
| X144  | M22520/10-21  | 5120-01-335-8289 | .213                            | .400 |      |      |
| X155  | M22520/10-23  | 5120-01-335-8290 | .218                            | .400 |      |      |
| X156  | M22520/10-25  | N/A              | .231                            | .400 |      |      |
| X187  | M22520/10-27  | 5120-01-335-8291 | .255                            | .400 |      |      |
| X515  | M22520/10-100 | 5120-00-116-3286 | Terminal/Splice Crimp 12-10 AWG |      |      |      |
| X511  | M22520/10-101 | 5120-00-116-2992 | Terminal/Splice Crimp 26-14 AWG |      |      |      |
| X525  | M22520/10-102 | 5120-01-335-8274 | Terminal/Splice Crimp 26-20 AWG |      |      |      |
| X527  | M22520/10-103 | 5120-00-124-3734 | Splice Crimp 16-12 AWG          |      |      |      |
| X528  | M22520/10-104 | 5120-01-335-8276 | Splice Crimp 26-16 AWG          |      |      |      |

Open Frame Crimp Tools

\*Die part numbers ending in "P" indicate that the die set has an alignment guide pin.  
 \*\*Contact DMC for QPL status.



# Battery Powered Hydraulic Open Frame Crimp Tool

## GET THE PORTABILITY OF A HAND TOOL WITH THE STAMINA OF A POWER TOOL!

DMC is pleased to present our battery powered hydraulic tools to crimp copper and aluminum cable #26 to #10 AWG with DMC "Y" Dies (M22520/5-XX and others). These tools are equivalent to DMC's **HX4** hand tool and use the same Y-dies.

Working on today's electrical systems calls for increased mobility and repeatable, consistent crimping force. To satisfy this need, DMC offers a battery powered hydraulic crimp tool designed to integrate your current tooling systems. The ergonomic tool body helps reduce workplace injuries and eases operator fatigue keeping costs low and production high.

DMC battery powered tools have been engineered to work with our existing Y-die series and compliment our established crimp tools. And, as always, if we don't have a die to meet your needs, we will engineer and manufacture it for you.

### FEATURES

- Ergonomic design allows one-handed operation
- Die automatically opens when crimp is complete
- Indicating complete crimp pressure cycle has been achieved
- Head rotates 350 degrees
- Red LED to display the charge status of the battery

### CRIMP CAPACITIES

- #26 to #10 AWG (copper terminations)
- Max. Crimp Force: 1.5 Tons (13.3 kN)
- Avg. Crimp Time: 2 seconds
- Avg. Crimps per Charge: 200
- Charge Time: 15 mins (Avg.)

### SPECIFICATIONS

- Length: 14.5" (368 mm)
- Width: 2.87" (72.9 mm)
- Depth: 4.5" (114.3 mm)
- Weight (with battery): 3.18 lb (1.4 kg)
- Sound Level: 75 db(A) at 1 meter
- Vibration: <8.2 ft/s<sup>2</sup> (2.5 m/s<sup>2</sup>)
- Hydraulic Oil: Shell Tellus® T-15

**TOOL INCLUDES:** Carrying Case, Gage, Die Removal Tool, Two 18V Batteries (p/n **HDE-LI-B**), One Battery Charger (p/n **HDE-LI-120C**).

Dies must be ordered separately.

| ADJUSTABLE DIES FOR INSULATED TERMINALS & SPLICES |       |             |
|---|-------|-------------|
| COLOR   | SIZE  | P/N         |
| Yellow  | 12-10 | Y670, Y1117 |
| Blue  | 16-14 | Y671, Y1116 |
| Red   | 22-18 | Y672, Y1115 |
| Yellow  | 26-24 | Y678        |
| Red/Blue  | 22-14 | Y1060       |
| Yellow/White                                      | 26-20 | Y1061       |

Adjustable Crimping Dies accept terminations which conform to AS7928, AS25036 (class 1 and 2) and other military or commercial specifications.

### HXE4B

The **HXE4B** Battery Powered Hydraulic Open Frame Crimp Tool is a hand held, self-contained crimp tool. The crimp head, battery, and pump unit are contained in one ergonomic tool body and weighs about 4 pounds. It is equivalent to DMC's **HX4** hand tool and uses the same Y-dies. (See pages 80-83)

### HXE4AB

This tool is available with an optional spring loaded push rod to hold the product in the crimping position (dies normally closed). (P/N **HXE4AB**)

### HXE4B-230

The **HXE4B-230** is supplied with a 230V charger.



**HXE4B**



# Open Frame Crimp Tools



## BENCH PRESS STYLE OPEN FRAME CRIMP TOOLS UDT5 & UDT3

The UDT5 & UDT3 tools have the die frame opening on the opposite side of the tool frame from the HX4 & HX3 so the tool can be used as a portable bench top press or as a hand tool. The tool frames are equipped with the same positive ratchet assembly and accept the same "Y" and "X" series dies. When used as a bench top press, the operator gains a greater mechanical advantage, thereby reducing operator fatigue.

Open Frame Crimp Tools

# Pneumatic Open Frame Tool HX33

The DMC HX33 is a bench top pneumatic crimp machine that is compatible with M22520/5 military and many DMC "Y-die" series crimp dies. The die sets are interchangeable and can be easily installed and removed from the HX33 pneumatic crimp tool.

Utilizing the enclosed foot pedal, the crimping cycle of the HX33 is activated and allows the operator to have both hands free to insert the crimped item and wire. All HX33 crimp tools are equipped with a positive closing mechanism to ensure consistent crimp quality.

The HX33 has an emergency release button that will open the crimping jaws in the event of blocked jaws caused by operation or handling errors or wrongly placed terminals.

- Foot Pedal Activation
- Full Cycle Control
- CE Marked
- In-Line Die Closure
- Accepts Most "Y" Dies
- Dimensions: 11.8"L x 4.9"W x 10.2"H
- Weight With Foot Pedal: 32lbs
- Crimp Force: 4000lb @ 90PSI



HX33

# Pneumatic Open Frame Tool HX23

## HX23 BENCH CRIMP PRODUCTION PRESS

### COMPATIBILITY WITH EXISTING CRIMP DIES

The HX23 accommodates all M22520/5-XX military and DMC “Y” series crimp dies (see pages 80-83).

This affords total utilization of existing dies and total interchangeability with M22520/5-01 (Daniels HX4) handheld tool frames (see pages 80-83).

### FULL CYCLE CONTROL

Full die closure is assured on every crimp. The internal cycle control network will not allow the tool to open until complete closure is attained. A simple procedure is available to open the tool in cases where a complete cycle cannot be effected. A secure method is provided to prevent unauthorized personnel from defeating the cycle control system.

### HANDS FREE OPERATION

There are no awkward levers or mechanisms used to open or close the crimp dies. These operations waste time and distract the operator’s attention.

### TWO STAGE CRIMP PROCESS FOR OPERATOR SAFETY

When the tool is in the normal condition, the crimp dies are fully open where contact assemblies can easily be inserted. A touch of the foot valve releases the dies to a safe gripping position (spring pressure only). When the operator is satisfied that the contact assembly is positioned correctly and hands are in a safe position, another actuation of the same foot valve completes the crimp and quickly returns the die to the open position for removal of the crimped assembly and loading of the next parts.

### MOUNTING

The HX23 is supplied with a stable bench mount which can remain unattached for portability. Or, can be mounted to a workstation by installing fasteners through the holes provided.

The HX23 Production Crimp Press can be used in horizontal or vertical

### SAFETY FEATURES:

- 2 Step Crimping Process
- Emergency Stop Switch

**HX23**



**BENCH MOUNT AND FOOT PRESS INCLUDED**

positions.

### OPERATOR SAFETY FEATURES

The HX23 is equipped with a transparent guard which affords the protection, but does not restrict vision.

The Hands Free Operation system allows the operator to position the contact assembly while the die is under spring pressure only.

The operator is then free to let the tool hold the contact assembly during the crimp cycle while the operator’s hands and fingers are a safe distance from the crimping die.

The HX23 foot valve assembly is constructed with a protective shroud to prevent accidental actuation. For operation the operator places their foot under the shroud to depress the pedal.

### FULL PNEUMATIC OPERATION

Standard clean, dry shop air at the recommended pressure is all that is required to operate the HX23 tool. There are no electrical or hydraulic requirements.

### ADJUSTABLE DIES FOR INSULATED TERMINALS & SPLICES

| COLOR        | SIZE  | P/N         |
|--------------|-------|-------------|
| Yellow       | 12-10 | Y670, Y1117 |
| Blue         | 16-14 | Y671, Y1116 |
| Red          | 22-18 | Y672, Y1115 |
| Yellow       | 26-24 | Y678        |
| Red/Blue     | 22-14 | Y1060       |
| Yellow/White | 26-20 | Y1061       |

Adjustable Crimping Dies accept terminations which conform to AS7928, AS25036 (class 1 and 2) and other military or commercial specifications.

### HX23 SPECIFICATIONS

| COMPONENTS (ALL INCLUDED)                      | SIZE                                       | WEIGHT           |
|--|--|------------------|
| TOOL FRAME                                     | 4 x 6 x 16 (in)<br>11.4 x 15.2 x 40.6 (cm) | 11 LBS<br>5.2 KG |
| FOOT PRESS                                     | 4 x 5 x 13 (in)<br>10.2 x 12.7 x 34.3 (cm) | 6 LBS<br>2.7 KG  |
| HOSE ASSM. (BETWEEN FOOT PRESS AND CRIMP TOOL) | 9 Feet – 2.7 Meters                        | 1.5 LBS          |

AIR REQUIREMENTS 80-95 PSI (5.4-6.4 BAR)

# EMC3300 Electro Mechanical Crimp Tool

## FEATURES

- Advanced Ergonomic Tool Design with “Safe Distance” Trigger Closing Control
- Pre-Clamp Function to Improve Cycle Time and Quality
- Crimp Cycle Time is 1.3 Seconds
- 250 Crimps per Charge (typical battery life)
- Li-Ion 10.8 Volt Battery and Charger
- Built-in LED Light
- Data Retrieval Available

| Ordering Guide |  |
|----------------|--|
| DMC P/N        | Description  |
| EMC3300        | Tool Kit with 110-120 Volt Charger and one battery |
| EMC3300-230    | Tool Kit with 220-240 Volt Charger and one battery |
| HDE-MBC110     | 110-120 Volt Charger only                          |
| HDE-MBC220     | 220-240 Volt Charger only                          |
| HDE-MBP108     | 10.8V Battery only                                 |
| HDE-USB        | USB Adapter Module                                 |



**EMC3300**

EMC3300

| Available Dies and Gages |  |  |
|--------------------------|--|--|
| DMC DIE Part #           | Application Notes  | DMC GAGE Part #                        |
| EMC-101D                 | W, R, B, Y Insulated Spare Wire Caps (Comparable to TE58573-1)                     | A. G818, B. G819, C. G820, D. G821     |
| EMC-102D                 | R, B, Y Insulated Terminals (Comparable to TE58423-1)                              | A. B. C. G931                          |
| EMC-102DL                | Same as EMC-102D plus Locator  | A. B. C. G931                          |
| EMC-105D                 | EQUIV. TO DCT4-105   | None                                   |
| EMC-106D                 | .042 sq, .128 hex, .178 hex  | A. None, B. G1212, C. G1222            |
| EMC-108D                 | .068 sq, .213 hex, .255 hex  | A. G1287, B. G1257, C. G1188           |
| EMC-117D                 | .128 hex, .178 hex, .213 hex, .255 hex (AMPHENOL SOCAPEX SX660-0062)               | A. G1212, B. G1222, C. G1257, D. G1188 |
| EMC-124D                 | .178 hex, .128 hex, .068 hex   | A. G1222, B. G1212, C. G1287           |
| EMC-129D                 | M81824/1-X splices (comparable to M22520/37-01, GMT232)                            | A. B. C. G411                          |
| EMC3300-197              | Equivalent to TE 2063030-1   | None                                   |
| EMC-199D                 | Equivalent to T&B ERG4002  | None                                   |
| EMC-200D                 | Equivalent to TE 58628-2   | A. G1362, B. G1363, C. G1364           |
| EMC-203D                 | Equivalent to TE 59824-1 (Tetra Crimp Tool)  | None                                   |
| EMC-204D                 | Equivalent to TE 58630-1 tool for ULTRA-FAST 12-10 Terminals                       | A. G1146, B. G1189                     |
| EMC-209D                 | Equivalent to TE 217212-1  | None                                   |
| EMC-210D                 | Equivalent to T & B ERG4004  | None                                   |
| EMC3300-212              | Equivalent to Molex 91528-1  | None                                   |
| EMC3300-213              | Equivalent to Molex 91504-1  | None                                   |
| EMC-277D                 | Equivalent to GMT277   | A.B.C.D G713                           |
| EMC-1005D                | Uninsulated Terminals 10-22 AWG (Equiv to GMT1005, comparable to TE49935)          | A. G739, B. G740, C. G741              |
| EMC-1006D                | High Temp Uninsulated Terminals 10-22AWG (Equiv to GMT1006, comparable to TE46447) | A. G327, B. G328, C. G329              |



# DCT Series Crimp Tools

DMC provides custom and standard crimp tools that are manufactured to connector OEM or user requirements. Often these tools are specified as comparable in function to the OEM connector supplier tool.



**DCT4-101**



The DCT series of crimp tools and dies accommodate most (insulated and uninsulated) terminals and splices conforming to AS7928 insulated and uninsulated as well as numerous proprietary configurations.

Dies in various crimp patterns are also available for D-Subminiature, circular connectors, Red/Blue/Yellow "Heat-N-Seal" terminals, "MiniSeal" terminals, and low profile environmental splices (M81824/1-XX).

Dies are configured with single, double, triple and even quadruple crimp cavities.

Several models and types of tools comprise the DCT tool series. Some tools have removable (interchangeable) dies, and others have fixed cavities that are not removable.

If your application requirement is not already covered by one of our standard die sets, our engineering department will be pleased to discuss a design to suit your needs, consult DMC for details.

## DCT4-XXX SERIES HAND CRIMP TOOLS

The sturdy construction of the DCT hand tools is superior to any tool made today. The handle will not flex or bend in any direction, therefore maximum force and repeatability are achieved. The precision ratchet controls cycling of the tool and assures the same accurate crimp every time. The handle grips and the leverage system are designed for maximum ergonomic benefit.

The DCT tools are approximately 9¼" x 3⅞" x 1¼" and weigh 1.38 lbs.



# DCT Series Crimp Tools

| DCT4 HAND TOOL SERIES DIES |   |
|----------------------------|---|
| DIE P/N                    | DESCRIPTION   |
| DCT4-101                   | Insulated Spare Wire Caps<br>Comparable to AMP 58573-1  |
| DCT4-102                   | R/B/Y Insulated Terminals & Splices<br>#22-18 AWG, 16-14 AWG, 12-10 AWG   |
| DCT4-104                   | R/B/Y ROSTRA HEAT-N-SEAL  |
| DCT4-105                   | Uninsulated Terminals   |
| DCT4-106                   | RF Connectors .178/ .128 HEXES  |
| DCT4-107                   | RF Connectors .068/.178/.324 HEXES  |
| DCT4-108                   | .068/.213/.255 HEXES  |
| DCT4-109                   | .213/.128/.105 HEXES  |
| DCT4-110                   | TROMPETER CD3-2 with .324/.255/.068/.042 HEXES  |
| DCT4-111                   | COAXIAL AND FIRE BOTTLE<br>CAP INDICATOR .128 HEX   |
| DCT4-117                   | .255/.213/.178/.128 HEXES   |
| DCT4-118                   | .213/.178 HEXES   |
| DCT4-119                   | Insulated Terminals & Splices<br># 24-20 AWG, # 22-18 AWG, AND # 16-14 AWG w/ Locator   |
| DCT4-120                   | RG58/U, RG59/U, RG62/U .359/.255 HEXES  |
| DCT4-121                   | .039 square/ .195 HEXES   |
| DCT4-122                   | Insulated Terminals & Splices<br># 24-20 AWG, #22-18 AWG AND #16-14 AWG   |
| DCT4-124                   | .068 / .128 / .178 HEXES Comparable to Amphenol CTL-9   |
| DCT4-128                   | .211/.128/.105 HEXES<br>CANNON CCT-DM<br>Comparable to DieY322  |
| DCT4-129                   | Same configuration as M22520/37-1<br>for M81824/1-X Splices<br>Tyco (Raychem) "Mini-Seal"<br>Environmental Splices<br>(26-20, 20-16, 16-12) |
| DCT4-130                   | SUB-D CONTACTS 20-24/24-28  |
| DCT4-138                   | Coaxial Crimp Tool .264/.161 HEXES  |
| DCT4-139                   | .264/.220 HEXES   |
| DCT4-140                   | .433/.402 HEXES   |
| DCT4-141                   | B-CRIMP COND. & INS. 16-22 AWG, 14-16 AWG, 10-12 AWG  |
| DCT4-142                   | with .142/.112/.079 HEXES   |
| DCT4-144                   | Coaxial Crimp Tool .359/.290 HEXES  |
| DCT4-145                   | Coaxial Crimp Tool .454 HEX   |
| DCT4-147                   | .429/.100/.068 HEXES  |
| DCT4-148                   | .268/.178 HEXES, .057 dia.  |

| DCT4 HAND TOOL SERIES DIES |   |
|----------------------------|---|
| DIE P/N                    | DESCRIPTION   |
| DCT4-149                   | COAXIAL CABLE<br>ST212, ST214, BT2002, BT3002 .268/.213/.178/.150 HEXES       |
| DCT4-151                   | D-SUBMINIATURE 20-30 AWG  |
| DCT4-154                   | .028 / .047 SQ, .128 / .178 HEXES   |
| DCT4-155                   | .028 / .047 SQ, .15 / .268 HEXES  |
| DCT4-157                   | .211 / .252 / .068 HEXES  |
| DCT4-158                   | .212 / .252 / .066 HEXES  |
| DCT4-160                   | .041 gage for "B" crimp   |
| DCT4-161                   | .041 gage for "B" crimp   |
| DCT4-162                   | .042 gage for "B" crimp   |
| DCT4-163                   | .290 DIA cavity   |
| DCT4-166                   | .187 / .178 HEXES, .042 SQ<br>Comparable to Amphenol CTL-15                   |
| DCT4-167                   | .324 / .319 / .255 HEXES, .042 SQ<br>Comparable to Amphenol CTL-14            |
| DCT4-169                   | .324 / .255 / .068 HEXES, .052 SQ<br>Comparable to Amphenol CTL-8             |
| DCT4-170                   | .290 / .128 / .105 HEXES  |
| DCT4-173                   | Rosenberger 88K20K-0S-3H3   |
| DCT4-175                   | AMP Multimate III & VI  |
| DCT4-176                   | Comparable to DIE Y498  |
| DCT4-178                   | "B" Crimp   |
| DCT4-179                   | "B" Crimp   |
| DCT4-180                   | Tyco AMPMODU Series<br>Type IV, IV1/2 & V Contacts<br>Comparable to AMP 90340 |
| DCT4-181D                  | Molex 734154550 (1 of 2)  |
| DCT4-182D                  | Molex 734154550 (2 of 2)  |
| DCT4-183                   | .339 HEX  |
| DCT4-185                   | White and Yellow Terminals  |
| DCT4-187                   | .215 / .225 / .235 HEXES  |
| DCT4-188                   | .110 HEX  |
| DCT4-189                   | Comparable to MRP0478   |
| DCT4-191                   | Comparable to BURNDY MR8-9Q   |
| DCT4-192                   | Comparable to AMP 68064   |

# GMT Series Crimp Tools

DMC provides custom and standard crimp tools manufactured to OEM connector supplier or user requirements. Often these tools are specified as comparable in function to the OEM connector supplier tool. Numerous applications such as open barrel (stamped and formed) contacts, insulated and non-insulated terminals, splices, end caps, coaxial connectors, and wire fittings of all types are covered by these tools. The rugged construction of this tool assures repeatability and long life cycle. You can rely on DMC experience for quality and cost effective performance.

**GMT General Purpose Tools:** Many standard OEM applications are covered by the GMT general purpose tool series. The jaws are fixed, and the locator (where used) is configured to hold the contacts precisely in the correct location for optimum crimping.

## **GMT1090 (M22520/44-01) TOOL FOR M81824/12-XX COLD APPLIED SPLICES**

The **GMT1090 (M22520/44-01)** Hand Crimp Tool crimps Tyco's Cold Applied Environmental Splices (M81824/12-xx) sizes 26-20, 20-16, 16-12 AWG. This precise tool has a locator which is configured to hold the splice in the correct location while either wire is being terminated. No heat required.

## **GMT232 (M22520/37-01) TOOL FOR M81824/1, /6, /7, /8, /9, /10, /11, /13, & /14 ENVIRONMENTAL SPLICES**

The **GMT232 (M22520/37-01)** Hand Crimp Tool crimps low profile environmental splices (M81824/1). The **GMT232** is the most popular tool to cover the range of 12 (yellow), 16 (blue), and 20 (red) splices for low profile environmental splice applications. The **GMT232** has a locator which is configured to hold the splice in the correct location while either wire is being terminated. This tool is comparable to the popular Tyco AD1377. Pneumatic Equiv. **PMT232**.

## **GMT333 (M22520/38-02\*) Tool for M20659 UNINSULATED TERMINALS**

The **GMT333** Tool is Pending Qualification to AS22520/38 as a replacement for the superseded M22520/24 plier crimp tool, and as an alternative to AS22520/38-01. The conductor crimp cavities have been split into three separate cavities instead of just two for improved crimp quality. The **GMT333** has also maintained the cycle control ratchet and leverage advantages of **GMT277**. The **GMT337** tool is used to crimp the insulation support crimp of M20659 terminals that have that feature. Sizes 22-18 & 16-14.

## **GMT1005 TOOL FOR UNINSULATED TERMINALS**

The **GMT1005** Hand Crimp Tool terminates uninsulated terminals sizes 10 to 22 AWG. This tool is comparable to Tyco Electronics' 49935 hand tool. Pneumatic Equiv. **PMT1005**.

## **GMT1006 TOOL FOR UNINSULATED TERMINALS**

The **GMT1006** Hand Crimp Tool terminates uninsulated terminals sizes 10 to 22 AWG. This tool is comparable to Tyco Electronics' 46447 hand tool. Pneumatic Equiv. **PMT1006**.



**GMT1090**



**GMT232**



**GMT333**



**GMT1005**



**GMT1006**



# GMT Series Crimp Tools

GMT Series Crimp Tools

| GMT TOOL SERIES PART NUMBERS |                   |                                      |                        |   |   |                  |
|------------------------------|-------------------|--------------------------------------|------------------------|---|---|------------------|
| MILITARY P/N                 | DMC HAND TOOL P/N | DMC BATTERY TOOL P/N (SEE NEXT PAGE) | DMC PNEUMATIC TOOL P/N | APPLICATION / DESCRIPTION   | MILITARY GAGE P/N                                   | DMC GAGE P/N     |
| --                           | GMT201            | GMTE201B                             | PMT201                 | Molex .093" Dia, Contacts Accm. 1189-1190, 1380-1381, 1450-1451, 1589-1590  | --  | --               |
| --                           | GMT202            | GMTE202B                             | PMT202                 | Molex .093" Dia, Contacts Accm. 1560-1561, 1786-1787  | --  | --               |
| --                           | GMT203            | GMTE203B                             | PMT203                 | Molex .156" KK Trifurcon Series, Contacts Accm. 2477-2478, 2870-2871  | --  | --               |
| --                           | GMT204            | GMTE204B                             | PMT204                 | Molex .093" Dia Clapscon Series, Contacts Accm. 1433-1434, 6893-6894  | --  | --               |
| --                           | GMT206            | GMTE206B                             | PMT206                 | ITT Cannon Zif Connector, Series DL, Contacts Accm. 030-2064-010, 014, 028  | --  | --               |
| --                           | GMT208            | GMTE208B                             | PMT208                 | Tyco Multimate Type III+ Series. Contacts Accm. 66099, 66101, 66103, 66105, 66107, 66109, 66646, 66589, 66590, 66593, 66596, 66237, 66242, 66306, 66311 | --  | --               |
| --                           | GMT209            | GMTE209B                             | PMT209                 | Elco 60-8017-0313. Contact Accm. Z841-Z842, 60-8017-0313  | --  | --               |
| --                           | GMT211            | GMTE211B                             | PMT211                 | Tyco PCB Terminals and Disconnects, .058" dia. Contacts Accm. 60983, 60789  | --  | --               |
| --                           | GMT220            | GMTE220B                             | PMT220                 | Tyco Type XI Contacts Accm. 203802, 203816, 203874, 203875  | --  | --               |
| --                           | GMT221            | GMTE221B                             | PMT221                 | Rockwell Collins Thin-Line I & II. Contacts Accm. 372-2514-080, 372-2514-010  | --  | G648             |
| --                           | GMT225            | GMTE225B                             | PMT225                 | Tyco AMP MOD U Series Type MOD IV Contacts Accm. 86015, 86016, 87045-87046, MP2500, MT2500  | --  | --               |
| --                           | GMT226            | GMTE226B                             | PMT226                 | Tyco Amplimite Series, Size 20DF, Contacts Accm. 66504-66507 1801-004, 005, 006, 020, 021, 022  | --  | --               |
| --                           | GMT230            | GMTE230B                             | PMT230                 | Tyco AMP MOD U Series Type IV, IV1/2 & V Contacts Accm. 87045-87046, 87522-87523, 87309-87110, 87195, 87313, 3010-02102-0100                            | --  | --               |
| M22520/37-01                 | GMT232            | GMTE232B                             | PMT232                 | M81824/1-X Splices Tyco (Raychem) "Mini-Seal" Environmental Splices (26-20, 20-16, 16-12)   | M22520/39-01  | G411             |
| --                           | GMT241            | GMTE241B                             | PMT241                 | Tyco CPC Series, Size 20DF, Contacts Accm. 205201-205202, 205310-205311   | --  | --               |
| --                           | GMT245            | GMTE245B                             | PMT245                 | Tyco Mate-N-Lok Series 60620 and 60619  | --  | --               |
| --                           | GMT247            | GMTE247B                             | PMT247                 | ITT Cannon D-Sub Economy Standard Size 20, Contacts Accm. D1100238-34, 35   | --  | --               |
| --                           | GMT248            | GMTE248B                             | PMT248                 | Comparable to Pyle-National TP-201389 (w/ Cutter)   | --  | --               |
| --                           | GMT260            | GMTE260B                             | PMT260                 | ITT Cannon DL Series ZIF Contacts Accm. 030-2064-028/031  | --  | --               |
| --                           | GMT262            | GMTE262B                             | PMT262                 | Tyco Amp-TAB Series 66168, 66143, 66169, 66144  | --  | --               |
| --                           | GMT263            | GMTE263B                             | PMT263                 | Teradyne 600-0026-000 I/O Series, Contacts Accm. 001-6500-51  | --  | --               |
| M22520/38-01                 | GMT277            | GMTE277B                             | PMT277                 | MS20659 Uninsulated Ring terminals size 22 through 10 and MS25486 external power plug socket contact size 12 (Supersedes M22520/24-01)                  | --  | G714             |
| --                           | GMT286            | GMTE286B                             | PMT286                 | TE Contact Accm. 925576   | --  | --               |
| --                           | GMT295            | GMTE295B                             | PMT295                 | TE Contact Accm. 87165  | --  | --               |
| --                           | GMT302            | GMTE302B                             | PMT302                 | ITT Cannon CCT-UBC  | --  | --               |
| --                           | GMT309            | GMTE309B                             | PMT309                 | Amp Tyco Tool 144969-2  | --  | --               |
| M22520/38-02*                | GMT333            | GMTE333B                             | PMT333                 | MS20659 Uninsulated Ring terminals size 22 through 10 and MS25486 external power plug socket contact size 12 (Supersedes M22520/38-01)                  | --  | --               |
| --                           | GMT1005           | GMTE1005B                            | PMT1005                | Uninsulated Terminals (Tyco Tool 49935)   | --  | G739, G740, G741 |
| --                           | GMT1006           | GMTE1006B                            | PMT1006                | TYCO 46447  | --  | G327 G328 G329   |
| M22520/44-01                 | GMT1090           | GMTE1090B                            | N/A                    | TE Cold Applied Environmental Splice (26-20, 20-16, 16-12)  | M22520/39-03  | G1122            |
| M22520/47-01*                | GMT335            | GMTE335                              | PMT335                 | Standard Crimp for AS7928/15 Flag Shape Terminals   | AS22520/3-26 for Cav. AB<br>AS22520/3-27 for Cav. C | --               |

\*QPL in progress

# Battery Powered Hydraulic GMT Series Crimp Tools

DMC's GMT Series battery powered hydraulic tools are designed to crimp open barrel (stamped and formed) contacts, insulated and non-insulated terminals, splices, and end caps, coaxial connectors, and wire fittings of all types. Just like with the hand tools, locators are included for applications where they are needed to hold contacts in the correct location for optimum crimping.

## GMTExxxB

The **GMTExxxB** Series Battery Powered Hydraulic Commercial Standard Crimp Tools are hand held, self-contained crimp tools. The crimp head, battery, and pump unit are contained in one ergonomic tool body and weigh about 4 pounds each. They are equivalent to DMC's GMT Series hand tools.

**TOOL INCLUDES:** Carrying Case, Two 18v Batteries (p/n HDE-LI-B), One Battery Charger (p/n HDE-LI-120C).



## GMTExxxB-230

The **GMTExxxB-230** is supplied with a 230V charger.

## GMTE232B FOR M81824/1-XX ENVIRONMENTAL SPLICES

**GMTE232B** Tool is the battery powered equivalent to our GMT232 (M22520/37-1) hand tool for low profile environmental splices (M81824/1-XX). The **GMTE232B** is the most popular GMT Series tool to cover the range of 12 (yellow), 16 (blue), and 20 (red) splices for low profile environmental splice applications. This precise tool has a locator which is configured to hold the splice in the correct location while either wire is being terminated.

## FEATURES

- Ergonomic design allows one-handed operation
- Jaws remain closed under spring pressure (pinch sides to open/load) for safety and holding termination in place
- Head rotates 350 degrees
- Red LED to display the charge status of the battery

## CRIMP CAPACITIES

- Max. Crimp Force: 4 Tons (35.6 kN)
- Avg. Crimp Time: 3 seconds
- Avg. Crimps per Charge: 100
- Avg. Charge time: 15 minutes

## SPECIFICATIONS

- Length: 13" (330 mm)
- Width: 2.87" (72.9 mm)
- Depth: 4.5" (114.3 mm)
- Weight (with battery): 2.8 lb (1.3 kg)
- Hydraulic Oil: Shell Tellus® T-15 (or equivalent)

## TOOL PART NUMBERS

- See page 93 column 3

## GMTExxxB





# **PMT232 Pneumatic Crimp Tool**

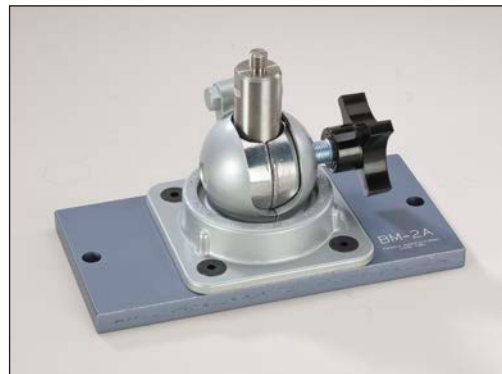
**For M81824/1, /6, /7, /8, /9, /10, /11, /13, & /14 Environmental Splices**



The **PMT232** Pneumatic Crimp Tool crimps low profile environmental splices (M81824/1-xx), AWG range 12 (yellow), 16 (blue), and 20 (red).



The **PMT232** is cycle-controlled and has a locator which is configured to hold the splice in the correct location while either wire is being terminated. The tool is 8" long, 2" wide and weighs 2.5 lbs. Air supply requirements are 80-120 PSI (5.5 to 8.0 bar) clean dry air.



The **PMT232** can be hand held, or mounted on a bench stand (P/N **BM-2A**).

DMC provides custom and standard crimp tools manufactured to OEM or user requirements. The **PMT232** is functionally similar to TE Connectivity's AD1377 and AD1377S.

**GMT Series Crimp Tools**

## **Hand and Battery Powered Versions are Available!**



**GMT232 Hand Tool**  
**Qualified to M22520/37-01**



**GMTE232B**  
**Battery Tool**



# Hydrac™ Hydraulic 3.5 Ton Crimping Tool for HD36 Dies

## HD36 MANUAL HYDRAULIC TOOL

HD36 Hydraulic Crimper is a combination of a lightweight design and the precise application of 3.5 tons force to crimp power contacts too large for conventional hand tools. This tool is designed to accept the entire family of D36 dies for crimping terminals, lugs or any other special applications.

The 3.5 ton crimp force is achieved through multiple actuations of the tool handle. The automatic relief valve “clicks” audibly when the proper crimp force has been applied to prevent over-compression. The tool head also rotates 360 degrees for easy accessibility in confined working areas. The hand tool is 8.5” long, weighs only 3.3 lbs, and is operated with one hand.

If your application requirement is not already covered by one of our standard dies, our engineering department will be pleased to discuss a design to suit your needs, consult DMC for details.

- 3.5 tons of die force.
- Interchangeable die sets.
- Automatic relief valve to prevent over-compression
- Release lever for relaxing crimp pressure and opening dies mid-cycle
- 180° rotating head for ease in confined work areas.
- Each tool supplied in a fitted carrying case



## HD36 TOOL SERIES DIES

| DIE SET P/N | “A” CRIMP HEIGHT | “A” LENGTH | “B” CRIMP HEIGHT | “B” LENGTH | TYPE/APPLICATION   |
|-------------|------------------|------------|------------------|------------|--|
| HD36-101    | .552-DIA.        | 0.180      |                  |            | Single Cavity Circular<br>Corresponds To HUSKIE HD-58      |
| HD36-102    | .420-RAD.        | 0.180      |                  |            | Single Cavity Circular<br>Corresponds To HUSKIE HD-34      |
| HD36-103    | 0.530            | 0.365      |                  |            | Single Cavity HEX  |
| HD36-104    | .750-GAGE        | 0.225      |                  |            | Single Cavity HEX, Corresponds To HOMAC 840                |
| HD36-105N   | 0.198            | 0.185      |                  |            | Single Cavity HEX  |
| HD36-106N   | 0.222            | 0.185      |                  |            | Single Cavity HEX  |
| HD36-107N   | 0.280            | 0.155      |                  |            | Single Cavity HEX  |
| HD36-109    | .520-GAGE        | 0.340      |                  |            | Single Cavity HEX, Corresponds To HOMAC 5/8                |
| HD36-110N   | 0.530            | 0.344      |                  |            | Corresponds To T&B 683-53701-1                             |
| HD36-111N   | .135-GAGE        | 0.312      |                  |            | #8 Non-Insulated Single Indent                             |
| HD36-112N   | .176-GAGE        | 0.312      |                  |            | #6 Non-Insulated Single Indent                             |
| HD36-113N   | .206-GAGE        | 0.344      |                  |            | #4 Non-Insulated Single Indent                             |
| HD36-114N   | .265-GAGE        | 0.344      |                  |            | #2 Non-Insulated Single Indent                             |
| HD36-115N   | 0.226            | 0.110      | 0.169            | 0.110      | Double Cavity HEX<br>Corresponds To PEN-011-2, & PEN-011-3 |
| HD36-116N   | 0.284            | 0.110      | 0.114            | 0.110      | Double Cavity HEX<br>Corresponds To PEN-011-1, & PEN-011-4 |
| HD36-124    | 0.390            | 0.344      |                  |            | Single Cavity HEX  |
| HD36-125    | 0.600            | 0.344      |                  |            | Single Cavity HEX  |
| HD36-126    | 0.217            | 0.344      |                  |            | Single Cavity HEX  |
| HD36-128    | 0.160            | 0.344      |                  |            | Single Cavity HEX  |
| HD36-130    | .130-GAGE        | 0.344      |                  |            | Single Indent for Flag Terminals                           |
| HD36-131    | 0.446            | 0.344      |                  |            | 1/0 Non-Insulated Terminal Lug                             |
| HD36-132    | 0.487            | 0.344      |                  |            | 2/0 Non-Insulated Terminal Lug                             |
| HD36-135    | 0.110            | 0.100      |                  |            | HDE36 GAGING DIE   |
| HD36-136    | .240 GAGE        | 0.375      |                  |            | #6 INSULATED (BLUE), Corresponds To AMP 1490598-1          |
| HD36-137    | .272 GAGE        | 0.375      |                  |            | #4 Insulated (YELLOW), Corresponds To AMP 1490599-1        |
| HD36-138    | .176 GAGE        | 0.202      | 0.111            | 0.202      | Non-Insulated Single Indent                                |
| HD36-139    | .204 GAGE        | 0.250      |                  |            | #8 Insulated (RED), Corresponds To AMP 1490597-1           |
| HD36-142    | .144 SQ.         | 0.344      |                  |            | Single Cavity Circular                                     |



# Battery Powered Hydraulic 4 Ton Crimp Tool for HD36 Dies

## HDE36B BATTERY POWERED HYDRAULIC CRIMP TOOL FOR HD36 DIES



**HDE36B**

The **HDE36B** Battery Powered Crimp Tool offers the portability of a hand tool with the stamina of a power tool! It is a hand held, self-contained, 4 ton hydraulic crimp tool that is actuated with a single squeeze of the trigger.

This tool is designed to accept the entire family of **HD36** dies for crimping terminals, lugs or any other special applications. WIRE RANGE: #8 to #0 AWG\* in many power applications, and .750 (19.05mm) in coaxial hexagonal crimping.

The **HDE36B** offers a solution where the volume of work exceeds the physical limits of a worker with hand tools, and hoses and cables are unwelcome or unsafe for the environment where the work is being performed.

The **HDE36B** battery tool is approximately 13.25" long, 2.87" wide, and 4.5" deep, and weighs 2.8 lbs with the battery installed.

**TOOL INCLUDES:** Carrying Case, Two 18v Batteries (p/n **HDE-LI-B**), One Battery Charger (p/n **HDE-LI-120C**).

**DIE SELECTION:** The crimper will accommodate all crimp dies listed on page 96. Other applications may be covered by this tool. Consult DMC for details.

\* Wire range will vary depending on wire and terminal/contact.

### FEATURES

- Ergonomic design allows one-handed operation
- Die automatically opens when crimp is complete
- Die can be retracted in mid-cycle to adjust connector
- Head rotates 350 degrees
- Red LED to display the current status of the unit

### CRIMP CAPACITIES

- Max. Crimp Force: 4 Tons (35.6 kN)
- Avg. Crimp Time: 3 seconds
- Avg. Crimps per Charge: 100

### SPECIFICATIONS

- Length: 13.25" (356 mm)
- Width: 2.87" (72.9 mm)
- Depth: 4.5" (114.3 mm)
- Weight (with battery) 2.8 lb (1.3 kg)
- Sound Level: 75 db(A) at 1 meter
- Vibration: <8.2 ft/s<sup>2</sup> (2.5 m/s<sup>2</sup>)
- Hydraulic Oil: Shell Tellus® T-15



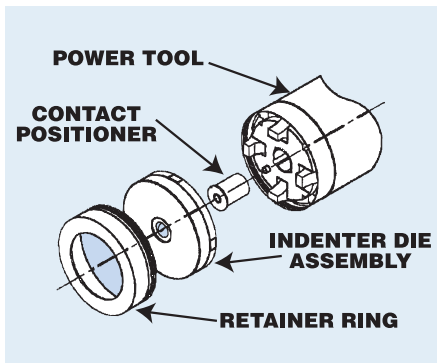
# Heavy Duty Indent Crimp Tool

## WA23 (M22520/23-01) PNEUMATIC INDENT CRIMP TOOL

DMC's heavy pneumatic indent crimp tool functions with the push of a button for operator ease. This heavy duty crimp tool accommodates large size contacts 8 through 4/0 (AWG) and operates on standard 90–125 psi (5.4–8.16 BAR) shop air sources.

It is engineered with the operator's safety in mind and features a full cycle control system. This tool is portable and needs no extra booster for large size contacts.

The standard die assembly and positioner are easily interchangeable with no special tool required. Custom dies and positioners may be designed to specific requirements. An optional foot pedal is available upon request.



Portable hydraulic versions are available. Both the manual **HD23** and the battery powered **HDE23B** use all of the same dies and positioners as the **WA23**. \*QPL in progress

| M22520/23 TOOL, DIE AND LOCATOR LIST |                      |         |
|--------------------------------------|----------------------|---------|
| MIL #                                | DESCRIPTION          | DMC #   |
| M22520/23-01                         | Crimp Tool           | WA23    |
| M22520/23-02                         | Die Assy. 8          | WA23-2  |
| M22520/23-03                         | Die Assy. 6          | WA23-3  |
| M22520/23-04                         | Die Assy. 4          | WA23-4  |
| M22520/23-05                         | Die Assy. 1/0        | WA23-5  |
| M22520/23-06                         | Die Assy. 2/0        | WA23-6  |
| M22520/23-07                         | Die Assy. 4/0        | WA23-7  |
| M22520/23-08                         | Die Assy. 1          | WA23-8  |
| M22520/23-09                         | Positioner 8         | WA23-9  |
| M22520/23-10                         | Positioner 6, 6N, 6G | WA23-10 |
| M22520/23-11                         | Positioner 4         | WA23-11 |
| M22520/23-12                         | Positioner 4, 4N, 4G | WA23-12 |
| M22520/23-13                         | Positioner 1/0       | WA23-13 |
| M22520/23-14                         | Positioner 1/0, 1/0N | WA23-14 |
| M22520/23-15                         | Positioner 2/0, 2/0N | WA23-15 |
| M22520/23-16                         | Positioner 4/0, 4/0N | WA23-16 |

| M22520/23 TOOL, INSPECTION GAGING INFORMATION |              |      |         |          |
|---|--------------|------|---------|----------|
| DIE ASSEMBLY                                  | CONTACT SIZE | "GO" | "NO-GO" | GAGE P/N |
| M22520/23-02                                  | 8            | .130 | .136    | G693     |
| M22520/23-03                                  | 6            | .171 | .178    | G694     |
| M22520/23-04                                  | 4            | .195 | .202    | G695     |
| M22520/23-05                                  | 0            | .325 | .332    | G696     |
| M22520/23-06                                  | 00           | .351 | .358    | G697     |
| M22520/23-07                                  | 0000         | .425 | .432    | G698     |
| M22520/23-08                                  | 1            | .255 | .265    | G1299    |

# Large Gage Contact Application Guide

## CONTACT APPLICATION CROSS REFERENCE

| CONTACT PART #  | BIN CODE | TYPE P/S | SIZE | DIE ASSEMBLY | LOCATOR |
|---|----------|----------|------|--------------|---------|
| <b>MIL-C-5015 Front Release (3400 Series)</b>               |          |          |      |              |         |
| M39029/44   | 291      | P        | 8    | WA23-2       | WA23-9  |
| M39029/45   | 298      | S        | 8    | WA23-2       | WA23-9  |
| M39029/44   | 292      | P        | 4    | WA23-4       | WA23-11 |
| M39029/45   | 299      | S        | 4    | WA23-4       | WA23-11 |
| M39029/44   | 293      | P        | 0    | WA23-5       | WA23-13 |
| M39029/45   | 300      | S        | 0    | WA23-5       | WA23-13 |
| <b>MIL-C-5015 Rear Release (3450 Series)</b>                |          |          |      |              |         |
| M39029/29   | 214      | P        | 8    | WA23-2       | WA23-9  |
| M39029/30   | 220      | S        | 8    | WA23-2       | WA23-9  |
| M39029/29   | 215      | P        | 4    | WA23-4       | WA23-11 |
| M39029/30   | 221      | S        | 4    | WA23-4       | WA23-11 |
| M39029/29   | 216      | P        | 0    | WA23-5       | WA23-13 |
| M39029/30   | 222      | S        | 0    | WA23-5       | WA23-13 |
| <b>MIL-C-22992 Class L Heavy Duty Cylindrical Connector</b> |          |          |      |              |         |
| M39029/48   | 317      | P        | 6    | WA23-3       | WA23-10 |
| M39029/48   | 318      | P        | 6N   | WA23-3       | WA23-10 |
| M39029/48   | 319      | P        | 6G   | WA23-3       | WA23-10 |
| M39029/49   | 329      | S        | 6    | WA23-3       | WA23-10 |
| M39029/49   | 330      | S        | 6G   | WA23-3       | WA23-10 |
| M39029/48   | 320      | P        | 4    | WA23-4       | WA23-12 |
| M39029/48   | 321      | P        | 4N   | WA23-4       | WA23-12 |
| M39029/48   | 322      | P        | 4G   | WA23-4       | WA23-12 |
| M39029/49   | 331      | S        | 4    | WA23-4       | WA23-12 |
| M39029/49   | 332      | S        | 4G   | WA23-4       | WA23-12 |
| M39029/48   | 323      | P        | 1/0  | WA23-5       | WA23-14 |
| M39029/48   | 324      | P        | 1/0N | WA23-5       | WA23-14 |
| M39029/49   | 333      | S        | 1/0  | WA23-5       | WA23-14 |
| M39029/48   | 325      | P        | 2/0  | WA23-6       | WA23-15 |
| M39029/48   | 326      | P        | 2/0N | WA23-6       | WA23-15 |
| M39029/49   | 334      | S        | 2/0  | WA23-6       | WA23-15 |
| M39029/48   | 327      | P        | 4/0  | WA23-7       | WA23-16 |
| M39029/48   | 328      | P        | 4/0N | WA23-7       | WA23-16 |
| M39029/49   | 335      | S        | 4/0  | WA23-7       | WA23-16 |
| <b>J-Tech</b>   |          |          |      |              |         |
| 541-220-0808  | 214      | P        | 8    | WA23-2       | WA23-9  |
| 541-220-0404  | 215      | P        | 4    | WA23-4       | WA23-11 |
| 542-220-0808  | 220      | S        | 8    | WA23-2       | WA23-9  |
| 542-220-0404  | 221      | S        | 4    | WA23-4       | WA23-11 |
| <b>Amphenol/Bendix</b>                                      |          |          |      |              |         |
| 10-497100-6   | 317      | P        | 6    | WA23-3       | WA23-10 |
| 10-497102-6   | 318      | P        | 6N   | WA23-3       | WA23-10 |
| 10-497222-6   | 319      | P        | 6    | WA23-3       | WA23-10 |
| 10-497100-4   | 320      | P        | 4    | WA23-4       | WA23-12 |
| 10-497102-4   | 321      | P        | 4N   | WA23-4       | WA23-12 |
| 10-497222-4   | 322      | P        | 4G   | WA23-4       | WA23-12 |
| 10-497100-3   | 323      | P        | 1/0  | WA23-5       | WA23-14 |
| 10-497102-3   | 324      | P        | 1/0N | WA23-5       | WA23-14 |
| 10-497100-43  | 327      | P        | 4/0  | WA23-7       | WA23-16 |
| 10-497102-43  | 328      | P        | 4/0N | WA23-7       | WA23-16 |
| 10-497101-6   | 329      | S        | 6    | WA23-3       | WA23-10 |
| 10-497223-6   | 330      | S        | 6G   | WA23-3       | WA23-10 |
| 10-497101-4   | 331      | S        | 4    | WA23-4       | WA23-12 |
| 10-497223-4   | 332      | S        | 4G   | WA23-4       | WA23-12 |
| 10-497101-3   | 333      | S        | 1/0  | WA23-5       | WA23-14 |

| CONTACT PART #           | BIN CODE | TYPE P/S | SIZE | DIE ASSEMBLY | LOCATOR |
|--------------------------|----------|----------|------|--------------|---------|
| <b>Burndy/Souriau</b>    |          |          |      |              |         |
| 10-497101-43             | 335      | S        | 4/0  | WA23-7       | WA23-16 |
| B559-01-3                | 318      | P        | 6N   | WA23-3       | WA23-10 |
| B559-01-6                | 319      | P        | 6    | WA23-3       | WA23-10 |
| B559-01-1                | 320      | P        | 4    | WA23-4       | WA23-12 |
| B559-01-2                | 321      | P        | 4N   | WA23-4       | WA23-12 |
| B559-01-10               | 322      | P        | 4G   | WA23-4       | WA23-12 |
| B559-01-4                | 323      | P        | 1/0  | WA23-5       | WA23-14 |
| B559-01-5                | 324      | P        | 1/0N | WA23-5       | WA23-14 |
| B559-01-8                | 327      | P        | 4/0  | WA23-7       | WA23-16 |
| B559-01-9                | 328      | P        | 4/0N | WA23-7       | WA23-16 |
| B560-01-2                | 329      | S        | 6    | WA23-3       | WA23-10 |
| B560-01-4                | 330      | S        | 6G   | WA23-3       | WA23-10 |
| B560-01-1                | 331      | S        | 4    | WA23-4       | WA23-12 |
| B560-01-6                | 322      | S        | 4G   | WA23-4       | WA23-12 |
| B560-01-3                | 333      | S        | 1/0  | WA23-5       | WA23-14 |
| B560-01-5                | 335      | S        | 4/0  | WA23-7       | WA23-16 |
| <b>ITT Cannon</b>        |          |          |      |              |         |
| 030-3198-003             | 214      | P        | 8    | WA23-2       | WA23-9  |
| 030-3199-004             | 215      | P        | 4    | WA23-4       | WA23-11 |
| 030-3200-003             | 216      | P        | 0    | WA23-5       | WA23-13 |
| 031-3116-003             | 220      | S        | 8    | WA23-2       | WA23-9  |
| 031-3117-003             | 221      | S        | 4    | WA23-4       | WA23-11 |
| 031-3118-003             | 222      | S        | 0    | WA23-5       | WA23-13 |
| <b>Amphenol/Matrix</b>   |          |          |      |              |         |
| 5000-029-0008            | 214      | P        | 8    | WA23-2       | WA23-9  |
| 5000-029-0004            | 215      | P        | 4    | WA23-4       | WA23-11 |
| 5000-029-0000            | 216      | P        | 0    | WA23-5       | WA23-13 |
| 5100-033-0008            | 220      | S        | 8    | WA23-2       | WA23-9  |
| 5100-033-0004            | 221      | S        | 4    | WA23-4       | WA23-11 |
| 5100-033-0000            | 222      | S        | 0    | WA23-5       | WA23-13 |
| <b>Carlisle/Tri-Star</b> |          |          |      |              |         |
| 916-0808-093             | 214      | P        | 8    | WA23-2       | WA23-9  |
| 916-0404-094             | 215      | P        | 4    | WA23-4       | WA23-11 |
| 916-0000-095             | 216      | P        | 0    | WA23-5       | WA23-13 |
| 915-0808-093             | 220      | S        | 8    | WA23-2       | WA23-9  |
| 915-0404-094             | 221      | S        | 4    | WA23-4       | WA23-11 |
| 915-0000-095             | 222      | S        | 0    | WA23-5       | WA23-13 |
| 915-0606-595             | 317      | P        | 6    | WA23-3       | WA23-10 |
| 915-0606-596             | 318      | P        | 6N   | WA23-3       | WA23-10 |
| 915-0606-597             | 319      | P        | 6G   | WA23-3       | WA23-10 |
| 915-0404-576             | 320      | P        | 4    | WA23-4       | WA23-12 |
| 915-0404-577             | 321      | P        | 4N   | WA23-4       | WA23-12 |
| 915-0404-578             | 322      | P        | 4G   | WA23-4       | WA23-12 |
| 915-1001-498             | 323      | P        | 1/0  | WA23-5       | WA23-14 |
| 915-1001-499             | 324      | P        | 1/0N | WA23-5       | WA23-14 |
| 915-2020-579             | 325      | P        | 2/0  | WA23-6       | WA23-15 |
| 915-2020-580             | 326      | P        | 2/0N | WA23-6       | WA23-15 |
| 915-4040-598             | 327      | P        | 4/0  | WA23-7       | WA23-16 |
| 915-4040-599             | 328      | P        | 4/0N | WA23-7       | WA23-16 |
| 916-0606-595             | 329      | S        | 6    | WA23-3       | WA23-10 |
| 916-0606-597             | 330      | S        | 6G   | WA23-3       | WA23-10 |
| 916-0404-576             | 331      | S        | 4    | WA23-4       | WA23-12 |
| 916-0404-578             | 332      | S        | 4G   | WA23-4       | WA23-12 |
| 916-1001-498             | 333      | S        | 1/0  | WA23-5       | WA23-14 |
| 916-2020-579             | 334      | S        | 2/0  | WA23-6       | WA23-15 |
| 916-4040-598             | 335      | S        | 4/0  | WA23-7       | WA23-16 |



# Pico\* to DMC Part Number Guide

| PICO* LOCATOR                 | PICO DIE ASSEMBLY                | DMC LOCATOR          | DMC DIE ASSEMBLY  | CONTACTS   | AWG            |
|-------------------------------|----------------------------------|----------------------|---|--|----------------|
| 4046A                         | 414DA-8N                         | WA23-9 M22520/23-Q9  | WA23-2 M22520/23-02   | M39029/29-214 M39029/30-220, M39029/44-291<br>M39029/45-298  | 8              |
| 4297-6                        | 414DA-6N                         | WA23-10 M22520/23-10 | WA23-3 M22520/23-03   | M39029/48-317 M39029/48-318 M39029/48-319,<br>M39029/49-329 M39029/49-330  | 6              |
| 4112                          | 414DA-4N                         | WA23-11 M22520/23-11 | WA23-4 M22520/23 -04  | M39029/29-215 M39029/30-221, M39029/44-292<br>M39029/45-299  | 4              |
| 4297-5                        | 414DA-4N                         | WA23-12 M22520/23-12 | WA23-4 M22520/23-04   | M39029/48-320 M39029/48-321 M39029/48-322,<br>M39029/49-331 M39029/49-332  | 4              |
| 4066                          | 414DA-1/0N<br>414DA-0N           | WA23-13 M22520/23-13 | WA23-5 M22520/23-05   | M39029/29-216 M39029/30-222<br>M39029/44-293 M39029/45-300   | 1/0            |
| 4297-3                        | 414DA-1/0N<br>414DA-0N           | WA23-14 M22520/23-14 | WA23-5 M22520/23-05   | M39029/48-323 M39029/48-324 M39029/49-333  | 1/0            |
| 4297-2                        | 414DA-2/0N                       | WA23-15 M22520/23-15 | WA23-6 M22520/23 -06  | M39029/48-325 M39029/48-326 M39029/49-334  | 2/0            |
| 4297-1                        | 414DA-4/0N-I                     | WA23-16 M22520/23-16 | WA23-7 M22520/23 -07  | M39029/48-327 M39029/48-328 M39029/49-335  | 4/0            |
| 4536                          | 414DA-10N                        | WA23-102L            | WA23-101DA  | EUROPEAN NORM #<br>EN3155003 F 1010, EN3155008 F 1010  | 10             |
| N/A                           | 414DA-4N                         | WA23-111L            | WA23-4 M22520/23-04   | BENDIX - AMPHENOL #<br>10-113474-4P, 10-113474-4S, 10-229193-4S, 10-229192-4P                                      | 4              |
| N/A                           | 414DA-1/0N<br>414DA-0N           | WA23-113L            | WA23-5 M22520/23-G5   | BENDIX - AMPHENOL #<br>10-113474-1P, 10-113474-1S  | 1/0            |
| N/A                           | 414DA-12N                        | WA23-114L            | WA23-168DA  | M39029/56-353 M39029/58-365  | 12             |
| N/A                           | 414DA-12N<br>N/A                 | WA23-115L            | WA23-168DA<br>WA23-169DA  | M39029/11-147 M39029/12-151  | 12<br>14       |
| 4117                          | 414DA-12N<br>N/A<br>414DA-16N    | WA23-116L            | WA23-168DA<br>WA23-169DA<br>WA23-170DA                            | M39029/4-113 M39029/5-118 M39029/29-213<br>M39029/30-219 M39029/44-289 M39029/44-290,<br>M39029/45-297             | 12<br>14<br>16 |
| 4001                          | 414DA-8N                         | WA23-117L            | WA23-2 M22520/23.02   | ITT Cannon #<br>031-0560-081, 330-0351-008   | 8              |
| 4060<br>ITT Cannon<br>CCHP8-7 | 414DA-8N                         | WA23-119L            | WA23-2 M22520/23-02   | ITT Cannon #<br>031-0733-000   | 8              |
| N/A                           | 414DA-8N                         | WA23-121L            | WA23-2 M22520/23-02   | FRANKLIN ELECTRIC #<br>151378-101, 151378-102, 151378-103  | 8              |
| 4234                          | 414DA-4N                         | WA23-122L            | WA23-4 M22520/23-04   | ITT Cannon #<br>030-8613-000 , 031-8520-000, 330-0351-004, 330-0351-<br>041 (METRIC)<br>031-8591-000, 031-8560-000 | 4              |
| 4233                          | 414DA-1/0N<br>414DA-0N           | WA23-123L            | WA23-5 M22520/23-05   | ITT Cannon #<br>030-8614-000, 031-8521-000, 330-0351-000, 330-0351-001<br>(METRIC)<br>031-8561-000, 030-8592-000   | 1/0            |
| N/A                           | 414DA-8N                         | WA23-145L            | WA23-2 M22520/23-Q2   | ITT Cannon #<br>030-8590-000, 030-8612-000, 031-8519-000, 031-8559-000   | 8              |
| N/A                           | 414DA-1/0N<br>414DA-0N           | WA23-146L            | WA23-5 M22520/23 -05  | HAKO MINUTEMAN # 4 LUGS  | 4              |
| 4329                          | 414DA-8N                         | WA23-147L            | WA23-2 M22520/23-02   | LITTON-VEAM # 27935-T9 27915-T9  | 8              |
| 4042                          | 414DA-1/0N<br>414DA-0N           | WA23-148L            | WA23-5 M22520/23-05   | LITTON-VEAM # 27937-VT9 27917-VT9  | 1/0            |
| N/A                           | 414DA-8N<br>414DA-6N<br>414DA-4N | WA23-149L            | WA23-2 M22520/23-02<br>WA23-3 M22520/23-03<br>WA23-4 M22520/23-04 | AMP-TYCO #<br>213179-1 (8Ga.) 213178-1 (6Ga.) 213177-1 (4Ga.)  | 8<br>6<br>4    |

\*Pico is a trade name for the The Pico Corporation.

DMC does not provide connectors, contacts or wiring components. Parts shown here are for reference only. See disclaimer of liability on page 27.



# Pico\* to DMC Part Number Guide

| PICO* LOCATOR | PICO DIE ASSEMBLY                  | DMC LOCATOR | DMC DIE ASSEMBLY  | CONTACTS  | AWG           |
|---------------|------------------------------------|-------------|---|---|---------------|
| N/A           | 414DA-8N<br>414DA-6N<br>414DA-4N   | WA23-150L   | WA23-2 M22520/23-02<br>WA23-3 M22520/23-03<br>WA23-4 M22520/23-04 | AMP-TYCO #<br>213183-1 (8Ga.) 213182-1 (6Ga.) 213181-1 (4Ga.)   | 8<br>6<br>4   |
| 5002          | 414DA-12-10 ITT                    | WA23-153L   | WA23-154DA (12Ga.)<br>WA23-152DA (10Ga.)<br>FORM CRIMP            |   | 12/10         |
| 4025<br>4026  | 414DA-8N                           | WA23-161L   | WA23-2 M22520/23-02   | BENDIX - AMPHENOL #<br>10-40792 P, 10-40793 S 10-113239-8S,<br>10-113239-8P, 10-113474-8P, 10-113474-8S | 8             |
| 4231          | N/A                                | WA23-162L   | WA23-112DA  | BENDIX - AMPHENOL #<br>10-40561   | 12            |
| 4043          | 414DA-4N                           | WA23-163L   | WA23-4 M22520/23-04   | BENDIX - AMPHENOL #<br>10-40564, 10-40565   | 4             |
| N/A           | 414DA-6N<br>414DA-4N               | WA23-164L   | WA23-3 M22520/23-03<br>WA23-4 M22520/23-04                        | AMP-TYCO #<br>92-0940-11-3 (4 Ga.) 92-0940-11-6 (6 Ga.)   | 6<br>4        |
| N/A           | 414DA-6N<br>414DA-4N               | WA13-166L   | WA23-3 M22520/23-03<br>WA23-4 M22520/23-04                        | AMP-TYCO #<br>92-0940-9-2 (4 Ga.) 92-0940-9-9 (6 Ga.)   | 6<br>4        |
| 4116          | 414DA-16N                          | WA23-171L   | WA23-170DA  | M39029/4-111 M39029/5-116 M39029/29-212<br>M39029/30-218 M39029/44-288 M39029/45-295                    | 16            |
| N/A           | 414DA-4N                           | WA23-176L   | WA23-4 M22520/23-04   | AMP-TYCO #<br>93-1813-36-3, 93-1813-36-6, 93-1813-36-9  | 4             |
| N/A           | 414DA-4N                           | WA23-177L   | WA23-4 M22520/23-04   | AMP-TYCO #<br>93-1813-37-3  | 4             |
| N/A           | 414DA-8N<br>414DA-10N<br>414DA-12N | WA23-178L   | WA23-2 M22520/23-02<br>WA23-101DA WA23-168DA                      | AMP-TYCO #<br>93-1813-49-9, 93-1813-50-9, 93-1813-52-9  | 8<br>10<br>12 |
| N/A           | 414DA-8N<br>414DA-10N<br>414DA-12N | WA23-179L   | WA23-2 M22520/23-02<br>WA23-101DA WA23-168DA                      | TYCO<br>93-1813-49-6, 93-1813-50-6, 93-1813-52-6  | 8<br>10<br>12 |
| N/A           | 414DA-8N<br>414DA-10N<br>414DA-12N | WA23-180L   | WA23-2 M22520/23-02<br>WA23-101DA WA23-168DA                      | TYCO<br>93-1813-49-, 93-1813-50-3, 93-1813-52-3   | 8<br>10<br>12 |
| N/A           | 414DA-4N                           | WA23-182L   | WA23-4 M22520/23-04   | ANDERSON POWER # 1319G4 (4 AWG)<br>1319 (2 AWG)   | 4<br>2        |
| 5007-1        | 414DA-2 ITT                        | WA23-185L   | WA23-184DA<br>RADIAL CRIMP  |   | 2             |
| N/A           | 414DA-8N                           | WA23-186L   | WA23-2 M22520/23-02   | AMP-Tyco # 213552-2 (P)   | 8             |
| 4150          | 414DA-12N                          | WA23-187L   | WA23-168DA  | PYLE NATIONAL<br>ZZM-40 12-36, ZZM-4112-36, ZZM-40 12-50, ZZM-4112-50                                   | 12            |
| N/A           | 414DA-16N                          | WA23-188L   | WA23-170DA  | PYLE NATIONAL<br>ZZM-4016-3, ZZM-4116-36, ZZM-4016-50, ZZM-4116-50                                      | 16            |
| N/A           | 414DA-8N                           | WA23-189L   | WA23-2 M22520/23-02   | ITT Cannon #<br>030-0560-081  | 8             |

\* Pico is a trade name for the The Pico Corporation.

DMC does not provide connectors, contacts or wiring components. Parts shown here are for reference only. See disclaimer of liability on page 27.

# Pico\* to DMC Part Number Guide

| PICO* LOCATOR | PICO DIE ASSEMBLY   | DMC LOCATOR  | DMC DIE ASSEMBLY  | CONTACTS  | AWG                     |
|---------------|---------------------|--------------|---|---|-------------------------|
| 4070          | 414DA-4N            | WA23-190L    | WA23-4<br>M22520/23-04  | ITT Cannon #<br>031-0560-041  | 4                       |
| N/A           | 414DA-8N            | WA23-195L    | WA23-2<br>M22520/23-02  | BENDIX - Amphenol #<br>10-497086-085  | 12 (x 2)<br>8           |
| N/A           | 414DA-6 ITT         | WA23-196L    | WA23-130DA<br>RADIAL- CRIMP                                   | AMP-TYCO # 52264-1<br>HOLLINGSWORTH # R4004BF<br>WILCOX ELECT. 025997-0003      | 6                       |
| N/A           | 414DA-8N            | WA23-205L    | WA23-2<br>M22520/23-02  | HONEYWELL DRAWING #<br>414-0508 (S), 414-0509 (P)                               | 8                       |
| N/A           | 414DA-4N            | WA23-208L    | WA23-4<br>M22520/23-04  | M39029/45-299 M39029/44-292   | 4                       |
| N/A           | 414DA-6N            | WA23-209L    | WA23-3<br>M22520/23-02  | TYCO #322006 THOMAS & BETTS # 54136   | 6                       |
| N/A           | 414DA-6N            | WA23-210L    | WA23-3<br>M22520/23-02  | THOMAS & BETTS # 54205  | 6                       |
| N/A           | 414DA-2 NIT         | WA23-211L    | WA23-198DA<br>RADIAL CRIMP                                    | THOMAS & BETTS # 54148,54208  | 2                       |
| N/A           | 414DA 10N           | WA23-215L    | WA23-101DA  | HARTING:<br>0932 000 6107, 0932 000 6108, 0932 000 6207, 0932 000 6208          | 10                      |
| N/A           | 414DA-8N<br>14DA-6N | WA23-217L    | WA23-2 M22520/23-02<br>(12,10,8 ) WA23-3<br>M22520/23-03 (6 ) | ANDERSON POWER # 5915 (10-12 AWG)<br>1307 (6-8 AWG), 1383-BK (2AWG), 947 (2AWG) | 2<br>6<br>8<br>10<br>12 |
| 4046A         | N/A                 | WA23-223L-BX | WA23-218DA  | AMPHENOL #<br>NZGC-C-8PB, NZGC-C-8SB  | 8                       |
| 4112          | N/A                 | WA23-224L-BX | WA23-219DA  | AMPHENOL#<br>NZGC-C-4PB, NZGC-C-4SB   | 4                       |
| 4301-16S      | 414DA-16N-048       | WA23-225L    | WA23-226DA  | DEUTSCH #<br>0460-202-16141, 0462-201-16141                                     | 16                      |
| N/A           | 414DA-12N           | WA23-227L    | WA23-168DA  | ANDERSON POWER # 1331   | 14<br>SOLID             |
| N/A           | 414DA-8N            | WA23-231L    | WA23-2 M22520/23-02   | CENTERLIFT PUMPS #36697   | 8                       |
| N/A           | 414DA-6N            | WA23-232L    | WA23-3 M22520/23-03   | CENTERLIFT PUMPS #36698   | 6                       |
| N/A           | 414DA-4N            | WA23-233L    | WA23-4 M22520/23-04   | CENTERLIFT PUMPS #51200   | 4                       |
| N/A           | 414DA-8N            | WA23-234L    | WA23-2 M22520/23-02   | COOPER CROUSE-HINDS # 3326376-1   | 8                       |
| N/A           | 414DA-8N            | WA23-236L    | WA23-2 M22520/23-02   | COOPER CROUSE-HINDS # 132-6371-1  | 8                       |
| N/A           | 414DA-12N           | WA23-237L    | WA23-168DA  | AMP-TYCO #<br>212008-1  | 12 WIRE<br>BARREL       |
| N/A           | 414DA-8N            | WA23-237L    | WA23-168DA<br>M22520/23-02                                    | AMP-TYCO #<br>211161-1  | 8                       |

# Dieless 4 Indent Crimpers

DMC's Dieless 4-Indent Crimpers provide a symmetrical 4-sided crimp (at 90° intervals). Dies of a particular configuration are not needed. The crimp pressure against the resistance of the metal conductor assembly will cause the tool to crimp to a depth where there is metal to metal bottoming (gas tight crimp joint on aluminum and soft copper).

The range of crimping capabilities starts with 6 AWG conductors and goes to 4/0 AWG conductors on copper, and 750 MCM applications on aluminum.

Triangle indenter shape is standard. Optional indent designs are available. Consult DMC.



**XHC136 REMOTE HEAD HYDRAULIC TOOL**



**HCE136B DIELESS BATTERY POWERED 4 INDENT CRIMPER**



**HC136 DIELESS MANUAL 4 INDENT CRIMPER**

Large Gage Crimp Tools

## XHC136

The **XHC136** can be a hand held crimp head (pump options below) or mounted. This is intended to crimp copper and aluminum lug terminals & splices. The **XHC136** crimps sizes 6 AWG to 4/0 AWG conductors on copper, and up to 750 MCM applications on aluminum.

## HC136B

The **HCE136B** is a hand held, self contained battery crimp tool intended to crimp copper and aluminum lug terminals & splices. The **HCE136B** crimps sizes 6 AWG to 4/0 AWG conductors on copper, and up to 750 MCM applications on aluminum.

## HC136

The **HC136** crimps sizes 6 AWG to 4/0 AWG conductors on copper, and up to 750 MCM applications on aluminum.

## PUMPS

DMC offers several pump options that offer economical, efficient, reliable methods to power the **XHC136**. The powered pumps are: a pneumatic pump (P/N **HPU11M**), and a DC electric battery pump (P/N **HPU13M**). Two portable manual pumps: a hand pump (p/n **HPU12M**) and a foot pump (p/n **HPU15M**). All pumps come with a heavy duty, ten-foot long hose and couplings (equipped with screw on MS fittings and dust covers) to complete the connection between pump and crimper (P/N **12-4040**).

**M525441-5  
HPU11M  
(Pneumatic)**



**HPU13M  
(Battery)**



**HPU12M  
(Hand)**



**HPU15M  
(Foot)**



# HD51 Hydraulic 5.5 Ton Crimping Tool

**HD51** Medium Duty Hydraulic Crimper is the most popular hand operated hydraulic crimper. The HD51 is still light-weight at 4.6 lbs., but the 5.5 tons of die force and the larger die configuration extends the range of crimping capabilities to 2/0 AWG\* conductors in many applications. The HD51 Hydraulic Crimper utilizes rugged construction, lightweight materials, and comfortable handle grips for the best ergonomic advantage. The number of handle closures required to complete the crimp is reduced by the larger and more efficient hydraulic pump system. Other features are the following:

- Length: 14" (356 mm)
- Weight 4.6 lbs. (2.08kg)
- Crimp force: 5.5 tons (48.93kN)
- Automatic relief valve to prevent over-compression
- Release lever for relaxing crimp pressure and opening dies
- 180° rotating head for ease in confined work areas.
- WIRE RANGE: (#12 to #2/0 AWG in many power applications, and .700 (17.78mm) in coaxial hexagonal crimping.

\*Wire range will vary depending on wire and terminal/contact.

## BATTERY POWERED VERSION AVAILABLE



**HDE51B BATTERY POWERED HYDRAULIC CRIMPER**

**XHD51** Remote Hydraulic Crimp Head is a preferred solution for high yield applications on production lines and maintenance rework centers. A pumping system provides the hydraulic power to the remote crimping head, and the crimp head can be mounted in a stationary position, or used as a hand-held tool. Pump options are listed below. Other specifications that apply to the XHD51 are the following:

- Length: 7.1 inches (180.3mm)
- Weight 3.85 pounds (1.74kg)
- Crimp force: 5.5 tons (48.93kN)

**DMC1383** Tool Kit contains the HD51 hand tool and all the dies for crimping insulated and uninsulated terminals and splices size 8 through 2/0. This tool kit is contained in a metal case with foam inserts that have contoured tool cavities, laminated instruction sheets permanently attached on a ring binder, and contents charts identifying the location of each tool.

**WIRE RANGE:** #12 to #2/0 AWG in many power applications, and .700 (17.78mm) in coaxial hexagonal crimping.



**HD51 DIES**

Pump options for the XHD51 crimp head:  
 HPU11M: Pneumatic powered hydraulic pump  
 HPU12M: Hand powered hydraulic pump  
 HPU13M: DC Battery powered electric pump  
 HPU15M: A foot pump

Consult DMC for complete brochure and information on all AS5259 hydraulic crimp tools and accessories.

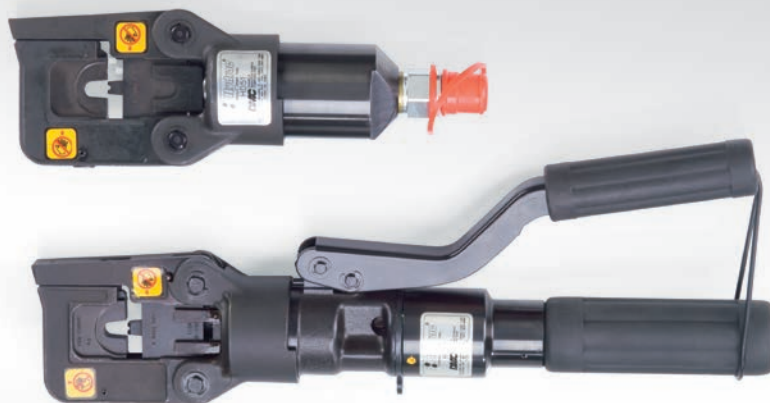
### AS5259 STANDARD PART NUMBER REFERENCE GUIDE

| Military (SAE) Part Number | DMC Part Number           | Description                 |
|----------------------------|---------------------------|-----------------------------|
| M5259/4-01*                | XHD51                     | Remote Crimp Head           |
| M5259/5-01*                | HD51                      | Manual Hydraulic Crimp Tool |
| M5259/6-01 thru 06*        | Consult DMC for Details   | Gages for HD51 Indent Dies  |
| M5259/7-001 thru -019*     | See Next Page for Details | Crimping Die Sets           |

Complete AS5259 Product Brochure Available from DMC

\*Contact DMC for QPL status

### XHD51 REMOTE HYDRAULIC CRIMP HEAD (M5259/4-01)



### HD51 MEDIUM DUTY HYDRAULIC CRIMPER (M5259/5-01)

# HD51/XHD51/HDE51B Dies

## HD51 TOOL SERIES DIES

| DMC P/N    | A. CAVITY        | A. LENGTH | B. CAVITY | B. LENGTH | APPLICATION  | MILITARY GAGE P/N | DMC GAGE P/N         |
|------------|------------------|-----------|-----------|-----------|--|-------------------|----------------------|
| HD51-101   | .325             | .125      | .216      | .187      | .325 / .216, Hexes   | N/A               | None                 |
| HD51-105   | .170             | .250      |           |           | For Insulated Terminals Size 8   | N/A               | G682                 |
| HD51-106   | .202             | .312      |           |           | For Insulated Terminals Size 6   | N/A               | G683                 |
| HD51-107   | .254             | .375      |           |           | For Insulated Terminals Size 4   | N/A               | G684                 |
| HD51-110   | .530             | .365      |           |           | .530, Hex  | N/A               | None                 |
| HD51-112   | .440             | .358      | .538      | .358      | .440 / .538, Hexes   | N/A               | None                 |
| HD51-113   | .312             | .470      |           |           | For Insulated Terminals Size 2   | N/A               | G801                 |
| HD51-114N  | .115             | .312      |           |           | For Uninsulated AS7928 Copper Terminals and AS7974 Contacts Size 8 (Single Indent)   | N/A               | G1150                |
| HD51-115N  | .126             | .312      |           |           | For Uninsulated AS7928 Copper Terminals and AS7974 Contacts Size 6 (Single Indent)   | N/A               | G1151                |
| HD51-116N  | .131             | .312      |           |           | For Uninsulated AS7928 Copper Terminals and AS7974 Contacts Size 4 (Single Indent)   | N/A               | G1152                |
| HD51-117N  | .190             | .312      |           |           | For Uninsulated AS7928 Copper Terminals and AS7974 Contacts Size 2 (Single Indent)   | N/A               | G1153                |
| HD51-118N  | .115             | .312      |           |           | For Uninsulated AS7928 Copper Terminals and AS7974 Contacts Size 8 (Double Indent)   | M5259/6-001       | G1150                |
| HD51-119N  | .126             | .312      |           |           | For Uninsulated AS7928 Copper Terminals and AS7974 Contacts Size 6 (Double Indent)   | M5259/6-002       | G1151                |
| HD51-120N  | .131             | .312      |           |           | For Uninsulated AS7928 Copper Terminals and AS7974 Contacts Size 4 (Double Indent)   | M5259/6-003       | G1152                |
| HD51-121N  | .190             | .312      |           |           | For Uninsulated AS7928 Copper Terminals and AS7974 Contacts Size 2 (Double Indent)   | M5259/6-004       | G1153                |
| HD51-122N  | .275             | .470      |           |           | For Uninsulated AS7928 Copper Terminals and AS7974 Contacts Size 1/0 (Single Indent) | N/A               | G1154                |
| HD51-123N  | .275             | .470      |           |           | For Uninsulated AS7928 Copper Terminals and AS7974 Contacts Size 1/0 (Double Indent) | M5259/6-005       | G1154                |
| HD51-124N  | .320             | .470      |           |           | For Uninsulated AS7928 Copper Terminals and AS7974 Contacts Size 2/0 (Double Indent) | M5259/6-006       | G1155                |
| HD51-125N  | .320             | .470      |           |           | For Uninsulated AS7928 Copper Terminals and AS7974 Contacts Size 2/0 (Single Indent) | N/A               | G1155                |
| HD51-127   | .445             | .250      | .395      | .200      | .445 / .395, Hexes   | N/A               | None                 |
| HD51-130-1 | R .100<br>H .300 |           |           |           | #2 - #8 Uninsulated Needs HD51-131-2 or HD51-132-2                                   | N/A               | None                 |
| HD51-131-2 | R .275           |           | R .145    |           | #2 & #8 Uninsulated Needs HD51-130-1   | N/A               | G744, G747           |
| HD51-132-1 | R .219           |           | R .188    |           | #4 & #6 Uninsulated Needs HD51-130-1   | N/A               | G745, G746           |
| HD51-133-2 | .312             |           | .170      |           | #2 & #8 Insulated Needs HD51-113-1 for #2 & HD51-105-1 for #8                        | N/A               | G801 (#2), G682 (#8) |
| HD51-134-2 | .202             |           | .254      |           | #4 & #6 Insulated Needs HD51-106-1 for #6 & HD51-107-1 for #4                        | N/A               | G683 (#6), G684 (#4) |
| HD51-138   | .377             | .435      |           |           | #2 Uninsulated .377, Hex MS90485-2 Equiv.  | N/A               | G833                 |
| HD51-139   | .587             | .400      |           |           | .587 Hex   | N/A               | None                 |
| HD51-140   | .956             |           | .500      |           | .956 & .500 Hex  | N/A               | G836                 |
| HD51-144   | .140             | .470      |           |           | .140 Hex   | N/A               | G1376                |
| HD51-148   | .216             |           |           |           | .216 Hex   | N/A               | G1327                |
| HD51-149   | .660             | .400      |           |           | .660 Hex   | N/A               | None                 |
| HD51-150   | .352             | .470      |           |           | AB Twinax Pin & Socket Contacts Hex  | N/A               | None                 |
| HD51-152   | .304             | .470      |           |           | Packard Hughes .437 Ferrules Gage  | N/A               | None                 |
| HD51-154   | .339             | .437      |           |           | For Insulated Terminals Size 1 MS23002-1 Equiv.                                      | N/A               | G726                 |
| HD51-157   |                  |           |           |           | #10 Flag Terminal  | N/A               | None                 |
| HD51-159   | .312             | .470      |           |           | #2 AWG Insulated Hex   | N/A               | None                 |
| HD51-160   | .500             | 1.300     |           |           | #2 Uninsulated For Aluminum Wire, Hex  | N/A               | G836                 |
| HD51-163P  | .210             | .310      |           |           | For Uninsulated Terminals Size 8, Functional Equiv MS90485-8                         | N/A               | G720                 |
| HD51-164P  | .240             | .310      |           |           | For Uninsulated Terminals Size 6, Functional Equiv MS90485-6                         | N/A               | G721                 |
| HD51-165P  | .299             | .372      |           |           | For Uninsulated Terminals Size 4, Functional Equiv MS90485-4                         | N/A               | G722                 |
| HD51-166P  | .417             | .435      |           |           | For Uninsulated Terminals Size 1, Functional Equiv MS90485-1                         | N/A               | G834                 |
| HD51-167P  | .456             | .435      |           |           | For Uninsulated Terminals Size 1/0, Functional Equiv MS90485-01                      | N/A               | G835                 |
| HD51-168P  | .500             | .470      |           |           | For Uninsulated Terminals Size 2/0, Functional Equiv MS90485-02                      | N/A               | G836                 |
| HD51-169P  | .562             | .470      |           |           | For Uninsulated Terminals Size 3/0, Functional Equiv MS90485-03                      | N/A               | G837                 |
| HD51-170P  | .618             | .470      |           |           | For Uninsulated Terminals Size 4/0, Functional Equiv MS90485-04                      | N/A               | G838                 |

Large Gage Crimp Tools



# Hydraulic 12 Ton Crimping Tools for HD002, HD485, and HD442 Dies (AS5259)

**HD120** Heavy Duty Hydraulic Crimper delivers the die force necessary to crimp large conductors, but still in a hand operated hydraulic crimper. The **HD120** produces 12 tons with the two stage pump that minimizes the number of handle closures needed to complete the crimp. The utilization of the **HD002 (MS23002)**, **HD485 (MS90485)**, and **HD442 (MS25442)** dies extends the range of crimping capabilities to 4/0 AWG conductors in military/aerospace applications. (Verification available upon request. Contact/terminal samples required.) Boeing ST 2354 Series Dies are also available from DMC. The **HD120** Hydraulic Crimper is fitted with comfortable handle grips for the best ergonomic advantage. A battery version, the **HDE120B** is also available.

- 360° rotating head for ease in confined work areas.
- Advance closing to crimp position is achieved by rotating the handle
- Automatic relief valve to prevent over-compression
- Release lever for relaxing crimp pressure and opening dies
- Crimp force: 12.0 tons (106kN)
- Length: 21.3 inches (541 mm)
- Weight 14.6 pounds (6.6 kg)



**HD120 HEAVY DUTY HYDRAULIC CRIMPER**

**TBHD1M** Remote Hydraulic Crimp Head (**MS25441-1**) exerts 12 tons of crimp force and extends the range of crimping capabilities to 4/0 AWG conductors in military/aerospace applications. The **TBHD1M** accepts the **HD002 (MS23002)**, **HD485 (MS90485)**, **HD442 (MS25442)** and Boeing ST 2354 die combinations. In some cases the tool can be used as a hand-held crimper, but the tool weight (9.6 lbs) and force means mounting it in a stationary position with a bench mount (**BM-2A**) is the preferred mode of operation. The recommended hydraulic pumps are listed on page 100 or you can consult DMC for other hydraulic pump options.

Other Specifications that apply to the TBHD1M are the following:

- Crimp force: 12.0 tons (107kN)
- Length: 10.0 inches (254 mm)
- Width: 6.0 inches (152.4 mm)
- Weight: 9.6 pounds (6.9 kg)



**MS25441-1 QUALIFIED TO AS5259/1  
(SHOWN WITHOUT SAFETY CAGE)**

Contact DMC for a complete brochure on all AS5259 crimp tools and accessories.



**HD002 DIES**



**HD442 DIES**



**HD485 DIES**

# Hydraulic 12 Ton Crimping Tools for HD002, HD485, and HD442 Dies (AS5259)

| MS23002* DIES & GAGES FOR MS25036 INSULATED TERMINALS |          |                        |                |              |
|---|----------|------------------------|----------------|--------------|
| MIL DIE P/N *   | DMC P/N  | COMMENTS               | MIL GAGE P/N * | DMC GAGE P/N |
| MS23002-8   | HD002-8  | For Insulated Size 8   | MS23003-8      | G723         |
| MS23002-6   | HD002-6  | For Insulated Size 6   | MS23003-6      | G724         |
| MS23002-4   | HD002-4  | For Insulated Size 4   | MS23003-4      | G725         |
| MS23002-2   | HD002-2  | For Insulated Size 2   | MS23003-2      | G281         |
| MS23002-1   | HD002-1  | For Insulated Size 1   | MS23003-1      | G726         |
| MS23002-01  | HD002-01 | For Insulated Size 1/0 | MS23003-01     | G727         |
| MS23002-02  | HD002-02 | For Insulated Size 2/0 | MS23003-02     | G728         |
| MS23002-03  | HD002-03 | For Insulated Size 3/0 | MS23003-03     | G282         |
| MS23002-04  | HD002-04 | For Insulated Size 4/0 | MS23003-04     | G729         |

| MS90485* DIES & GAGES FOR MS20659 UNINSULATED TERMINALS |          |                          |                |              |
|---|----------|--------------------------|----------------|--------------|
| MIL DIE P/N*  | DMC P/N  | COMMENTS                 | MIL GAGE P/N * | DMC GAGE P/N |
| MS90485-8   | HD485-8  | For Uninsulated Size 8   | MS90486-8      | G720         |
| MS90485-6   | HD485-6  | For Uninsulated Size 6   | MS90486-6      | G721         |
| MS90485-4   | HD485-4  | For Uninsulated Size 4   | MS90486-4      | G722         |
| MS90485-2   | HD485-2  | For Uninsulated Size 2   | MS90486-2      | G833         |
| MS90485-1   | HD485-1  | For Uninsulated Size 1   | MS90486-1      | G834         |
| MS90485-01  | HD485-01 | For Uninsulated Size 1/0 | MS90486-01     | G835         |
| MS90485-02  | HD485-02 | For Uninsulated Size 2/0 | MS90486-02     | G836         |
| MS90485-03  | HD485-03 | For Uninsulated Size 3/0 | MS90486-03     | G837         |
| MS90485-04  | HD485-04 | For Uninsulated Size 4/0 | MS90486-04     | G838         |

| MS25442* DIES & GAGES FOR AS70991 UNINSULATED TERMINALS |           |                          |                |              |
|---|-----------|--------------------------|----------------|--------------|
| MIL DIE P/N *   | DMC P/N   | COMMENTS                 | MIL GAGE P/N * | DMC GAGE P/N |
| MS25442-8A  | HD442-8A  | For Uninsulated Size 8   | MS25472-1      | G1129        |
| MS25442-6A  | HD442-6A  | For Uninsulated Size 6   | MS25472-2      | G1130        |
| MS25442-4A  | HD442-4A  | For Uninsulated Size 4   | MS25472-3      | G1131        |
| MS25442-2A  | HD442-2A  | For Uninsulated Size 2   | MS25472-4      | G1132        |
| MS25442-1A  | HD442-1A  | For Uninsulated Size 1   | MS25472-5      | G1133        |
| MS25442-01A   | HD442-01A | For Uninsulated Size 1/0 | MS25472-6      | G1134        |
| MS25442-02A   | HD442-02A | For Uninsulated Size 2/0 | MS25472-7      | G1135        |
| MS25442-03A   | HD442-03A | For Uninsulated Size 3/0 | MS25472-8      | G1136        |
| MS25442-04A   | HD442-04A | For Uninsulated Size 4/0 | MS25472-9      | G1137        |

| DESCRIPTION  | PART NO. | MIL P/N *   |
|--|----------|-------------|
| Manual Hydraulic Tool (12 ton force)                                 | HD120    | N/A         |
| Battery Hydraulic Tool (12 ton force)                                | HDE120B  | N/A         |
| Remote Crimp Head (12 ton force)<br>(Requires Air to Hydraulic Pump) | TBHD1M * | MS25441-1 * |
| Hose Assembly (6 Ft. Length)   | 12-4040  | MS25441-3*  |
| In-Line Pressure Gauge   | HPU11-PG | N/A         |

**DMC1948** Tool Kit contains the TBHD1M Crimp Tool, HPU11M Pump 12-4040, Hose Assembly, and all the HD002 (MS23002) and HD485 (MS90485) dies for crimping insulated and uninsulated terminals and splices size 8 through 4/0. This tool kit is contained in a molded, high-density plastic case with foam inserts that have contoured tool cavities, laminated instruction sheets permanently attached on a ring binder, and contents charts identifying the location of each tool.

**DMC1966** Tool Kit contains the TBHD1M Crimp Tool, HPU11M Pump 12-4040, Hose Assembly, and all the HD442 (MS25442) dies for crimping uninsulated aluminum terminals and splices size 8 through 4/0. This tool kit is contained in a molded, high-density plastic case with foam inserts that have contoured tool cavities, laminated instruction sheets permanently attached on a ring binder, and contents charts identifying the location of each tool.

**HPU11-PG** In-Line Hydraulic Pressure Gauge is recommended for cycle control monitoring, when using Remote Crimp Heads with HPU1M, HPU12M or HPU15M. It installs into either end of the hydraulic line to monitor the hydraulic pressure. The gauge will indicate to the operator when the required hydraulic pressure is achieved.

#### Hydraulic Pumps:

DMC offers several Hydraulic Pump options for use with crimp heads.

#### Pump options include:

HPU11M: Pneumatic powered hydraulic pump  
HPU12M: Hand powered hydraulic pump  
HPU13M: DC Battery powered electric pump  
HPU15M: A foot pump

#### NOTE:

HPU13M features automatic cycle control and die retraction upon cycle completion.

More detailed product literature is available. Consult DMC.

\*Qualified to AS5259/1 (Tool Head) and AS5259/7 (Crimp Dies) Specification for Large Gage Crimp Tools



Similar Terminal Shown

## M7928/1-1 to -10, Sizes 26 to 24

**TYPE:** Class 1 Insulated Terminals, Insulation Restricting

**INSULATION:** Nylon, UL 94V-2

**TERMINAL BODY & SLEEVE:** Copper, ASTM B-152

**PLATING:** Nickel, QQ-N-290, or Tin, ASTM B-545

**MAX TEMP RATING:** 105° C

### Tool Selection Guide

| TERMINAL SPECS |                |                              |                        |                             | DMC TOOL/DIE OPTIONS        |  |   |                                |                                |         |
|----------------|----------------|------------------------------|------------------------|-----------------------------|-----------------------------|--|---|--------------------------------|--------------------------------|---------|
| AWG            | WIRE SIZE (MM) | INSULATION DIAMETER IN. (MM) | SLEEVE COLOR           | TERMINAL/SPLICE PART NUMBER | HX3 SERIES DIE MIL-APPROVED | HX4 SERIES DIE MIL-APPROVED (MULTI-CAVITY) | HX4 SERIES DIE MIL-APPROVED (SINGLE CAVITY) | HX4 SERIES DIE (SINGLE CAVITY) | M22520/40-01 TOOL MIL-APPROVED |         |
| #26            | 0.15           | .026-.055 (0.66-1.40)        | Yellow w/ Black Stripe | M7928/1-                    | 1                           | X511                                       | Y501  | Y1115*                         | Y672                           | AMT4001 |
|                |                |                              |                        |                             | 2                           | X511                                       | Y501  | Y1115*                         | Y672                           | AMT4001 |
|                |                |                              |                        |                             | 3                           | X511                                       | Y501  | Y1115*                         | Y672                           | AMT4001 |
|                |                |                              |                        |                             | 4                           | X511                                       | Y501  | Y1115*                         | Y672                           | AMT4001 |
|                |                |                              |                        |                             | 5                           | X511                                       | Y501  | Y1115*                         | Y672                           | AMT4001 |
| #24            | 0.24           | .031-.055 (0.79-1.40)        | Yellow w/ Blue Stripe  | M7928/1-                    | 6                           | X511                                       | Y501  | Y1115*                         | Y672                           | AMT4001 |
|                |                |                              |                        |                             | 7                           | X511                                       | Y501  | Y1115*                         | Y672                           | AMT4001 |
|                |                |                              |                        |                             | 8                           | X511                                       | Y501  | Y1115*                         | Y672                           | AMT4001 |
|                |                |                              |                        |                             | 9                           | X511                                       | Y501  | Y1115*                         | Y672                           | AMT4001 |
|                |                |                              |                        |                             | 10                          | X511                                       | Y501  | Y1115*                         | Y672                           | AMT4001 |

\*QPL in progress, die set includes insulation adjustment feature

### Terminal Manufacturers' Part Numbers

| TERMINAL SPECS |                        |                             | TERMINAL MANUFACTURERS' TERMINAL # |               |       |         |              |           |       |
|----------------|------------------------|-----------------------------|------------------------------------|---------------|-------|---------|--------------|-----------|-------|
| AWG            | SLEEVE COLOR           | TERMINAL/SPLICE PART NUMBER | BURNDY                             | HOLLINGSWORTH | MOLEX | PANDUIT | THOMAS&BETTS | TYCO ELEC |       |
| #26            | Yellow w/ Black Stripe | M7928/1-                    | 1                                  | --            | --    | --      | --           | --        | 53078 |
|                |                        |                             | 2                                  | --            | --    | --      | --           | --        | 53049 |
|                |                        |                             | 3                                  | --            | --    | --      | --           | --        | 53050 |
|                |                        |                             | 4                                  | --            | --    | --      | --           | --        | 53051 |
|                |                        |                             | 5                                  | --            | --    | --      | --           | --        | 53052 |
| #24            | Yellow w/ Blue Stripe  | M7928/1-                    | 6                                  | --            | --    | --      | --           | --        | 53053 |
|                |                        |                             | 7                                  | --            | --    | --      | --           | --        | 53054 |
|                |                        |                             | 8                                  | --            | --    | --      | --           | --        | 53055 |
|                |                        |                             | 9                                  | --            | --    | --      | --           | --        | 53056 |
|                |                        |                             | 10                                 | --            | --    | --      | --           | --        | 53057 |

NOTE: Component manufactures' and OEM instructions shall take precedence over the information presented in these charts. Wire ranges are for reference only.

#### HX4 TOOL SERIES OPTIONS FOR Y-DIES

HX4 Hand Tools, p. 84 & 85  
 HXE4B Battery Tools, p. 86  
 HX23 Pneumatic Tool, p.88

#### HX3 TOOL SERIES OPTIONS FOR X-DIES

HX3 Hand Tools, p. 84 & 85

DMC does not provide connectors, contacts or wiring components. Parts shown here are for reference only. See disclaimer of liability on page 27.



Similar Terminal Shown

## M7928/1-11 to -19, Size 22

**TYPE:** Class 1 Insulated Terminals, Insulation Restricting

**INSULATION:** Nylon, UL 94V-2

**TERMINAL BODY & SLEEVE:** Copper, ASTM B-152

**PLATING:** TIN, ASTM B-45

**MAX TEMP RATING:** 105° C

### Tool Selection Guide

| TERMINAL SPECS |                |                              |                     |                             | DMC TOOL/DIE OPTIONS        |  |   |                                |                                |         |
|----------------|----------------|------------------------------|---------------------|-----------------------------|-----------------------------|--|---|--------------------------------|--------------------------------|---------|
| AWG            | WIRE SIZE (MM) | INSULATION DIAMETER IN. (MM) | SLEEVE COLOR        | TERMINAL/SPLICE PART NUMBER | HX3 SERIES DIE MIL-APPROVED | HX4 SERIES DIE MIL-APPROVED (MULTI-CAVITY) | HX4 SERIES MIL-APPROVED (SINGLE CAVITY) | HX4 SERIES DIE (SINGLE CAVITY) | M22520/40-01 TOOL MIL-APPROVED |         |
| #22            | 0.38           | .038-.110 (0.97-2.79)        | Red w/ Green Stripe | M7928/1-                    | 11                          | X511                                       | Y501                                    | Y1115*                         | Y672                           | AMT4001 |
|                |                |                              |                     |                             | 12                          | X511                                       | Y501                                    | Y1115*                         | Y672                           | AMT4001 |
|                |                |                              |                     |                             | 13                          | X511                                       | Y501                                    | Y1115*                         | Y672                           | AMT4001 |
|                |                |                              |                     |                             | 14                          | X511                                       | Y501                                    | Y1115*                         | Y672                           | AMT4001 |
|                |                |                              |                     |                             | 15                          | X511                                       | Y501                                    | Y1115*                         | Y672                           | AMT4001 |
|                |                |                              |                     |                             | 16                          | X511                                       | Y501                                    | Y1115*                         | Y672                           | AMT4001 |
|                |                |                              |                     |                             | 17                          | X511                                       | Y501                                    | Y1115*                         | Y672                           | AMT4001 |
|                |                |                              |                     |                             | 18                          | X511                                       | Y501                                    | Y1115*                         | Y672                           | AMT4001 |
|                |                |                              |                     | 19                          | X511                        | Y501                                       | Y1115*                                  | Y672                           | AMT4001                        |         |

\*QPL in progress, die set includes insulation adjustment feature

Terminals and Splices

### Terminal Manufacturers' Part Numbers

| TERMINAL SPECS |                     |                             | TERMINAL MANUFACTURERS' TERMINAL # |               |       |         |              |            |            |
|----------------|---------------------|-----------------------------|------------------------------------|---------------|-------|---------|--------------|------------|------------|
| AWG            | SLEEVE COLOR        | TERMINAL/SPLICE PART NUMBER | BURNDY                             | HOLLINGSWORTH | MOLEX | PANDUIT | THOMAS&BETTS | TYCO ELEC  |            |
| #22            | Red w/ Green Stripe | M7928/1-                    | 11                                 | --            | --    | --      | --           | --         | 52273      |
|                |                     |                             | 12                                 | --            | --    | --      | --           | --         | 2-36149-3  |
|                |                     |                             | 13                                 | --            | --    | --      | --           | --         | 51863-2    |
|                |                     |                             | 14                                 | --            | --    | --      | --           | --         | 1-320551-2 |
|                |                     |                             | 15                                 | --            | --    | --      | --           | --         | 2-36153-3  |
|                |                     |                             | 16                                 | --            | --    | --      | --           | --         | 2-320571-3 |
|                |                     |                             | 17                                 | --            | --    | --      | --           | --         | 2-320572-2 |
|                |                     |                             | 18                                 | --            | --    | --      | --           | --         | 2-320573-1 |
|                |                     |                             | 19                                 | --            | --    | --      | --           | 2-328975-1 |            |

NOTE: Component manufactures' and OEM instructions shall take precedence over the information presented in these charts. Wire ranges are for reference only.

#### HX4 TOOL SERIES OPTIONS FOR Y-DIES

HX4 Hand Tools, p. 84 & 85

HXE4B Battery Tools, p. 86

HX23 Pneumatic Tool, p.88

#### HX3 TOOL SERIES OPTIONS FOR X-DIES

HX3 Hand Tools, p. 84 & 85

DMC does not provide connectors, contacts or wiring components. Parts shown here are for reference only. See disclaimer of liability on page 27.



Similar Terminal Shown

## M7928/1-20 to -28, Size 20

**TYPE:** Class 1 Insulated Terminals, Insulation Restricting

**INSULATION:** Nylon, UL 94V-2

**TERMINAL BODY & SLEEVE:** Copper, ASTM B-152

**PLATING:** Nickel, QQ-N-290, or Tin, ASTM B-545

**MAX TEMP RATING:** 105° C

### Tool Selection Guide

| TERMINAL SPECS |                |                              |                   |                              | DMC TOOL/DIE OPTIONS        |  |   |                                |                                |         |
|----------------|----------------|------------------------------|-------------------|------------------------------|-----------------------------|--|---|--------------------------------|--------------------------------|---------|
| AWG            | WIRE SIZE (MM) | INSULATION DIAMETER IN. (MM) | SLEEVE COLOR      | TERMINAL/ SPLICE PART NUMBER | HX3 SERIES DIE MIL-APPROVED | HX4 SERIES DIE MIL-APPROVED (MULTI-CAVITY) | HX4 SERIES DIE MIL-APPROVED (SINGLE CAVITY) | HX4 SERIES DIE (SINGLE CAVITY) | M22520/40-01 TOOL MIL-APPROVED |         |
| #20            | 0.60           | .046-.110 (1.17-2.79)        | Red w/ Red Stripe | M7928/1-                     | 20                          | X511                                       | Y501  | Y1115*                         | Y672                           | AMT4001 |
|                |                |                              |                   |                              | 21                          | X511                                       | Y501  | Y1115*                         | Y672                           | AMT4001 |
|                |                |                              |                   |                              | 22                          | X511                                       | Y501  | Y1115*                         | Y672                           | AMT4001 |
|                |                |                              |                   |                              | 23                          | X511                                       | Y501  | Y1115*                         | Y672                           | AMT4001 |
|                |                |                              |                   |                              | 24                          | X511                                       | Y501  | Y1115*                         | Y672                           | AMT4001 |
|                |                |                              |                   |                              | 25                          | X511                                       | Y501  | Y1115*                         | Y672                           | AMT4001 |
|                |                |                              |                   |                              | 26                          | X511                                       | Y501  | Y1115*                         | Y672                           | AMT4001 |
|                |                |                              |                   |                              | 27                          | X511                                       | Y501  | Y1115*                         | Y672                           | AMT4001 |
|                |                |                              |                   | 28                           | X511                        | Y501                                       | Y1115*                                      | Y672                           | AMT4001                        |         |

\*QPL in progress, die set includes insulation adjustment feature

### Terminal Manufacturers' Part Numbers

| TERMINAL SPECS |                   |                             | TERMINAL MANUFACTURERS' TERMINAL # |               |       |         |              |            |            |
|----------------|-------------------|-----------------------------|------------------------------------|---------------|-------|---------|--------------|------------|------------|
| AWG            | SLEEVE COLOR      | TERMINAL/SPLICE PART NUMBER | BURNDY                             | HOLLINGSWORTH | MOLEX | PANDUIT | THOMAS&BETTS | TYCO ELEC  |            |
| #20            | Red w/ Red Stripe | M7928/1-                    | 20                                 | --            | --    | --      | --           | --         | 52273-1    |
|                |                   |                             | 21                                 | --            | --    | --      | --           | --         | 2-36149-4  |
|                |                   |                             | 22                                 | --            | --    | --      | --           | --         | 51863-3    |
|                |                   |                             | 23                                 | --            | --    | --      | --           | --         | 1-320551-3 |
|                |                   |                             | 24                                 | --            | --    | --      | --           | --         | 2-36153-4  |
|                |                   |                             | 25                                 | --            | --    | --      | --           | --         | 2-320571-4 |
|                |                   |                             | 26                                 | --            | --    | --      | --           | --         | 2-320572-3 |
|                |                   |                             | 27                                 | --            | --    | --      | --           | --         | 2-320573-2 |
|                |                   |                             | 28                                 | --            | --    | --      | --           | 2-328975-2 |            |

NOTE: Component manufactures' and OEM instructions shall take precedence over the information presented in these charts. Wire ranges are for reference only.

#### HX4 TOOL SERIES OPTIONS FOR Y-DIES

HX4 Hand Tools, p. 84 & 85

HXE4B Battery Tools, p. 86

HX23 Pneumatic Tool, p.88

#### HX3 TOOL SERIES OPTIONS FOR X-DIES

HX3 Hand Tools, p. 84 & 85

DMC does not provide connectors, contacts or wiring components. Parts shown here are for reference only. See disclaimer of liability on page 27.





Similar Terminal Shown

## M7928/1-29 to -37, Size 18

**TYPE:** Class 1 Insulated Terminals, Insulation Restricting

**INSULATION:** Nylon, UL 94V-2

**TERMINAL BODY & SLEEVE:** Copper, ASTM B-152

**PLATING:** Nickel, QQ-N-290, or Tin, ASTM B-545

**MAX TEMP RATING:** 105° C

### Tool Selection Guide

| TERMINAL SPECS |                |                              |                     |                             | DMC TOOL/DIE OPTIONS        |  |   |                                |                                |         |
|----------------|----------------|------------------------------|---------------------|-----------------------------|-----------------------------|--|---|--------------------------------|--------------------------------|---------|
| AWG            | WIRE SIZE (MM) | INSULATION DIAMETER IN. (MM) | SLEEVE COLOR        | TERMINAL/SPLICE PART NUMBER | HX3 SERIES DIE MIL-APPROVED | HX4 SERIES DIE MIL-APPROVED (MULTI-CAVITY) | HX4 SERIES DIE MIL-APPROVED (SINGLE CAVITY) | HX4 SERIES DIE (SINGLE CAVITY) | M22520/40-01 TOOL MIL-APPROVED |         |
| #18            | 0.96           | .056-.110 (1.42-2.79)        | Red w/ White Stripe | M7928/1-                    | 29                          | X511                                       | Y501  | Y1115*                         | Y672                           | AMT4001 |
|                |                |                              |                     |                             | 30                          | X511                                       | Y501  | Y1115*                         | Y672                           | AMT4001 |
|                |                |                              |                     |                             | 31                          | X511                                       | Y501  | Y1115*                         | Y672                           | AMT4001 |
|                |                |                              |                     |                             | 32                          | X511                                       | Y501  | Y1115*                         | Y672                           | AMT4001 |
|                |                |                              |                     |                             | 33                          | X511                                       | Y501  | Y1115*                         | Y672                           | AMT4001 |
|                |                |                              |                     |                             | 34                          | X511                                       | Y501  | Y1115*                         | Y672                           | AMT4001 |
|                |                |                              |                     |                             | 35                          | X511                                       | Y501  | Y1115*                         | Y672                           | AMT4001 |
|                |                |                              |                     |                             | 36                          | X511                                       | Y501  | Y1115*                         | Y672                           | AMT4001 |
|                |                |                              |                     | 37                          | X511                        | Y501                                       | Y1115*                                      | Y672                           | AMT4001                        |         |

\*QPL in progress, die set includes insulation adjustment feature

Terminals and Splices

### Terminal Manufacturers' Part Numbers

| TERMINAL SPECS |                     |                             | TERMINAL MANUFACTURERS' TERMINAL # |               |       |         |              |            |            |
|----------------|---------------------|-----------------------------|------------------------------------|---------------|-------|---------|--------------|------------|------------|
| AWG            | SLEEVE COLOR        | TERMINAL/SPLICE PART NUMBER | BURNDY                             | HOLLINGSWORTH | MOLEX | PANDUIT | THOMAS&BETTS | TYCO ELEC  |            |
| #18            | Red w/ White Stripe | M7928/1-                    | 29                                 | --            | --    | --      | --           | --         | 52273-2    |
|                |                     |                             | 30                                 | --            | --    | --      | --           | --         | 2-36149-5  |
|                |                     |                             | 31                                 | --            | --    | --      | --           | --         | 51863-4    |
|                |                     |                             | 32                                 | --            | --    | --      | --           | --         | 1-320551-4 |
|                |                     |                             | 33                                 | --            | --    | --      | --           | --         | 2-36153-5  |
|                |                     |                             | 34                                 | --            | --    | --      | --           | --         | 2-320571-5 |
|                |                     |                             | 35                                 | --            | --    | --      | --           | --         | 2-320572-4 |
|                |                     |                             | 36                                 | --            | --    | --      | --           | --         | 2-320573-3 |
|                |                     |                             | 37                                 | --            | --    | --      | --           | 2-328975-3 |            |

NOTE: Component manufactures' and OEM instructions shall take precedence over the information presented in these charts. Wire ranges are for reference only.

#### HX4 TOOL SERIES OPTIONS FOR Y-DIES

HX4 Hand Tools, p. 84 & 85

HXE4B Battery Tools, p. 86

HX23 Pneumatic Tool, p.88

#### HX3 TOOL SERIES OPTIONS FOR X-DIES

HX3 Hand Tools, p. 84 & 85

DMC does not provide connectors, contacts or wiring components. Parts shown here are for reference only. See disclaimer of liability on page 27.



Similar Terminal Shown

## M7928/1-38 to -46, Size 16

**TYPE:** Class 1 Insulated Terminals, Insulation Restricting

**INSULATION:** Nylon, UL 94V-2

**TERMINAL BODY & SLEEVE:** Copper, ASTM B-152

**PLATING:** Nickel, QQ-N-290, or Tin, ASTM B-545

**MAX TEMP RATING:** 105° C

### Tool Selection Guide

| TERMINAL SPECS |                |                              |                     |                              | DMC TOOL/DIE OPTIONS        |  |   |                                |                                |         |
|----------------|----------------|------------------------------|---------------------|------------------------------|-----------------------------|--|---|--------------------------------|--------------------------------|---------|
| AWG            | WIRE SIZE (MM) | INSULATION DIAMETER IN. (MM) | SLEEVE COLOR        | TERMINAL/ SPLICE PART NUMBER | HX3 SERIES DIE MIL-APPROVED | HX4 SERIES DIE MIL-APPROVED (MULTI-CAVITY) | HX4 SERIES MIL-APPROVED (SINGLE CAVITY) | HX4 SERIES DIE (SINGLE CAVITY) | M22520/40-01 TOOL MIL-APPROVED |         |
| #16            | 1.42           | .063-.130 (1.60-3.30)        | Blue w/ Blue Stripe | M7928/1-                     | 38                          | X511                                       | Y501                                    | Y1116*                         | Y671                           | AMT4001 |
|                |                |                              |                     |                              | 39                          | X511                                       | Y501                                    | Y1116*                         | Y671                           | AMT4001 |
|                |                |                              |                     |                              | 40                          | X511                                       | Y501                                    | Y1116*                         | Y671                           | AMT4001 |
|                |                |                              |                     |                              | 41                          | X511                                       | Y501                                    | Y1116*                         | Y671                           | AMT4001 |
|                |                |                              |                     |                              | 42                          | X511                                       | Y501                                    | Y1116*                         | Y671                           | AMT4001 |
|                |                |                              |                     |                              | 43                          | X511                                       | Y501                                    | Y1116*                         | Y671                           | AMT4001 |
|                |                |                              |                     |                              | 44                          | X511                                       | Y501                                    | Y1116*                         | Y671                           | AMT4001 |
|                |                |                              |                     |                              | 45                          | X511                                       | Y501                                    | Y1116*                         | Y671                           | AMT4001 |
|                |                |                              |                     | 46                           | X511                        | Y501                                       | Y1116*                                  | Y671                           | AMT4001                        |         |

\*QPL in progress, die set includes insulation adjustment feature

### Terminal Manufacturers' Part Numbers

| TERMINAL SPECS |                     |                             | TERMINAL MANUFACTURERS' TERMINAL # |               |       |         |              |            |            |
|----------------|---------------------|-----------------------------|------------------------------------|---------------|-------|---------|--------------|------------|------------|
| AWG            | SLEEVE COLOR        | TERMINAL/SPLICE PART NUMBER | BURNDY                             | HOLLINGSWORTH | MOLEX | PANDUIT | THOMAS&BETTS | TYCO ELEC  |            |
| #16            | Blue w/ Blue Stripe | M7928/1-                    | 38                                 | --            | --    | --      | --           | --         | 52274      |
|                |                     |                             | 39                                 | --            | --    | --      | --           | --         | 2-320561-3 |
|                |                     |                             | 40                                 | --            | --    | --      | --           | --         | 51864-6    |
|                |                     |                             | 41                                 | --            | --    | --      | --           | --         | 1-51864-0  |
|                |                     |                             | 42                                 | --            | --    | --      | --           | --         | 51864-7    |
|                |                     |                             | 43                                 | --            | --    | --      | --           | --         | 2-320563-3 |
|                |                     |                             | 44                                 | --            | --    | --      | --           | --         | 2-320575-2 |
|                |                     |                             | 45                                 | --            | --    | --      | --           | --         | 2-320564-1 |
|                |                     |                             | 46                                 | --            | --    | --      | --           | 2-328976-1 |            |

NOTE: Component manufactures' and OEM instructions shall take precedence over the information presented in these charts. Wire ranges are for reference only.

#### HX4 TOOL SERIES OPTIONS FOR Y-DIES

HX4 Hand Tools, p. 84 & 85

HXE4B Battery Tools, p. 86

HX23 Pneumatic Tool, p.88

#### HX3 TOOL SERIES OPTIONS FOR X-DIES

HX3 Hand Tools, p. 84 & 85

DMC does not provide connectors, contacts or wiring components. Parts shown here are for reference only. See disclaimer of liability on page 27.



Similar Terminal Shown

## M7928/1-47 to -55, Size 14

**TYPE:** Class 1 Insulated Terminals, Insulation Restricting

**INSULATION:** Nylon, UL 94V-2

**TERMINAL BODY & SLEEVE:** Copper, ASTM B-152

**PLATING:** Nickel, QQ-N-290, or Tin, ASTM B-545

**MAX TEMP RATING:** 105° C

### Tool Selection Guide

| TERMINAL SPECS |                |                              |                      |                             | DMC TOOL/DIE OPTIONS        |  |   |                                |                                |         |
|----------------|----------------|------------------------------|----------------------|-----------------------------|-----------------------------|--|---|--------------------------------|--------------------------------|---------|
| AWG            | WIRE SIZE (MM) | INSULATION DIAMETER IN. (MM) | SLEEVE COLOR         | TERMINAL/SPLICE PART NUMBER | HX3 SERIES DIE MIL-APPROVED | HX4 SERIES DIE MIL-APPROVED (MULTI-CAVITY) | HX4 SERIES MIL-APPROVED (SINGLE CAVITY) | HX4 SERIES DIE (SINGLE CAVITY) | M22520/40-01 TOOL MIL-APPROVED |         |
| #14            | 2.15           | .078-.130 (1.98-3.30)        | Blue w/ Green Stripe | M7928/1-                    | 47                          | X511                                       | Y501                                    | Y1116*                         | Y671                           | AMT4001 |
|                |                |                              |                      |                             | 48                          | X511                                       | Y501                                    | Y1116*                         | Y671                           | AMT4001 |
|                |                |                              |                      |                             | 49                          | X511                                       | Y501                                    | Y1116*                         | Y671                           | AMT4001 |
|                |                |                              |                      |                             | 50                          | X511                                       | Y501                                    | Y1116*                         | Y671                           | AMT4001 |
|                |                |                              |                      |                             | 51                          | X511                                       | Y501                                    | Y1116*                         | Y671                           | AMT4001 |
|                |                |                              |                      |                             | 52                          | X511                                       | Y501                                    | Y1116*                         | Y671                           | AMT4001 |
|                |                |                              |                      |                             | 53                          | X511                                       | Y501                                    | Y1116*                         | Y671                           | AMT4001 |
|                |                |                              |                      |                             | 54                          | X511                                       | Y501                                    | Y1116*                         | Y671                           | AMT4001 |
|                |                |                              |                      |                             | 55                          | X511                                       | Y501                                    | Y1116*                         | Y671                           | AMT4001 |

\*QPL in progress, die set includes insulation adjustment feature

Terminals and Splices

### Terminal Manufacturers' Part Numbers

| TERMINAL SPECS |                      |                             | TERMINAL MANUFACTURERS' TERMINAL # |               |       |         |              |           |            |
|----------------|----------------------|-----------------------------|------------------------------------|---------------|-------|---------|--------------|-----------|------------|
| AWG            | SLEEVE COLOR         | TERMINAL/SPLICE PART NUMBER | BURNDY                             | HOLLINGSWORTH | MOLEX | PANDUIT | THOMAS&BETTS | TYCO ELEC |            |
| #14            | Blue w/ Green Stripe | M7928/1-                    | 47                                 | --            | --    | --      | --           | --        | 52274-1    |
|                |                      |                             | 48                                 | --            | --    | --      | --           | --        | 2-320561-4 |
|                |                      |                             | 49                                 | --            | --    | --      | --           | --        | 51864-8    |
|                |                      |                             | 50                                 | --            | --    | --      | --           | --        | 1-51864-1  |
|                |                      |                             | 51                                 | --            | --    | --      | --           | --        | 51864-9    |
|                |                      |                             | 52                                 | --            | --    | --      | --           | --        | 2-320563-4 |
|                |                      |                             | 53                                 | --            | --    | --      | --           | --        | 2-320575-3 |
|                |                      |                             | 54                                 | --            | --    | --      | --           | --        | 2-320564-2 |
|                |                      |                             | 55                                 | --            | --    | --      | --           | --        | --         |

NOTE: Component manufactures' and OEM instructions shall take precedence over the information presented in these charts. Wire ranges are for reference only.

#### HX4 TOOL SERIES OPTIONS FOR Y-DIES

HX4 Hand Tools, p. 84 & 85

HXE4B Battery Tools, p. 86

HX23 Pneumatic Tool, p.88

#### HX3 TOOL SERIES OPTIONS FOR X-DIES

HX3 Hand Tools, p. 84 & 85

DMC does not provide connectors, contacts or wiring components. Parts shown here are for reference only. See disclaimer of liability on page 27.



Similar Terminal Shown

## M7928/1-56 to -62, Size 12

**TYPE:** Class 1 Insulated Terminals, Insulation Restricting

**INSULATION:** Nylon, UL 94V-2

**TERMINAL BODY & SLEEVE:** Copper, ASTM B-152

**PLATING:** Nickel, QQ-N-290, or Tin, ASTM B-545

**MAX TEMP RATING:** 105° C

### Tool Selection Guide

| TERMINAL SPECS |                |                              |                               |                             | DMC TOOL/DIE OPTIONS        |  |   |                                |      |
|----------------|----------------|------------------------------|-------------------------------|-----------------------------|-----------------------------|--|---|--------------------------------|------|
| AWG            | WIRE SIZE (MM) | INSULATION DIAMETER IN. (MM) | SLEEVE COLOR                  | TERMINAL/SPLICE PART NUMBER | HX3 SERIES DIE MIL-APPROVED | HX4 SERIES DIE MIL-APPROVED (MULTI-CAVITY) | HX4 SERIES DIE MIL-APPROVED (SINGLE CAVITY) | HX4 SERIES DIE (SINGLE CAVITY) |      |
| #12            | 3.37           | .095-.200 (2.41-5.08)        | Yellow w/<br>Yellow<br>Stripe | M7928/1-                    | 56                          | X515                                       | Y501  | Y1117*                         | Y670 |
|                |                |                              |                               |                             | 57                          | X515                                       | Y501  | Y1117*                         | Y670 |
|                |                |                              |                               |                             | 58                          | X515                                       | Y501  | Y1117*                         | Y670 |
|                |                |                              |                               |                             | 59                          | X515                                       | Y501  | Y1117*                         | Y670 |
|                |                |                              |                               |                             | 60                          | X515                                       | Y501  | Y1117*                         | Y670 |
|                |                |                              |                               |                             | 61                          | X515                                       | Y501  | Y1117*                         | Y670 |
|                |                |                              |                               |                             | 62                          | X515                                       | Y501  | Y1117*                         | Y670 |

\*QPL in progress, die set includes insulation adjustment feature

### Terminal Manufacturers' Part Numbers

| TERMINAL SPECS |                                  |                             | TERMINAL MANUFACTURERS' TERMINAL # |               |       |         |              |           |            |
|----------------|----------------------------------|-----------------------------|------------------------------------|---------------|-------|---------|--------------|-----------|------------|
| AWG            | SLEEVE COLOR                     | TERMINAL/SPLICE PART NUMBER | BURNDY                             | HOLLINGSWORTH | MOLEX | PANDUIT | THOMAS&BETTS | TYCO ELEC |            |
| #12            | Yellow<br>w/<br>Yellow<br>Stripe | M7928/1-                    | 56                                 | --            | --    | --      | --           | --        | 2-36161-5  |
|                |                                  |                             | 57                                 | --            | --    | --      | --           | --        | 2-320568-2 |
|                |                                  |                             | 58                                 | --            | --    | --      | --           | --        | 2-36161-3  |
|                |                                  |                             | 59                                 | --            | --    | --      | --           | --        | 2-320569-5 |
|                |                                  |                             | 60                                 | --            | --    | --      | --           | --        | 2-320576-2 |
|                |                                  |                             | 61                                 | --            | --    | --      | --           | --        | 2-320577-1 |
|                |                                  |                             | 62                                 | --            | --    | --      | --           | --        | --         |

NOTE: Component manufactures' and OEM instructions shall take precedence over the information presented in these charts. Wire ranges are for reference only.

#### HX4 TOOL SERIES OPTIONS FOR Y-DIES

HX4 Hand Tools, p. 84 & 85

HXE4B Battery Tools, p. 86

HX23 Pneumatic Tool, p.88

#### HX3 TOOL SERIES OPTIONS FOR X-DIES

HX3 Hand Tools, p. 84 & 85

DMC does not provide connectors, contacts or wiring components. Parts shown here are for reference only. See disclaimer of liability on page 27.



Similar Terminal Shown

## M7928/1-63 to -69, Size 10

**TYPE:** Class 1 Insulated Terminals, Insulation Restricting

**INSULATION:** Nylon, UL 94V-2

**TERMINAL BODY & SLEEVE:** Copper, ASTM B-152

**PLATING:** Nickel, QQ-N-290, or Tin, ASTM B-545

**MAX TEMP RATING:** 105° C

### Tool Selection Guide

| TERMINAL SPECS |                |                              |                         |                             | DMC TOOL/DIE OPTIONS        |  |   |                                |      |
|----------------|----------------|------------------------------|-------------------------|-----------------------------|-----------------------------|--|---|--------------------------------|------|
| AWG            | WIRE SIZE (MM) | INSULATION DIAMETER IN. (MM) | SLEEVE COLOR            | TERMINAL/SPLICE PART NUMBER | HX3 SERIES DIE MIL-APPROVED | HX4 SERIES DIE MIL-APPROVED (MULTI-CAVITY) | HX4 SERIES DIE MIL-APPROVED (SINGLE CAVITY) | HX4 SERIES DIE (SINGLE CAVITY) |      |
| #10            | 6.11           | .119-.200 (3.02-5.08)        | Yellow w/ Brown Stripe) | M7928/1-                    | 63                          | X515                                       | Y501  | Y1117*                         | Y670 |
|                |                |                              |                         |                             | 64                          | X515                                       | Y501  | Y1117*                         | Y670 |
|                |                |                              |                         |                             | 65                          | X515                                       | Y501  | Y1117*                         | Y670 |
|                |                |                              |                         |                             | 66                          | X515                                       | Y501  | Y1117*                         | Y670 |
|                |                |                              |                         |                             | 67                          | X515                                       | Y501  | Y1117*                         | Y670 |
|                |                |                              |                         |                             | 68                          | X515                                       | Y501  | Y1117*                         | Y670 |
|                |                |                              |                         |                             | 69                          | X515                                       | Y501  | Y1117*                         | Y670 |

\*QPL in progress, die set includes insulation adjustment feature

### Terminal Manufacturers' Part Numbers

| TERMINAL SPECS |                         |                             | TERMINAL MANUFACTURERS' TERMINAL # |               |       |         |              |           |            |
|----------------|-------------------------|-----------------------------|------------------------------------|---------------|-------|---------|--------------|-----------|------------|
| AWG            | SLEEVE COLOR            | TERMINAL/SPLICE PART NUMBER | BURNDY                             | HOLLINGSWORTH | MOLEX | PANDUIT | THOMAS&BETTS | TYCO ELEC |            |
| #10            | Yellow w/ Brown Stripe) | M7928/1-                    | 63                                 | --            | --    | --      | --           | --        | 2-36161-6  |
|                |                         |                             | 64                                 | --            | --    | --      | --           | --        | 2-320568-3 |
|                |                         |                             | 65                                 | --            | --    | --      | --           | --        | 2-36161-4  |
|                |                         |                             | 66                                 | --            | --    | --      | --           | --        | 2-320569-6 |
|                |                         |                             | 67                                 | --            | --    | --      | --           | --        | 2-320576-3 |
|                |                         |                             | 68                                 | --            | --    | --      | --           | --        | 2-320577-2 |
|                |                         |                             | 69                                 | --            | --    | --      | --           | --        | --         |

NOTE: Component manufactures' and OEM instructions shall take precedence over the information presented in these charts. Wire ranges are for reference only.

#### HX4 TOOL SERIES OPTIONS FOR Y-DIES

HX4 Hand Tools, p. 84 & 85  
 HXE4B Battery Tools, p. 86  
 HX23 Pneumatic Tool, p.88

#### HX3 TOOL SERIES OPTIONS FOR X-DIES

HX3 Hand Tools, p. 84 & 85





Similar Terminal Shown

## M7928/4-101 to -110, Sizes 22 to 14

**TYPE:** Class 1 Insulated Terminals, Radiation Resistant

**INSULATION:** Polyvinylidene Fluoride (PVF2)

**TERMINAL BODY & SLEEVE:** Copper, ASTM B-152

**PLATING:** Tin, ASTM B-545

**MAX TEMP RATING:** 150° C

### Tool Selection Guide

| TERMINAL SPECS |                |                              |              |                             | DMC TOOL/DIE OPTIONS        |  |   |                                |                                |         |
|----------------|----------------|------------------------------|--------------|-----------------------------|-----------------------------|--|---|--------------------------------|--------------------------------|---------|
| AWG            | WIRE SIZE (MM) | INSULATION DIAMETER IN. (MM) | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER | HX3 SERIES DIE MIL-APPROVED | HX4 SERIES DIE MIL-APPROVED (MULTI-CAVITY) | HX4 SERIES DIE MIL-APPROVED (SINGLE CAVITY) | HX4 SERIES DIE (SINGLE CAVITY) | M22520/40-01 TOOL MIL-APPROVED |         |
| #22-18         | 0.26-0.96      | .140 (3.56)                  | Red          | M7928/4-                    | 101                         | X511                                       | Y501  | Y1115*                         | Y672                           | AMT4001 |
|                |                |                              |              |                             | 102                         | X511                                       | Y501  | Y1115*                         | Y672                           | AMT4001 |
|                |                |                              |              |                             | 103                         | X511                                       | Y501  | Y1115*                         | Y672                           | AMT4001 |
|                |                |                              |              |                             | 104                         | X511                                       | Y501  | Y1115*                         | Y672                           | AMT4001 |
|                |                |                              |              |                             | 105                         | X511                                       | Y501  | Y1115*                         | Y672                           | AMT4001 |
| #16-14         | 1.04 - 2.62    | .170 (4.32)                  | Blue         | M7928/4-                    | 106                         | X511                                       | Y501  | Y1116*                         | Y671                           | AMT4001 |
|                |                |                              |              |                             | 107                         | X511                                       | Y501  | Y1116*                         | Y671                           | AMT4001 |
|                |                |                              |              |                             | 108                         | X511                                       | Y501  | Y1116*                         | Y671                           | AMT4001 |
|                |                |                              |              |                             | 109                         | X511                                       | Y501  | Y1116*                         | Y671                           | AMT4001 |
|                |                |                              |              |                             | 110                         | X511                                       | Y501  | Y1116*                         | Y671                           | AMT4001 |

\*QPL in progress, die set includes insulation adjustment feature

### Terminal Manufacturers' Part Numbers

| TERMINAL SPECS |              |                             | TERMINAL MANUFACTURERS' TERMINAL # |               |       |         |              |           |         |
|----------------|--------------|-----------------------------|------------------------------------|---------------|-------|---------|--------------|-----------|---------|
| AWG            | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER | BURNDY                             | HOLLINGSWORTH | MOLEX | PANDUIT | THOMAS&BETTS | TYCO ELEC |         |
| #22-18         | Red          | M7928/4-                    | 101                                | --            | --    | --      | --           | --        | 53406-1 |
|                |              |                             | 102                                | --            | --    | --      | --           | --        | 53407-1 |
|                |              |                             | 103                                | --            | --    | --      | --           | --        | 53409-1 |
|                |              |                             | 104                                | --            | --    | --      | --           | --        | 53411-1 |
|                |              |                             | 105                                | --            | --    | --      | --           | --        | 53412-1 |
| #16-14         | Blue         | M7928/4-                    | 106                                | --            | --    | --      | --           | --        | 53415-1 |
|                |              |                             | 107                                | --            | --    | --      | --           | --        | 53416-1 |
|                |              |                             | 108                                | --            | --    | --      | --           | --        | 53418-1 |
|                |              |                             | 109                                | --            | --    | --      | --           | --        | 53420-1 |
|                |              |                             | 110                                | --            | --    | --      | --           | --        | 53421-1 |

NOTE: Component manufactures' and OEM instructions shall take precedence over the information presented in these charts. Wire ranges are for reference only.

#### HX4 TOOL SERIES OPTIONS FOR Y-DIES

HX4 Hand Tools, p. 84 & 85

HXE4B Battery Tools, p. 86

HX23 Pneumatic Tool, p.88

#### HX3 TOOL SERIES OPTIONS FOR X-DIES

HX3 Hand Tools, p. 84 & 85

DMC does not provide connectors, contacts or wiring components. Parts shown here are for reference only. See disclaimer of liability on page 27.



Similar Terminal Shown

## M7928/4-111 to -114, Sizes 12 to 10

**TYPE:** Class 1 Insulated Terminals, Radiation Resistant

**INSULATION:** Polyvinylidene Fluoride (PVF2)

**TERMINAL BODY & SLEEVE:** Copper, ASTM B-152

**PLATING:** Tin, ASTM B-545

**MAX TEMP RATING:** 150° C

### Tool Selection Guide

| TERMINAL SPECS |                |                              |              |                             | DMC TOOL/DIE OPTIONS        |  |   |                                |      |
|----------------|----------------|------------------------------|--------------|-----------------------------|-----------------------------|--|---|--------------------------------|------|
| AWG            | WIRE SIZE (MM) | INSULATION DIAMETER IN. (MM) | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER | HX3 SERIES DIE MIL-APPROVED | HX4 SERIES DIE MIL-APPROVED (MULTI-CAVITY) | HX4 SERIES DIE MIL-APPROVED (SINGLE CAVITY) | HX4 SERIES DIE (SINGLE CAVITY) |      |
| #12-10         | 2.62 - 6.64    | .230 (5.84)                  | Yellow       | M7928/4-                    | 111                         | X515                                       | Y501  | Y1117*                         | Y670 |
|                |                |                              |              |                             | 112                         | X515                                       | Y501  | Y1117*                         | Y670 |
|                |                |                              |              |                             | 113                         | X515                                       | Y501  | Y1117*                         | Y670 |
|                |                |                              |              |                             | 114                         | X515                                       | Y501  | Y1117*                         | Y670 |

\*QPL in progress, die set includes insulation adjustment feature

### Terminal Manufacturers' Part Numbers

| TERMINAL SPECS |              |                             | TERMINAL MANUFACTURERS' TERMINAL # |               |       |         |                |           |         |
|----------------|--------------|-----------------------------|------------------------------------|---------------|-------|---------|----------------|-----------|---------|
| AWG            | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER | BURNDY                             | HOLLINGSWORTH | MOLEX | PANDUIT | THOMAS & BETTS | TYCO ELEC |         |
| #12-10         | Yellow       | M7928/4-                    | 111                                | --            | --    | --      | --             | --        | 53423-1 |
|                |              |                             | 112                                | --            | --    | --      | --             | --        | 53425-1 |
|                |              |                             | 113                                | --            | --    | --      | --             | --        | 53427-1 |
|                |              |                             | 114                                | --            | --    | --      | --             | --        | 53428-1 |

NOTE: Component manufactures' and OEM instructions shall take precedence over the information presented in these charts. Wire ranges are for reference only.

#### HX4 TOOL SERIES OPTIONS FOR Y-DIES

HX4 Hand Tools, p. 84 & 85

HXE4B Battery Tools, p. 86

HX23 Pneumatic Tool, p.88

#### HX3 TOOL SERIES OPTIONS FOR X-DIES

HX3 Hand Tools, p. 84 & 85



Similar Terminal Shown

## M7928/4-143 to -151, Sizes 26 to 18

**TYPE:** Class 1 Insulated Terminals, Radiation Resistant

**INSULATION:** Polyvinylidene Fluoride (PVF2)

**TERMINAL BODY & SLEEVE:** Copper, ASTM B-152

**PLATING:** Tin, ASTM B-545

**MAX TEMP RATING:** 150° C

### Tool Selection Guide

| TERMINAL SPECS |                |                              |              |                             | DMC TOOL/DIE OPTIONS        |  |   |                                |                                |         |
|----------------|----------------|------------------------------|--------------|-----------------------------|-----------------------------|--|---|--------------------------------|--------------------------------|---------|
| AWG            | WIRE SIZE (MM) | INSULATION DIAMETER IN. (MM) | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER | HX3 SERIES DIE MIL-APPROVED | HX4 SERIES DIE MIL-APPROVED (MULTI-CAVITY) | HX4 SERIES DIE MIL-APPROVED (SINGLE CAVITY) | HX4 SERIES DIE (SINGLE CAVITY) | M22520/40-01 TOOL MIL-APPROVED |         |
| #26-24         | 0.10 - 0.26    | .082 (2.09)                  | Yellow       | M7928/4-                    | 143                         | X511                                       | Y501  | Y1115*                         | Y672                           | --      |
|                |                |                              |              |                             | 144                         | X511                                       | Y501  | Y1115*                         | Y672                           | --      |
|                |                |                              |              |                             | 145                         | X511                                       | Y501  | Y1115*                         | Y672                           | --      |
|                |                |                              |              |                             | 146                         | X511                                       | Y501  | Y1115*                         | Y672                           | --      |
|                |                |                              |              |                             | 147                         | X511                                       | Y501  | Y1115*                         | Y672                           | --      |
| #22-18         | 0.26-0.96      | .125 (3.18)                  | Red          | M7928/4-                    | 148                         | X511                                       | Y501  | Y1115*                         | Y672                           | AMT4001 |
|                |                |                              |              |                             | 149                         | X511                                       | Y501  | Y1115*                         | Y672                           | AMT4001 |
|                |                |                              |              |                             | 150                         | X511                                       | Y501  | Y1115*                         | Y672                           | AMT4001 |
|                |                |                              |              |                             | 151                         | X511                                       | Y501  | Y1115*                         | Y672                           | AMT4001 |

\*QPL in progress, die set includes insulation adjustment feature

### Terminal Manufacturers' Part Numbers

| TERMINAL SPECS |              |                             | TERMINAL MANUFACTURERS' TERMINAL # |               |       |         |                |           |         |
|----------------|--------------|-----------------------------|------------------------------------|---------------|-------|---------|----------------|-----------|---------|
| AWG            | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER | BURNDY                             | HOLLINGSWORTH | MOLEX | PANDUIT | THOMAS & BETTS | TYCO ELEC |         |
| #26-24         | Yellow       | M7928/4-                    | 143                                | --            | --    | --      | --             | --        | 53400-1 |
|                |              |                             | 144                                | --            | --    | --      | --             | --        | 53401-1 |
|                |              |                             | 145                                | --            | --    | --      | --             | --        | 53402-1 |
|                |              |                             | 146                                | --            | --    | --      | --             | --        | 53403-1 |
|                |              |                             | 147                                | --            | --    | --      | --             | --        | 53404-1 |
| #22-18         | Red          | M7928/4-                    | 148                                | --            | --    | --      | --             | --        | 53405-1 |
|                |              |                             | 149                                | --            | --    | --      | --             | --        | 53408-1 |
|                |              |                             | 150                                | --            | --    | --      | --             | --        | 53410-1 |
|                |              |                             | 151                                | --            | --    | --      | --             | --        | 53413-1 |

NOTE: Component manufactures' and OEM instructions shall take precedence over the information presented in these charts. Wire ranges are for reference only.

#### HX4 TOOL SERIES OPTIONS FOR Y-DIES

HX4 Hand Tools, p. 84 & 85

HXE4B Battery Tools, p. 86

HX23 Pneumatic Tool, p.88

#### HX3 TOOL SERIES OPTIONS FOR X-DIES

HX3 Hand Tools, p. 84 & 85

DMC does NOT provide connectors, contacts, or wiring components. Parts are shown here for reference only. See disclaimer of liability on page 27.



Similar Terminal Shown

## M7928/4-152 TO -159, SIZES 16 TO 10

**TYPE:** Class 1 Insulated Terminals, Radiation Resistant

**INSULATION:** Polyvinylidene Fluoride (PVF2)

**TERMINAL BODY & SLEEVE:** Copper, ASTM B-152

**PLATING:** Tin, ASTM B-545

**MAX TEMP RATING:** 150° C

### Tool Selection Guide

| TERMINAL SPECS |                |                              |              |                             | DMC TOOL/DIE OPTIONS        |  |   |                                |                                |         |
|----------------|----------------|------------------------------|--------------|-----------------------------|-----------------------------|--|---|--------------------------------|--------------------------------|---------|
| AWG            | WIRE SIZE (MM) | INSULATION DIAMETER IN. (MM) | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER | HX3 SERIES DIE MIL-APPROVED | HX4 SERIES DIE MIL-APPROVED (MULTI-CAVITY) | HX4 SERIES MIL-APPROVED (SINGLE CAVITY) | HX4 SERIES DIE (SINGLE CAVITY) | M22520/40-01 TOOL MIL-APPROVED |         |
| #16-14         | 1.04 - 2.62    | .150 (3.81)                  | Blue         | M7928/4-                    | 152                         | X515                                       | Y501                                    | Y1116*                         | Y671                           | AMT4001 |
|                |                |                              |              |                             | 153                         | X515                                       | Y501                                    | Y1116*                         | Y671                           | AMT4001 |
|                |                |                              |              |                             | 154                         | X515                                       | Y501                                    | Y1116*                         | Y671                           | AMT4001 |
|                |                |                              |              |                             | 155                         | X515                                       | Y501                                    | Y1116*                         | Y671                           | AMT4001 |
| #12-10         | 2.62 - 6.64    | .230 (5.84)                  | Yellow       | M7928/4-                    | 156                         | X515                                       | Y501                                    | Y1117*                         | Y670                           | --      |
|                |                |                              |              |                             | 157                         | X515                                       | Y501                                    | Y1117*                         | Y670                           | --      |
|                |                |                              |              |                             | 158                         | X515                                       | Y501                                    | Y1117*                         | Y670                           | --      |
|                |                |                              |              |                             | 159                         | X515                                       | Y501                                    | Y1117*                         | Y670                           | --      |

\*QPL in progress, die set includes insulation adjustment feature

Terminals and Splices

### Terminal Manufacturers' Part Numbers

| TERMINAL SPECS |              |                             | TERMINAL MANUFACTURERS' TERMINAL # |               |       |         |                |           |         |
|----------------|--------------|-----------------------------|------------------------------------|---------------|-------|---------|----------------|-----------|---------|
| AWG            | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER | BURNDY                             | HOLLINGSWORTH | MOLEX | PANDUIT | THOMAS & BETTS | TYCO ELEC |         |
| #16-14         | Blue         | M7928/4-                    | 152                                | --            | --    | --      | --             | --        | 53414-1 |
|                |              |                             | 153                                | --            | --    | --      | --             | --        | 53417-1 |
|                |              |                             | 154                                | --            | --    | --      | --             | --        | 53419-1 |
|                |              |                             | 155                                | --            | --    | --      | --             | --        | 53422-1 |
| #12-10         | Yellow       | M7928/4-                    | 156                                | --            | --    | --      | --             | --        | 53424-1 |
|                |              |                             | 157                                | --            | --    | --      | --             | --        | 53426-1 |
|                |              |                             | 158                                | --            | --    | --      | --             | --        | --      |
|                |              |                             | 159                                | --            | --    | --      | --             | --        | --      |

NOTE: Component manufactures' and OEM instructions shall take precedence over the information presented in these charts. Wire ranges are for reference only.

#### HX4 TOOL SERIES OPTIONS FOR Y-DIES

HX4 Hand Tools, p. 84 & 85  
 HXE4B Battery Tools, p. 86  
 HX23 Pneumatic Tool, p.88

#### HX3 TOOL SERIES OPTIONS FOR X-DIES

HX3 Hand Tools, p. 84 & 85

DMC does NOT provide connectors, contacts, or wiring components. Parts are shown here for reference only. See disclaimer of liability on page 27.



Similar Splice Shown

## M7928/5-1 TO -5, SIZES 26 TO 10

**TYPE:** Class 1 Insulated Splices

**INSULATION:** Nylon, UL 94V-2

**TERMINAL BODY & SLEEVE:** Copper, ASTM B-152

**PLATING:** Nickel, QQ-N-290, or Tin, ASTM B-545

**MAX TEMP RATING:** 105° C

### Tool Selection Guide

| SPLICE SPECS |                |                              |              |                             | DMC TOOL/DIE OPTIONS |                             |
|--------------|----------------|------------------------------|--------------|-----------------------------|----------------------|-----------------------------|
| AWG          | WIRE SIZE (MM) | INSULATION DIAMETER IN. (MM) | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER |                      | HX4 SERIES DIE MIL-APPROVED |
| #26-24       | 0.12-0.24      | .082 (2.08)                  | Yellow       | M7928/5-                    | 1                    | Y527                        |
| #24 -20      | 0.16-0.65      | .100 (2.54)                  | Natural      | M7928/5-                    | 2                    | Y527                        |
| #22-18       | 0.26-0.96      | .125 (3.18)                  | Red          | M7928/5-                    | 3                    | Y501                        |
| #16-14       | 1.04-2.62      | .150 (3.81)                  | Blue         | M7928/5-                    | 4                    | Y501                        |
| #12-10       | 2.62-6.64      | .220 (5.59)                  | Yellow       | M7928/5-                    | 5                    | Y501                        |

### Splice Manufacturers' Part Numbers

| SPLICE SPECS |              |                             |   | SPLICE MANUFACTURERS' SPLICE # |               |        |         |                |                     |
|--------------|--------------|-----------------------------|---|--------------------------------|---------------|--------|---------|----------------|---------------------|
| AWG          | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER |   | BURNDY                         | HOLLINGSWORTH | MOLEX  | PANDUIT | THOMAS & BETTS | TYCO ELEC (RAYCHEM) |
| #26-24       | Yellow       | M7928/5-                    | 1 | --                             | --            | --     | --      | --             | 323994              |
| #24 -20      | Natural      | M7928/5-                    | 2 | --                             | --            | --     | --      | --             | 323975              |
| #22-18       | Red          | M7928/5-                    | 3 | --                             | B18 70BN      | WA-840 | --      | --             | 320559              |
| #16-14       | Blue         | M7928/5-                    | 4 | --                             | B18 71BN      | WB-841 | --      | --             | 320562              |
| #12-10       | Yellow       | M7928/5-                    | 5 | --                             | B18 72BN      | WC-842 | --      | --             | 320570              |

NOTE: Component manufactures' and OEM instructions shall take precedence over the information presented in these charts. Wire ranges are for reference only.

### HX4 TOOL SERIES OPTIONS FOR Y-DIES

HX4 Hand Tools, p. 84 & 85

HXE4B Battery Tools, p. 86

HX23 Pneumatic Tool, p.88

DMC does NOT provide connectors, contacts, or wiring components. Parts are shown here for reference only. See disclaimer of liability on page 27.





Similar Splice Shown

## M7928/6-1 TO -5, SIZES 26 TO 10

**TYPE:** Class 1 Insulated Splices, Radiation Resistant  
**INSULATION:** Polyvinylidene Fluoride (PVF2) [Natural Color]  
**SPLICE BODY & SLEEVE:** Copper, ASTM B-152  
**PLATING:** Tin, ASTM B-545  
**MAX TEMP RATING:** 105° C

### Tool Selection Guide

| SPLICE SPECS |                |                              |               |                             | DMC TOOL/DIE OPTIONS |                             |
|--------------|----------------|------------------------------|---------------|-----------------------------|----------------------|-----------------------------|
| AWG          | WIRE SIZE (MM) | INSULATION DIAMETER IN. (MM) | SLEEVE COLOR  | TERMINAL/SPLICE PART NUMBER |                      | HX4 SERIES DIE MIL-APPROVED |
| #26-24       | 0.12-0.24      | .082 (2.08)                  | Yellow Stripe | M7928/6-                    | 1                    | Y527                        |
| #24 -20      | 0.16-0.65      | .100 (2.54)                  | White Stripe  | M7928/6-                    | 2                    | Y527                        |
| #22-18       | 0.26-0.96      | .125 (3.18)                  | Red Stripe    | M7928/6-                    | 3                    | Y501                        |
| #16-14       | 1.04-2.62      | .150 (3.81)                  | Blue Stripe   | M7928/6-                    | 4                    | Y501                        |
| #12-10       | 2.62-6.64      | .220 (5.59)                  | Yellow Stripe | M7928/6-                    | 5                    | Y501                        |

Terminals and Splices

### Splice Manufacturers' Part Numbers

| SPLICE SPECS |               |                             |   | SPLICE MANUFACTURERS' SPLICE # |               |       |         |                |                     |
|--------------|---------------|-----------------------------|---|--------------------------------|---------------|-------|---------|----------------|---------------------|
| AWG          | SLEEVE COLOR  | TERMINAL/SPLICE PART NUMBER |   | BURNDY                         | HOLLINGSWORTH | MOLEX | PANDUIT | THOMAS & BETTS | TYCO ELEC (RAYCHEM) |
| #26-24       | Yellow Stripe | M7928/6-                    | 1 | --                             | --            | --    | --      | --             | 53546-1             |
| #24 -20      | White Stripe  | M7928/6-                    | 2 | --                             | --            | --    | --      | --             | 53547-1             |
| #22-18       | Red Stripe    | M7928/6-                    | 3 | --                             | --            | --    | --      | --             | 53548-1             |
| #16-14       | Blue Stripe   | M7928/6-                    | 4 | --                             | --            | --    | --      | --             | 53549-1             |
| #12-10       | Yellow Stripe | M7928/6-                    | 5 | --                             | --            | --    | --      | --             | 53550-1             |

NOTE: Component manufactures' instructions shall take precedence over the information presented in these charts. Wire ranges are for reference only.

### HX4 TOOL SERIES OPTIONS FOR Y-DIES

HX4 Hand Tools, p. 84 & 85  
 HXE4B Battery Tools, p. 86  
 HX23 Pneumatic Tool, p.88

DMC does NOT provide connectors, contacts, or wiring components. Parts are shown here for reference only. See disclaimer of liability on page 27.



Similar Terminal Shown

## M7928/7-1 TO -11, SIZES 22 TO 14

**TYPE:** Class 1 Uninsulated Terminals, Ring Tongue

**INSULATION:** N/A

**TERMINAL BODY & SLEEVE:** Copper, ASTM B-152

**PLATING:** Tin, ASTM B-545

**MAX TEMP RATING:** 175° C

### Tool Selection Guide

| TERMINAL SPECS |                |                              |              |                             | DMC TOOL/DIE OPTIONS      |                           |                            |                            |         |
|----------------|----------------|------------------------------|--------------|-----------------------------|---------------------------|---------------------------|----------------------------|----------------------------|---------|
| AWG            | WIRE SIZE (MM) | INSULATION DIAMETER IN. (MM) | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER | HX4 SERIES DIE (1 INDENT) | HX4 SERIES DIE (2 INDENT) | GMT SERIES TOOL (1 INDENT) | GMT SERIES TOOL (2 INDENT) |         |
| #22-18         | 0.26-0.96      | N/A                          | N/A          | M7928/7-                    | 1                         | Y554                      | Y788                       | GMT277                     | GMT1005 |
|                |                |                              |              |                             | 2                         | Y554                      | Y788                       | GMT277                     | GMT1005 |
|                |                |                              |              |                             | 3                         | Y554                      | Y788                       | GMT277                     | GMT1005 |
|                |                |                              |              |                             | 4                         | Y554                      | Y788                       | GMT277                     | GMT1005 |
|                |                |                              |              |                             | 5                         | Y554                      | Y788                       | GMT277                     | GMT1005 |
|                |                |                              |              |                             | 6                         | Y554                      | Y788                       | GMT277                     | GMT1005 |
| #16-14         | 1.04 - 2.62    | N/A                          | N/A          | M7928/7-                    | 7                         | Y554                      | Y788                       | GMT277                     | GMT1005 |
|                |                |                              |              |                             | 8                         | Y554                      | Y788                       | GMT277                     | GMT1005 |
|                |                |                              |              |                             | 9                         | Y554                      | Y788                       | GMT277                     | GMT1005 |
|                |                |                              |              |                             | 10                        | Y554                      | Y788                       | GMT277                     | GMT1005 |
|                |                |                              |              |                             | 11                        | Y554                      | Y788                       | GMT277                     | GMT1005 |

### Terminal Manufacturers' Part Numbers

| TERMINAL SPECS |              |                             | TERMINAL MANUFACTURERS' TERMINAL # |               |        |         |                |           |        |
|----------------|--------------|-----------------------------|------------------------------------|---------------|--------|---------|----------------|-----------|--------|
| AWG            | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER | BURNDY                             | HOLLINGSWORTH | MOLEX  | PANDUIT | THOMAS & BETTS | TYCO ELEC |        |
| #22-18         | N/A          | M7928/7-                    | 1                                  | --            | R4103B | --      | --             | --        | --     |
|                |              |                             | 2                                  | --            | R4104B | --      | --             | --        | --     |
|                |              |                             | 3                                  | --            | R4262B | --      | --             | --        | --     |
|                |              |                             | 4                                  | --            | R4264B | --      | --             | --        | --     |
|                |              |                             | 5                                  | --            | R4114B | --      | --             | --        | --     |
|                |              |                             | 6                                  | --            | R4115B | --      | --             | --        | --     |
| #16-14         | N/A          | M7928/7-                    | 7                                  | --            | R4121B | --      | --             | --        | --     |
|                |              |                             | 8                                  | --            | R4123B | --      | --             | --        | 320093 |
|                |              |                             | 9                                  | --            | R4125B | --      | --             | --        | --     |
|                |              |                             | 10                                 | --            | R4126B | --      | --             | --        | --     |
|                |              |                             | 11                                 | --            | R4119B | --      | --             | --        | --     |

NOTE: Component manufactures' and OEM instructions shall take precedence over the information presented in these charts. Wire ranges are for reference only.

#### GMT TOOL SERIES OPTIONS

PMTxxx Pneumatic Tool, p. 95  
 GMTxxx Hand Tool, p. 92 & 93  
 GMTExxxB Battery Tool, p. 94

#### HX4 TOOL SERIES OPTIONS FOR Y-DIES

HX4 Hand Tools, p. 84 & 85  
 HXE4B Battery Tools, p. 86  
 HX23 Pneumatic Tool, p.88

#### DCT TOOL SERIES OPTIONS

DCT4 Hand Tool, p. 90-91  
 EMC3300 Battery Tool, p. 89

DMC does NOT provide connectors, contacts, or wiring components. Parts are shown here for reference only. See disclaimer of liability on page 27.



Similar Terminal Shown

## M7928/13-101 TO -110, SIZES 22 TO 14

**TYPE:** Class 1 Insulated Terminals, Radiation & Tin Whisker Resistant

**INSULATION:** Polyvinylidene Fluoride (PVF2)

**TERMINAL BODY & SLEEVE:** Copper, ASTM B-152

**PLATING:** Tin, ASTM B-545, Alloyed with 3% by Weight, Minimum Lead

**MAX TEMP RATING:** 105° C

### Tool Selection Guide

| TERMINAL SPECS |                |                              |              |                             | DMC TOOL/DIE OPTIONS                       |   |                                |         |
|----------------|----------------|------------------------------|--------------|-----------------------------|--|---|--------------------------------|---------|
| AWG            | WIRE SIZE (MM) | INSULATION DIAMETER IN. (MM) | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER | HX4 SERIES DIE MIL-APPROVED (MULTI-CAVITY) | HX4 SERIES DIE MIL-APPROVED (SINGLE CAVITY) | M22520/40-01 TOOL MIL-APPROVED |         |
| #22-18         | 0.26-0.96      | --                           | Red          | M7928/13-                   | 101  | Y501  | Y1115*                         | AMT4001 |
|                |                |                              |              |                             | 102  | Y501  | Y1115*                         | AMT4001 |
|                |                |                              |              |                             | 103  | Y501  | Y1115*                         | AMT4001 |
|                |                |                              |              |                             | 104  | Y501  | Y1115*                         | AMT4001 |
|                |                |                              |              |                             | 105  | Y501  | Y1115*                         | AMT4001 |
| #16-14         | 1.04 - 2.62    | --                           | Blue         | M7928/13-                   | 106  | Y501  | Y1116*                         | AMT4001 |
|                |                |                              |              |                             | 107  | Y501  | Y1116*                         | AMT4001 |
|                |                |                              |              |                             | 108  | Y501  | Y1116*                         | AMT4001 |
|                |                |                              |              |                             | 109  | Y501  | Y1116*                         | AMT4001 |
|                |                |                              |              |                             | 110  | Y501  | Y1116*                         | AMT4001 |

\*QPL in progress, die set includes insulation adjustment feature

Terminals and Splices

### Terminal Manufacturers' Part Numbers

| TERMINAL SPECS |              |                             | TERMINAL MANUFACTURERS' TERMINAL # |               |       |         |                |           |         |
|----------------|--------------|-----------------------------|------------------------------------|---------------|-------|---------|----------------|-----------|---------|
| AWG            | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER | BURNDY                             | HOLLINGSWORTH | MOLEX | PANDUIT | THOMAS & BETTS | TYCO ELEC |         |
| #22-18         | Red          | M7928/13-                   | 101                                | --            | --    | --      | --             | --        | 53406-1 |
|                |              |                             | 102                                | --            | --    | --      | --             | --        | 53407-1 |
|                |              |                             | 103                                | --            | --    | --      | --             | --        | 53409-1 |
|                |              |                             | 104                                | --            | --    | --      | --             | --        | 53411-1 |
|                |              |                             | 105                                | --            | --    | --      | --             | --        | 53412-1 |
| #16-14         | Blue         | M7928/13-                   | 106                                | --            | --    | --      | --             | --        | 53415-1 |
|                |              |                             | 107                                | --            | --    | --      | --             | --        | 53416-1 |
|                |              |                             | 108                                | --            | --    | --      | --             | --        | 53418-1 |
|                |              |                             | 109                                | --            | --    | --      | --             | --        | 53420-1 |
|                |              |                             | 110                                | --            | --    | --      | --             | --        | 53421-1 |

NOTE: Component manufactures' and OEM instructions shall take precedence over the information presented in these charts. Wire ranges are for reference only.

#### HX4 TOOL SERIES OPTIONS FOR Y-DIES

HX4 Hand Tools, p. 84 & 85  
 HXE4B Battery Tools, p. 86  
 HX23 Pneumatic Tool, p.88

#### HX3 TOOL SERIES OPTIONS FOR X-DIES

HX3 Hand Tools, p. 84 & 85

DMC does NOT provide connectors, contacts, or wiring components. Parts are shown here for reference only. See disclaimer of liability on page 27.



Similar Terminal Shown

## M7928/13-111 TO -114, SIZES 12 TO 10

**TYPE:** Class 1 Insulated Terminals, Radiation Resistant & Tin Whisker Resistant  
**INSULATION:** Polyvinylidene Fluoride (PVF2)  
**TERMINAL BODY & SLEEVE:** Copper, ASTM B-152  
**PLATING:** Tin, ASTM B-545, Alloyed with 3% by Weight, Minimum Lead  
**MAX TEMP RATING:** 105° C

### Tool Selection Guide

| TERMINAL SPECS |                |                              |              |                             | DMC TOOL/DIE OPTIONS        |  |   |                                |      |
|----------------|----------------|------------------------------|--------------|-----------------------------|-----------------------------|--|---|--------------------------------|------|
| AWG            | WIRE SIZE (MM) | INSULATION DIAMETER IN. (MM) | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER | HX3 SERIES DIE MIL-APPROVED | HX4 SERIES DIE MIL-APPROVED (MULTI-CAVITY) | HX4 SERIES DIE MIL-APPROVED (SINGLE CAVITY) | HX4 SERIES DIE (SINGLE CAVITY) |      |
| #12-10         | 2.62-6.64      | --                           | Yellow       | M7928/13-                   | 111                         | X515                                       | Y501  | Y1117*                         | Y670 |
|                |                |                              |              |                             | 112                         | X515                                       | Y501  | Y1117*                         | Y670 |
|                |                |                              |              |                             | 113                         | X515                                       | Y501  | Y1117*                         | Y670 |
|                |                |                              |              |                             | 114                         | X515                                       | Y501  | Y1117*                         | Y670 |

\*QPL in Progress, Die set includes insulation adjustment feature.

### Terminal Manufacturers' Part Numbers

| TERMINAL SPECS |              |                             | TERMINAL MANUFACTURERS' TERMINAL # |               |       |         |                |           |         |
|----------------|--------------|-----------------------------|------------------------------------|---------------|-------|---------|----------------|-----------|---------|
| AWG            | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER | BURNDY                             | HOLLINGSWORTH | MOLEX | PANDUIT | THOMAS & BETTS | TYCO ELEC |         |
| #12-10         | Yellow       | M7928/13-                   | 111                                | --            | --    | --      | --             | --        | 53423-1 |
|                |              |                             | 112                                | --            | --    | --      | --             | --        | 53425-1 |
|                |              |                             | 113                                | --            | --    | --      | --             | --        | 53427-1 |
|                |              |                             | 114                                | --            | --    | --      | --             | --        | 53428-1 |

NOTE: Component manufactures' and OEM instructions shall take precedence over the information presented in these charts. Wire ranges are for reference only.

#### HX4 TOOL SERIES OPTIONS FOR Y-DIES

HX4 Hand Tools, p. 84 & 85  
 HXE4B Battery Tools, p. 86  
 HX23 Pneumatic Tool, p.88

#### HX3 TOOL SERIES OPTIONS FOR X-DIES

HX3 Hand Tools, p. 84 & 85



Similar Terminal Shown

## M7928/13-143 TO -151, SIZES 26 TO 18

**TYPE:** Class 1 Insulated Terminals, Radiation Resistant & Tin Whisker Resistant

**INSULATION:** Polyvinylidene Fluoride (PVF2)

**TERMINAL BODY & SLEEVE:** Copper, ASTM B-152

**PLATING:** Tin, ASTM B-545, Alloyed with 3% by Weight, Minimum Lead

**MAX TEMP RATING:** 105° C

### Tool Selection Guide

| TERMINAL SPECS |                |                              |              |                             | DMC TOOL/DIE OPTIONS        |  |   |                                |                                |         |
|----------------|----------------|------------------------------|--------------|-----------------------------|-----------------------------|--|---|--------------------------------|--------------------------------|---------|
| AWG            | WIRE SIZE (MM) | INSULATION DIAMETER IN. (MM) | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER | HX3 SERIES DIE MIL-APPROVED | HX4 SERIES DIE MIL-APPROVED (MULTI-CAVITY) | HX4 SERIES DIE MIL-APPROVED (SINGLE CAVITY) | HX4 SERIES DIE (SINGLE CAVITY) | M22520/40-01 TOOL MIL-APPROVED |         |
| #26-24         | 0.10-0.26      | --                           | Yellow       | M7928/13                    | 143                         | X511                                       | Y501  | Y1115*                         | Y672                           | AMT4001 |
|                |                |                              |              |                             | 144                         | X511                                       | Y501  | Y1115*                         | Y672                           | AMT4001 |
|                |                |                              |              |                             | 145                         | X511                                       | Y501  | Y1115*                         | Y672                           | AMT4001 |
|                |                |                              |              |                             | 146                         | X511                                       | Y501  | Y1115*                         | Y672                           | AMT4001 |
|                |                |                              |              |                             | 147                         | X511                                       | Y501  | Y1115*                         | Y672                           | AMT4001 |
| #22-18         | 0.26-0.96      | --                           | Red          | M7928/13                    | 148                         | X511                                       | Y501  | Y1115*                         | Y672                           | AMT4001 |
|                |                |                              |              |                             | 149                         | X511                                       | Y501  | Y1115*                         | Y672                           | AMT4001 |
|                |                |                              |              |                             | 150                         | X511                                       | Y501  | Y1115*                         | Y672                           | AMT4001 |
|                |                |                              |              |                             | 151                         | X511                                       | Y501  | Y1115*                         | Y672                           | AMT4001 |

\*QPL in progress, die set includes insulation adjustment feature

### Terminal Manufacturers' Part Numbers

| TERMINAL SPECS |              |                             | TERMINAL MANUFACTURERS' TERMINAL # |               |       |         |                |           |         |
|----------------|--------------|-----------------------------|------------------------------------|---------------|-------|---------|----------------|-----------|---------|
| AWG            | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER | BURNDY                             | HOLLINGSWORTH | MOLEX | PANDUIT | THOMAS & BETTS | TYCO ELEC |         |
| #26-24         | Yellow       | M7928/13                    | 143                                | --            | --    | --      | --             | --        | 53400-1 |
|                |              |                             | 144                                | --            | --    | --      | --             | --        | 53401-1 |
|                |              |                             | 145                                | --            | --    | --      | --             | --        | 53402-1 |
|                |              |                             | 146                                | --            | --    | --      | --             | --        | 53403-1 |
|                |              |                             | 147                                | --            | --    | --      | --             | --        | 53404-1 |
| #22-18         | Red          | M7928/13                    | 148                                | --            | --    | --      | --             | --        | 53405-1 |
|                |              |                             | 149                                | --            | --    | --      | --             | --        | 53408-1 |
|                |              |                             | 150                                | --            | --    | --      | --             | --        | 53410-1 |
|                |              |                             | 151                                | --            | --    | --      | --             | --        | 53413-1 |

NOTE: Component manufactures' and OEM instructions shall take precedence over the information presented in these charts. Wire ranges are for reference only.

#### HX4 TOOL SERIES OPTIONS FOR Y-DIES

HX4 Hand Tools, p. 84 & 85  
 HXE4B Battery Tools, p. 86  
 HX23 Pneumatic Tool, p.88

#### HX3 TOOL SERIES OPTIONS FOR X-DIES

HX3 Hand Tools, p. 84 & 85





Similar Terminal Shown

## M7928/13-152 TO -159, SIZES 16 TO 10

**TYPE:** Class 1 Insulated Terminals, Radiation Resistant & Tin Whisker Resistant

**INSULATION:** Polyvinylidene Fluoride (PVF2)

**TERMINAL BODY & SLEEVE:** Copper, ASTM B-152

**PLATING:** Tin, ASTM B-545

**MAX TEMP RATING:** 105° C

### Tool Selection Guide

| TERMINAL SPECS |                |                              |              |                             | DMC TOOL/DIE OPTIONS        |  |   |                                |                                |         |
|----------------|----------------|------------------------------|--------------|-----------------------------|-----------------------------|--|---|--------------------------------|--------------------------------|---------|
| AWG            | WIRE SIZE (MM) | INSULATION DIAMETER IN. (MM) | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER | HX3 SERIES DIE MIL-APPROVED | HX4 SERIES DIE MIL-APPROVED (MULTI-CAVITY) | HX4 SERIES DIE MIL-APPROVED (SINGLE CAVITY) | HX4 SERIES DIE (SINGLE CAVITY) | M22520/40-01 TOOL MIL-APPROVED |         |
| #16-14         | 1.04-2.62      | --                           | Blue         | M7928/13-                   | 152                         | X515                                       | Y501  | Y1116*                         | Y671                           | AMT4001 |
|                |                |                              |              |                             | 153                         | X515                                       | Y501  | Y1116*                         | Y671                           | AMT4001 |
|                |                |                              |              |                             | 154                         | X515                                       | Y501  | Y1116*                         | Y671                           | AMT4001 |
|                |                |                              |              |                             | 155                         | X515                                       | Y501  | Y1116*                         | Y671                           | AMT4001 |
| #12-10         | 2.62-6.64      | --                           | Yellow       | M7928/13-                   | 156                         | X515                                       | Y501  | Y1117*                         | Y670                           | --      |
|                |                |                              |              |                             | 157                         | X515                                       | Y501  | Y1117*                         | Y670                           | --      |
|                |                |                              |              |                             | 158                         | X515                                       | Y501  | Y1117*                         | Y670                           | --      |
|                |                |                              |              |                             | 159                         | X515                                       | Y501  | Y1117*                         | Y670                           | --      |

\*QPL in Progress, Die set includes insulation adjustment feature.

### Terminal Manufacturers' Part Numbers

| TERMINAL SPECS |              |                             | TERMINAL MANUFACTURERS' TERMINAL # |               |       |         |                |           |         |
|----------------|--------------|-----------------------------|------------------------------------|---------------|-------|---------|----------------|-----------|---------|
| AWG            | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER | BURNDY                             | HOLLINGSWORTH | MOLEX | PANDUIT | THOMAS & BETTS | TYCO ELEC |         |
| #16-14         | Blue         | M7928/13-                   | 152                                | --            | --    | --      | --             | --        | 53414-1 |
|                |              |                             | 153                                | --            | --    | --      | --             | --        | 53417-1 |
|                |              |                             | 154                                | --            | --    | --      | --             | --        | 53419-1 |
|                |              |                             | 155                                | --            | --    | --      | --             | --        | 53422-1 |
| #12-10         | Yellow       | M7928/13-                   | 156                                | --            | --    | --      | --             | --        | 53424-1 |
|                |              |                             | 157                                | --            | --    | --      | --             | --        | 53426-1 |
|                |              |                             | 158                                | --            | --    | --      | --             | --        | --      |
|                |              |                             | 159                                | --            | --    | --      | --             | --        | --      |

NOTE: Component manufactures' and OEM instructions shall take precedence over the information presented in these charts. Wire ranges are for reference only.

#### HX4 TOOL SERIES OPTIONS FOR Y-DIES

HX4 Hand Tools, p. 84 & 85  
 HXE4B Battery Tools, p. 86  
 HX23 Pneumatic Tool, p.88

#### HX3 TOOL SERIES OPTIONS FOR X-DIES

HX3 Hand Tools, p. 84 & 85

## M81824/1-01 TO -03, SIZES 26 TO 10



Similar Splice Shown

**TYPE:** Class 1 Insulated Splices

**INSULATION:** Nylon, UL 94V-2

**SPLICE BODY & SLEEVE:** Copper, ASTM B-152

**PLATING:** Nickel, QQ-N-290 or Tin, ASTM B-545

**SEALING MATERIAL:** Modified Thermoplastic

**MAX TEMP RATING:** 105° C

### Tool Selection Guide

| SPLICE SPECS |                |                               |              |                             | DMC TOOL/DIE OPTIONS        |                             |                |                              |  |
|--------------|----------------|-------------------------------|--------------|-----------------------------|-----------------------------|-----------------------------|----------------|------------------------------|--|
| AWG          | WIRE SIZE (MM) | MULTIPLE CONDUCTORS CMA RANGE | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER | HX3 SERIES DIE MIL-APPROVED | HX4 SERIES DIE MIL-APPROVED | HX4 SERIES DIE | GMT SERIES TOOL MIL-APPROVED |  |
| #26-20       | 0.15-0.61      | 304 - 1510                    | Red          | M81824/1-01                 | X528                        | Y540                        | Y516           | GMT232                       |  |
| #20-16       | 0.39-1.34      | 779 - 2680                    | Blue         | M81824/1-02                 | X528                        | Y540                        | Y516           | GMT232                       |  |
| #16-12       | 0.95-3.37      | 1900 - 6755                   | Yellow       | M81824/1-03                 | X527                        | Y539                        | Y516           | GMT232                       |  |

### Splice Manufacturers' Part Numbers

| SPLICE SPECS |              |                             |   | SPLICE MANUFACTURERS' SPLICE # |               |       |         |                |             |                     |             |
|--------------|--------------|-----------------------------|---|--------------------------------|---------------|-------|---------|----------------|-------------|---------------------|-------------|
| AWG          | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER |   | BURNDY                         | HOLLINGSWORTH | MOLEX | PANDUIT | THOMAS & BETTS | GLENAIR     | TYCO ELEC (RAYCHEM) | SUMITOMO    |
| #26-20       | 0.15-0.61    | M81824/1-1                  | 1 | --                             | --            | --    | --      | --             | GS81824/1-1 | D-436-36            | H-CR-436-36 |
| #20-16       | 0.39-1.34    | M81824/1-2                  | 2 | --                             | --            | --    | --      | --             | GS81824/1-2 | D-436-37            | H-CR-436-37 |
| #16-12       | 0.95-3.37    | M81824/1-3                  | 3 | --                             | --            | --    | --      | --             | GS81824/1-3 | D-436-38            | H-CR-436-38 |

NOTE: Component manufactures' and OEM instructions shall take precedence over the information presented in these charts. Wire ranges are for reference only.

#### GMT TOOL SERIES OPTIONS

PMTxxx Pneumatic Tool, p. 95  
 GMTxxx Hand Tool, p. 92 & 93  
 GMTExxxB Battery Tool, p. 94

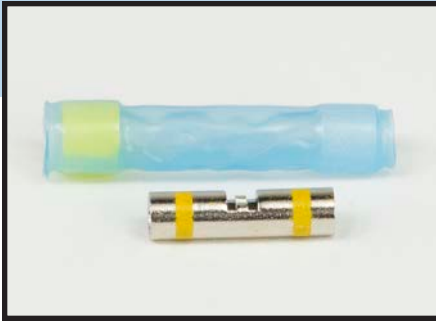
#### HX4 TOOL SERIES OPTIONS FOR Y-DIES

HX4 Hand Tools, p. 84 & 85  
 HXE4B Battery Tools, p. 86  
 HX23 Pneumatic Tool, p.88

#### HX3 TOOL SERIES OPTIONS FOR X-DIES

HX3 Hand Tools, p. 84 & 85

DMC does NOT provide connectors, contacts, or wiring components. Parts are shown here for reference only. See disclaimer of liability on page 27.



Similar Splice Shown

## M81824/6-01 to -03, Sizes 26 to 12

**TYPE:** Class 1 Insulated Splices

**INSULATION:** Heat Shrinkable Polyvinylidene Flouride

**SPLICE BODY & SLEEVE:** Copper, ASTM B-280 or B75-68 or B152

**PLATING:** Tin, ASTM B-545

**MAX TEMP RATING:** Modified Thermoplastic

**MAX TEMP RATING:** 150° C

### Tool Selection Guide

| SPLICE SPECS |                |                               |              |                             | DMC TOOL/DIE OPTIONS        |                             |                |                              |  |
|--------------|----------------|-------------------------------|--------------|-----------------------------|-----------------------------|-----------------------------|----------------|------------------------------|--|
| AWG          | WIRE SIZE (MM) | MULTIPLE CONDUCTORS CMA RANGE | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER | HX3 SERIES DIE MIL-APPROVED | HX4 SERIES DIE MIL-APPROVED | HX4 SERIES DIE | GMT SERIES TOOL MIL-APPROVED |  |
| #26-20       | 0.15-0.61      | 304 - 1510                    | Red          | M81824/6- 01                | X528                        | Y540                        | Y516           | GMT232                       |  |
| #20-16       | 0.39-1.34      | 779 - 2680                    | Blue         | M81824/6- 02                | X528                        | Y540                        | Y516           | GMT232                       |  |
| #16-12       | 0.95-3.37      | 1900 - 6755                   | Yellow       | M81824/6- 03                | X527                        | Y539                        | Y516           | GMT232                       |  |

### Splice Manufacturers' Part Numbers

| SPLICE SPECS |              |                             |    | SPLICE MANUFACTURERS' SPLICE # |               |       |         |                |                     |          |
|--------------|--------------|-----------------------------|----|--------------------------------|---------------|-------|---------|----------------|---------------------|----------|
| AWG          | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER |    | BURNDY                         | HOLLINGSWORTH | MOLEX | PANDUIT | THOMAS & BETTS | TYCO ELEC (RAYCHEM) | SUMITOMO |
| #26-20       | Red          | M81824/6-                   | 01 | --                             | --            | --    | --      | --             | D-436-82            | --       |
| #20-16       | Blue         | M81824/6-                   | 02 | --                             | --            | --    | --      | --             | D-436-83            | --       |
| #16-12       | Yellow       | M81824/6-                   | 03 | --                             | --            | --    | --      | --             | D-436-84            | --       |

NOTE: Component manufactures' and OEM instructions shall take precedence over the information presented in these charts. Wire ranges are for reference only.

#### GMT TOOL SERIES OPTIONS

PMTxxx Pneumatic Tool, p. 95  
 GMTxxx Hand Tool, p. 92 & 93  
 GMTExxx Battery Tool, p. 94

#### HX4 TOOL SERIES OPTIONS FOR Y-DIES

HX4 Hand Tools, p. 84 & 85  
 HXE4B Battery Tools, p. 86  
 HX23 Pneumatic Tool, p.88

#### HX3 TOOL SERIES OPTIONS FOR X-DIES

HX3 Hand Tools, p. 84 & 85

DMC does NOT provide connectors, contacts, or wiring components. Parts are shown here for reference only. See disclaimer of liability on page 27.



Similar Splice Shown

## M81824/7-01 TO -03, SIZES 26 TO 12

**TYPE:** Class 1 Insulated Splices

**INSULATION:** Heat Shrinkable Polyvinylidene Fluoride

**SPLICE BODY & SLEEVE:** Copper, ASTM B-280 or B75-68 or B152

**PLATING:** Tin, ASTM B-545

**SEALING MATERIAL:** Modified Thermoplastic

**MAX TEMP RATING:** 150° C

### Tool Selection Guide

| SPLICE SPECS |                |                               |              |                             |    | DMC TOOL/DIE OPTIONS        |                             |                |                              |
|--------------|----------------|-------------------------------|--------------|-----------------------------|----|-----------------------------|-----------------------------|----------------|------------------------------|
| AWG          | WIRE SIZE (MM) | MULTIPLE CONDUCTORS CMA RANGE | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER |    | HX3 SERIES DIE MIL-APPROVED | HX4 SERIES DIE MIL-APPROVED | HX4 SERIES DIE | GMT SERIES TOOL MIL-APPROVED |
| #26-20       | 0.15-0.61      | 304 - 1510                    | Red          | M81824/7-                   | 01 | X528                        | Y540                        | Y516           | GMT232                       |
| #20-16       | 0.39-1.34      | 779 - 2680                    | Blue         | M81824/7-                   | 02 | X528                        | Y540                        | Y516           | GMT232                       |
| #16-12       | 0.95-3.37      | 1900 - 6755                   | Yellow       | M81824/7-                   | 03 | X527                        | Y539                        | Y516           | GMT232                       |

Terminals and Splices

### Splice Manufacturers' Part Numbers

| SPLICE SPECS |              |                             |    | SPLICE MANUFACTURERS' SPLICE # |               |       |         |                |                     |          |
|--------------|--------------|-----------------------------|----|--------------------------------|---------------|-------|---------|----------------|---------------------|----------|
| AWG          | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER |    | BURNDY                         | HOLLINGSWORTH | MOLEX | PANDUIT | THOMAS & BETTS | TYCO ELEC (RAYCHEM) | SUMITOMO |
| #26-20       | Red          | M81824/7-                   | 01 | --                             | --            | --    | --      | --             | D-436-0110          | --       |
| #20-16       | Blue         | M81824/7-                   | 02 | --                             | --            | --    | --      | --             | D-436-52            | --       |
| #16-12       | Yellow       | M81824/7-                   | 03 | --                             | --            | --    | --      | --             | D-436-53            | --       |

NOTE: Component manufactures' and OEM instructions shall take precedence over the information presented in these charts. Wire ranges are for reference only.

#### GMT TOOL SERIES OPTIONS

PMTxxx Pneumatic Tool, p. 95  
 GMTxxx Hand Tool, p. 92 & 93  
 GMTExxxB Battery Tool, p. 94

#### HX4 TOOL SERIES OPTIONS FOR Y-DIES

HX4 Hand Tools, p. 84 & 85  
 HXE4B Battery Tools, p. 86  
 HX23 Pneumatic Tool, p.88

#### HX3 TOOL SERIES OPTIONS FOR X-DIES

HX3 Hand Tools, p. 84 & 85

DMC does NOT provide connectors, contacts, or wiring components. Parts are shown here for reference only. See disclaimer of liability on page 27.



Similar Splice Shown

## M81824/8-01 TO -03, SIZES 26 TO 12

**TYPE:** Class 1 Insulated Splices

**INSULATION:** Heat Shrinkable Polyvinylidene Fluoride

**SPLICE BODY & SLEEVE:** Copper, ASTM B-280 or B75-68 or B152

**PLATING:** Nickel, SAE AMS-QQ-N290

**SEALING MATERIAL:** Modified Thermoplastic

**MAX TEMP RATING:** 175° C

### Tool Selection Guide

| SPLICE SPECS |                |                               |              |                             |    | DMC TOOL/DIE OPTIONS        |                             |                |                              |
|--------------|----------------|-------------------------------|--------------|-----------------------------|----|-----------------------------|-----------------------------|----------------|------------------------------|
| AWG          | WIRE SIZE (MM) | MULTIPLE CONDUCTORS CMA RANGE | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER |    | HX3 SERIES DIE MIL-APPROVED | HX4 SERIES DIE MIL-APPROVED | HX4 SERIES DIE | GMT SERIES TOOL MIL-APPROVED |
| #26-20       | 0.15-0.61      | 304 - 1510                    | Red          | M81824/8-                   | 01 | X528                        | Y540                        | Y516           | GMT232                       |
| #20-16       | 0.39-1.34      | 779 - 2680                    | Blue         | M81824/8-                   | 02 | X528                        | Y540                        | Y516           | GMT232                       |
| #16-12       | 0.95-3.37      | 1900 - 6755                   | Yellow       | M81824/8-                   | 03 | X527                        | Y539                        | Y516           | GMT232                       |

### Splice Manufacturers' Part Numbers

| SPLICE SPECS |              |                             |    | SPLICE MANUFACTURERS' SPLICE # |               |       |         |                |                     |          |
|--------------|--------------|-----------------------------|----|--------------------------------|---------------|-------|---------|----------------|---------------------|----------|
| AWG          | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER |    | BURNDY                         | HOLLINGSWORTH | MOLEX | PANDUIT | THOMAS & BETTS | TYCO ELEC (RAYCHEM) | SUMITOMO |
| #26-20       | Red          | M81824/8-                   | 01 | --                             | --            | --    | --      | --             | D-436-85            | --       |
| #20-16       | Blue         | M81824/8-                   | 02 | --                             | --            | --    | --      | --             | D-436-86            | --       |
| #16-12       | Yellow       | M81824/8-                   | 03 | --                             | --            | --    | --      | --             | D-436-87            | --       |

NOTE: Component manufactures' and OEM instructions shall take precedence over the information presented in these charts. Wire ranges are for reference only.

#### GMT TOOL SERIES OPTIONS

PMTxxx Pneumatic Tool, p. 95  
 GMTxxx Hand Tool, p. 92 & 93  
 GMTExxxB Battery Tool, p. 94

#### HX4 TOOL SERIES OPTIONS FOR Y-DIES

HX4 Hand Tools, p. 84 & 85  
 HXE4B Battery Tools, p. 86  
 HX23 Pneumatic Tool, p.88

#### HX3 TOOL SERIES OPTIONS FOR X-DIES

HX3 Hand Tools, p. 84 & 85

DMC does NOT provide connectors, contacts, or wiring components. Parts are shown here for reference only. See disclaimer of liability on page 27.





Similar Splice Shown

## M81824/9-01 TO -03, SIZES 26 TO 12

**TYPE:** Class 1 Insulated Splices

**INSULATION:** Heat Shrinkable Polyvinylidene Fluoride

**SPLICE BODY & SLEEVE:** Copper, ASTM B-280 or B75-68 or B152

**PLATING:** Tin, ASTM B-545

**SEALING MATERIAL:** Modified Thermoplastic

**MAX TEMP RATING:** 150° C

### Tool Selection Guide

| SPLICE SPECS |                |                               |              |                             | DMC TOOL/DIE OPTIONS        |                             |                |                              |  |
|--------------|----------------|-------------------------------|--------------|-----------------------------|-----------------------------|-----------------------------|----------------|------------------------------|--|
| AWG          | WIRE SIZE (MM) | MULTIPLE CONDUCTORS CMA RANGE | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER | HX3 SERIES DIE MIL-APPROVED | HX4 SERIES DIE MIL-APPROVED | HX4 SERIES DIE | GMT SERIES TOOL MIL-APPROVED |  |
| #26-20       | 0.15-0.61      | 304 - 1510                    | Red          | M81824/9-01                 | X528                        | Y540                        | Y516           | GMT232                       |  |
| #20-16       | 0.39-1.34      | 779 - 2680                    | Blue         | M81824/9-02                 | X528                        | Y540                        | Y516           | GMT232                       |  |
| #16-12       | 0.95-3.37      | 1900 - 6755                   | Yellow       | M81824/9-03                 | X527                        | Y539                        | Y516           | GMT232                       |  |

Terminals and Splices

### Splice Manufacturers' Part Numbers

| SPLICE SPECS |              |                             |  | SPLICE MANUFACTURERS' SPLICE # |               |       |         |                |                     |          |
|--------------|--------------|-----------------------------|--|--------------------------------|---------------|-------|---------|----------------|---------------------|----------|
| AWG          | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER |  | BURNDY                         | HOLLINGSWORTH | MOLEX | PANDUIT | THOMAS & BETTS | TYCO ELEC (RAYCHEM) | SUMITOMO |
| #26-20       | Red          | M81824/9-01                 |  | --                             | --            | --    | --      | --             | D-436-0115          | --       |
| #20-16       | Blue         | M81824/9-02                 |  | --                             | --            | --    | --      | --             | D-436-42            | --       |
| #16-12       | Yellow       | M81824/9-03                 |  | --                             | --            | --    | --      | --             | D-436-43            | --       |

NOTE: Component manufactures' and OEM instructions shall take precedence over the information presented in these charts. Wire ranges are for reference only.

#### GMT TOOL SERIES OPTIONS

PMTxxx Pneumatic Tool, p. 95  
 GMTxxx Hand Tool, p. 92 & 93  
 GMTExxxB Battery Tool, p. 94

#### HX4 TOOL SERIES OPTIONS FOR Y-DIES

HX4 Hand Tools, p. 84 & 85  
 HXE4B Battery Tools, p. 86  
 HX23 Pneumatic Tool, p.88

#### HX3 TOOL SERIES OPTIONS FOR X-DIES

HX3 Hand Tools, p. 84 & 85

DMC does NOT provide connectors, contacts, or wiring components. Parts are shown here for reference only. See disclaimer of liability on page 27.



Similar Splice Shown

## M81824/10-01 TO -03, SIZES 26 TO 12

**TYPE:** Class 1 Insulated Splices

**INSULATION:** Heat Shrinkable Polyvinylidene Fluoride

**SPLICE BODY & SLEEVE:** Copper, ASTM B-280 or B75-68 or B152

**PLATING:** Nickel, SAE AMS-QQ-N290

**SEALING MATERIAL:** Modified Thermoplastic

**MAX TEMP RATING:** 175° C

### Tool Selection Guide

| SPLICE SPECS |                |                               |              |                             |    | DMC TOOL/DIE OPTIONS        |                         |                |                               |
|--------------|----------------|-------------------------------|--------------|-----------------------------|----|-----------------------------|-------------------------|----------------|-------------------------------|
| AWG          | WIRE SIZE (MM) | MULTIPLE CONDUCTORS CMA RANGE | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER |    | HX3 SERIES DIE MIL-APPROVED | HX4 SERIES MIL-APPROVED | HX4 SERIES DIE | GMT SERIES TOOL MIL- APPROVED |
| #26-20       | 0.15-0.61      | 304 - 1510                    | Red          | M81824/10-                  | 01 | X528                        | Y540                    | Y516           | GMT232                        |
| #20-16       | 0.39-1.34      | 779 - 2680                    | Blue         | M81824/10-                  | 02 | X528                        | Y540                    | Y516           | GMT232                        |
| #16-12       | 0.95-3.37      | 1900 - 6755                   | Yellow       | M81824/10-                  | 03 | X527                        | Y539                    | Y516           | GMT232                        |

### Splice Manufacturers' Part Numbers

| SPLICE SPECS |              |                             |    | SPLICE MANUFACTURERS' SPLICE # |               |       |         |                |                     |          |
|--------------|--------------|-----------------------------|----|--------------------------------|---------------|-------|---------|----------------|---------------------|----------|
| AWG          | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER |    | BURNDY                         | HOLLINGSWORTH | MOLEX | PANDUIT | THOMAS & BETTS | TYCO ELEC (RAYCHEM) | SUMITOMO |
| #26-20       | Red          | M81824/10-                  | 01 | --                             | --            | --    | --      | --             | D-436-88            | --       |
| #20-16       | Blue         | M81824/10-                  | 02 | --                             | --            | --    | --      | --             | D-436-89            | --       |
| #16-12       | Yellow       | M81824/10-                  | 03 | --                             | --            | --    | --      | --             | D-436-90            | --       |

NOTE: Component manufactures' and OEM instructions shall take precedence over the information presented in these charts. Wire ranges are for reference only.

#### GMT TOOL SERIES OPTIONS

PMTxxx Pneumatic Tool, p. 95  
 GMTxxx Hand Tool, p. 92 & 93  
 GMTExxxB Battery Tool, p. 94

#### HX4 TOOL SERIES OPTIONS FOR Y-DIES

HX4 Hand Tools, p. 84 & 85  
 HXE4B Battery Tools, p. 86  
 HX23 Pneumatic Tool, p.88

#### HX3 TOOL SERIES OPTIONS FOR X-DIES

HX3 Hand Tools, p. 84 & 85



Similar Splice Shown

## M81824/11-01 TO -03, SIZES 26 TO 12

**TYPE:** Class 1 Insulated Splices

**INSULATION:** Heat-Shrinkable Cross-Linked Polyvinylidene Fluoride, (SAE AMS-DTL-23053/18)

**SPLICE BODY & SLEEVE:** Copper, ASTM B-280, B-75, or B-187

**PLATING:** Nickel, SAE AMS-QQ-N290

**SEALING MATERIAL:** Modified Thermoplastic

**MAX TEMP RATING:** 200° C

### Tool Selection Guide

| SPLICE SPECS |              |                               |              |                             |    | DMC TOOL/DIE OPTIONS        |                             |                |                              |
|--------------|--------------|-------------------------------|--------------|-----------------------------|----|-----------------------------|-----------------------------|----------------|------------------------------|
| AWG          | WIRE SIZE MM | MULTIPLE CONDUCTORS CMA RANGE | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER |    | HX3 SERIES DIE MIL-APPROVED | HX4 SERIES DIE MIL-APPROVED | HX4 SERIES DIE | GMT SERIES TOOL MIL-APPROVED |
| #26-20       | 0.15-0.61    | 304 - 1510                    | Red          | M81824/11-                  | 01 | X528                        | Y540                        | Y516           | GMT232                       |
| #20-16       | 0.39-1.34    | 779 - 2680                    | Blue         | M81824/11-                  | 02 | X528                        | Y540                        | Y516           | GMT232                       |
| #16-12       | 0.95-3.37    | 1900 - 6755                   | Yellow       | M81824/11-                  | 03 | X527                        | Y539                        | Y516           | GMT232                       |

### Splice Manufacturers' Part Numbers

| SPLICE SPECS |              |                             |    | SPLICE MANUFACTURERS' SPLICE # |               |       |         |                |                     |          |
|--------------|--------------|-----------------------------|----|--------------------------------|---------------|-------|---------|----------------|---------------------|----------|
| AWG          | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER |    | BURNDY                         | HOLLINGSWORTH | MOLEX | PANDUIT | THOMAS & BETTS | TYCO ELEC (RAYCHEM) | SUMITOMO |
| #26-20       | Red          | M81824/11-                  | 01 | --                             | --            | --    | --      | --             | D-200-82            | --       |
| #20-16       | Blue         | M81824/11-                  | 02 | --                             | --            | --    | --      | --             | D-200-83            | --       |
| #16-12       | Yellow       | M81824/11-                  | 03 | --                             | --            | --    | --      | --             | D-200-84            | --       |

NOTE: Component manufactures' and OEM instructions shall take precedence over the information presented in these charts. Wire ranges are for reference only.

#### GMT TOOL SERIES OPTIONS

- PMTxxx Pneumatic Tool, p. 95
- GMTxxx Hand Tool, p. 92 & 93
- GMTExxx Battery Tool, p. 94

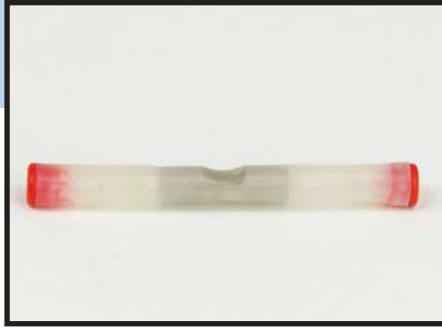
#### HX4 TOOL SERIES OPTIONS FOR Y-DIES

- HX4 Hand Tools, p. 84 & 85
- HXE4B Battery Tools, p. 86
- HX23 Pneumatic Tool, p.88

#### HX3 TOOL SERIES OPTIONS FOR X-DIES

- HX3 Hand Tools, p. 84 & 85

DMC does NOT provide connectors, contacts, or wiring components. Parts are shown here for reference only. See disclaimer of liability on page 27.



Similar Splice Shown

## M81824/12-01 TO -03, SIZES 26 TO 12

**TYPE:** Class 1 Splice, Environment Resistant, Heatless Sealing  
**INSULATION:** Preformed Nylon with Colored End Cap, Gel Seal  
**TERMINAL BODY & SLEEVE:** Copper  
**PLATING:** Tin Coated  
**SEALING MATERIAL:** Non-Opaque Gel  
**MAX TEMP RATING:** 150° C

### Tool Selection Guide

| SPLICE SPECS |                |                               |               |                             | DMC TOOL/DIE OPTIONS |                              |
|--------------|----------------|-------------------------------|---------------|-----------------------------|----------------------|------------------------------|
| AWG          | WIRE SIZE (MM) | MULTIPLE CONDUCTORS CMA RANGE | END CAP COLOR | TERMINAL/SPLICE PART NUMBER |                      | GMT SERIES TOOL MIL-APPROVED |
| #26-20       | --             | --                            | Red           | M81824/12-                  | 01                   | GMT1090                      |
| #20-16       | --             | --                            | Blue          | M81824/12-                  | 02                   | GMT1090                      |
| #14-12       | --             | --                            | Yellow        | M81824/12-                  | 03                   | GMT1090                      |

### Splice Manufacturers' Part Numbers

| SPLICE SPECS |               |                             |    | SPLICE MANUFACTURERS' SPLICE # |               |       |         |                |                     |          |
|--------------|---------------|-----------------------------|----|--------------------------------|---------------|-------|---------|----------------|---------------------|----------|
| AWG          | END CAP COLOR | TERMINAL/SPLICE PART NUMBER |    | BURNDY                         | HOLLINGSWORTH | MOLEX | PANDUIT | THOMAS & BETTS | TYCO ELEC (RAYCHEM) | SUMITOMO |
| #26-20       | Red           | M81824/12-                  | 01 | --                             | --            | --    | --      | --             | D-436-36-COLD       | --       |
| #20-16       | Blue          | M81824/12-                  | 02 | --                             | --            | --    | --      | --             | D-436-37-COLD       | --       |
| #14-12       | Yellow        | M81824/12-                  | 03 | --                             | --            | --    | --      | --             | D-436-38-COLD       | --       |

NOTE: Component manufactures' and OEM instructions shall take precedence over the information presented in these charts. Wire ranges are for reference only.

#### GMT TOOL SERIES OPTIONS

PMTxxx Pneumatic Tool, p. 95  
 GMTxxx Hand Tool, p. 92 & 93  
 GMTExxx Battery Tool, p. 94

#### HX4 TOOL SERIES OPTIONS FOR Y-DIES

HX4 Hand Tools, p. 84 & 85  
 HXE4B Battery Tools, p. 86  
 HX23 Pneumatic Tool, p.88

DMC does NOT provide connectors, contacts, or wiring components. Parts are shown here for reference only. See disclaimer of liability on page 27.



Similar Splice Shown

## M81824/14-01 TO -03, SIZES 26 TO 12

**TYPE:** Class 1 Splice, Environment Resistent, Heatless Sealing

**INSULATION:** Nylon

**TERMINAL BODY & SLEEVE:** Copper

**PLATING:** Nickel

**MAX TEMP RATING:** 175° C

### Tool Selection Guide

| SPLICE SPECS |                |                               |               |                             | DMC TOOL/DIE OPTIONS          |                             |                              |  |
|--------------|----------------|-------------------------------|---------------|-----------------------------|-------------------------------|-----------------------------|------------------------------|--|
| AWG          | WIRE SIZE (MM) | MULTIPLE CONDUCTORS CMA RANGE | END CAP COLOR | TERMINAL/SPLICE PART NUMBER | M22520/5-01 TOOL MIL-APPROVED | HX4 SERIES DIE MIL-APPROVED | GMT SERIES TOOL MIL-APPROVED |  |
| #26-20       | --             | --                            | Red           | M81824/14- 01               | HX4                           | Y540                        | GMT232                       |  |
| #20-16       | --             | --                            | Blue          | M81824/14- 02               | HX4                           | Y540                        | GMT232                       |  |
| #14-12       | --             | --                            | Yellow        | M81824/14- 03               | HX4                           | Y539                        | GMT232                       |  |

### Splice Manufacturers' Part Numbers

| SPLICE SPECS |               |                             |    | SPLICE MANUFACTURERS' SPLICE # |               |       |         |          |                     |          |
|--------------|---------------|-----------------------------|----|--------------------------------|---------------|-------|---------|----------|---------------------|----------|
| AWG          | END CAP COLOR | TERMINAL/SPLICE PART NUMBER |    | BURNDY                         | HOLLINGSWORTH | MOLEX | PANDUIT | TRI-STAR | TYCO ELEC (RAYCHEM) | SUMITOMO |
| #26-20       | Red           | M81824/14-                  | 01 | --                             | --            | --    | --      | H-C2015N | --                  | --       |
| #20-16       | Blue          | M81824/14-                  | 02 | --                             | --            | --    | --      | H-C1615N | --                  | --       |
| #14-12       | Yellow        | M81824/14-                  | 03 | --                             | --            | --    | --      | H-C1215N | --                  | --       |

NOTE: Component manufactures' and OEM instructions shall take precedence over the information presented in these charts. Wire ranges are for reference only.

### GMT TOOL SERIES OPTIONS

PMTxxx Pneumatic Tool, p. 95

GMTxxx Hand Tool, p. 92 & 93

GMTExxx Battery Tool, p. 94

DMC does NOT provide connectors, contacts, or wiring components. Parts are shown here for reference only. See disclaimer of liability on page 27.





Similar Terminal Shown

## MS17143-1 to -10, Sizes 22 to 10

**TYPE:** Class 1 Insulated Terminals, Rectangular Tongue

**INSULATION:** Nylon, UL 94V-2

**TERMINAL BODY & SLEEVE:** Copper, ASTM B-152

**PLATING:** Tin, ASTM B-545

**MAX TEMP RATING:** 105° C

### Tool Selection Guide

| TERMINAL SPECS |                |                              |              |                             | DMC TOOL/DIE OPTIONS        |  |   |                          |                                |         |
|----------------|----------------|------------------------------|--------------|-----------------------------|-----------------------------|--|---|--------------------------|--------------------------------|---------|
| AWG            | WIRE SIZE (MM) | INSULATION DIAMETER IN. (MM) | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER | HX3 SERIES DIE MIL-APPROVED | HX4 SERIES DIE MIL-APPROVED (MULTI-CAVITY) | HX4 SERIES MIL-APPROVED (SINGLE CAVITY) | HX4 SERIES SINGLE CAVITY | M22520/40-01 TOOL MIL-APPROVED |         |
| #22-18         | 0.26-0.96      | .140 (3.56)                  | Red          | MS 17143                    | 1                           | X511                                       | Y501                                    | Y1115*                   | Y672                           | AMT4001 |
| #16-14         | 1.04 - 2.62    | .170 (4.32)                  | Blue         | MS 17143                    | 2                           | X511                                       | Y501                                    | Y1116*                   | Y671                           | AMT4001 |
| #12-10         | 2.62 - 6.64    | .230 (5.84)                  | Yellow       | MS 17143                    | 3                           | X515                                       | Y501                                    | Y1117*                   | Y670                           | --      |
| #22-18         | 0.26-0.96      | .140 (3.56)                  | Red          | MS 17143                    | 4                           | X511                                       | Y501                                    | Y1115*                   | Y672                           | AMT4001 |
| #16-14         | 1.04 - 2.62    | .170 (4.32)                  | Blue         | MS 17143                    | 5                           | X511                                       | Y501                                    | Y1116*                   | Y671                           | AMT4001 |
| #12-10         | 2.62 - 6.64    | .230 (5.84)                  | Yellow       | MS 17143                    | 6                           | X515                                       | Y501                                    | Y1117*                   | Y670                           | --      |
| #22-18         | 0.26-0.96      | .140 (3.56)                  | Red          | MS 17143                    | 7                           | X511                                       | Y501                                    | Y1115*                   | Y672                           | AMT4001 |
| #16-14         | 1.04 - 2.62    | .170 (4.32)                  | Blue         | MS 17143                    | 8                           | X511                                       | Y501                                    | Y1116*                   | Y671                           | AMT4001 |
| #12-10         | 2.62 - 6.64    | .230 (5.84)                  | Yellow       | MS 17143                    | 9                           | X515                                       | Y501                                    | Y1117*                   | Y670                           | --      |
| #22-18         | 0.26-0.96      | .140 (3.56)                  | Red          | MS 17143                    | 10                          | X511                                       | Y501                                    | Y1115*                   | Y672                           | AMT4001 |

\*QPL in progress, die set includes insulation adjustment feature

### Terminal Manufacturers' Part Numbers

| TERMINAL SPECS |              |                             |    | TERMINAL MANUFACTURERS' TERMINAL # |               |          |         |              |            |
|----------------|--------------|-----------------------------|----|------------------------------------|---------------|----------|---------|--------------|------------|
| AWG            | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER |    | FCI BURNDY                         | HOLLINGSWORTH | MOLEX    | PANDUIT | THOMAS&BETTS | TYCO ELEC  |
| #22-18         | Red          | MS 17143                    | 1  | --                                 | --            | AA-880-1 | --      | RA 480       | 327932     |
| #16-14         | Blue         | MS 17143                    | 2  | --                                 | --            | BB-880-2 | --      | RB 480       | 2-327934-2 |
| #12-10         | Yellow       | MS 17143                    | 3  | --                                 | --            | --       | --      | RC 480       | 327936     |
| #22-18         | Red          | MS 17143                    | 4  | --                                 | --            | AA-881-1 | --      | RA 481       | 2-327938-1 |
| #16-14         | Blue         | MS 17143                    | 5  | --                                 | --            | BB-881-2 | --      | RB 481       | 2-327940-4 |
| #12-10         | Yellow       | MS 17143                    | 6  | --                                 | --            | --       | --      | RC 481       | 327942     |
| #22-18         | Red          | MS 17143                    | 7  | --                                 | --            | AA-882-1 | --      | RA 482       | 327944     |
| #16-14         | Blue         | MS 17143                    | 8  | --                                 | --            | BB-882-2 | --      | RB 482       | 2-327946-4 |
| #12-10         | Yellow       | MS 17143                    | 9  | --                                 | --            | --       | --      | RC 482       | 327948     |
| #22-18         | Red          | MS 17143                    | 10 | --                                 | --            | AA-883-1 | --      | RA 483       | 2-327950-1 |

NOTE: Component manufactures' instructions shall take precedence over the information presented in these charts. Wire ranges are for reference only.

#### HX4 TOOL SERIES OPTIONS FOR Y-DIES

HX4 Hand Tools, p. 84 & 85  
 HXE4B Battery Tools, p. 86  
 HX23 Pneumatic Tool, p.88

#### HX3 TOOL SERIES OPTIONS FOR X-DIES

HX3 Hand Tools, p. 84 & 85

DMC does NOT provide connectors, contacts, or wiring components. Parts are shown here for reference only. See disclaimer of liability on page 27.



Similar Terminal Shown

## MS17143-11 to -21, Sizes 22 to 10

**TYPE:** Class 1 Insulated Terminals, Rectangular Tongue

**INSULATION:** Nylon, UL 94V-2

**TERMINAL BODY & SLEEVE:** Copper, ASTM B-152

**PLATING:** Tin, ASTM B-545

**MAX TEMP RATING:** 105° C

### Tool Selection Guide

| TERMINAL SPECS |                |                              |              |                             |    | DMC TOOL/DIE OPTIONS        |  |                                |                                |                                |
|----------------|----------------|------------------------------|--------------|-----------------------------|----|-----------------------------|--|--------------------------------|--------------------------------|--------------------------------|
| AWG            | WIRE SIZE (MM) | INSULATION DIAMETER IN. (MM) | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER |    | HX3 SERIES DIE MIL-APPROVED | HX4 SERIES DIE MIL-APPROVED (MULTI-CAVITY) | HX4 SERIES DIE (SINGLE CAVITY) | HX4 SERIES DIE (SINGLE CAVITY) | M22520/40-01 TOOL MIL-APPROVED |
| #16-14         | 1.04 - 2.62    | .170 (4.32)                  | Blue         | MS 17143                    | 11 | X511 Die                    | Y501                                       | Y1116*                         | Y671                           | AMT4001                        |
| #12-10         | 2.62 - 6.64    | .230 (5.84)                  | Yellow       | MS 17143                    | 12 | X515 Die                    | Y501                                       | Y1117*                         | Y670                           | --                             |
| #22-18         | 0.26-0.96      | .140 (3.56)                  | Red          | MS 17143                    | 13 | X511 Die                    | Y501                                       | Y1115*                         | Y672                           | AMT4001                        |
| #16-14         | 1.04 - 2.62    | .170 (4.32)                  | Blue         | MS 17143                    | 14 | X511 Die                    | Y501                                       | Y1116*                         | Y671                           | AMT4001                        |
| #12-10         | 2.62 - 6.64    | .230 (5.84)                  | Yellow       | MS 17143                    | 15 | X515 Die                    | Y501                                       | Y1117*                         | Y670                           | --                             |
| #22-18         | 0.26-0.96      | .140 (3.56)                  | Red          | MS 17143                    | 16 | X511 Die                    | Y501                                       | Y1115*                         | Y672                           | AMT4001                        |
| #16-14         | 1.04 - 2.62    | .170 (4.32)                  | Blue         | MS 17143                    | 17 | X511 Die                    | Y501                                       | Y1116*                         | Y671                           | AMT4001                        |
| #12-10         | 2.62 - 6.64    | .230 (5.84)                  | Yellow       | MS 17143                    | 18 | X515 Die                    | Y501                                       | Y1117*                         | Y670                           | --                             |
| #22-18         | 0.26-0.96      | .140 (3.56)                  | Red          | MS 17143                    | 19 | X511 Die                    | Y501                                       | Y1115*                         | Y672                           | AMT4001                        |
| #16-14         | 1.04 - 2.62    | .170 (4.32)                  | Blue         | MS 17143                    | 20 | X511 Die                    | Y501                                       | Y1116*                         | Y671                           | AMT4001                        |
| #12-10         | 2.62 - 6.64    | .230 (5.84)                  | Yellow       | MS 17143                    | 21 | X515 Die                    | Y501                                       | Y1117*                         | Y670                           | --                             |

\*QPL in progress, die set includes insulation adjustment feature

### Terminal Manufacturers' Part Numbers

| TERMINAL SPECS |              |                             |    | TERMINAL MANUFACTURERS' TERMINAL # |               |          |         |              |            |
|----------------|--------------|-----------------------------|----|------------------------------------|---------------|----------|---------|--------------|------------|
| AWG            | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER |    | FCI BURNDY                         | HOLLINGSWORTH | MOLEX    | PANDUIT | THOMAS&BETTS | TYCO ELEC  |
| #16-14         | Blue         | MS 17143                    | 11 | --                                 | --            | BB-883-2 | --      | RB 483       | 2-327952-2 |
| #12-10         | Yellow       | MS 17143                    | 12 | --                                 | --            | --       | --      | RC 483       | 327954     |
| #22-18         | Red          | MS 17143                    | 13 | --                                 | --            | AA-884-1 | --      | RA 484       | 2-327956-1 |
| #16-14         | Blue         | MS 17143                    | 14 | --                                 | --            | BB-884-2 | --      | RB 484       | 2-327958-4 |
| #12-10         | Yellow       | MS 17143                    | 15 | --                                 | --            | --       | --      | RC 484       | 2-327960-1 |
| #22-18         | Red          | MS 17143                    | 16 | --                                 | --            | AA-885-1 | --      | RA 485       | 327962     |
| #16-14         | Blue         | MS 17143                    | 17 | --                                 | --            | BB-885-2 | --      | RB 485       | 2-327964-4 |
| #12-10         | Yellow       | MS 17143                    | 18 | --                                 | --            | -        | --      | RC 485       | 327966     |
| #22-18         | Red          | MS 17143                    | 19 | --                                 | --            | AA-886-1 | --      | RA 486       | 2-327968-1 |
| #16-14         | Blue         | MS 17143                    | 20 | --                                 | --            | BB-886-2 | --      | RB 486       | 2-327970-4 |
| #12-10         | Yellow       | MS 17143                    | 21 | --                                 | --            | --       | --      | RC 486       | 327972     |

NOTE: Component manufactures' instructions shall take precedence over the information presented in these charts. Wire ranges are for reference only.

#### HX4 TOOL SERIES OPTIONS FOR Y-DIES

HX4 Hand Tools, p. 84 & 85

HXE4B Battery Tools, p. 86

HX23 Pneumatic Tool, p.88

#### HX3 TOOL SERIES OPTIONS FOR X-DIES

HX3 Hand Tools, p. 84 & 85



Similar Terminal Shown

## MS20659-101 TO -106, SIZES 22 TO 10

**TYPE:** Class 1 Uninsulated Terminals, Ring Tongue

**INSULATION:** None

**TERMINAL BODY & SLEEVE:** Copper, ASTM B-152

**PLATING:** Tin, ASTM B-545

**MAX TEMP RATING:** 175° C

### Tool Selection Guide

| TERMINAL SPECS |                |                              |              |                             | DMC TOOL/DIE OPTIONS               |                                    |   |                            |         |
|----------------|----------------|------------------------------|--------------|-----------------------------|------------------------------------|------------------------------------|---|----------------------------|---------|
| AWG            | WIRE SIZE (MM) | INSULATION DIAMETER IN. (MM) | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER | HX4 SERIES MULTI-CAVITY (1 INDENT) | HX4 SERIES MULTI-CAVITY (2 INDENT) | GMT SERIES TOOL MIL-APPROVED (1 INDENT) | GMT SERIES TOOL (2 INDENT) |         |
| #22-18         | 0.26-0.96      | N/A                          | N/A          | MS20659-                    | 101                                | Y554 Die                           | Y788 Die                                | GMT277                     | GMT1005 |
|                |                |                              |              |                             | 102                                | Y554 Die                           | Y788 Die                                | GMT277                     | GMT1005 |
| #16-14         | 1.04 - 2.62    | N/A                          | N/A          | MS20659-                    | 103                                | Y554 Die                           | Y788 Die                                | GMT277                     | GMT1005 |
|                |                |                              |              |                             | 104                                | Y554 Die                           | Y788 Die                                | GMT277                     | GMT1005 |
| #12-10         | 2.62 - 6.64    | N/A                          | N/A          | MS20659-                    | 105                                | Y554 Die                           | Y788 Die                                | GMT277                     | GMT1005 |
|                |                |                              |              |                             | 106                                | Y554 Die                           | Y788 Die                                | GMT277                     | GMT1005 |

NOTE: Terminals with optional insulation support must use Y554 or GMT277. The Y788 and GMT1005 are not applicable for terminals with optional insulation support.

### Terminal Manufacturers' Part Numbers

| TERMINAL SPECS |              |                             | TERMINAL MANUFACTURERS' TERMINAL # |               |        |          |              |           |       |
|----------------|--------------|-----------------------------|------------------------------------|---------------|--------|----------|--------------|-----------|-------|
| AWG            | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER | BURNDY                             | HOLLINGSWORTH | MOLEX  | PANDUIT  | THOMAS&BETTS | TYCO ELEC |       |
| #22-18         | N/A          | MS20659-                    | 101                                | --            | --     | --       | --           | A85G      | --    |
|                |              |                             | 102                                | --            | --     | --       | --           | A87G      | --    |
| #16-14         | N/A          | MS20659-                    | 103                                | --            | --     | --       | --           | B85G      | --    |
|                |              |                             | 104                                | --            | --     | --       | --           | B87G      | --    |
| #12-10         | N/A          | MS20659-                    | 105                                | YAV10         | R3457B | C-328-10 | P10-10R      | C26       | 33457 |
|                |              |                             | 106                                | YAV10-T2      | R3459B | C-330-56 | P10-56R      | C70       | 33459 |

NOTE: Component manufactures' and OEM instructions shall take precedence over the information presented in these charts. Wire ranges are for reference only.

#### GMT TOOL SERIES OPTIONS

- PMTxxx Pneumatic Tool, p. 95
- GMTxxx Hand Tool, p. 92 & 93
- GMTExxxB Battery Tool, p. 94

#### HX4 TOOL SERIES OPTIONS FOR Y-DIES

- HX4 Hand Tools, p. 84 & 85
- HXE4B Battery Tools, p. 86
- HX23 Pneumatic Tool, p. 88



Similar Terminal Shown

## MS20659-107 TO -116, SIZES 8 TO 1

**TYPE:** Class 1 Uninsulated Terminals, Ring Tongue

**INSULATION:** None

**TERMINAL BODY & SLEEVE:** Copper, ASTM B-152

**PLATING:** Tin, ASTM B-545

**MAX TEMP RATING:** 175° C

### Tool Selection Guide

| TERMINAL SPECS |                |                              |              |                              | DMC TOOL/DIE OPTIONS                |                       |                          |                                    |                                       |                          |           |
|----------------|----------------|------------------------------|--------------|------------------------------|-------------------------------------|-----------------------|--------------------------|------------------------------------|---------------------------------------|--------------------------|-----------|
| AWG            | WIRE SIZE (MM) | INSULATION DIAMETER IN. (MM) | SLEEVE COLOR | TERMINAL/ SPLICE PART NUMBER | HD485 SERIES DIE MIL-APPROVED (HEX) | HD51 SERIES DIE (HEX) | HD51 SERIES DIE (INDENT) | HD51 SERIES DIE MIL-APPROVED (HEX) | HD51 SERIES DIE MIL-APPROVED (INDENT) | HD36 SERIES DIE (INDENT) |           |
| #8             | 6.64 - 10.5    | N/A                          | N/A          | MS20659-                     | 107                                 | HD485-8               | HD51-163P                | HD51-114N                          | HD51-192*                             | HD51-199*                | HD36-111N |
|                |                |                              |              |                              | 108                                 | HD485-8               | HD51-163P                | HD51-114N                          | HD51-192*                             | HD51-199*                | HD36-111N |
| #6             | 10.5 - 16.8    | N/A                          | N/A          | MS20659-                     | 109                                 | HD485-6               | HD51-164P                | HD51-115N                          | HD51-193*                             | HD51-200*                | HD36-112N |
|                |                |                              |              |                              | 110                                 | HD485-6               | HD51-164P                | HD51-115N                          | HD51-193*                             | HD51-200*                | HD36-112N |
| #4             | 16.8 - 26.7    | N/A                          | N/A          | MS20659-                     | 111                                 | HD485-4               | HD51-165P                | HD51-116N                          | HD51-194*                             | HD51-201*                | HD36-113N |
|                |                |                              |              |                              | 112                                 | HD485-4               | HD51-165P                | HD51-116N                          | HD51-194*                             | HD51-201*                | HD36-113N |
| #2             | 26.7 - 42.4    | N/A                          | N/A          | MS20659-                     | 113                                 | HD485-2               | --                       | HD51-117N                          | HD51-195*                             | HD51-202*                | HD36-114N |
|                |                |                              |              |                              | 114                                 | HD485-2               | --                       | HD51-117N                          | HD51-195*                             | HD51-202*                | HD36-114N |
| #1             | 40.0-42.0      | N/A                          | N/A          | MS20659-                     | 115                                 | HD485-1               | HD51-166P                | --                                 | HD51-196*                             | --                       | --        |
|                |                |                              |              |                              | 116                                 | HD485-1               | HD51-166P                | --                                 | HD51-196*                             | --                       | --        |

\*QPL Pending

Terminals and Splices

### Terminal Manufacturers' Part Numbers

| TERMINAL SPECS |              |                             |     | TERMINAL MANUFACTURERS' TERMINAL # |               |       |         |              |           |
|----------------|--------------|-----------------------------|-----|------------------------------------|---------------|-------|---------|--------------|-----------|
| AWG            | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER |     | BURNDY                             | HOLLINGSWORTH | MOLEX | PANDUIT | THOMAS&BETTS | TYCO ELEC |
| #8             | N/A          | MS20659-                    | 107 | YAV8C-L                            | --            | --    | --      | D10361       | --        |
|                |              |                             | 108 | YAV8C-L2                           | --            | --    | --      | D10721       | --        |
| #6             | N/A          | MS20659-                    | 109 | YAV6C-L                            | --            | --    | --      | E10711       | --        |
|                |              |                             | 110 | YAV6C-L2                           | --            | --    | --      | E10731       | --        |
| #4             | N/A          | MS20659-                    | 111 | YAV4C-L                            | --            | --    | --      | F10711       | --        |
|                |              |                             | 112 | YAV4C-L2                           | --            | --    | --      | F10731       | --        |
| #2             | N/A          | MS20659-                    | 113 | YAV2C-L1                           | --            | --    | --      | G971         | --        |
|                |              |                             | 114 | YAV2C-L                            | --            | --    | --      | G973         | --        |
| #1             | N/A          | MS20659-                    | 115 | YAV1C-L1                           | --            | --    | --      | H971         | --        |
|                |              |                             | 116 | YAV1C-L                            | --            | --    | --      | H973         | --        |

NOTE: Component manufactures' and OEM instructions shall take precedence over the information presented in these charts. Wire ranges are for reference only.

#### TBHD1M, HD120, HDE120B DIE/TOOL OPTIONS

HD120, HDE120B,  
Hand Tool, p. 106-107  
TBHD1M Hydraulic Tool, p. 106-107

#### HD36 TOOL SERIES OPTIONS

HD36 Hand Tool, p. 96  
HDE36B Battery Tool, p. 97

#### HD51 TOOL SERIES OPTIONS

HD51 Hand Tool, p. 104-105  
XHD51 Hydraulic Tool, p. 104-105  
HDE51B Battery Tool - p. 104-105

DMC does not provide connectors, contacts or wiring components. Parts shown here are for reference only. See disclaimer of liability on page 27.



Similar Terminal Shown

## MS20659-117 TO -124, SIZES 1/0 TO 4/0

**TYPE:** Class 1 Uninsulated Terminals, Ring Tongue

**INSULATION:** None

**TERMINAL BODY & SLEEVE:** Copper, ASTM B-152

**PLATING:** Tin, ASTM B-545

**MAX TEMP RATING:** 175° C

### Tool Selection Guide

| TERMINAL SPECS |                |                              |              |                             | DMC TOOL/DIE OPTIONS          |                       |                          |                                    |                                       |          |
|----------------|----------------|------------------------------|--------------|-----------------------------|-------------------------------|-----------------------|--------------------------|------------------------------------|---------------------------------------|----------|
| AWG            | WIRE SIZE (MM) | INSULATION DIAMETER IN. (MM) | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER | HD485 SERIES DIE MIL-APPROVED | HD51 SERIES DIE (HEX) | HD51 SERIES DIE (INDENT) | HD51 SERIES DIE MIL-APPROVED (HEX) | HD51 SERIES DIE MIL-APPROVED (INDENT) |          |
| #1/0           | 42.4-60.6      | N/A                          | N/A          | MS20659-                    | 117                           | HD485-01              | HD51-167P                | HD51-122N                          | HD51-197*                             | HD51-203 |
|                |                |                              |              |                             | 118                           | HD485-01              | HD51-167P                | HD51-122N                          | HD51-197*                             | HD51-203 |
| #2/0           | 60.6-76.3      | N/A                          | N/A          | MS20659-                    | 119                           | HD485-02              | HD51-168P                | HD51-125N                          | HD51-198*                             | HD51-204 |
|                |                |                              |              |                             | 120                           | HD485-02              | HD51-168P                | HD51-125N                          | HD51-198*                             | HD51-204 |
| #3/0           | 76.3-96.3      | N/A                          | N/A          | MS20659-                    | 121                           | HD485-03              | --                       | --                                 | --                                    | --       |
|                |                |                              |              |                             | 122                           | HD485-03              | --                       | --                                 | --                                    | --       |
| #4/0           | 96.3-117       | N/A                          | N/A          | MS20659-                    | 123                           | HD485-04              | --                       | --                                 | --                                    | --       |
|                |                |                              |              |                             | 124                           | HD485-04              | --                       | --                                 | --                                    | --       |

\*QPL in Progress

### Terminal Manufacturers' Part Numbers

| TERMINAL SPECS |              |                             |     | TERMINAL MANUFACTURERS' TERMINAL # |               |       |         |              |           |
|----------------|--------------|-----------------------------|-----|------------------------------------|---------------|-------|---------|--------------|-----------|
| AWG            | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER |     | BURNDY                             | HOLLINGSWORTH | MOLEX | PANDUIT | THOMAS&BETTS | TYCO ELEC |
| #1/0           | N/A          | MS20659-                    | 117 | YAV25-L1                           | --            | --    | --      | J971         | --        |
|                |              |                             | 118 | YAV25-L                            | --            | --    | --      | J973         | --        |
| #2/0           | N/A          | MS20659-                    | 119 | YAV26-L2                           | --            | --    | --      | K972         | --        |
|                |              |                             | 120 | YAV26-L                            | --            | --    | --      | K973         | --        |
| #3/0           | N/A          | MS20659-                    | 121 | YAV27-L                            | --            | --    | --      | L973         | --        |
|                |              |                             | 122 | YAV27-L1                           | --            | --    | --      | L975         | --        |
| #4/0           | N/A          | MS20659-                    | 123 | YAV28-L                            | --            | --    | --      | M973         | --        |
|                |              |                             | 124 | YAV28-L12                          | --            | --    | --      | M975         | --        |

NOTE: Component manufactures' and OEM instructions shall take precedence over the information presented in these charts. Wire ranges are for reference only.

#### TBHD1M, HD120, HDE120B DIE/TOOL OPTIONS

HD120, HDE120B,  
Hand Tool, p. 106-107  
TBHD1M Hydraulic Tool, p. 106-107

#### HD51 TOOL SERIES OPTIONS

HD51 Hand Tool, p. 104-105  
XHD51 Hydraulic Tool, p. 104-105  
HDE51B Battery Tool - p. 104-105





Similar Terminal Shown

## MS20659-125 TO -128, SIZES 22 TO 10

**TYPE:** Class 1 Uninsulated Terminals, Ring Tongue

**INSULATION:** None

**TERMINAL BODY & SLEEVE:** Copper, ASTM B-152

**PLATING:** Tin, ASTM B-545

**MAX TEMP RATING:** 175° C

### Tool Selection Guide

| TERMINAL SPECS |                |                              |              |                             |     | DMC TOOL/DIE OPTIONS                   |  |   |                            |
|----------------|----------------|------------------------------|--------------|-----------------------------|-----|--|--|---|----------------------------|
| AWG            | WIRE SIZE (MM) | INSULATION DIAMETER IN. (MM) | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER |     | HX4 SERIES DIE MULTI-CAVITY (1 INDENT) | HX4 SERIES DIE MULTI-CAVITY (2 INDENT) | GMT SERIES TOOL MIL-APPROVED (1 INDENT) | GMT SERIES TOOL (2 INDENT) |
| #22-18         | 0.26 - 0.96    | N/A                          | N/A          | MS20659-                    | 125 | Y554                                   | Y788                                   | GMT277                                  | GMT1005                    |
| #16-14         | 1.04 - 2.62    | N/A                          | N/A          | MS20659-                    | 126 | Y554                                   | Y788                                   | GMT277                                  | GMT1005                    |
|                |                |                              |              |                             | 127 | Y554                                   | Y788                                   | GMT277                                  | GMT1005                    |
| #12-10         | 2.62 - 6.64    | N/A                          | N/A          | MS20659-                    | 128 | Y554                                   | Y788                                   | GMT277                                  | GMT1005                    |

NOTE: Terminals with optional insulation support must use Y554 or GMT277. The Y788 and GMT1005 are not applicable for terminals with optional insulation support.

### Terminal Manufacturers' Part Numbers

| TERMINAL SPECS |              |                             |     | TERMINAL MANUFACTURERS' TERMINAL # |               |          |         |              |           |
|----------------|--------------|-----------------------------|-----|------------------------------------|---------------|----------|---------|--------------|-----------|
| AWG            | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER |     | BURNDY                             | HOLLINGSWORTH | MOLEX    | PANDUIT | THOMAS&BETTS | TYCO ELEC |
| #22-18         | N/A          | MS20659-                    | 125 | --                                 | --            | --       | --      | --           | --        |
| #16-14         | N/A          | MS20659-                    | 126 | --                                 | --            | --       | --      | --           | --        |
|                |              | MS20659-                    | 127 | --                                 | --            | --       | --      | --           | --        |
| #12-10         | N/A          | MS20659-                    | 128 | YAV10-T4                           | R3220B        | C-340-38 | P10-38R | C73          | 33220     |

NOTE: Component manufactures' and OEM instructions shall take precedence over the information presented in these charts. Wire ranges are for reference only.

#### GMT TOOL SERIES OPTIONS

- PMTxxx Pneumatic Tool, p. 95
- GMTxxx Hand Tool, p. 92 & 93
- GMTExxx Battery Tool, p. 94

#### HX4 TOOL SERIES OPTIONS FOR Y-DIES

- HX4 Hand Tools, p. 84 & 85
- HXE4B Battery Tools, p. 86
- HX23 Pneumatic Tool, p.88

DMC does NOT provide connectors, contacts, or wiring components. Parts are shown here for reference only. See disclaimer of liability on page 27.



Similar Terminal Shown

## MS20659-129 TO -134, SIZES 6 TO 1

**TYPE:** Class 1 Uninsulated Terminals, Ring Tongue

**INSULATION:** None

**TERMINAL BODY & SLEEVE:** Copper, ASTM B-152

**PLATING:** Tin, ASTM B-545

**MAX TEMP RATING:** 175° C

### Tool Selection Guide

| TERMINAL SPECS |                |                              |              |                              | DMC TOOL/DIE OPTIONS                |                       |                          |                                    |                                       |                          |  |
|----------------|----------------|------------------------------|--------------|------------------------------|-------------------------------------|-----------------------|--------------------------|------------------------------------|---------------------------------------|--------------------------|--|
| AWG            | WIRE SIZE (MM) | INSULATION DIAMETER IN. (MM) | SLEEVE COLOR | TERMINAL/ SPLICE PART NUMBER | HD485 SEIRES DIE MIL-APPROVED (HEX) | HD51 SERIES DIE (HEX) | HD51 SERIES DIE (INDENT) | HD51 SERIES DIE MIL-APPROVED (HEX) | HD51 SERIES DIE MIL-APPROVED (INDENT) | HD36 SERIES DIE (INDENT) |  |
| #8             | 6.64 - 10.5    | N/A                          | N/A          | MS20659-129                  | HD485-8                             | HD51-163P             | HD51-114N                | HD51-192*                          | HD51-199*                             | HD36-111N                |  |
| #6             | 10.5 - 16.8    | N/A                          | N/A          | MS20659-130                  | HD485-6                             | HD51-164P             | HD51-115N                | HD51-193*                          | HD51-199*                             | HD36-112N                |  |
|                |                |                              |              | MS20659-131                  | HD485-6                             | HD51-164P             | HD51-115N                | HD51-193*                          | HD51-200*                             | HD36-112N                |  |
| #4             | 16.8 - 26.7    | N/A                          | N/A          | MS20659-132                  | HD485-4                             | HD51-165P             | HD51-116N                | HD51-194*                          | HD51-200*                             | HD36-113N                |  |
| #2             | 26.7 - 42.4    | N/A                          | N/A          | MS20659-133                  | HD485-2                             | --                    | HD51-117N                | HD51-195*                          | HD51-201*                             | HD36-113N                |  |
| #1             | 40.0-42.0      | N/A                          | N/A          | MS20659-134                  | HD485-1                             | HD51-166P             | --                       | HD51-196*                          | HD51-201*                             | --                       |  |

\*QPL in Progress

NOTE: Terminals with optional insulation support must use Y554 or GMT277. The Y788 and GMT1005 are not applicable for terminals with optional insulation support.

### Terminal Manufacturers' Part Numbers

| TERMINAL SPECS |              |                             |     | TERMINAL MANUFACTURERS' TERMINAL # |               |       |         |              |           |
|----------------|--------------|-----------------------------|-----|------------------------------------|---------------|-------|---------|--------------|-----------|
| AWG            | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER |     | BURNDY                             | HOLLINGSWORTH | MOLEX | PANDUIT | THOMAS&BETTS | TYCO ELEC |
| #8             | N/A          | MS20659-                    | 129 | YAV8C-L3                           | --            | --    | --      | D10731       | --        |
| #6             | N/A          | MS20659-                    | 130 | YAV6C-L1                           | --            | --    | --      | E10261       | --        |
| #6             | N/A          | MS20659-                    | 131 | YAV6C-L4                           | --            | --    | --      | E10721       | --        |
| #4             | N/A          | MS20659-                    | 132 | YAV4C-L4                           | --            | --    | --      | F10721       | --        |
| #2             | N/A          | MS20659-                    | 133 | YAV2C-L4                           | --            | --    | --      | G975         | --        |
| #1             | N/A          | MS20659-                    | 134 | YAV1C-L3                           | --            | --    | --      | H975         | --        |

NOTE: Component manufactures' and OEM instructions shall take precedence over the information presented in these charts. Wire ranges are for reference only.

#### TBHD1M, HD120, HDE120B DIE/TOOL OPTIONS

HD120, HDE120B,  
Hand Tool, p. 106-107  
TBHD1M Hydraulic Tool, p. 106-107

#### HD36 TOOL SERIES OPTIONS

HD36 Hand Tool, p. 96  
HDE36B Battery Tool, p. 97

#### HD51 TOOL SERIES OPTIONS

HD51 Hand Tool, p. 104-105  
XHD51 Hydraulic Tool, p. 104-105  
HDE51B Battery Tool - p. 104-105

DMC does not provide connectors, contacts or wiring components. Parts shown here are for reference only. See disclaimer of liability on page 27.



Similar Terminal Shown

## MS20659-135 TO -137, SIZES 1/0 TO 4/0

**TYPE:** Class 1 Uninsulated Terminals, Ring Tongue

**INSULATION:** None

**TERMINAL BODY & SLEEVE:** Copper, ASTM B-152

**PLATING:** Tin, ASTM B-545

**MAX TEMP RATING:** 175° C

### Tool Selection Guide

| TERMINAL SPECS |                |                              |              |                             | DMC TOOL/DIE OPTIONS |                                      |                       |                          |                                    |                                       |
|----------------|----------------|------------------------------|--------------|-----------------------------|----------------------|--------------------------------------|-----------------------|--------------------------|------------------------------------|---------------------------------------|
| AWG            | WIRE SIZE (MM) | INSULATION DIAMETER IN. (MM) | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER |                      | HD485 SERIES DIE MIL-APPROVED* (HEX) | HD51 SERIES DIE (HEX) | HD51 SERIES DIE (INDENT) | HD51 SERIES DIE MIL-APPROVED (HEX) | HD51 SERIES DIE MIL-APPROVED (INDENT) |
| #1/0           | 42.4-60.6      | N/A                          | N/A          | MS20659-                    | 135                  | HD485-01                             | HD51-167P             | HD51-122N                | HD51-197*                          | HD51-203*                             |
| #2/0           | 60.6-76.3      | N/A                          | N/A          | MS20659-                    | 136                  | HD485-02                             | HD51-168P             | HD51-125N                | HD51-198*                          | HD51-204*                             |
| #4/0           | 96.3-117       | N/A                          | N/A          | MS20659-                    | 137                  | HD485-04                             | --                    | --                       | --                                 | --                                    |

\*QPL in Progress

### Terminal Manufacturers' Part Numbers

| TERMINAL SPECS |              |                             |     | TERMINAL MANUFACTURERS' TERMINAL # |               |       |         |              |           |
|----------------|--------------|-----------------------------|-----|------------------------------------|---------------|-------|---------|--------------|-----------|
| AWG            | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER |     | BURNDY                             | HOLLINGSWORTH | MOLEX | PANDUIT | THOMAS&BETTS | TYCO ELEC |
| #1/0           | N/A          | MS20659-                    | 135 | YAV25-L3                           | --            | --    | --      | J975         | --        |
| #2/0           | N/A          | MS20659-                    | 136 | YAV26-L3                           | --            | --    | --      | K975         | --        |
| #4/0           | N/A          | MS20659-                    | 137 | YAV28-L54                          | --            | --    | --      | --           | --        |

NOTE: Component manufactures' and OEM instructions shall take precedence over the information presented in these charts. Wire ranges are for reference only.

#### TBHD1M, HD120, HDE120B DIE/TOOL OPTIONS

HD120, HDE120B,  
Hand Tool, p. 106-107  
TBHD1M Hydraulic Tool, p. 106-107

#### HD51 TOOL SERIES OPTIONS

HD51 Hand Tool, p. 104-105  
XHD51 Hydraulic Tool, p. 104-105  
HDE51B Battery Tool - p. 104-105

DMC does not provide connectors, contacts or wiring components. Parts shown here are for reference only. See disclaimer of liability on page 27.



Similar Terminal Shown

## MS20659-140 TO -150, SIZES 8 TO 1

**TYPE:** Class 1 Uninsulated Terminals, Ring Tongue

**INSULATION:** None

**TERMINAL BODY & SLEEVE:** Copper, ASTM B-152

**PLATING:** Tin, ASTM B-545

**MAX TEMP RATING:** 175° C

### Tool Selection Guide

| TERMINAL SPECS |              |                              |              |                              | DMC TOOL/DIE OPTIONS                |                       |                          |                                    |                                       |                          |           |
|----------------|--------------|------------------------------|--------------|------------------------------|-------------------------------------|-----------------------|--------------------------|------------------------------------|---------------------------------------|--------------------------|-----------|
| AWG            | WIRE SIZE MM | INSULATION DIAMETER IN. (MM) | SLEEVE COLOR | TERMINAL/ SPLICE PART NUMBER | HD485 SERIES DIE MIL-APPROVED (HEX) | HD51 SERIES DIE (HEX) | HD51 SERIES DIE (INDENT) | HD51 SERIES DIE MIL-APPROVED (HEX) | HD51 SERIES DIE MIL-APPROVED (INDENT) | HD36 SERIES DIE (INDENT) |           |
| #8             | 6.64 - 10.5  | N/A                          | N/A          | MS20659-                     | 140                                 | HD485-8               | HD51-163P                | HD51-114N                          | HD51-192*                             | HD51-199*                | HD36-111N |
|                |              |                              |              |                              | 141                                 | HD485-8               | HD51-163P                | HD51-114N                          | HD51-192*                             | HD51-199*                | HD36-111N |
|                |              |                              |              |                              | 142                                 | HD485-8               | HD51-163P                | HD51-114N                          | HD51-192*                             | HD51-200*                | HD36-111N |
| #6             | 10.5 - 16.8  | N/A                          | N/A          | MS20659-                     | 143                                 | HD485-6               | HD51-164P                | HD51-115N                          | HD51-193*                             | HD51-200*                | HD36-112N |
| #4             | 16.8 - 26.7  | N/A                          | N/A          | MS20659-                     | 144                                 | HD485-4               | HD51-165P                | HD51-116N                          | HD51-194*                             | HD51-201*                | HD36-113N |
|                |              |                              |              |                              | 145                                 | HD485-4               | HD51-165P                | HD51-116N                          | HD51-194*                             | HD51-201*                | HD36-113N |
| #2             | 26.7 - 42.4  | N/A                          | N/A          | MS20659-                     | 146                                 | HD485-2               | --                       | HD51-117N                          | HD51-195*                             | HD51-202*                | HD36-114N |
|                |              |                              |              |                              | 147                                 | HD485-2               | --                       | HD51-117N                          | HD51-195*                             | HD51-202*                | HD36-114N |
|                |              |                              |              |                              | 148                                 | HD485-2               | --                       | HD51-117N                          | HD51-195*                             | HD51-202*                | HD36-114N |
| #1             | 40.0-42.0    | N/A                          | N/A          | MS20659-                     | 149                                 | HD485-1               | HD51-166P                | --                                 | HD51-196*                             | --                       | --        |
|                |              |                              |              |                              | 150                                 | HD485-1               | HD51-166P                | --                                 | HD51-196*                             | --                       | --        |

\*QPL in Progress

### Terminal Manufacturers' Part Numbers

| TERMINAL SPECS |              |                             | TERMINAL MANUFACTURERS' TERMINAL # |               |       |         |              |           |    |
|----------------|--------------|-----------------------------|------------------------------------|---------------|-------|---------|--------------|-----------|----|
| AWG            | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER | BURNDY                             | HOLLINGSWORTH | MOLEX | PANDUIT | THOMAS&BETTS | TYCO ELEC |    |
| #8             | N/A          | MS20659-                    | 140                                | YAV8C-L14     | --    | --      | --           | D10161    | -- |
|                |              |                             | 141                                | YAV8C-L1      | --    | --      | --           | D10711    | -- |
|                |              |                             | 142                                | YAV8C-L4      | --    | --      | --           | --        | -- |
| #6             | N/A          | MS20659-                    | 143                                | YAV6C-L10     | --    | --      | --           | --        |    |
| #4             | N/A          | MS20659-                    | 144                                | YAV4C-L3      | --    | --      | --           | F10261    | -- |
|                |              |                             | 145                                | YAV4C-L5      | --    | --      | --           | --        | -- |
| #2             | N/A          | MS20659-                    | 146                                | YAV2C-L3      | --    | --      | --           | G926      | -- |
|                |              |                             | 147                                | YAV2C-L2      | --    | --      | --           | G972      | -- |
|                |              |                             | 148                                | YAV2C-L11     | --    | --      | --           | G974      | -- |
| #1             | N/A          | MS20659-                    | 149                                | YAV1C-L2      | --    | --      | --           | H972      | -- |
|                |              |                             | 150                                | YAV1C-L4      | --    | --      | --           | H974      | -- |

NOTE: Component manufactures' and OEM instructions shall take precedence over the information presented in these charts. Wire ranges are for reference only.

#### TBHD1M, HD120, HDE120B DIE/TOOL OPTIONS

HD120, HDE120B,  
Hand Tool, p. 106-107  
TBHD1M Hydraulic Tool, p. 106-107

#### HD36 TOOL SERIES OPTIONS

HD36 Hand Tool, p. 96  
HDE36B Battery Tool, p. 97

#### HD51 TOOL SERIES OPTIONS

HD51 Hand Tool, p. 104-105  
XHD51 Hydraulic Tool, p. 104-105  
HDE51B Battery Tool - p. 104-105

DMC does not provide connectors, contacts or wiring components. Parts shown here are for reference only. See disclaimer of liability on page 27.



Similar Terminal Shown

## MS20659-151 TO -160, SIZES 1/0 TO 4/0

**TYPE:** Class 1 Uninsulated Terminals, Ring Tongue

**INSULATION:** None

**TERMINAL BODY & SLEEVE:** Copper, ASTM B-152

**PLATING:** Tin, ASTM B-545

**MAX TEMP RATING:** 175° C

### Tool Selection Guide

| TERMINAL SPECS |              |                              |              |                             | DMC TOOL/DIE OPTIONS                |                       |                          |                                    |                                       |           |
|----------------|--------------|------------------------------|--------------|-----------------------------|-------------------------------------|-----------------------|--------------------------|------------------------------------|---------------------------------------|-----------|
| AWG            | WIRE SIZE MM | INSULATION DIAMETER IN. (MM) | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER | HD485 SERIES DIE MIL-APPROVED (HEX) | HD51 SERIES DIE (HEX) | HD51 SERIES DIE (INDENT) | HD51 SERIES DIE MIL-APPROVED (HEX) | HD51 SERIES DIE MIL-APPROVED (INDENT) |           |
| 1/0            | 42.4-60.6    | N/A                          | N/A          | MS20659-                    | 151                                 | HD485-01              | HD51-167P                | HD51-122N                          | HD51-197*                             | HD51-203* |
|                |              |                              |              |                             | 152                                 | HD485-01              | HD51-167P                | HD51-122N                          | HD51-197*                             | HD51-203* |
| 2/0            | 60.6-76.3    | N/A                          | N/A          | MS20659-                    | 153                                 | HD485-02              | HD51-168P                | HD51-125N                          | HD51-198*                             | HD51-204* |
|                |              |                              |              |                             | 154                                 | HD485-02              | HD51-168P                | HD51-125N                          | HD51-198*                             | HD51-204* |
| 3/0            | 76.3-96.3    | N/A                          | N/A          | MS20659-                    | 155                                 | HD485-03              | --                       | --                                 | --                                    | --        |
|                |              |                              |              |                             | 156                                 | HD485-03              | --                       | --                                 | --                                    | --        |
| 4/0            | 96.3-117     | N/A                          | N/A          | MS20659-                    | 157                                 | HD485-04              | --                       | --                                 | --                                    | --        |
|                |              |                              |              |                             | 158                                 | HD485-04              | --                       | --                                 | --                                    | --        |
|                |              |                              |              |                             | 159                                 | HD485-04              | --                       | --                                 | --                                    | --        |
|                |              |                              |              |                             | 160                                 | HD485-04              | --                       | --                                 | --                                    | --        |

\*QPL in Progress

Terminals and Splices

### Terminal Manufacturers' Part Numbers

| TERMINAL SPECS |              |                             |     | TERMINAL MANUFACTURERS' TERMINAL # |               |       |         |              |           |
|----------------|--------------|-----------------------------|-----|------------------------------------|---------------|-------|---------|--------------|-----------|
| AWG            | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER |     | BURNDY                             | HOLLINGSWORTH | MOLEX | PANDUIT | THOMAS&BETTS | TYCO ELEC |
| 1/0            | N/A          | MS20659-                    | 151 | YAV25-L2                           | --            | --    | --      | J972         | --        |
|                |              |                             | 152 | YAV25-L16                          | --            | --    | --      | J974         | --        |
| 2/0            | N/A          | MS20659-                    | 153 | YAV26-L1                           | --            | --    | --      | K971         | --        |
|                |              |                             | 154 | YAV26-L16                          | --            | --    | --      | K974         | --        |
| 3/0            | N/A          | MS20659-                    | 155 | YAV27-L20                          | --            | --    | --      | L972         | --        |
|                |              |                             | 156 | YAV27-L18                          | --            | --    | --      | L974         | --        |
| 4/0            | N/A          | MS20659-                    | 157 | YAV28-L56                          | --            | --    | --      | M972         | --        |
|                |              |                             | 158 | YAV28-L60                          | --            | --    | --      | M974         | --        |
|                |              |                             | 159 | YAV28-L13                          | --            | --    | --      | --           | --        |
|                |              |                             | 160 | YAV28-L14                          | --            | --    | --      | --           | --        |

NOTE: Component manufactures' and OEM instructions shall take precedence over the information presented in these charts. Wire ranges are for reference only.

#### TBHD1M, HD120, HDE120B DIE/TOOL OPTIONS

HD120, HDE120B,  
Hand Tool, p. 106-107  
TBHD1M Hydraulic Tool, p. 106-107

#### HD51 TOOL SERIES OPTIONS

HD51 Hand Tool, p. 104-105  
XHD51 Hydraulic Tool, p. 104-105  
HDE51B Battery Tool - p. 104-105

DMC does not provide connectors, contacts or wiring components. Parts shown here are for reference only. See disclaimer of liability on page 27.



Similar Terminal Shown

## MS20659-161 TO -166, SIZES 22 TO 10

**TYPE:** Class 1 Uninsulated Terminals, Ring Tongue

**INSULATION:** None

**TERMINAL BODY & SLEEVE:** Copper, ASTM B-152

**PLATING:** Tin, ASTM B-545

**MAX TEMP RATING:** 175° C

### Tool Selection Guide

| TERMINAL SPECS |                |                              |              |                              | DMC TOOL/DIE OPTIONS                   |                                    |                            |   |                  |           |
|----------------|----------------|------------------------------|--------------|------------------------------|--|------------------------------------|----------------------------|---|------------------|-----------|
| AWG            | WIRE SIZE (MM) | INSULATION DIAMETER IN. (MM) | SLEEVE COLOR | TERMINAL/ SPLICE PART NUMBER | HX4 DIE SERIES MULTI-CAVITY (1 INDENT) | HX4 SERIES MULTI-CAVITY (2 INDENT) | GMT SERIES TOOL (1 INDENT) | GMT SERIES TOOL MIL-APPROVED (2 INDENT) | DCT4 SERIES TOOL |           |
| #22-18         | 0.26 - 0.96    | N/A                          | N/A          | MS20659-                     | 161                                    | Y554                               | Y788                       | GMT277                                  | GMT1005          | DCT4-105D |
|                |                |                              |              |                              | 162                                    | Y554                               | Y788                       | GMT277                                  | GMT1005          | DCT4-105D |
| #16-14         | 1.04 - 2.62    | N/A                          | N/A          | MS20659-                     | 163                                    | Y554                               | Y788                       | GMT277                                  | GMT1005          | DCT4-105D |
|                |                |                              |              |                              | 164                                    | Y554                               | Y788                       | GMT277                                  | GMT1005          | DCT4-105D |
| #12-10         | 2.62 - 6.64    | N/A                          | N/A          | MS20659-                     | 165                                    | Y554                               | Y788                       | GMT277                                  | GMT1005          | DCT4-105D |
|                |                |                              |              |                              | 166                                    | Y554                               | Y788                       | GMT277                                  | GMT1005          | DCT4-105D |

NOTE: Terminals with optional insulation support must use Y554 or GMT277. The Y788 and GMT1005 are not applicable for terminals with optional insulation support.

### Terminal Manufacturers' Part Numbers

| TERMINAL SPECS |              |                             | TERMINAL MANUFACTURERS' TERMINAL # |               |        |         |              |           |
|----------------|--------------|-----------------------------|------------------------------------|---------------|--------|---------|--------------|-----------|
| AWG            | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER | BURNDY                             | HOLLINGSWORTH | MOLEX  | PANDUIT | THOMAS&BETTS | TYCO ELEC |
| #22-18         | N/A          | MS20659-                    | 161                                | --            | --     | --      | --           | --        |
|                |              |                             | 162                                | --            | --     | --      | --           | --        |
| #16-14         | N/A          | MS20659-                    | 163                                | --            | --     | --      | --           | --        |
|                |              |                             | 164                                | --            | --     | --      | --           | --        |
| #12-10         | N/A          | MS20659-                    | 165                                | YAV10-T7      | R3453B | --      | P10-6R       | C33       |
|                |              |                             | 166                                | --            | R3223B | --      | --           | C75       |

NOTE: Component manufactures' and OEM instructions shall take precedence over the information presented in these charts. Wire ranges are for reference only.

#### GMT TOOL SERIES OPTIONS

PMTxxx Pneumatic Tool, p. 95

GMTxxx Hand Tool, p. 92 & 93

GMTExxx Battery Tool, p. 94

#### HX4 TOOL SERIES OPTIONS FOR Y-DIES

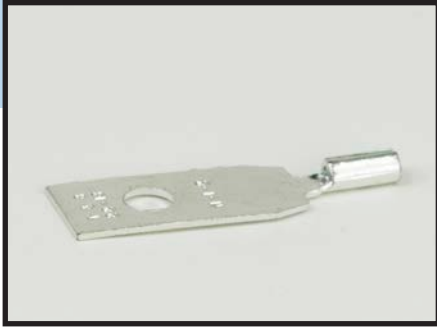
HX4 Hand Tools, p. 84 & 85

HXE4B Battery Tools, p. 86

HX23 Pneumatic Tool, p. 88

DMC does NOT provide connectors, contacts, or wiring components. Parts are shown here for reference only. See disclaimer of liability on page 27.





Similar Terminal Shown

## MS21004-1 TO -7, SIZES 22 TO 18

**TYPE:** Class 1 Uninsulated Terminals, Rectangular Tongue

**INSULATION:** None

**TERMINAL BODY & SLEEVE:** Copper, ASTM B-152

**PLATING:** Tin, ASTM B-545

**MAX TEMP RATING:** 175° C

### Tool Selection Guide

| TERMINAL SPECS |              |                              |              |                             | DMC TOOL/DIE OPTIONS                   |  |   |                            |         |
|----------------|--------------|------------------------------|--------------|-----------------------------|--|--|---|----------------------------|---------|
| AWG            | WIRE SIZE MM | INSULATION DIAMETER IN. (MM) | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER | HX4 SERIES DIE MULTI-CAVITY (1 INDENT) | HX4 SERIES DIE MULTI-CAVITY (2 INDENT) | GMT SERIES TOOL MIL-APPROVED (1 INDENT) | GMT SERIES TOOL (2 INDENT) |         |
| #22-18         | 0.26-0.96    | N/A                          | N/A          | MS21004-                    | 1                                      | Y554                                   | Y788                                    | GMT277                     | GMT1005 |
|                |              |                              |              |                             | 2                                      | Y554                                   | Y788                                    | GMT277                     | GMT1005 |
|                |              |                              |              |                             | 3                                      | Y554                                   | Y788                                    | GMT277                     | GMT1005 |
|                |              |                              |              |                             | 4                                      | Y554                                   | Y788                                    | GMT277                     | GMT1005 |
|                |              |                              |              |                             | 5                                      | Y554                                   | Y788                                    | GMT277                     | GMT1005 |
|                |              |                              |              |                             | 6                                      | Y554                                   | Y788                                    | GMT277                     | GMT1005 |
|                |              |                              |              |                             | 7                                      | Y554                                   | Y788                                    | GMT277                     | GMT1005 |

Terminals and Splices

### Terminal Manufacturers' Part Numbers

| TERMINAL SPECS |              |                             | TERMINAL MANUFACTURERS' TERMINAL # |               |       |         |              |           |    |
|----------------|--------------|-----------------------------|------------------------------------|---------------|-------|---------|--------------|-----------|----|
| AWG            | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER | BURNDY                             | HOLLINGSWORTH | MOLEX | PANDUIT | THOMAS&BETTS | TYCO ELEC |    |
| #22-18         | N/A          | MS21004-                    | 1                                  | --            | --    | --      | --           | A486      | -- |
|                |              |                             | 2                                  | --            | --    | --      | --           | A483      | -- |
|                |              |                             | 3                                  | --            | --    | --      | --           | A482      | -- |
|                |              |                             | 4                                  | --            | --    | --      | --           | A481      | -- |
|                |              |                             | 5                                  | --            | --    | --      | --           | A485      | -- |
|                |              |                             | 6                                  | --            | --    | --      | --           | A484      | -- |
|                |              |                             | 7                                  | --            | --    | --      | --           | A480      | -- |

NOTE: Component manufactures' and OEM instructions shall take precedence over the information presented in these charts. Wire ranges are for reference only.

#### GMT TOOL SERIES OPTIONS

PMTxxx Pneumatic Tool, p. 95

GMTxxx Hand Tool, p. 92 & 93

GMTExxxB Battery Tool, p. 94

#### HX4 TOOL SERIES OPTIONS FOR Y-DIES

HX4 Hand Tools, p. 84 & 85

HXE4B Battery Tools, p. 86

HX23 Pneumatic Tool, p.88

DMC does NOT provide connectors, contacts, or wiring components. Parts are shown here for reference only. See disclaimer of liability on page 27.



Similar Terminal Shown

## MS21004-8 TO -14, SIZES 16 TO 14

**TYPE:** Class 1 Uninsulated Terminals, Rectangular Tongue

**INSULATION:** None

**TERMINAL BODY & SLEEVE:** Copper, ASTM B-152

**PLATING:** Tin, ASTM B-545

**MAX TEMP RATING:** 175° C

### Tool Selection Guide

| TERMINAL SPECS |              |                              |              |                             | DMC TOOL/DIE OPTIONS                   |  |   |                            |         |
|----------------|--------------|------------------------------|--------------|-----------------------------|--|--|---|----------------------------|---------|
| AWG            | WIRE SIZE MM | INSULATION DIAMETER IN. (MM) | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER | HX4 SERIES DIE MULTI-CAVITY (1 INDENT) | HX4 SERIES DIE MULTI-CAVITY (2 INDENT) | GMT SERIES TOOL MIL-APPROVED (1 INDENT) | GMT SERIES TOOL (2 INDENT) |         |
| #16-14         | 1.04 - 2.62  | N/A                          | N/A          | MS21004-                    | 8                                      | Y554                                   | Y788                                    | GMT277                     | GMT1005 |
|                |              |                              |              |                             | 9                                      | Y554                                   | Y788                                    | GMT277                     | GMT1005 |
|                |              |                              |              |                             | 10                                     | Y554                                   | Y788                                    | GMT277                     | GMT1005 |
|                |              |                              |              |                             | 11                                     | Y554                                   | Y788                                    | GMT277                     | GMT1005 |
|                |              |                              |              |                             | 12                                     | Y554                                   | Y788                                    | GMT277                     | GMT1005 |
|                |              |                              |              |                             | 13                                     | Y554                                   | Y788                                    | GMT277                     | GMT1005 |
|                |              |                              |              |                             | 14                                     | Y554                                   | Y788                                    | GMT277                     | GMT1005 |

### Terminal Manufacturers' Part Numbers

| TERMINAL SPECS |              |                             | TERMINAL MANUFACTURERS' TERMINAL # |               |       |         |              |           |    |
|----------------|--------------|-----------------------------|------------------------------------|---------------|-------|---------|--------------|-----------|----|
| AWG            | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER | BURNDY                             | HOLLINGSWORTH | MOLEX | PANDUIT | THOMAS&BETTS | TYCO ELEC |    |
| #16-14         | N/A          | MS21004-                    | 8                                  | --            | --    | --      | --           | B486      | -- |
|                |              |                             | 9                                  | --            | --    | --      | --           | B483      | -- |
|                |              |                             | 10                                 | --            | --    | --      | --           | B482      | -- |
|                |              |                             | 11                                 | --            | --    | --      | --           | B481      | -- |
|                |              |                             | 12                                 | --            | --    | --      | --           | B485      | -- |
|                |              |                             | 13                                 | --            | --    | --      | --           | B484      | -- |
|                |              |                             | 14                                 | --            | --    | --      | --           | B480      | -- |

NOTE: Component manufactures' and OEM instructions shall take precedence over the information presented in these charts. Wire ranges are for reference only.

#### GMT TOOL SERIES OPTIONS

PMTxxx Pneumatic Tool, p. 95

GMTxxx Hand Tool, p. 92 & 93

GMTExxx Battery Tool, p. 94

#### HX4 TOOL SERIES OPTIONS FOR Y-DIES

HX4 Hand Tools, p. 84 & 85

HXE4B Battery Tools, p. 86

HX23 Pneumatic Tool, p.88

DMC does NOT provide connectors, contacts, or wiring components. Parts are shown here for reference only. See disclaimer of liability on page 27.



Similar Terminal Shown

## MS21004-15 TO -21, SIZES 12 TO 10

**TYPE:** Class 1 Uninsulated Terminals, Rectangular Tongue

**INSULATION:** None

**TERMINAL BODY & SLEEVE:** Copper, ASTM B-152

**PLATING:** Tin, ASTM B-545

**MAX TEMP RATING:** 175° C

### Tool Selection Guide

| TERMINAL SPECS |              |                              |              |                             | DMC TOOL/DIE OPTIONS                   |  |   |                            |         |
|----------------|--------------|------------------------------|--------------|-----------------------------|--|--|---|----------------------------|---------|
| AWG            | WIRE SIZE MM | INSULATION DIAMETER IN. (MM) | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER | HX4 SERIES DIE MULTI-CAVITY (1 INDENT) | HX4 SERIES DIE MULTI-CAVITY (2 INDENT) | GMT SERIES TOOL MIL-APPROVED (1 INDENT) | GMT SERIES TOOL (2 INDENT) |         |
| #12-10         | 2.62 - 6.64  | N/A                          | N/A          | MS21004-                    | 15                                     | Y554                                   | Y788                                    | GMT277                     | GMT1005 |
|                |              |                              |              |                             | 16                                     | Y554                                   | Y788                                    | GMT277                     | GMT1005 |
|                |              |                              |              |                             | 17                                     | Y554                                   | Y788                                    | GMT277                     | GMT1005 |
|                |              |                              |              |                             | 18                                     | Y554                                   | Y788                                    | GMT277                     | GMT1005 |
|                |              |                              |              |                             | 19                                     | Y554                                   | Y788                                    | GMT277                     | GMT1005 |
|                |              |                              |              |                             | 20                                     | Y554                                   | Y788                                    | GMT277                     | GMT1005 |
|                |              |                              |              |                             | 21                                     | Y554                                   | Y788                                    | GMT277                     | GMT1005 |

Terminals and Splices

### Terminal Manufacturers' Part Numbers

| TERMINAL SPECS |              |                             | TERMINAL MANUFACTURERS' TERMINAL # |               |       |         |              |           |    |
|----------------|--------------|-----------------------------|------------------------------------|---------------|-------|---------|--------------|-----------|----|
| AWG            | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER | BURNDY                             | HOLLINGSWORTH | MOLEX | PANDUIT | THOMAS&BETTS | TYCO ELEC |    |
| #12-10         | N/A          | MS21004-                    | 15                                 | --            | --    | --      | --           | C486      | -- |
|                |              |                             | 16                                 | --            | --    | --      | --           | C483      | -- |
|                |              |                             | 17                                 | --            | --    | --      | --           | C482      | -- |
|                |              |                             | 18                                 | --            | --    | --      | --           | C481      | -- |
|                |              |                             | 19                                 | --            | --    | --      | --           | C485      | -- |
|                |              |                             | 20                                 | --            | --    | --      | --           | C484      | -- |
|                |              |                             | 21                                 | --            | --    | --      | --           | C480      | -- |

NOTE: Component manufactures' and OEM instructions shall take precedence over the information presented in these charts. Wire ranges are for reference only.

#### GMT TOOL SERIES OPTIONS

PMTxxx Pneumatic Tool, p. 95

GMTxxx Hand Tool, p. 92 & 93

GMTExxx Battery Tool, p. 94

#### HX4 TOOL SERIES OPTIONS FOR Y-DIES

HX4 Hand Tools, p. 84 & 85

HXE4B Battery Tools, p. 86

HX23 Pneumatic Tool, p.88

DMC does NOT provide connectors, contacts, or wiring components. Parts are shown here for reference only. See disclaimer of liability on page 27.



Similar Terminal Shown

## MS25036-101 TO -110, SIZES 22 TO 14

**TYPE:** Class 1 Insulated Terminals

**INSULATION:** Nylon, UL 94V-2

**TERMINAL BODY & SLEEVE:** Copper, ASTM B-152

**PLATING:** Tin, ASTM B-545

**MAX TEMP RATING:** 105° C

### Tool Selection Guide

| TERMINAL SPECS |              |                              |              |                             | DMC TOOL/DIE OPTIONS        |  |   |                                |                                |         |
|----------------|--------------|------------------------------|--------------|-----------------------------|-----------------------------|--|---|--------------------------------|--------------------------------|---------|
| AWG            | WIRE SIZE MM | INSULATION DIAMETER IN. (MM) | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER | HX3 SERIES DIE MIL-APPROVED | HX4 SERIES DIE MIL-APPROVED (MULTI-CAVITY) | HX4 SERIES DIE MIL-APPROVED (SINGLE CAVITY) | HX4 SERIES DIE (SINGLE CAVITY) | M22520/40-01 TOOL MIL-APPROVED |         |
| #22-18         | 0.26-0.96    | .140 (3.56)                  | Red          | MS25036-                    | 101                         | X511                                       | Y501  | Y1115*                         | Y672                           | AMT4001 |
|                |              |                              |              |                             | 102                         | X511                                       | Y501  | Y1115*                         | Y672                           | AMT4001 |
|                |              |                              |              |                             | 103                         | X511                                       | Y501  | Y1115*                         | Y672                           | AMT4001 |
|                |              |                              |              |                             | 104                         | X511                                       | Y501  | Y1115*                         | Y672                           | AMT4001 |
|                |              |                              |              |                             | 105                         | X511                                       | Y501  | Y1115*                         | Y672                           | AMT4001 |
| #16-14         | 1.04 - 2.62  | .170 (4.32)                  | Blue         | MS25036-                    | 106                         | X511                                       | Y501  | Y1116*                         | Y671                           | AMT4001 |
|                |              |                              |              |                             | 107                         | X511                                       | Y501  | Y1116*                         | Y671                           | AMT4001 |
|                |              |                              |              |                             | 108                         | X511                                       | Y501  | Y1116*                         | Y671                           | AMT4001 |
|                |              |                              |              |                             | 109                         | X511                                       | Y501  | Y1116*                         | Y671                           | AMT4001 |
|                |              |                              |              |                             | 110                         | X511                                       | Y501  | Y1116*                         | Y671                           | AMT4001 |

\*QPL in progress, die set includes insulation adjustment feature.

### Terminal Manufacturers' Part Numbers

| TERMINAL SPECS |              |                             | TERMINAL MANUFACTURERS' TERMINAL # |               |           |           |              |           |         |        |
|----------------|--------------|-----------------------------|------------------------------------|---------------|-----------|-----------|--------------|-----------|---------|--------|
| AWG            | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER | BURNDY                             | HOLLINGSWORTH | MOLEX     | PANDUIT   | THOMAS&BETTS | TYCO ELEC |         |        |
| #22-18         | Red          | MS25036-                    | 101                                | YAES18-N1     | XR1881 SN | AA-820-06 | PN18-6RN     | RA333     | 36150   | 36149  |
|                |              |                             | 102                                | YAES18-N2     | XR1885 SN | AA-832-06 | PN18-6R      | RA853     | 51863   | --     |
|                |              |                             | 103                                | YAES18-N3     | XR1891 SN | AA-821-10 | PN18-10R     | RA873     | 36154   | 36153  |
|                |              |                             | 104                                | YAES18-N4     | XR1895 SN | AA-822-56 | PN18-56R     | RA723     | 31895   | 320572 |
|                |              |                             | 105                                | YAES18-N5     | XR1896 SN | AA-826-38 | PN18-38R     | RA733     | 31897   | 320573 |
| #16-14         | Blue         | MS25036-                    | 106                                | YAES14-N6     | XR2442 SN | BB-823-06 | PN14-6RN     | RB1333    | 320561  | --     |
|                |              |                             | 107                                | YAES14-N7     | XR1901 SN | BB-837-06 | PN14-6R      | RB853     | 51864   | --     |
|                |              |                             | 108                                | YAES14-N8     | XR1903 SN | BB-837-10 | PN14-10R     | RB873     | 51864-2 | --     |
|                |              |                             | 109                                | YAES14-N9     | XR1907 SN | BB-825-56 | PN14-56R     | RB723     | 320575  | --     |
|                |              |                             | 110                                | YAES14-N10    | XR1908 SN | BB-818-38 | PN14-38R     | RB733     | 320564  | --     |

NOTE: Component manufactures' and OEM instructions shall take precedence over the information presented in these charts. Wire ranges are for reference only.

#### HX4 TOOL SERIES OPTIONS FOR Y-DIES

HX4 Hand Tools, p. 84 & 85  
 HXE4B Battery Tools, p. 86  
 HX23 Pneumatic Tool, p.88

#### HX3 TOOL SERIES OPTIONS FOR X-DIES

HX3 Hand Tools, p. 84 & 85

DMC does NOT provide connectors, contacts, or wiring components. Parts are shown here for reference only. See disclaimer of liability on page 27.



Similar Terminal Shown

## MS25036-111 TO -114, SIZES 12 TO 10

**TYPE:** Class 1 Insulated Terminals

**INSULATION:** Nylon, UL 94V-2

**TERMINAL BODY & SLEEVE:** Copper, ASTM B-152

**PLATING:** Tin, ASTM B-545

**MAX TEMP RATING:** 105° C

### Tool Selection Guide

| TERMINAL SPECS |              |                              |              |                             | DMC TOOL/DIE OPTIONS        |  |                                |                                |      |
|----------------|--------------|------------------------------|--------------|-----------------------------|-----------------------------|--|--------------------------------|--------------------------------|------|
| AWG            | WIRE SIZE MM | INSULATION DIAMETER IN. (MM) | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER | HX3 SERIES DIE MIL-APPROVED | HX4 SERIES DIE MIL-APPROVED (MULTI-CAVITY) | HX4 SERIES DIE (SINGLE CAVITY) | HX4 SERIES DIE (SINGLE CAVITY) |      |
| #12-10         | 2.62 - 6.64  | .230 (5.84)                  | Yellow       | MS25036-                    | 111                         | X515                                       | Y501                           | Y1117*                         | Y670 |
|                |              |                              |              |                             | 112                         | X515                                       | Y501                           | Y1117*                         | Y670 |
|                |              |                              |              |                             | 113                         | X515                                       | Y501                           | Y1117*                         | Y670 |
|                |              |                              |              |                             | 114                         | X515                                       | Y501                           | Y1117*                         | Y670 |

\*QPL in progress, die set includes insulation adjustment feature

### Terminal Manufacturers' Part Numbers

| TERMINAL SPECS |              |                             | TERMINAL MANUFACTURERS' TERMINAL # |               |          |          |              |           |        |       |
|----------------|--------------|-----------------------------|------------------------------------|---------------|----------|----------|--------------|-----------|--------|-------|
| AWG            | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER | BURNDY                             | HOLLINGSWORTH | MOLEX    | PANDUIT  | THOMAS&BETTS | TYCO ELEC |        |       |
| #12-10         | Yellow       | MS25036-                    | 111                                | YAES10-N11    | XR5107 N | C-828-06 | PN10-6R      | RC333     | 320567 | 35107 |
|                |              |                             | 112                                | YAES10-N12    | XR5109 N | C-828-10 | PN10-10R     | RC363     | 36161  | 35109 |
|                |              |                             | 113                                | YAES10-N13    | XR5111 N | C-830-56 | PN10-56R     | RC703     | 320576 | 35111 |
|                |              |                             | 114                                | YAES10-N14    | XR5112 N | C-840-38 | PN10-38R     | RC733     | 320577 | 35112 |

NOTE: Component manufactures' and OEM instructions shall take precedence over the information presented in these charts. Wire ranges are for reference only.

#### HX4 TOOL SERIES OPTIONS FOR Y-DIES

HX4 Hand Tools, p. 84 & 85  
 HXE4B Battery Tools, p. 86  
 HX23 Pneumatic Tool, p.88

#### HX3 TOOL SERIES OPTIONS FOR X-DIES

HX3 Hand Tools, p. 84 & 85



Similar Terminal Shown

## MS25036-115 TO -122, SIZES 8 TO 6

**TYPE:** Class 1 Insulated Terminals

**INSULATION:** Nylon, UL 94V-2

**TERMINAL BODY & SLEEVE:** Copper, ASTM B-152

**PLATING:** Tin, ASTM B-545

**MAX TEMP RATING:** 105° C

### Tool Selection Guide\*

| TERMINAL SPECS |                |                              |              |                             | DMC TOOL/DIE OPTIONS                |                       |                          |          |  |
|----------------|----------------|------------------------------|--------------|-----------------------------|-------------------------------------|-----------------------|--------------------------|----------|--|
| AWG            | WIRE SIZE (MM) | INSULATION DIAMETER IN. (MM) | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER | HD002 SERIES DIE MIL-APPROVED (HEX) | HD51 SERIES DIE (HEX) | HD36 SERIES DIE (INDENT) |          |  |
| #8             | 6.64 - 10.5    | .290 (7.55)                  | Red          | MS25036-                    | 115                                 | HD002-8               | HD51-105                 | HD36-139 |  |
|                |                |                              |              |                             | 116                                 | HD002-8               | HD51-105                 | HD36-139 |  |
|                |                |                              |              |                             | 117                                 | HD002-8               | HD51-105                 | HD36-139 |  |
|                |                |                              |              |                             | 118                                 | HD002-8               | HD51-105                 | HD36-139 |  |
| #6             | 10.5 - 16.8    | .370 (9.55)                  | Blue         | MS25036-                    | 119                                 | HD002-6               | HD51-106                 | HD36-136 |  |
|                |                |                              |              |                             | 120                                 | HD002-6               | HD51-106                 | HD36-136 |  |
|                |                |                              |              |                             | 121                                 | HD002-6               | HD51-106                 | HD36-136 |  |
|                |                |                              |              |                             | 122                                 | HD002-6               | HD51-106                 | HD36-136 |  |

\*QPL in Progress

### Terminal Manufacturers' Part Numbers

| TERMINAL SPECS |              |                             | TERMINAL MANUFACTURERS' TERMINAL # |               |       |         |              |           |    |
|----------------|--------------|-----------------------------|------------------------------------|---------------|-------|---------|--------------|-----------|----|
| AWG            | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER | BURNDY                             | HOLLINGSWORTH | MOLEX | PANDUIT | THOMAS&BETTS | TYCO ELEC |    |
| #8             | Red          | MS25036-                    | 115                                | YAEV8C-L      | --    | --      | --           | RD10361   | -- |
|                |              |                             | 116                                | YAEV8C-L1     | --    | --      | --           | RD10711   | -- |
|                |              |                             | 117                                | YAEV8C-L2     | --    | --      | --           | RD10721   | -- |
|                |              |                             | 118                                | YAEV8C-L3     | --    | --      | --           | RD10731   | -- |
| #6             | Blue         | MS25036-                    | 119                                | YAEV6C-L1-M   | --    | --      | --           | RE10261   | -- |
|                |              |                             | 120                                | YAEV6C-L-M    | --    | --      | --           | RE10711   | -- |
|                |              |                             | 121                                | YAEV6C-L4-M   | --    | --      | --           | RE10721   | -- |
|                |              |                             | 122                                | YAEV6C-L2-M   | --    | --      | --           | RE10731   | -- |

NOTE: Component manufactures' and OEM instructions shall take precedence over the information presented in these charts. Wire ranges are for reference only.

#### TBHD1M, HD120, HDE120B DIE/TOOL OPTIONS

HD120, HDE120B,  
Hand Tool, p. 106-107  
TBHD1M Hydraulic Tool, p. 106-107

#### HD36 TOOL SERIES OPTIONS

HD36 Hand Tool, p. 96  
HDE36B Battery Tool, p. 97

#### HD51 TOOL SERIES OPTIONS

HD51 Hand Tool, p. 104-105  
XHD51 Hydraulic Tool, p. 104-105  
HDE51B Battery Tool - p. 104-105

DMC does NOT provide connectors, contacts, or wiring components. Parts are shown here for reference only. See disclaimer of liability on page 27.





Similar Terminal Shown

## MS25036-123 TO -131, SIZES 4 TO 1

**TYPE:** Class 1 Insulated Terminals

**INSULATION:** Nylon, UL 94V-2

**TERMINAL BODY & SLEEVE:** Copper, ASTM B-152

**PLATING:** Tin, ASTM B-545

**MAX TEMP RATING:** 105° C

### Tool Selection Guide

| TERMINAL SPECS |                |                              |              |                             | DMC TOOL/DIE OPTIONS                |                       |                          |          |
|----------------|----------------|------------------------------|--------------|-----------------------------|-------------------------------------|-----------------------|--------------------------|----------|
| AWG            | WIRE SIZE (MM) | INSULATION DIAMETER IN. (MM) | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER | HD002 SERIES DIE MIL-APPROVED (HEX) | HD51 SERIES DIE (HEX) | HD36 SERIES DIE (INDENT) |          |
| #4             | 16.8 - 26.7    | .430 (11.05)                 | Yellow       | MS25036-                    | 123                                 | HD002-4               | HD51-107                 | HD36-137 |
|                |                |                              |              |                             | 124                                 | HD002-4               | HD51-107                 | HD36-137 |
|                |                |                              |              |                             | 125                                 | HD002-4               | HD51-107                 | HD36-137 |
| #2             | 26.7 - 42.4    | .505 (12.83)                 | Red          | MS25036-                    | 126                                 | HD002-2               | HD51-113                 | --       |
|                |                |                              |              |                             | 127                                 | HD002-2               | HD51-113                 | --       |
|                |                |                              |              |                             | 128                                 | HD002-2               | HD51-113                 | --       |
| #1             | --             | --                           | White        | MS25036-                    | 129                                 | HD002-1               | HD51-154                 | --       |
|                |                |                              |              |                             | 130                                 | HD002-1               | HD51-154                 | --       |
|                |                |                              |              |                             | 131                                 | HD002-1               | HD51-154                 | --       |

\*QPL in Progress

Terminals and Splices

### Terminal Manufacturers' Part Numbers

| TERMINAL SPECS |              |                             | TERMINAL MANUFACTURERS' TERMINAL # |               |       |         |              |           |    |
|----------------|--------------|-----------------------------|------------------------------------|---------------|-------|---------|--------------|-----------|----|
| AWG            | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER | BURNDY                             | HOLLINGSWORTH | MOLEX | PANDUIT | THOMAS&BETTS | TYCO ELEC |    |
| #4             | Yellow       | MS25036-                    | 123                                | YAEV4C-L      | --    | --      | --           | RF10711   | -- |
|                |              |                             | 124                                | YAEV4C-L4     | --    | --      | --           | RF10721   | -- |
|                |              |                             | 125                                | YAEV4C-L2     | --    | --      | --           | RF10731   | -- |
| #2             | Red          | MS25036-                    | 126                                | YAEV2C-L1     | --    | --      | --           | RG9711    | -- |
|                |              |                             | 127                                | YAEV2C-L      | --    | --      | --           | RG9731    | -- |
|                |              |                             | 128                                | YAEV2C-L4     | --    | --      | --           | RG9751    | -- |
| #1             | White        | MS25036-                    | 129                                | YAEV1C-L1     | --    | --      | --           | RH9711    | -- |
|                |              |                             | 130                                | YAEV1C-L      | --    | --      | --           | RH9731    | -- |
|                |              |                             | 131                                | YAEV1C-L3     | --    | --      | --           | RH9751    | -- |

NOTE: Component manufactures' and OEM instructions shall take precedence over the information presented in these charts. Wire ranges are for reference only.

#### TBHD1M, HD120, HDE120B DIE/TOOL OPTIONS

HD120, HDE120B,  
Hand Tool, p. 106-107  
TBHD1M Hydraulic Tool, p. 106-107

#### HD36 TOOL SERIES OPTIONS

HD36 Hand Tool, p. 96  
HDE36B Battery Tool, p. 97

#### HD51 TOOL SERIES OPTIONS

HD51 Hand Tool, p. 104-105  
XHD51 Hydraulic Tool, p. 104-105  
HDE51B Battery Tool - p. 104-105

DMC does NOT provide connectors, contacts, or wiring components. Parts are shown here for reference only. See disclaimer of liability on page 27.



Similar Terminal Shown

## MS25036-132 to -141, Sizes 1/0 to 4/0

**TYPE:** Class 1 Insulated Terminals

**INSULATION:** Nylon, UL 94V-2

**TERMINAL BODY & SLEEVE:** Copper, ASTM B-152

**PLATING:** Tin, ASTM B-545

**MAX TEMP RATING:** 105° C

### Tool Selection Guide

| TERMINAL SPECS |                |                              |              |                             | DMC TOOL/DIE OPTIONS          |                                    |                          |
|----------------|----------------|------------------------------|--------------|-----------------------------|-------------------------------|------------------------------------|--------------------------|
| AWG            | WIRE SIZE (MM) | INSULATION DIAMETER IN. (MM) | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER | HD002 SERIES DIE MIL-APPROVED | HD51 SERIES DIE MIL-APPROVED (HEX) | HD36 SERIES DIE (INDENT) |
| 1/0            | 42.4-60.6      | .632 (16.05)                 | Blue         | MS25036-                    | 132                           | HD002-01                           | --                       |
|                |                |                              |              |                             | 133                           | HD002-01                           | --                       |
|                |                |                              |              |                             | 134                           | HD002-01                           | --                       |
| 2/0            | 60.6-76.3      | .684 (17.37)                 | Yellow       | MS25036-                    | 135                           | HD002-02                           | --                       |
|                |                |                              |              |                             | 136                           | HD002-02                           | --                       |
|                |                |                              |              |                             | 137                           | HD002-02                           | --                       |
| 3/0            | 76.3-96.3      | .737 (18.72)                 | Red          | MS25036-                    | 138                           | HD002-03                           | --                       |
|                |                |                              |              |                             | 139                           | HD002-03                           | --                       |
| 4/0            | 96.3-117       | .799 (20.29)                 | Blue         | MS25036-                    | 140                           | HD002-04                           | --                       |
|                |                |                              |              |                             | 141                           | HD002-04                           | --                       |

### Terminal Manufacturers' Part Numbers

| TERMINAL SPECS |              |                             | TERMINAL MANUFACTURERS' TERMINAL # |               |       |         |              |           |
|----------------|--------------|-----------------------------|------------------------------------|---------------|-------|---------|--------------|-----------|
| AWG            | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER | BURNDY                             | HOLLINGSWORTH | MOLEX | PANDUIT | THOMAS&BETTS | TYCO ELEC |
| 1/0            | Blue         | MS25036-                    | 132                                | YAEV25-L1     | --    | --      | RJ9711       | --        |
|                |              |                             | 133                                | YAEV25-L      | --    | --      | RJ9731       | --        |
|                |              |                             | 134                                | YAEV25-L3     | --    | --      | RJ9751       | --        |
| 2/0            | Yellow       | MS25036-                    | 135                                | YAEV26-L2     | --    | --      | RK9711       | --        |
|                |              |                             | 136                                | YAEV26-L      | --    | --      | RK9731       | --        |
|                |              |                             | 137                                | YAEV26-L3     | --    | --      | RK9751       | --        |
| 3/0            | Red          | MS25036-                    | 138                                | --            | --    | --      | RL9731       | --        |
|                |              |                             | 139                                | --            | --    | --      | RL9751       | --        |
| 4/0            | Blue         | MS25036-                    | 140                                | --            | --    | --      | RM9731       | --        |
|                |              |                             | 141                                | --            | --    | --      | RM9751       | --        |

NOTE: Component manufactures' and OEM instructions shall take precedence over the information presented in these charts. Wire ranges are for reference only.

### TBHD1M, HD120, HDE120B DIE/TOOL OPTIONS

HD120, HDE120B,

Hand Tool, p. 106-107

TBHD1M Hydraulic Tool, p. 106-107

DMC does NOT provide connectors, contacts, or wiring components. Parts are shown here for reference only. See disclaimer of liability on page 27.



Similar Terminal Shown

## MS25036-143 to -151, Sizes 26 to 18

**TYPE:** Class 1 Insulated Terminals

**INSULATION:** Nylon, UL 94V-2

**TERMINAL BODY & SLEEVE:** Copper, ASTM B-152

**PLATING:** Tin, ASTM B-545

**MAX TEMP RATING:** 105° C

### Tool Selection Guide\*

| TERMINAL SPECS |                |                              |              |                             | DMC TOOL/DIE OPTIONS        |  |   |                            |                                |         |
|----------------|----------------|------------------------------|--------------|-----------------------------|-----------------------------|--|---|----------------------------|--------------------------------|---------|
| AWG            | WIRE SIZE (MM) | INSULATION DIAMETER IN. (MM) | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER | HX3 SERIES DIE MIL-APPROVED | HX4 SERIES DIE MIL-APPROVED (MULTI-CAVITY) | HX4 SERIES DIE MIL-APPROVED (SINGLE CAVITY) | HX4 SERIES (SINGLE CAVITY) | M22520/40-01 TOOL MIL-APPROVED |         |
| #26-24         | 0.12 - 0.24    | .082 (2.09)                  | Yellow       | MS25036-                    | 143                         | X511                                       | Y501  | Y1115*                     | Y672                           | AMT4001 |
|                |                |                              |              |                             | 144                         | X511                                       | Y501  | Y1115*                     | Y672                           | AMT4001 |
|                |                |                              |              |                             | 145                         | X511                                       | Y501  | Y1115*                     | Y672                           | AMT4001 |
|                |                |                              |              |                             | 146                         | X511                                       | Y501  | Y1115*                     | Y672                           | AMT4001 |
|                |                |                              |              |                             | 147                         | X511                                       | Y501  | Y1115*                     | Y672                           | AMT4001 |
| #22-18         | 0.26-0.96      | .125 (3.18)                  | Red          | MS25036-                    | 148                         | X511                                       | Y501  | Y1115*                     | Y672                           | AMT4001 |
|                |                |                              |              |                             | 149                         | X511                                       | Y501  | Y1115*                     | Y672                           | AMT4001 |
|                |                |                              |              |                             | 150                         | X511                                       | Y501  | Y1115*                     | Y672                           | AMT4001 |
|                |                |                              |              |                             | 151                         | X511                                       | Y501  | Y1115*                     | Y672                           | AMT4001 |

\*QPL in Progress, Die set includes insulation adjustment feature.

Terminals and Splices

### Terminal Manufacturers' Part Numbers

| TERMINAL SPECS |              |                             | TERMINAL MANUFACTURERS' TERMINAL # |               |           |           |              |           |         |         |
|----------------|--------------|-----------------------------|------------------------------------|---------------|-----------|-----------|--------------|-----------|---------|---------|
| AWG            | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER | BURNDY                             | HOLLINGSWORTH | MOLEX     | PANDUIT   | THOMAS&BETTS | TYCO ELEC | TYCO    |         |
| #26-24         | Yellow       | MS25036-                    | 143                                | --            | XR26336 N | --        | --           | RAX23     | 54310-1 | --      |
|                |              |                             | 144                                | --            | XR26337 N | --        | --           | RAX43     | 52189   | --      |
|                |              |                             | 145                                | --            | XR26338 N | --        | --           | RAX63     | 53073   | --      |
|                |              |                             | 146                                | --            | XR26339 N | --        | --           | RAX83     | 54311-1 | --      |
|                |              |                             | 147                                | --            | XR26340 N | --        | --           | RAX103    | 54321-1 | 54312-1 |
| #22-18         | Red          | MS25036-                    | 148                                | YAES18-N48    | XR1880 SN | AA-820-04 | PN18-4RN     | RA323     | 31880   | 320553  |
|                |              |                             | 149                                | YAES18-N49    | XR1890 SN | AA-821-08 | PN18-8R      | RA863     | 31890   | 320551  |
|                |              |                             | 150                                | YAES18-N50    | XR1894 SN | AA-822-14 | PN18-14R     | RA713     | 31894   | 320551  |
|                |              |                             | 151                                | --            | --        | --        | --           | RA753     | 328975  | --      |

NOTE: Component manufactures' and OEM instructions shall take precedence over the information presented in these charts. Wire ranges are for reference only.

#### HX4 TOOL SERIES OPTIONS FOR Y-DIES

HX4 Hand Tools, p. 84 & 85  
 HXE4B Battery Tools, p. 86  
 HX23 Pneumatic Tool, p.88

#### HX3 TOOL SERIES OPTIONS FOR X-DIES

HX3 Hand Tools, p. 84 & 85

DMC does NOT provide connectors, contacts, or wiring components. Parts are shown here for reference only. See disclaimer of liability on page 27.



Similar Terminal Shown

## MS25036-152 to -159, Sizes 22 to 10

**TYPE:** Class 1 Insulated Terminals

**INSULATION:** Nylon, UL 94V-2

**TERMINAL BODY & SLEEVE:** Copper, ASTM B-152

**PLATING:** Tin, ASTM B-545

**MAX TEMP RATING:** 105° C

### Tool Selection Guide

| TERMINAL SPECS |                |                              |              |                             | DMC TOOL/DIE OPTIONS        |  |                                |                                      |                                 |         |
|----------------|----------------|------------------------------|--------------|-----------------------------|-----------------------------|--|--------------------------------|--------------------------------------|---------------------------------|---------|
| AWG            | WIRE SIZE (MM) | INSULATION DIAMETER IN. (MM) | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER | HX3 SERIES DIE MIL-APPROVED | HX4 SERIES DIE MIL-APPROVED (MULTI-CAVITY) | HX4 SERIES DIE (SINGLE CAVITY) | HX4 SERIES DIE (SINGLE CAVITY) (HEX) | M225220/40-01 TOOL MIL-APPROVED |         |
| #16-14         | 1.04 - 2.62    | .150 (3.81)                  | Blue         | MS25036-                    | 152                         | X511                                       | Y501                           | Y1116*                               | Y671                            | AMT4001 |
|                |                |                              |              |                             | 153                         | X511                                       | Y501                           | Y1116*                               | Y671                            | AMT4001 |
|                |                |                              |              |                             | 154                         | X511                                       | Y501                           | Y1116*                               | Y671                            | AMT4001 |
|                |                |                              |              |                             | 155                         | X511                                       | Y501                           | YY1116*                              | Y671                            | AMT4001 |
| #12-10         | 2.62 - 6.64    | .230 (5.84)                  | Yellow       | MS25036-                    | 156                         | X515                                       | Y501                           | Y1117*                               | Y670                            | --      |
|                |                |                              |              |                             | 157                         | X515                                       | Y501                           | Y1117*                               | Y670                            | --      |
|                |                |                              |              |                             | 158                         | X515                                       | Y501                           | Y1117*                               | Y670                            | --      |
| #22-18         | 0.26-0.96      | .230 (5.84)                  | Red          | MS25036-                    | 159                         | X511                                       | Y501                           | Y1115*                               | Y672                            | AMT4001 |

\*QPL in Progress, Die set includes insulation adjustment feature.

### Terminal Manufacturers' Part Numbers

| TERMINAL SPECS |              |                             | TERMINAL MANUFACTURERS' TERMINAL # |               |           |           |              |           |         |        |
|----------------|--------------|-----------------------------|------------------------------------|---------------|-----------|-----------|--------------|-----------|---------|--------|
| AWG            | SLEEVE COLOR | TERMINAL/SPLICE PART NUMBER | BURNDY                             | HOLLINGSWORTH | MOLEX     | PANDUIT   | THOMAS&BETTS | TYCO ELEC | TYCO    |        |
| #16-14         | Blue         | MS25036-                    | 152                                | YAES14N52     | --        | BB-823-04 | PN14-4R      | RB1323    | 324159  | --     |
|                |              |                             | 153                                | YAES14N53     | XR1902 SN | BB-837-08 | PN14-8R      | RB863     | 51864-1 | --     |
|                |              |                             | 154                                | YAES14N54     | XR1906 SN | BB-825-14 | PN14-14R     | RB713     | 320563  | --     |
|                |              |                             | 155                                | YAES14N55     | --        | --        | --           | RB753     | 328976  | --     |
| #12-10         | Yellow       | MS25036-                    | 156                                | YAES10-N56    | XR5108 N  | C-828-08  | PN10-8R      | RC863     | 35108   | 320568 |
|                |              |                             | 157                                | YAES10-N57    | XR5110 N  | C-830-14  | PN10-14R     | RC713     | 35110   | 320569 |
|                |              |                             | 158                                | YAES10-N58    | XR5117 N  | --        | --           | RC753     | --      | --     |
| #22-18         | Red          | MS25036-                    | 159                                | --            | XR1879 SN | AA-820-02 | --           | --        | --      |        |

NOTE: Component manufactures' and OEM instructions shall take precedence over the information presented in these charts. Wire ranges are for reference only.

#### HX4 TOOL SERIES OPTIONS FOR Y-DIES

HX4 Hand Tools, p. 84 & 85  
 HXE4B Battery Tools, p. 86  
 HX23 Pneumatic Tool, p.88

#### HX3 TOOL SERIES OPTIONS FOR X-DIES

HX3 Hand Tools, p. 84 & 85

DMC does NOT provide connectors, contacts, or wiring components. Parts are shown here for reference only. See disclaimer of liability on page 27.

# Installing and Removal Tools

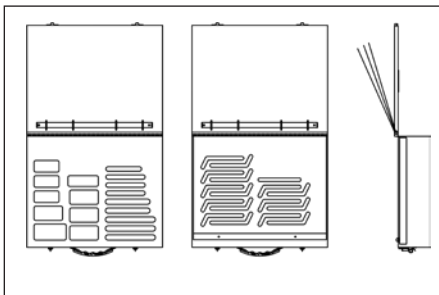
DMC is dedicated to serving the connector tooling needs of the electronics industry. We, therefore, continue our connector product package with a wide variety of installing and removal tools.

Although we supply both plastic and metal tools, we recommend the use of the metal tools because of their durability.

When used properly they are more cost effective in that they withstand thousands of contact insertion and removal cycles. The trend to all metal tools is being actively encouraged by most departments of the government.

DMC installing and removal tools are of proven high quality and reliability. In addition to the tools listed in the reference table, we have many more for other connector applications. Consult DMC for details.

Illustrated on page 149 are typical rear and front release retention methods found in today's connectors.



## DMC1155 GENERAL PURPOSE INSERTION AND REMOVAL TOOL KIT

DMC's General Purpose Insertion and Removal Tool Kit contains metal insertion and removal tools for common Mil-Spec Circular Connectors, D-Subminiature Connector, ARINC Connectors and AS81714 terminal junctions. Consult DMC for further details.



## AS81969 (M81969)/# REFERENCE CHART

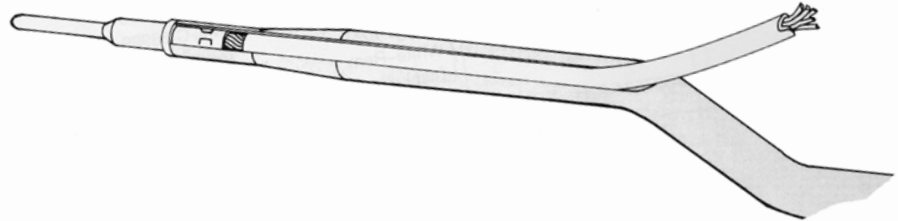
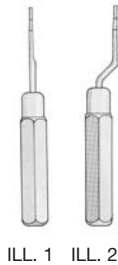
| MIL-81969/# | SUPERSEDED MILITARY #       | MIL-81969/# | SUPERSEDED MILITARY #                   | MIL-81969/# | SUPERSEDED MILITARY #    |
|-------------|-----------------------------|-------------|---|-------------|--------------------------|
| 1-01        | MS3156-22                   | 11-01       | M28731/22-01                            | 19-09       | MS24256R12               |
| 1-02        | MS3156-20<br>M24308/18-2    | 13-01       | M28731/21-01                            | 19-10       | MS24256RH20              |
| 1-03        | MS3156-16<br>M24308/18-3    | 14-01       | MS27534-22D                             | 19-11       | MS24256RH16              |
| 1-04        | M24308/18-1                 | 14-02       | MS27534-20<br>MS3447-20<br>M83723/31-20 | 20-01       | MS17806                  |
| 2-01        | MS3323-22                   | 14-03       | MS27534-16<br>MS3447-16<br>M83723/31-16 | 27-01       | MS90562-1                |
| 2-02        | MS3323-20                   | 14-04       | MS27534-12<br>MS3447-12<br>M83723/31-12 | 27-02       | MS90562-2                |
| 2-03        | MS3323-16                   | 15-01       | MS3483-1                                | 27-03       | MS90562-3                |
| 2-04        | MS3323-12                   | 15-02       | MS3483-2                                | 27-04       | MS90562-4                |
| 3-01        | MS3344-23                   | 15-03       | MS3483-3                                | 27-05       | MS90562-5                |
| 3-02        | MS3344-20                   | 16-01       | MS3160-20                               | 27-06       | MS90562-6                |
| 3-03        | MS3344-16                   | 16-02       | MS3160-16                               | 28-01       | MS3178-001               |
| 3-04        | MS3344-12                   | 16-03       | MS3160-12                               | 28-02       | MS3178-002               |
| 3-05        | MS3342-23                   | 16-04       | MS3160-22                               | 29-01       | MS3165-16                |
| 3-06        | MS3342-20                   | 17-01       | MS90455-16                              | 29-02       | MS3165-8<br>M83723/32-08 |
| 3-07        | MS3342-16                   | 17-02       | MS90455-12                              | 29-03       | MS3165-4<br>M83723/32-04 |
| 3-08        | MS3342-12                   | 17-03       | MS24256A20                              | 29-04       | MS3165-0<br>M83723/32-00 |
| 4-01        | M55301/106-01               | 17-04       | MS24256A16                              | 30-01       | MS3159-22                |
| 5-01        | M55302/105-01               | 17-05       | MS24256A12                              | 30-02       | MS3159-20                |
| 6-01        | M21097/18-01                | 17-06       | MS90455-8                               | 30-03       | MS3159-16                |
| 7-01        | M21097/12-01                | 17-07       | MS90455-4                               | 30-04       | MS3159-12                |
| 8-01        | M55302/79-01<br>MS27495A22M | 17-08       | MS90455-0                               | 30-05       | MS3448-001A              |
| 8-02        | M55302/79-02<br>MS27495R22M | 18-01       | MS17805                                 | 30-06       | MS3448-001B              |
| 8-03        | MS27495A22                  | 19-01       | MS90456-16                              | 30-07       | MS3448-001C              |
| 8-04        | MS27495R22                  | 19-02       | MS90456-12                              | 31-01       | MS18137-20-1             |
| 8-05        | MS27495A20                  | 19-03       | MS90456-8                               | 31-02       | MS18137-20-2             |
| 8-06        | MS27495R20                  | 19-04       | MS90456-4                               | 31-03       | MS18137-20-3             |
| 8-07        | MS27495A16                  | 19-05       | MS90456-0                               | 31-04       | MS18137-20-4             |
| 8-08        | MS27495R16                  | 19-06       | MS24256R20                              | 31-05       | MS14035-02               |
| 8-09        | MS27495A12                  | 19-07       | MS24256R20                              | 31-06       | MS14035-03               |
| 8-10        | MS27495R12                  | 19-08       | MS24256R16                              | 31-07       | MS14035-01               |
| 9-01        | M55302/18-01                |             |   | 31-08       | MS14036-01               |
| 10-01       | M55302/86-01                |             |   | 31-09       | MS14036-02               |
|             |                             |             |   | 31-10       | MS14036-03               |

DMC does not provide connectors, contacts or wiring components. Parts shown here are for reference only. See disclaimer of liability on page 27.

# Installing and Removal Tool Illustrations

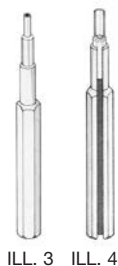
## INSTALLING TOOLS

Straight (ILL. 1) and joggled tools (ILL. 2) hold contact and wire in line with center or side of the tool handle. Tool sizes are "0" to "24" gage. Handles are color coded aluminum. Tools range from 4 1/2" to 6" long with replaceable tips.



## FRONT REMOVAL, REAR INSTALLING TOOLS

Both front removal (ILL. 3) and rear installing (ILL. 4) Military Standard tools offer a convenient and practical approach to servicing the MIL-C-81511, Series 1 & 2 connectors. Tools are color coded for contact size with half-inch hex metal handles.



## REAR REMOVAL AND INSTALLING TWEEZERS

Tools are for sizes 8 to 24 contacts. Used in NAS 1599, MIL-DTL-38999 and other rear release connectors.



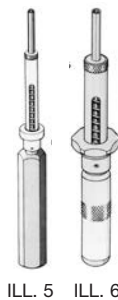
## REAR RELEASE PLIERS

This tool unlocks MIL-C-005015 contacts and sizes are 0, 4 and 8 gage.



## FRONT RELEASE

Front release connectors are easily serviced with these military spec removal tools. Handles are color coded for contact size. Replaceable tips are available.



REF: MIL-C-005015, MIL-DTL-26482, MIL-C-26500, and MIL-C-26636 Connectors.

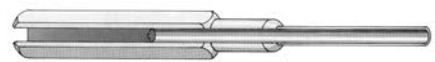
## UNWIRED CONTACT TOOLS

Tool removes unwired contacts from connectors and is available in two styles. The metal style employs a locking wedge and removes contacts from terminal block as well as from the connectors.

The Military Standard tools use plastic probes which are interchangeable and available in sizes 12, 16, 20 (MS3448-001 kit) and 12 through 22 (MS3159), series NAS 1599 and MIL-C-81511, Series 3 and 4.

## LONG-SLOT TOOLS

This long-slot tool illustrates the standard for MIL-C-005015 installing tools. Modified versions are available on request.

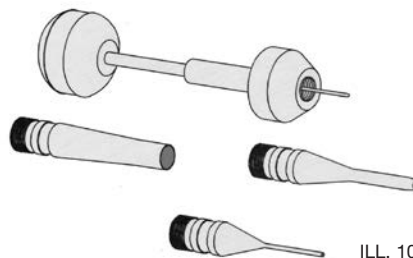


## FRONT REMOVAL SPRING-LOADED PROBE CONTACT TOOLS (ILL. 7)



ILL. 7

Employing the floating tip concept, these tools offer quality, as well as ease in operation. Body and handle are anodized aluminum alloy and color coded. Replaceable tips are available and require no special installing tools.



ILL. 10

DMC does not provide connectors, contacts or wiring components. Parts shown here are for reference only. See disclaimer of liability on page 27.



# AS81969 (M81969) Tool Part Number Guide

| INSTALLING AND REMOVAL TOOLS |              |                         |      |                    |
|------------------------------|--------------|-------------------------|------|--------------------|
| MILITARY P/N                 | DMC P/N      | INSTALLATION OR REMOVAL | SIZE | COLOR CODE         |
| M81969/1-01                  | M81969/1-01  | I/R                     | 22   | Green/White        |
| M81969/1-02                  | M81969/1-02  | I/R                     | 20   | Red/White          |
| M81969/1-03                  | M81969/1-03  | I/R                     | 16   | Blue/White         |
| M81969/1-04                  | M81969/1-04  | I/R                     | 22D  | Green/White        |
| M81969/2-01                  | DAK126-23A   | I                       | 22   | Yellow             |
| M81969/2-02                  | DAK126-20A   | I                       | 20   | Red                |
| M81969/2-03                  | DAK126-16A   | I                       | 16   | Blue               |
| M81969/2-04                  | DAK126-12A   | I                       | 12   | Yellow             |
| M81969/3-01                  | DRK129-23A   | R                       | 23   | Yellow             |
| M81969/3-02                  | DRK129-20A   | R                       | 20   | Red                |
| M81969/3-03                  | DRK129-16A   | R                       | 16   | Blue               |
| M81969/3-04                  | DRK129-12A   | R                       | 12   | Yellow             |
| M81969/3-05                  | DRK125-23A   | R                       | 23   | Yellow/Black       |
| M81969/3-06                  | DRK125-20A   | R                       | 20   | Red/Black          |
| M81969/3-07                  | DRK125-16A   | R                       | 16   | Blue/Black         |
| M81969/3-08                  | DRK125-12A   | R                       | 12   | Yellow/Black       |
| M81969/8-01                  | DAK95-22MB   | I                       | 22D  | Green              |
| M81969/8-02                  | DRK95-22MB   | R                       | 22M  | Green/White        |
| M81969/8-03                  | DAK95-22B    | I                       | 22   | Brown              |
| M81969/8-04                  | DRK95-22B    | R                       | 22   | Brown/White        |
| M81969/8-05                  | DAK95-20B    | I                       | 20   | Red                |
| M81969/8-06                  | DRK95-20B    | R                       | 20   | Red/White          |
| M81969/8-07                  | DAK95-16B    | I                       | 16   | Blue               |
| M81969/8-08                  | DRK95-16B    | R                       | 16   | Blue/White         |
| M81969/8-09                  | DAK95-12B    | I                       | 12   | Yellow             |
| M81969/8-10                  | DRK95-12B    | R                       | 12   | Yellow/White       |
| M81969/8-205B                | DAK83-20B    | I                       | 20   | Red/Black          |
| M81969/-206B                 | DRK83-20B    | R                       | 20   | Red/White/Black    |
| M81969/8-207                 | DAK83-16B    | I                       | 16   | Blue/Black         |
| M81969/8-208                 | DRK83-16B    | R                       | 16   | Blue/White/Black   |
| M81969/8-209                 | DAK83-12B    | I                       | 12   | Yellow/Black       |
| M81969/8-210                 | DRK83-12B    | R                       | 12   | Yellow/White/Black |
| M81969/12-01                 | DRK248A      | I/R                     | N/A  | Straight           |
| M81969/12-02                 | DRK246A      | I/R                     | N/A  | Angled             |
| M81969/14-01                 | M81969/14-01 | I/R                     | 22D  | Green/White        |
| M81969/14-02                 | M81969/14-02 | I/R                     | 20   | Red/White          |
| M81969/14-03                 | M81969/14-03 | I/R                     | 16   | Blue/White         |
| M81969/14-04                 | M81969/14-04 | I/R                     | 12   | Yellow/White       |
| M81969/14-05                 | M81969/14-05 | I/R                     | 10   | Grey/White         |
| M81969/14-10                 | M81969/14-10 | I/R                     | 20   | Red/Orange         |
| M81969/14-11                 | M81969/14-11 | I/R                     | 20   | Red/White          |
| M81969/15-01                 | DRK250-8     | R                       | 8    | None               |
| M81969/15-02                 | DRK250-4     | R                       | 4    | None               |
| M81969/15-03                 | DRK250-0     | R                       | 1/0  | None               |
| M81969/16-01                 | 81515-20     | I/R                     | 20   | Red/White          |

| INSTALLING AND REMOVAL TOOLS |              |                         |        |              |
|------------------------------|--------------|-------------------------|--------|--------------|
| MILITARY P/N                 | DMC P/N      | INSTALLATION OR REMOVAL | SIZE   | COLOR CODE   |
| M81969/16-02                 | 81515-16     | I/R                     | 16     | Blue/White   |
| M81969/16-03                 | 81515-12     | I/R                     | 12     | Yellow/White |
| M81969/16-04                 | 81515-23     | I/R                     | 22     | Green/White  |
| M81969/17-03                 | DAK20B       | I                       | 20     | Red          |
| M81969/17-04                 | DAK16B       | I                       | 16     | Blue         |
| M81969/17-05                 | DAK12B       | I                       | 12     | Yellow       |
| M81969/17-06                 | DAK55-8B     | I                       | 8      | Red          |
| M81969/17-07                 | DAK55-4B     | I                       | 4      | Blue         |
| M81969/17-08                 | DAK55-0B     | I                       | 0      | Yellow       |
| M81969/17-09                 | DAK83S-20    | I                       | 20     | Red          |
| M81969/18-01                 | DAK123A      | I                       | 16/20  | Green        |
| M81969/18-02                 | DAK123-22A   | I                       | 22     | Gold         |
| M81969/19-01                 | DRK16B       | R                       | 16     | Blue         |
| M81969/19-02                 | DRK12B       | R                       | 12     | Yellow       |
| M81969/19-03                 | DRK56-8B     | R                       | 8      | Red          |
| M81969/19-04                 | DRK56-4B     | R                       | 4      | Blue         |
| M81969/19-05                 | DRK56-0B     | R                       | 0      | Yellow       |
| M81969/19-06                 | DRK20B       | R                       | 20     | Red          |
| M81969/19-10                 | DHK20B       | R                       | 20     | Red          |
| M81969/19-11                 | DHK16B       | R                       | 16     | Blue         |
| M81969/20-01                 | DRK124A      | R                       | 16, 20 | Green        |
| M81969/20-02                 | DRK124-22A   | R                       | 22     | N/A          |
| M81969/21-01 (REF Only)      | DHK368       | I/R                     | 16     | N/A          |
| M81969/27-01 (REF Only)      | DRK178-1A    | R                       | 4/0    | N/A          |
| M81969/27-02 (REF Only)      | DRK178-2A    | R                       | 2/0    | N/A          |
| M81969/27-03 (REF Only)      | DRK178-3A    | R                       | 1/0    | N/A          |
| M81969/27-04 (REF Only)      | DRK178-4A    | R                       | 2      | N/A          |
| M81969/27-05 (REF Only)      | DRK178-5A    | R                       | 4      | N/A          |
| M81969/27-06 (REF Only)      | DRK178-6A    | R                       | 6      | N/A          |
| M81969/28-01 (REF Only)      | DRK310       | R                       | COAX   | N/A          |
| M81969/28-02 (REF Only)      | DRK337       | R                       | COAX   | N/A          |
| M81969/29-01 (REF Only)      | CIET16-9     | R                       | 18     | Blue         |
| M81969/29-02 (REF Only)      | CIET8-2      | R                       | 8      | Red          |
| M81969/29-03 (REF Only)      | CIET4-8      | R                       | 4      | Blue         |
| M81969/29-04 (REF Only)      | CIET0-1      | R                       | 0      | Yellow       |
| M81969/33-01                 | DAK55-22SA   | I/R                     | 22     | Red          |
| M81969/33-02                 | DAK55-22JA   | I/R                     | 22     | Red          |
| M81969/34-01                 | DRK56-22A    | R                       | 22     | Red          |
| M81969/39-01                 | M81969/39-01 | I/R                     | 20     | Green/White  |

Installing and Removal Tools

# AS81969 (M81969) Tool Part Number Guide

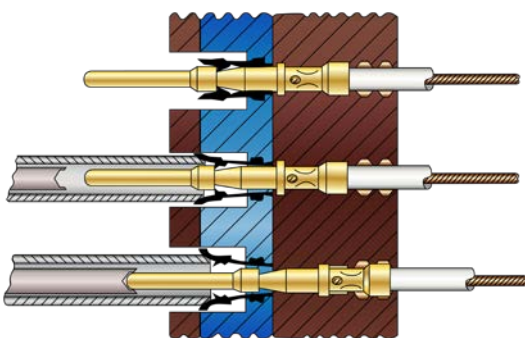
## PLASTIC UNWIRED AND BROKEN WIRE REMOVAL TOOLS

| MILITARY P/N (HANDLE W/ PROBE)                  | DMC P/N | MILITARY P/N (PLASTIC PROBE ONLY) | DMC P/N (PLASTIC PROBE ONLY) | PROBE COLOR | PROBE BAND COLOR | CONTACT SIZE     |
|---|---------|-----------------------------------|------------------------------|-------------|------------------|------------------|
| M81969/30B-01 Rev B                             | DRK501B | M81969/30B-21                     | DRK521B                      | YELLOW      | BLACK            | 22               |
| M81969/30B-02 Rev B                             | DRK502B | M81969/30B-22                     | DRK522B                      | RED         | BLACK            | 20               |
| M81969/30B-03 Rev B                             | DRK503B | M81969/30B-23                     | DRK523B                      | BLUE        | BLACK            | 16               |
| M81969/30B-04 Rev B                             | DRK504B | M81969/30B-24                     | DRK524B                      | YELLOW      | BLACK            | 12               |
| M81969/30B-05 Rev B                             | DRK505B | M81969/30B-25                     | DRK525B                      | RED         | SILVER           | 20               |
| M81969/30B-06 Rev B                             | DRK506B | M81969/30B-26                     | DRK526B                      | BLUE        | SILVER           | 16               |
| M81969/30B-07 Rev B                             | DRK507B | M81969/30B-27                     | DRK527B                      | YELLOW      | SILVER           | 12               |
| M81969/30B-08 Rev B                             | DRK508B | M81969/30B-28                     | DRK528B                      | BROWN       | BROWN            | 22D              |
| M81969/30B-09 Rev B                             | DRK509B | M81969/30B-29                     | DRK529B                      | YELLOW      | BROWN            | 22M              |
| M81969/30B-10 Rev B                             | DRK510B | M81969/30B-30                     | DRK530B                      | GREEN       | BROWN            | 22               |
| M81969/30B-11 Rev B                             | DRK511B | M81969/30B-31                     | DRK531B                      | RED         | BROWN            | 20               |
| M81969/30B-12 Rev B                             | DRK512B | M81969/30B-32                     | DRK532B                      | BLUE        | BROWN            | 16               |
| M81969/30B-13 Rev B                             | DRK513B | M81969/30B-33                     | DRK533B                      | YELLOW      | BROWN            | 12               |
| M81969/30B-14                                   | DRK514B | M81969/30B-37                     | DRK537B                      | BLACK       | BROWN            | 10               |
| M81969/30B-19 Rev B (TOOL SET)                  | DRK519B | --                                | --                           | --          | --               | 10 THRU 22M      |
| M81969/30B-35 Rev B (TOOL SET)                  | DRK535B | --                                | --                           | --          | --               | 20 THRU 12       |
| M81969/30B-36 Rev B (TOOL SET)                  | DRK536B | --                                | --                           | --          | --               | 22D, 22M THRU 10 |
| M81969/30B-20 Rev B (HANDLE FOR PLASTIC PROBES) | DRK520B | --                                | --                           | --          | --               | 10 THRU 22M      |

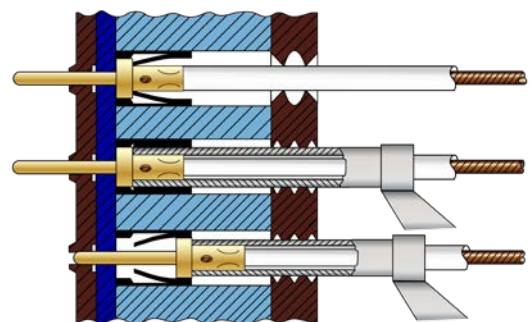
## METAL UNWIRED AND BROKEN WIRE REMOVAL TOOLS

| MILITARY P/N (HANDLE W/ PROBE)                       | DMC P/N    | MILITARY P/N (METAL PROBE ONLY) | DMC P/N (METAL PROBE ONLY) | PROBE COLOR | PROBE BAND COLOR | CONTACT SIZE     |
|--|------------|---------------------------------|----------------------------|-------------|------------------|------------------|
| M81969/30B-08M Rev B                                 | DRK276-22D | M81969/30B-28M                  | DRK725                     | METALLIC    | BROWN            | 22D              |
| M81969/30B-09M Rev B                                 | DRK276-22M | M81969/30B-29M                  | DRK726                     | METALLIC    | YELLOW           | 22M              |
| M81969/30B-10M Rev B                                 | DRK276-22  | M81969/30B-30M                  | DRK727                     | METALLIC    | GREEN            | 22               |
| M81969/30B-11M Rev B                                 | DRK276-20  | M81969/30B-31M                  | DRK728                     | METALLIC    | RED              | 20               |
| M81969/30B-12M Rev B                                 | DRK276-16  | M81969/30B-32M                  | DRK729                     | METALLIC    | BLUE             | 16               |
| M81969/30B-13M Rev B                                 | DRK276-12  | M81969/30B-33M                  | DRK730                     | METALLIC    | YELLOW           | 12               |
| M81969/30B-14M Rev B                                 | DRK276-10  | M81969/30B-37M                  | DRK731                     | METALLIC    | BLACK            | 10               |
| M81969/30B-40M Rev B (TOOL SET)                      | DRK540B    | --                              | --                         | --          | -                | 22D, 22M THRU 10 |
| M81969/30B-20M Rev B (METAL HANDLE FOR METAL PROBES) | DRK520MB   | --                              | --                         | --          | -                | 10 THRU 23       |

**TYPICAL FRONT RELEASE CONTACT**



**TYPICAL REAR RELEASE CONTACT**



# AS81969 (M81969) Tool Part Number Guide

## PLASTIC TOOL APPLICATION (CONNECTOR SERIES/PART NUMBERS)

| <b>MIL-DTL-24308, &amp; SAE AS81659 SERIES II</b>  |                      |  |                                |
|--|----------------------|--|--------------------------------|
| <b>CONTACT SIZE</b>  | <b>TOOL PART NO.</b> | <b>COLOR/COMPOSITION</b>               | <b>COMPARABLE METAL TOOLS*</b> |
| 22   | M81969/1-01          | GREEN/WHITE – PLASTIC BODY, METAL TIPS | DAK266J & DRK266J              |
| 20   | M81969/1-02          | RED/WHITE – PLASTIC BODY, METAL TIPS   | DAK 145 & DRK145               |
| 16   | M81969/1-03          | BLUE/WHITE – PLASTIC BODY, METAL TIPS  | DAK83-16B & DRK83-16B          |
| 22D  | M81969/1-04          | GREEN/WHITE – PLASTIC BODY, METAL TIPS | DAK95-22MB & DRK95-22MB        |
| <b>MIL-DTL-38999, MIL-DTL-55302/68 &amp; /69, MIL-DTL-24308 (SIZE 22D ONLY), MIL-DTL.83733 (SIZE 22D ONLY), &amp; AS81714 (SIZE 22D ONLY)</b>                                      |                      |  |                                |
| 23   | M81969/1-05          | BLACK/WHITE – PLASTIC BODY, METAL TIPS | DAK95-23 & DRK95-23            |
| 22D, 22M   | M81969/14-01         | GREEN/WHITE – ALL PLASTIC              | DAK95-22MB & DRK95-22MB        |
| 22   | M81969/14-09         | BROWN/WHITE – ALL PLASTIC              | DAK95-22B & DRK95-22B          |
| 20   | M81969/14-10         | RED/ORANGE – ALL PLASTIC               | DAK95-20B & DRK95-20B          |
| 16   | M81969/14-03         | BLUE/WHITE – ALL PLASTIC               | DAK95-16B & DRK95-16B          |
| 12   | M81969/14-04         | YELLOW/WHITE – ALL PLASTIC             | DAK95-12B & DRK95-12B          |
| 10   | M81969/14-05         | GRAY/WHITE – ALL PLASTIC               | DAK95-10B & DRK95-10B          |
| 8  | M81969/14-08         | RED – ALL PLASTIC (REMOVAL ONLY)       | DRK95-08B                      |
| <b>MIL-DTL-26482 SERIES II, SAE AS81703, SERIES III, MIL-DTL-83733 (EXCEPT 22D), MIL-DTL-83723 (SERIES II &amp; III), AS50151 (AS3450 ONLY), &amp; AS81714 (EXCEPT SIZE 22D)</b>   |                      |  |                                |
| 20   | M81969/14-11         | RED/WHITE – ALL PLASTIC                | DAK83-20B & DRK83-20B          |
| 16   | M81969/14-03         | BLUE/WHITE – ALL PLASTIC               | DAK83-16B & DRK83-16B          |
| 12   | M81969/14-04         | YELLOW/WHITE – ALL PLASTIC             | DAK83-12B & DRK83-12B          |
| 8  | M81969/14-06         | RED – ALL PLASTIC (REMOVAL ONLY)       | DRK250-8                       |
| 4  | M81969/14-07         | BLUE – ALL PLASTIC (REMOVAL ONLY)      | DRK250-4                       |
| 0  | M81969/14-08         | YELLOW – ALL PLASTIC (REMOVAL ONLY)    | DRK250-0                       |
| <b>SAE AS50151 (REAR RELEASE), SAE AS3450, SERIES III, MIL-DTL-83733 (EXCEPT 22D), MIL-DTL-83723 (SERIES II &amp; III), AS50151 (AS3450 ONLY), &amp; AS81714 (EXCEPT SIZE 22D)</b> |                      |  |                                |
| 16   | M81969/29-01         | BLUE – ALL PLASTIC (REMOVAL ONLY)      | DRK83-16B                      |
| 8  | M81969/29-02         | RED – ALL PLASTIC (REMOVAL ONLY)       | DRK250-8                       |
| 4  | M81969/29-03         | BLUE – ALL PLASTIC (REMOVAL ONLY)      | DRK250-4                       |
| 0  | M81969/29-04         | YELLOW – ALL PLASTIC (REMOVAL ONLY)    | DRK250-0                       |
| <b>MIL-DTL-24308 SIZE 20 ONLY</b>  |                      |  |                                |
| 20   | M81969/39-01         | GREEN/WHITE – ALL PLASTIC              | DAK 145 & DRK145               |

\*ANGLED METAL TWEEZER TOOLS LISTED. IN-LINE AND JOGGLED TIP TOOLS AVAILABLE. CONSULT DMC FOR DETAILS.

Installing and Removal Tools

# Plastic and Metal Insertion and Removal Tools

## PLASTIC TOOLS VS. DMC METAL TOOLS

Plastic Insertion and Removal Tools are common throughout the aerospace wire harness industry, and they are required to be packaged and supplied with many of the rear release MIL-SPEC connectors which are supplied with contacts.

Metal tools are readily available for all applications where all plastic and plastic/metal tools are specified. DMC stands by the commitment to our customers that we manufacture and supply the most durable and functional assembly/disassembly tooling available. This is another area of our product line where that commitment pays off, and allows the users many options for their best tooling choice.

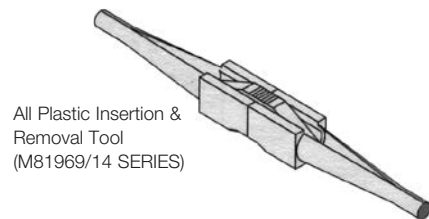
All metal insertion and removal tools are durable, and if used properly, the all metal tools are less likely to cause damage to connector sealing grommets, or slow the assembly process of connectors and similar wiring components in production wire shops.

## DISADVANTAGES OF PLASTIC TOOLS

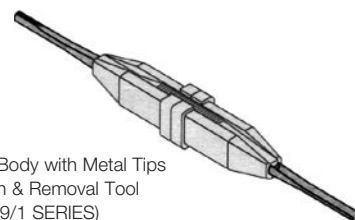
The complete insertion/locking of the contact into the connector requires a firm push, in-line with the multiple contact retention tines (gripping latches which hold the contact into the connector). The strength and stability of plastic tools is a compromise to the requirement of having all contact retention tines locked around the contact shoulder. The DMC all metal insertion tools have the strength and stability to fully insert and lock the contact into its cavity.

***The primary root causes of contact retention failures is partially inserted contacts, due to the use of flexible plastic tools, or inserting contacts into a connector with no insertion tool (push with the wire only).***

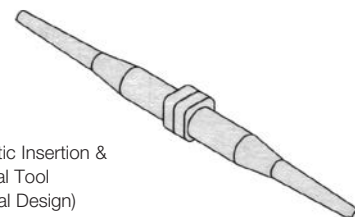
Please refer to the tables on page 56 for the recommended all metal insertion and removal tools for common MIL-SPEC connectors and contacts. There are options for all metal tools not shown in the chart. DMC stocks and provides all plastic, plastic/metal, and all metal insertion and removal tools of many types. Please feel free to contact DMC to learn about all the insertion/removal tool options for your particular wiring applications.



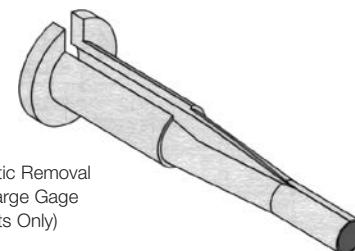
All Plastic Insertion & Removal Tool (M81969/14 SERIES)



Plastic Body with Metal Tips Insertion & Removal Tool (M81969/1 SERIES)



All Plastic Insertion & Removal Tool (Optional Design)



All Plastic Removal Tool (Large Gage Contacts Only)



Typical All Plastic Tool Operation



Typical All Metal Tool Operation



# Unwired Contact Removal Tools (M81969/30)

## PLASTIC-PROBE UNWIRED CONTACT REMOVAL TOOLS

Removing unwired contacts can be difficult. It is very important not to damage the interfacial seal and/or connector insert when removing unwired contacts.

M81969/30 Series Plastic Probe Tools are ideal for removing unwired contacts from connectors. As the plastic probe slides into the connector, it disengages the contact locking mechanism and stretches over the contact, gripping it securely in the plastic probe.

Different colored tool probes and probe bands are used to distinguish between series and contact sizes.



**PLASTIC-PROBE UNWIRED CONTACT REMOVAL TOOLS**

| TOOL PART NUMBER | CONNECTOR SERIES   | PROBE PART NUMBER | PROBE SIZE | PROBE COLOR | PROBE BAND COLOR |
|------------------|--|-------------------|------------|-------------|------------------|
| DRK105           | MIL-DTL-38999 Series 1 - 4<br>MIL-DTL-24308<br>MIL-DTL-55302/68<br>MIL-DTL-55302/71<br>MIL-DTL-55302/75<br>MIL-DTL-83733 (size 22D only) | DRK105-22D-2      | 22D        | Brown       | Brown            |
|                  |  | DRK105-22M-2      | 22M        | Yellow      | Brown            |
|                  |  | DRK105-22-2       | 22         | Green       | Brown            |
|                  |  | DRK105-20-2       | 20         | Red         | Brown            |
|                  |  | DRK105-16-2       | 16         | Blue        | Brown            |
|                  |  | DRK105-12-2       | 12         | Yellow      | Brown            |
| DRK110           | MIL-DTL-83733 (except size 22D)<br>MIL-DTL-83723 Series 3<br>MIL-DTL-26482 Series 2<br>MIL-C-81511 (class "L" only)                      | DRK110-20-2       | 20         | Red         | Silver           |
|                  |  | DRK110-16-2       | 16         | Blue        | Silver           |
|                  |  | DRK110-12-2       | 12         | Yellow      | Silver           |
| DRK130           | MIL-C-81511 Series 3 & 4   | DRK130-22-2       | 22         | Yellow      | Black            |
|                  |  | DRK130-20-2       | 20         | Red         | Black            |
|                  |  | DRK130-16-2       | 16         | Blue        | Black            |
|                  |  | DVZK130-12-2      | 12         | Yellow      | Black            |
| DRK150           | AS50151 Series MS3450  | DRK50             | 20         | Red         | Green            |
|                  |  | DRK50-16-2        | 16         | Blue        | Green            |
|                  |  | DRK50-12-2        | 12         | Yellow      | Green            |

## METAL-PROBE UNWIRED CONTACT AND BROKEN WIRE REMOVAL TOOLS

When a wire breaks inside the connector the remaining wire strands can damage the plastic tips of DMC's standard unwired contact removal tools. To solve this problem, DMC engineered the DRK276 series of metal tip removal tools for removing broken wire contacts.

Instead of different colored probes and bands, the DRK276 series removal tools have different colored tool bodies to help distinguish between tip sizes.



**METAL-PROBE UNWIRED CONTACT REMOVAL TOOLS**

| CONNECTOR SERIES           | TOOL PART NUMBER | PROBE SIZE | BODY COLOR |
|----------------------------|------------------|------------|------------|
| MIL-DTL-38999 Series 1 - 4 | DRK276-12        | 12         | Yellow     |
|                            | DRK276-16        | 16         | Blue       |
|                            | DRK276-20        | 20         | Red        |
|                            | DRK276-22        | 22         | Brown      |
|                            | DRK276-22M       | 22M        | Green      |
|                            | DRK276-22D       | 22D        | Black      |

Installing and Removal Tools

# Wire Harness Tools

## WIRE HARNESS SPOON

DMC's Wire Harness Spoon is used to assist in inserting new wires into existing wire harnesses. It helps thread new or repaired wires under tight cable ties, zip ties, string ties and cushion clamps.

The plastic construction of the wire harness spoon reduces damage when inserting wires because it will not damage ties or adjacent wires. There is less chance of nicks or cuts than with a metallic wire harness spoon. It can also be used to isolate cable ties for safe cutting to prevent damage to wire insulation.

The **WHS-1** is Orange in color and .875" wide by 6" long.



## CABLE TIE REMOVAL TOOL

Now you can quickly remove cable ties without damaging the wire harness. The safety guards on the tip of the MG cable tie removal tools slide behind the cable tie strap to prevent the sharp blades from contacting and damaging the bundled items. The ergonomic, cushion grip handles and scissor action produce a clean cut.

Also use the MG series cable tie removal tools when repairing and retrofitting wire harnesses and hose assemblies, removing packaged items, prototyping and testing products, and many other factory and field uses.

These cable tie removal tools provide a long life when cutting plastic, thin copper wire, and aluminum wire AWG 10 and smaller. Each tool is made of heat treated alloy steel with a Rockwell hardness range of 53-58Rc.

| PART NUMBER | CUTS CABLE TIE SIZES | TOOL LENGTH | TOOL WIDTH | DESCRIPTION  |
|-------------|----------------------|-------------|------------|--|
| MG-1300     | 18 lb. to 250 lb.    | 6.49"       | 2.35"      | Short Handle Length with Pointed Nose for Tight Spaces |





# Contact Retention Test Tools



**Typical application showing tool testing pin contacts.**

The quality assurance test most often overlooked is retention (proper seating of contacts). This important test can now be performed simply and in a matter of seconds with the DMC retention testing tools.

These tools are for checking the retention of pins and sockets in electrical connectors. The tester pin and socket tips are aluminum. All tips are replaceable. A nylon hand protector is provided with each tool. The tools can be preset at the factory to your request.

Insert tester into or over a contact so that the tester and contact are in a straight line. Hold in this position throughout the test. Use pin end with a socket contact and the socket end with a pin contact.

Apply pressure to tester until the indicator band is covered by the slide. If contact is still firmly retained, the retention is satisfactory.

| TOOL PART NUMBER | RANGE POUNDS   |
|------------------|----------------|
| HT250-1          | 1.5 THRU 3.0   |
| HT250-2*         | 3.0 THRU 5.5   |
| HT250-3          | 4.0 THRU 8.0   |
| HT250-4          | 7.0 THRU 18.0  |
| HT250-5          | 17.0 THRU 25.0 |
| HT250-6          | 24.0 THRU 40.0 |

*Notice: The above part numbers apply to retention tools only (less tips). All tips must be purchased under separate part number.*

*\*The H250-2 is the preferred tool*

| CONTACT SIZE | COLOR CODE | SOCKET TESTER | PIN TESTER |
|--------------|------------|---------------|------------|
| 4            | Yellow     | 67-004-01     | 68-004-01  |
| 6            | Blue       | 67-006-01     | 68-006-01  |
| 8            | Red        | 67-008-01     | 68-008-01  |
| 10           | Gray       | 67-010-01     | 68-010-01  |
| 12           | Yellow     | 67-012-01     | 68-012-01  |
| 16           | Blue       | 67-016-01     | 68-016-01  |
| 20           | Red        | 67-020-01     | 68-020-01  |
| 22, 22M, 22D | Copper     | 67-022-01     | 68-022-01  |
| 23           | Black      | 67-023-01     | 68-023-01  |
| 24           | Gold       | 67-024-01     | 68-024-01  |
| 26           | Green      | 67-026-01     | 68-026-01  |

DMC recommends that the lightest pressure be used to test proper installation of electrical contacts. Three to five pounds is adequate to test most installed contacts. Additional information is available. Please consult DMC.

# Contact Retention Calibration Equipment and Gages

## CONTACT RETENTION TEST TOOL CALIBRATION EQUIPMENT

The **RTCG-75A** Retention Tester Calibration Gage is supplied to support in-house calibration of DMC **HT250** Series Retention Testers. It incorporates the latest Alphanon™ digital test technology, and is self-contained and portable.

The tester is supplied in a protective case with calibration certificate to NIST (accuracy 0.5% full scale to 75 pounds force).



## Contact Gages

### CONTACT GAGES

Contact Gages are used to determine the size of a contact's mating end (sizes 12-22) which then aids in selecting the proper installation and/or removal tooling.

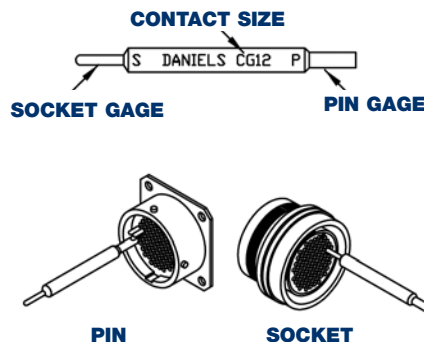
Gage size of a contact is determined by matching a contact gage with the contact mating end and noting the size of the best fitting gage. To gage pins, start with the smallest gage and work your way up the scale; the first gage that fits over the pin is the size of that pin. To gage sockets, start with the largest gage and work your way down the scale; the first gage that fits inside the socket is the size of that socket.

The gage sizes are stamped on the tool and all contact gages are color coded for correct size identification. The gage end used for measuring socket contacts is marked with an "S". And the gage end used for measuring pin contacts is marked with a "P".

**CAUTION:** These tools are not to be used as a pin straightener.



| P/N  | SIZE | COLOR  |
|------|------|--------|
| CG10 | 10   | GRAY   |
| CG12 | 12   | YELLOW |
| CG16 | 16   | BLUE   |
| CG20 | 20   | RED    |
| CG22 | 22   | BRONZE |
| CG23 | 23   | BLACK  |



Connectors may contain several different size contacts.

# BETA Backshell Accessory Torque Tools



BETA Backshell Accessory Torque Tools

DMC offers a complete line of Adaptor Tools and Torque Tools for holding and torquing circular connectors during the installation and removal of accessories (backshell, strain relief, or EMI/RFI shielding hardware).

The evolution of circular connectors has produced many mechanical configurations which have more precise dimensional tolerances and electrical characteristics than any other mechanical

component used in modern electrical systems. The associated tooling must meet the same level of precision to apply the connector to its intended purpose. Until now, very little attention has been focused on the tooling which is used to mount strain-relief backshells and other accessories to wired connector assemblies. This is why the BETA Connector Mate® system was developed.

This unique concept is based upon adaptor tools which are configured to mate with a specific connector series and shell size regardless of keying arrangement. They may be used simply as hand holding devices for easy tightening, or, for more exact requirements. DMC offers a wide variety of circular wrenches, strap wrenches, torque meters, and vises which can be used in a variety of combinations.

Additional catalog information is available, contact DMC



A strap wrench, aluminum connector adaptor, and the BT-ST-302D Digital Torque Wrench



# BETA Backshell Tool Sets

## Quick Reference Guide

### QUICK REFERENCE TOOLING GUIDE

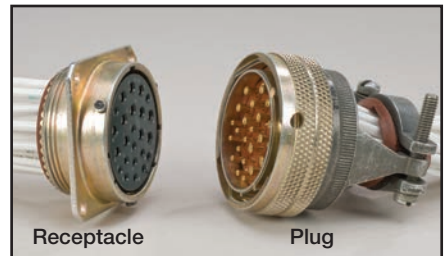
| CONNECTOR IDENTIFICATION    | ADAPTOR TOOL SETS |             | ADAPTOR LABEL   | PAGE |
|-----------------------------|-------------------|-------------|-----------------|------|
|                             | PLUG              | RECEPTACLE  |                 |      |
| AS50151 (MIL-C-5015)        | CM-S-5015         | CM-S-5015R  | CHROME          | 6    |
| MIL-DTL-22992 CLASS C,J,R   | CM-S-229          | N/A         | BROWN           | 7    |
| MIL-DTL-22992 CLASS L       | CM-S-229L         | N/A         | BLACK           | 8    |
| MIL-DTL-26482 SERIES I & II | CM-S-264          | CM-S-264R   | ORANGE          | 9    |
| MIL-DTL-26500               | CM-S-837          | CM-S-837RB* | GREEN           | 10   |
| MIL-DTL-28840               | CM-S-288          | CM-S-288R   | WHITE           | 11   |
| MIL-DTL-38999 SERIES I      | CM-S-389L         | CM-S-389LR  | BLUE            | 12   |
| MIL-DTL-38999 SERIES II     | CM-S-389S         | CM-S-264R   | GRAY/<br>ORANGE | 13   |
| MIL-DTL-38999 SERIES III    | CM-S-389T         | CM-S-389TR  | LAVENDER        | 14   |
| MIL-DTL-38999 SERIES IV     | CM-S-389B         | CM-S-389BR  | BEIGE           | 15   |
| MIL-C-81511 SERIES I & III  | CM-S-815L         | CM-S-815R   | YELLOW          | 16   |
| MIL-C-81511 SERIES I & IV   | CM-S-815S         | CM-S-815R   | RED             | 17   |
| MIL-DTL-83723 SERIES I      | CM-S-264          | CM-S-264R   | ORANGE          | 18   |
| MIL-DTL-83723 SERIES II     | CM-S-5015         | CM-S-5015R  | CHROME          | 19   |
| MIL-DTL-83723 SERIES III*   | CM-S-837          | CM-S-837RB* | GREEN           | 20   |
| PATTERN 602                 | CM-S-602          | CM-S-264R   | PURPLE          | 21   |
| PATTERN 615                 | CM-S-SJT          | CM-S-264R   | GOLD            | 22   |

### SIMPLE ORIENTATION TO THE CONNECTOR

All adaptor tools have an indicator (Dot) which visually orients it with the master key on the connector. This enables the user to orient the two components for mating without trial and error fumbling.

### ECONOMICAL, RELIABLE, AND AVAILABLE

There is not a precision system for holding circular connectors available anywhere which is more economical, reliable, or readily available to meet your needs than the DMC Beta adaptor tools.



Typical Mated Pair Connectors

\*Bayonet Couplings Only – Threaded receptacle adaptor sets are not available.  
MATERIAL: ALUMINUM STEEL TOOLING IS AVAILABLE. CHECK WITH DMC FOR DETAILS.  
NA - (Not available at time of printing – consult DMC)

A Reverse Head Model is Also Available, Part Number BT-ST-302DR

A Bench Mount is Also Available, Part Number BM-302D

# EMI/RFI Band Application System for M85049/128 Shield Termination Bands

## EMI/RFI Band Application System

The termination of EMI/RFI shielding materials is a specialized science in today's aerospace wiring systems. Application tooling is a critical factor in the overall performance of the wiring system components. DMC has worked closely with the world's leading connector accessory manufacturers and standards organizations to develop the necessary tooling and accessories to meet the stringent demands of aerospace and defense system contractors. The resulting products afford the user a repeatable and reliable means of terminating shielding on aerospace wiring systems. Tooling is available for all bands qualified to AS85049/128.

### M81306/1 SERIES ONE-STEP BANDING TOOL



DMC's One-Step Banding Tools are designated for **M85049/128-3**, **M85049/128-4**, **M85049/128-7** and **M85049/128-8** "stamped buckle" bands. These tools tension, bend, and cut the band in one operation.

(See pages 164-166 for available tool and accessory combinations)

**DBS-2100** is the .250 Wide Band Application Tool **M81306/1A**  
**DBS-2200** is the .125 Wide Mini-Band Application Tool **M81306/1B**

#### One-Step Tool Application



Stamped Buckle Band (Band style must be matched to tool. See next page for part number association)

### M81306/2 SERIES TWO-STEP BANDING TOOLS



Termination Tool  
(FIRST OPERATION)

Roll Over Tool  
(SECOND OPERATION)

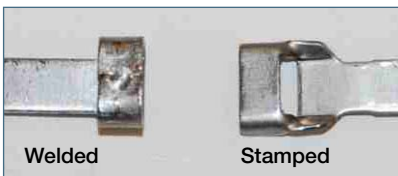
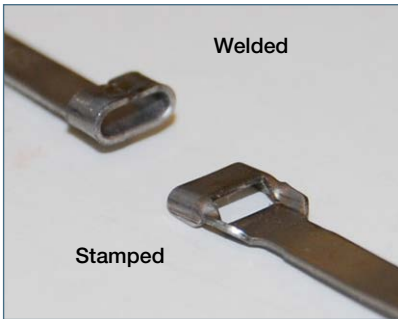
DMC's Two-Step Banding Tools are designated for **M85049/128-1**, **M85049/128-2**, **M85049/128-5** and **M85049/128-6** "welded buckle" bands. These tools tension and cut the band and leave an extended cut off tab. The second step provides an extra level of security by utilizing a roll-over tool to bend the cut-off tab over a full 180 degrees in a second operation.

**DBS-1100** .250 Wide Band Application Tool **M81306/2-01A**  
**DBS-1200** .125 Wide Mini-Band Application Tool **M81306/2-02B**

#### Two-Step Tool Application



# M85049/128 Band Configurations



**M85049/128** Shield Termination Bands are available in two distinct configurations, Stamped and Welded Buckles, and two different widths, .250 in. (6.350 mm) and .125 in. (3.175 mm). The bands come flat or pre-coiled and ready for use.

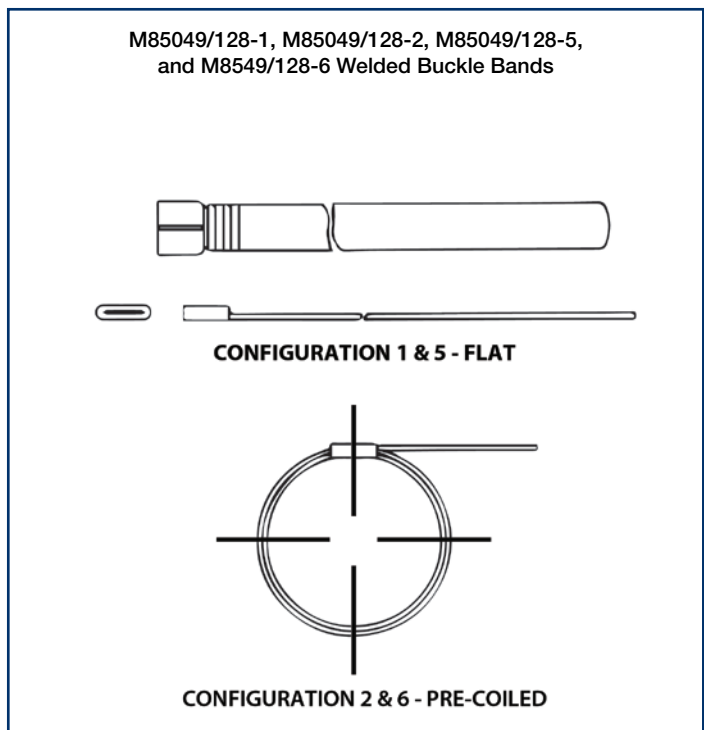
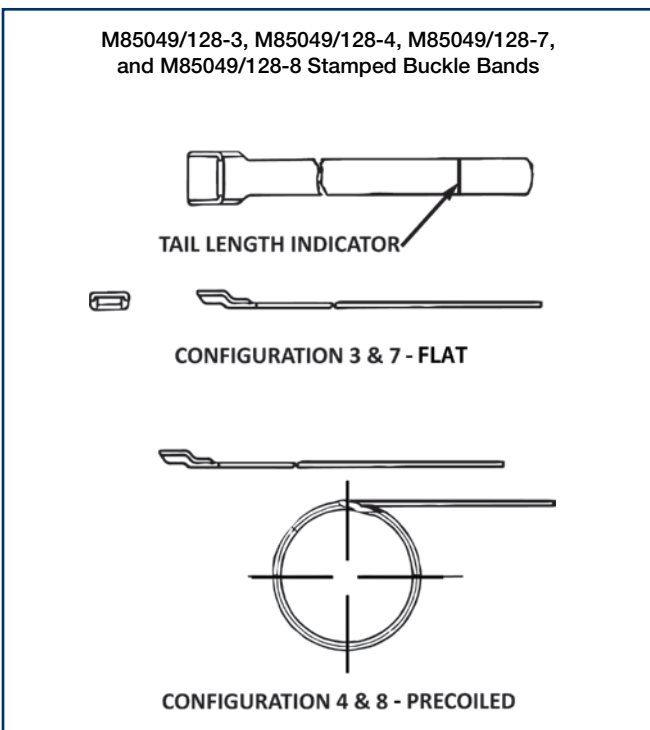
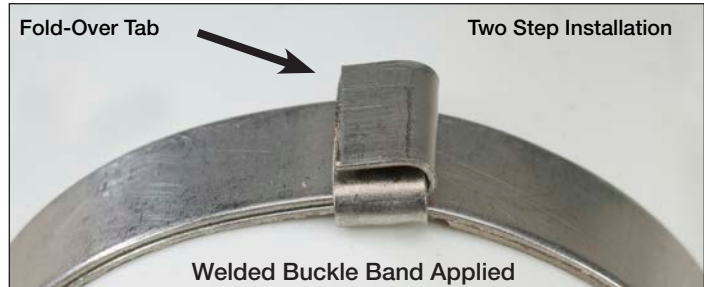
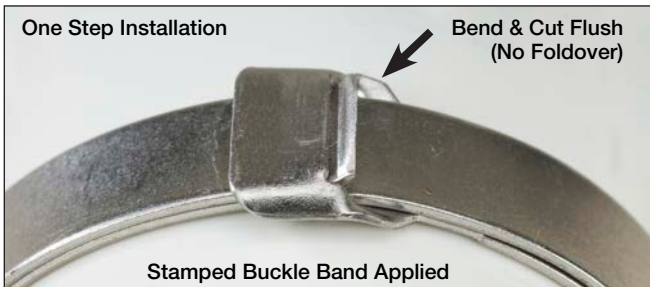
The buckle for the **M85049/128-3**, **M85049/128-4**, **M85049/128-7**, and **M85049/128-8** bands is a STAMPED buckle. This configuration is low-profile style with a slot for the other end of the band to pass through.

The buckle for the **M85049/128-1**, **M85049/128-2**, **M85049/128-5**, and **M85049/128-6** bands is a WELDED buckle. This configuration is folded style with a loop for the other end of the band to pass through.

| Quick Reference Guide: Band Part Number to Installation Tool* |             |               |             |
|---|-------------|---------------|-------------|
| M85049/128-1  | 2 Step Tool | M85049/128-5  | 2 Step Tool |
| M85049/128-2  | 2 Step Tool | M85049/128-6  | 2 Step Tool |
| M85049/128-3  | 1 Step Tool | M85 049/128-7 | 1 Step Tool |
| M85049/128-4  | 1 Step Tool | M85049/128-8  | 1 Step Tool |

NOTE: Always install M85049/128-X bands with 2 layers of band through the buckle.

\*See pages 164-166 for full details.





# One-Step Banding Tool System

for M85049/128-3, /128-4, /128-7, and /128-8 bands



## DBS-2100 .250 WIDE BAND APPLICATION TOOL M81306/1A:

- Size and Weight: 6.71" x 6.75" x .92", 1.02 lbs.
- Tension Range: 145–155 lbs.
- Cut-off blades are replaceable with Blade Replacement Kit: DBS-2100-BRK

## DBS-2100 & DBS-2200 (M81306/1A & M81306/1B)

(Other Combinations of Tools and Accessories Available - See Page 164-166 for details)

### ONE-STEP BAND APPLICATION TOOLS

The One-Step Band Application Tools are built to SAE AS81306/1 specifications and designed to install M85049/128-3, M85049/128-4, M85049/128-7, and M85049/128-8 "stamped buckle" bands. These tools are constructed to survive the demands of production and maintenance use, and remain precisely adjusted to provide a quality band termination.

The tension-lock system gives the operator a positive indication when the precise tension has been applied. The cut-off handle easily cuts, bends, and locks the shield band in one step.

## DBS-2200 .125 WIDE MINI-BAND APPLICATION TOOL M81306/1B:

- Size and Weight: 6.71" x 6.75" x .92", 1.02 lbs.
- Tension Range: 75–85 lbs.
- Cut-off blade is replaceable with Blade Replacement Kit: DBS-2200-BRK

## VERIFICATION OF ONE-STEP EMI/RFI BAND TOOLS M81306/1C & M81306/1D



DBS-CG7 (M81306/1C) for DBS-2100 tool  
(Shown at rest with white line visible)

Field Verification Inspection Gages are available to check the tension of the DMC One-Step Band Tools. These gages have a precise compression mechanism which has a sequence of indicators to verify that the applied tension is within the specified range for the band which is being applied. It is recommended to check the tension periodically, and if it needs adjustment, the instructions and accessories are provided by DMC for that purpose. The .250 width band tool (DBS-2100 Series) requires the DBS-CG7 (M81306/1C) gage, and the .125 width band tool (DBS-2200 Series) requires the DBS-CG8 (M81306/1D) gage.

DMC also offers an Electronic Calibration Instrument for Calibration Laboratory operations. The Part Number DBS-CG4D Electronic Calibration Instrument will allow the operator to gage the exact tension produced by the tool, and therefore, one instrument can be used with either the .250 band width tool, or the .125 band width tool. This instrument is calibrated by DMC, and traceable to NIST.

Part Numbers and ordering information for the Field Verification Inspection Gages and the Electronic Calibration Instrument can be found in the part tables on page 80 under One Step Application Tools, Accessories, and Components.

Use verification equipment in accordance with DMC instructions DBS-CG7-DS, DBS-CG8-DS or DBS-CG4D-DS.



DBS-CG4D (includes fixture with stand and digital readout meter)

# Two-Step Banding Tools System

for M85049/128-1, /128-2, /128-5, and /128-6 bands



## DBS-1100 AND DBS-1200 HAND OPERATED BANDING TOOLS

### TWO STEP BAND APPLICATION TOOLS

#### DBS-1100 (M81306/2-01A) .250 WIDE BAND TOOL

- Size and Weight: 1.38" x 5.5" x 7.5", 1.4 lbs.
- Tension Range: 140-160 lbs.
- Cut-off blade: replaceable with DBS-1100-7

#### DBS-1200 (M81306/2-02B) .125 WIDE MINI-BAND TOOL

- Size and Weight: 1.38" x 5.5" x 7.5", 1.4 lbs.
- Tension Range: 70-90 lbs.
- Cut-off blade: replaceable with DBS-1100-7

#### DBS-R03 (M81306/2-01C) FOR .250 WIDE BANDS DBS-R05 (M81306/2-02D) for .125 WIDE BANDS

## PBT1100 AND PMBT1200 PNEUMATIC BAND APPLICATION TOOLS

The PBT1100 & PMBT1200 series Pneumatic Band Application Tools are lightweight, dependable, and easy to operate. Many of the components are interchangeable with the corresponding hand tool. DMC's Pneumatic Two-Step Banding Tools are compatible with all currently available two-step bands to M85049/128.

#### PBT1100 .250 WIDE BAND APPLICATION TOOL

- Size and Weight: 8.75" L, 1.52 lbs.
- Tension Range: 140-160 lbs.

#### PMBT1200 .125 WIDE MINI-BAND APPLICATION TOOL

- Size and Weight: 8.75" L, 1.52 lbs.
- Tension Range: 70-90 lbs.

## VERIFICATION OF TWO-STEP EMI/RFI BAND

DMC's Two-Step Band Application Tools may be adjusted and verified to insure correct band tension. In order to make this operation simple and efficient for field use, DMC designed and patented a compression fixture system which uses a Go/No-Go Gage to measure the tool tension. Ordering information for the field verification equipment (Part Numbers DBS-CG2A and DBS-CG3A) can be found in the charts in the following pages.



The DBS-CG1 Laboratory Calibration Instrument will allow the operator to measure the exact tension produced by the tool.

A free standing holding fixture is available (DBS-CG1-F) to aid the calibration process by securing the DBS-CG1 and banding tool in place. The DBS-CG1-F holding fixture secures the banding tool in place during calibration. This fixture only works with the Two-Step Tools and DBS-CG1 Calibration Instrument (Banding tools and DBS-CG1-F are sold separately).



DBS-CG1



DBS-CG1-F

# M85049/128 Band Application System

## MIL Part Numbers

### MILITARY PART NUMBER TO DMC PART NUMBER CHART

| TOOL MIL P/N | DESCRIPTION                                     | WIDTH       | DMC P/N     | APPLICATION         |
|--------------|---|-------------|-------------|---------------------|
| M81306/1-01  | Set: One-Step Tool, Gage, and Tension Key       | .250        | DBS-2102    | M85049/128-3 & -4   |
| M81306/1-02  | Set: One-Step Tool, Gage, and Tension Key       | .125        | DBS-2202    | M85049/128-7 & -8   |
| M81306/1A    | One-Step Band Installation Tool                 | .250        | DBS-2100    | M85049/128-3 & -4   |
| M81306/1B    | One-Step Band Installation Tool                 | .125        | DBS-2200    | M85049/128-7 & -8   |
| M81306/1C    | Tension Verification Compression Fixture        | .250        | DBS-CG7     | DBS-2100            |
| M81306/1D    | Tension Verification Compression Fixture        | .125        | DBS-CG8     | DBS-2200            |
| M81306/1E    | Tension Adjustment Key                          | .125 & .250 | DBS-2100-32 | DBS-2100 & DBS-2200 |
| M81306/2-01  | Two-Step Installation Tool and Roll-Over Tool   | .250        | DBS-1101    | M85049/128-1 & -2   |
| M81306/2-02  | Two-Step Installation Tool and Roll-Over Tool   | .125        | DBS-1201    | M85049/128-5 & -6   |
| M81306/2-01A | Two-Step Band Tool                              | .250        | DBS-1100    | M85049/128-1 & -2   |
| M81306/2-02B | Two-Step Band Tool                              | .125        | DBS-1200    | M85049/128-5 & -6   |
| M81306/2-01C | Roll Over Tool                                  | .250        | DBS-R03     | M85049/128-1 & -2   |
| M81306/2-02D | Roll Over Tool                                  | .125        | DBS-R05     | M85049/128-5 & -6   |
| M81306/2-01E | Tension Verification Gage & Compression Fixture | .250        | DBS-CG2A    | DBS-1100            |
| M81306/2-02F | Tension Verification Gage & Compression Fixture | .125        | DBS-CG3A    | DBS-1200            |

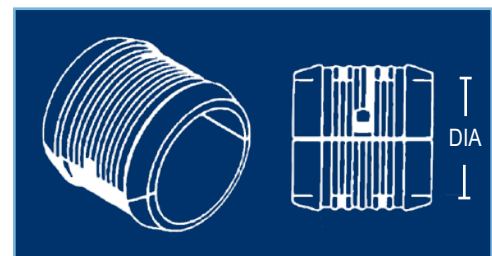
EMI/RFI Band Application System

### AS85049/128 BAND IDENTIFICATION CHART AND BAND ACCESSORIES

| BAND MIL P/N | CONFIGURATION                                       | WIDTH | DMC P/N   | TERMINATE WITH |
|--------------|---|-------|-----------|----------------|
| M85049/128-1 | Welded Buckle, Flat, .250 wide x 14.25" long        | .250  | DBS-128-1 | Two-Step Only  |
| M85049/128-2 | Welded Buckle, Pre-Coiled, .250 wide x 14.25" long  | .250  | DBS-128-2 | Two-Step Only  |
| M85049/128-3 | Stamped Buckle, Flat, .250 wide x 14.25" long       | .250  | DBS-128-3 | One-Step Only  |
| M85049/128-4 | Stamped Buckle, Pre-Coiled, .250 wide x 14.25" long | .250  | DBS-128-4 | One-Step Only  |
| M85049/128-5 | Welded Buckle, Flat, .125 wide x 9" long            | .125  | DBS-128-5 | Two-Step Only  |
| M85049/128-6 | Welded Buckle, Pre-Coiled, .125 wide x 9" long      | .125  | DBS-128-6 | Two-Step Only  |
| M85049/128-7 | Stamped Buckle, Flat, .125 wide x 8.52" long        | .125  | DBS-128-7 | One-Step Only  |
| M85049/128-8 | Stamped Buckle, Pre-Coiled, .125 wide x 8.52" long  | .125  | DBS-128-8 | One-Step Only  |

#### SPLIT RING FOR MID-CABLE SHIELD TERMINATIONS

| BAND MIL P/N    | CONFIGURATION              |
|-----------------|----------------------------|
| (M85049/93-08)* | .500 Dia. Split Ring Set*  |
| (M85049/93-12)* | .750 Dia. Split Ring Set*  |
| (M85049/93-16)* | 1.00 Dia. Split Ring Set * |
| (M85049/93-24)* | 1.50 Dia. Split Ring Set*  |



\*Other sizes and part numbers available.

# M85049/128 Band Application System

## DMC Part Numbers

### ONE-STEP APPLICATION TOOLS, ACCESSORIES AND COMPONENTS

#### .250 STANDARD WIDTH BAND TOOLS

| DMC PART NUMBER | CONFIGURATION  |
|-----------------|--|
| DBS-2100        | HAND OPERATED BAND TOOL (M81306/1A)  |
| DBS-2102        | HAND OPERATED BAND TOOL SET (INCLUDES DBS-2100, DBS-2100-32 & DBS-CG7) (M81306/1-01)   |
| DBS-2100-32     | TENSION ADJUSTMENT KEY (M81306/1E)   |
| DBS-2100-SB     | REPLACEMENT STATIONARY BLADE FOR .250 BAND TOOLS (REFERENCE DATASHEET DBS-2100-BRK-DS) |
| DBS-2100-MB     | REPLACEMENT MOVABLE BLADE FOR .250 BAND TOOLS (REFERENCE DATASHEET DBS-2100-BRK-DS)    |

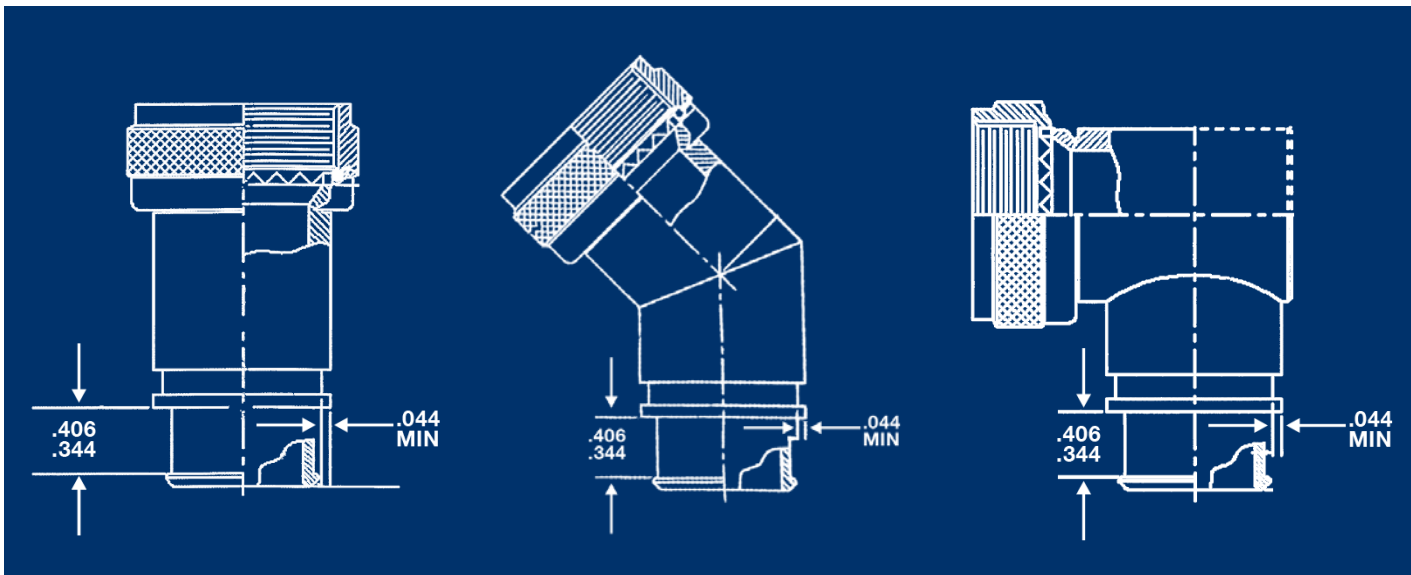
#### .125 WIDTH MINI-BAND TOOLS

| DMC PART NUMBER | CONFIGURATION  |
|-----------------|--|
| DBS-2200        | HAND OPERATED MINI-BAND TOOL (M81306/1B)   |
| DBS-2202        | HAND OPERATED MINI-BAND TOOL SET (INCLUDES DBS-2200, DBS-2100-32, DBS-CG8) (M81306/1-02) |
| DBS-2100-32     | TENSION ADJUSTMENT KEY (M81306/1E)   |
| DBS-2200-SB     | REPLACEMENT STATIONARY BLADE FOR .125 BAND TOOLS (REFERENCE DATASHEET DBS-2200-BRK-DS)   |
| DBS-2200-MB     | REPLACEMENT MOVABLE BLADE FOR .125 BAND TOOLS (NOTE: NOT FIELD REPLACEABLE, CONTACT DMC) |

#### TOOL VERIFICATION INSTRUMENTATION

| DMC PART NUMBER | CONFIGURATION   |
|-----------------|---|
| DBS-CG4D        | LABORATORY VERIFICATION INSTRUMENT (ELECTRONIC) FOR DBS-2100 & DBS-2200 SERIES BAND TOOLS |
| DBS-CG7         | FIELD VERIFICATION INSPECTION GAGE FOR DBS-2100, M81306/1C                                |

### Typical Shield Band/Backshell Applications



# M85049/128 Band Application System

## DMC Part Numbers

### TWO-STEP APPLICATION TOOLS, ACCESSORIES AND COMPONENTS

#### .250 Standard Width Band Tools

| DMC PART NUMBER | CONFIGURATION   |
|-----------------|---|
| DBS-1100        | Hand Operated Band Tool (M81306/2-01A)  |
| DBS-1101        | Hand Operated Band Application Tool Set M81306/2-01 (includes DBS-1100, DBS-R03)    |
| DBS-1102        | Hand Operated Band Application Tool Set includes DBS-1100, DBS-R03, DBS-CG2 & G691) |
| DBS-1100-32     | Tension Adjustment Key  |
| DBS-1100-7      | Replacement Blade for .250 Band Tools   |
| DBS-R03         | Roll-Over Tool for .250 Band Tab, M81306/2-01C                                      |

#### .125 Width Mini-Band Tools

| DMC PART NUMBER | CONFIGURATION   |
|-----------------|---|
| DBS-1200        | Hand Operated Mini-Band Tool M81306/2-02B   |
| DBS-1201        | Hand Operated Mini-Band Application Tool Set M81306/2-02 (Includes DBS-1200, DBS-R05)     |
| DBS-1202        | Hand Operated Mini-Band Application Tool Set (Includes DBS-1200, DBS-R05, DBS-CG3 & G752) |
| DBS-1100-7      | Replacement Blade for .125 Band Tools   |
| DBS-R05         | Roll-Over Tool for .125 Band Tab (M81036/2-02D)   |

#### Pneumatic Band Tools for .250 width Bands (Welded Buckle Bands Only)

| DMC PART NUMBER | CONFIGURATION                            |
|-----------------|--|
| PBT1100         | Two-Step Pneumatic Band Application Tool |

#### Pneumatic Band Tools for .125 width Bands (Welded Buckle Bands Only)

| DMC PART NUMBER | CONFIGURATION                            |
|-----------------|--|
| PMBT1200        | Two-Step Pneumatic Band Application Tool |

#### Tool Verification Instrumentation

| DMC PART NUMBER | CONFIGURATION  |
|-----------------|--|
| DBS-CG1         | Laboratory Verification Instrument for DBS-1100 & DBS-1200 series band tools |
| DBS-CG1-F       | DBS-CG1 Holding Fixture (Banding tool & DBS-CG1 optional)                    |
| DBS-CG2         | Field Verification Fixture for DBS-1100                                      |
| G691            | Go/No-Go Gage for DBS-CG2 Fixture  |
| DBS-CG2A        | M81306/2-01E Verification Set which includes DBS-CG2 & G691                  |
| DBS-CG3         | Field Verification Fixture for DBS-1200                                      |
| G752            | Go/No-Go Gage for DBS-CG3 Fixture  |
| DBS-CG3A        | M81306/2-02F Verification Set which includes DBS-CG3 & G752                  |

#### Banding Application Kit

| DMC PART NUMBER | CONFIGURATION   |
|-----------------|---|
| DMC60A          | .250 Banding Tool Kit with bands and shielding components*      |
| DMC1379         | .250 Banding Tool Kit without cutters and shielding components* |

\*Consult DMC for tool kit contents and other kit options.



# Tensile Test Systems

## For Wire Terminations & Similar Applications



### WIRE CRIMP PULL TESTING

Pull Testing is the most meaningful test in the wire termination industry. Pull Testing to the minimum tensile value, or to the breaking strength of a terminated wire sample will resolve all concerns about the mechanical properties of the crimped or welded termination, and it will indicate, with reliable accuracy, the electrical integrity of a connection.

Military/Aerospace Specifications are mostly based on the test procedure that is called out in EIA TP-08B Crimp Tensile Strength Test Procedure for Electrical Connectors.

Tensile strength testing in accordance with this document requires a motorized pull tester that is capable of moving at a rate of 1 inch (plus or minus 1/4 inch) per minute, and gripping jaws that hold each end of the sample, without distorting the crimp area.

The following specifications are generally referenced for minimum test values: Contacts AS39029, Terminals AS7928, Crimp Tools MIL-DTL-22520, and Space Applications NASA-STD-8739.4.

**NOTE:** The aircraft/aerospace tensile test values are somewhat higher due to the high performance design of the tools, contacts/terminals, conductors, and insulation.

Choosing the Pull Tester that meets your needs is a very important

issue for aerospace applications. A motorized tester is recommended over a manual tester for test lab, QA compliance, and specification/process/contract obligations. This is due to the controlled speed (rate of pull is generally required to be 1 inch per minute, plus or minus 1/4 inch). Manual testers do not comply with the head speed requirement, and can produce inconsistent readings if they are "jerked" by the operator.

Pull Testers that are to be used for in-house verification, tool calibration/set-up, and not for compliance with QA or specification/process/contract obligations may be motorized or manual. There are economical manual pull testers that are available, and they will serve as good in-house support equipment for the manufacturing/set-up operations. When operating these testers, the operator should always move the handle slowly for the most consistent readings.

### THE DEPENDABLE ALPHATRON™ TENSILE TEST SYSTEM FROM DMC



The Alphatron™ Tensile Test System from DMC is a line of Electronic Tensile Test Systems which may be used in conjunction with SPC Programs or other Quality Control disciplines in both OEM and maintenance applications. The electronic digital readout displays are a fast and reliable source of test data.

The rugged construction and the portable design of these test machines make any of them a superior choice for on-site or laboratory use in an infinite variety of applications. The operation of the equipment is simple yet versatile, and DMC will customize the gripping jaws or other components to make test sample installation and removal an easy task.

Models are available with output display readings in Pounds, Newtons, and/or Kilograms to conform with the requirements of the user's system. Units are available for either 115 or 230 volt power input.

It's only natural that the company which supplies the best wire termination tools and equipment would add the very best Digital Tensile Testers to further meet the demand for fewer sources and improved support through a wider range of user needs.



# Tensile Test Systems

## For Wire Terminations & Similar Applications



### THE DEPENDABLE ALPHATRON™ TENSILE TEST SYSTEM

The Alphasron™ Tensile Test System from DMC is a line of Electronic Tensile Test Systems which may be used in conjunction with SPC Programs or other Quality Control disciplines in both OEM and maintenance applications. The



MOTORIZED PULL TESTER  
MODEL MPT-250C



MANUAL PULL TESTER  
MODEL PT-150HA



HAND-HELD PORTABLE  
PULL TESTER MODEL HPT-200B



SMALL GAGE WIRE CRIMP  
PULL TESTER MODEL PT-40XP

electronic digital readout displays are a fast and reliable source of test data.

The rugged construction and the portable design of these test machines make any of them a superior choice for on-site or laboratory use in an infinite variety of applications. The operation of the equipment is simple yet versatile, and DMC will customize the gripping jaws or other components to make test sample installation and removal an easy task.

Models are available with output display readings in Pounds, Newtons, and/or Kilograms to conform with the requirements of the user's system. Units are available for either 115 or 230 volt power input.

It's only natural that the company which supplies the best wire termination tools and equipment would add the very best Digital Tensile Testers to further meet the demand for fewer sources and improved support through a wider range of user needs.

The **MPT-250C** Motorized Wire Crimp Pull Tester is ideal when a constant rate of pull is desired. It tests crimp strength on terminations up to size 8

in Mil-Spec applications, and size 1/0 AWG in commercial and automotive applications.

The **PT-150HA** Manual Wire Crimp Pull Tester is ideal for testing crimp strength up to size 10 for Mil-Spec applications, and size 4 AWG for commercial and automotive applications.

The **HPT-200B** hand-held pull tester blends the accuracy and rugged design of the Alphasron™ pull testers into a self-contained, portable, rechargeable battery powered unit. It is ideal for testing crimp strength up to size 10 AWG in Mil-Spec applications, and size 10 AWG in commercial and automotive applications.

The **PT-40XP** Electronic Manual Tensile Test System is specially designed to test the lower range tensile values from 0.1 to 40 lbs.

Tensile Testing Equipment

#### GENERAL SPECIFICATIONS

|                              | MPT-250C                                   | PT-150HA                                   | HPT-200B                                       | PT-40XP  |
|------------------------------|--|--|--|--|
| <b>Capacity</b>              | 250 lbf 113 kg<br>1112 N                   | 150 lbf 68.0 kg<br>667 N                   | 200 lbf 90.7 kg<br>889 N                       | 40 lbf 18.1 kg<br>170 N                        |
| <b>Accuracy</b>              | ±0.5% (1/2 of 1%)                          | ±0.5% (1/2 of 1%)                          | ±0.5% (1/2 of 1%)                              | ±0.5% (1/2 of 1%)                              |
| <b>Resolution</b>            | 0.1 lbf                                    | 0.1 lbf                                    | 0.1 lbf  | 0.1 lbf  |
| <b>Display Type</b>          | Digital Display<br>w/Peak<br>Hold Reading  | Digital Display<br>w/Peak<br>Hold Reading  | Digital Display<br>w/Peak<br>Hold Reading      | Digital Display<br>w/Peak<br>Hold Reading      |
| <b>Display</b>               | LED w/.56"<br>high digits                  | LED w/.56"<br>high digits                  | LED w/.15"<br>high digits                      | LED w/.56"<br>high digits                      |
| <b>Electrical</b>            | 115 VAC<br>50/60 Hz<br>230 VAC<br>50/60 Hz | 115 VAC<br>50/60 Hz<br>230 VAC<br>50/60 Hz | 115 VAC<br>50/60 Hz<br>230 VAC<br>Int. Battery | 115 VAC<br>50/60 Hz<br>230 VAC<br>Int. Battery |
| <b>Operating Temperature</b> | 50°F to 100°F<br>(10° to 38°C)             | 50°F to 100°F<br>(10° to 38°C)             | 40°F to 100°F<br>(5° to 38°C)                  | 50°F to 100°F<br>(10° to 38°C)                 |

#### DIMENSIONS

|               | MPT-250C                             | PT-150HA                              | HPT-200B                                | PT-40XP                                   |
|---------------|--------------------------------------|---------------------------------------|---|---|
| <b>Height</b> | 9.5 in. (24.13 cm)                   | 5 in. (12.7 cm)                       | 5.88 in. (14.94 cm) case                | 5.9 in. (14.97 cm) case                   |
| <b>Width</b>  | 10 in. (25.4 cm)                     | 8.5 in. (21.6 cm)                     | 2.53 in. (6.43 cm) case                 | 11.75 in. (29.85 cm) case                 |
| <b>Depth</b>  | 15 in. (38.1 cm)                     | 16 in. (40.6 cm)                      | 1.32 in. (3.36 cm) case                 | 5.8 in. (14.73 cm) case                   |
| <b>Weight</b> | 26 lbs. (11.78 kg)<br>(less options) | 15.2 lbs. (6.89 kg)<br>(less options) | 0.7 lbs. (0.3 kg) case<br>and hand unit | 5.7 lbs. (2.59 kg) case<br>(less options) |

# MPT-250C

## Motorized Wire Crimp Pull Tester

The **MPT-250C** is a Motorized Tensile Wire Crimp Pull Tester used to test a crimp contact's or terminal's tensile strength. The unit has a range of 2.5 lbf to 250 lbf and a full color LCD touchscreen interface. Includes data capture capability for exporting test data to a PC via USB or RS-232. The **MPT-250C** meets UL, ISO, SAE, MIL, and ASTM tensile test requirements.

The **MPT-250C** Motorized Wire Crimp Pull Tester is ideal when a constant rate of pull is desired. It tests crimp strength on terminations up to size 8 in Mil-Spec applications, and size 1/0 AWG in commercial and automotive applications.

### FEATURES AND SPECIFICATIONS

- 2 Test Types: "Pull to Fail" and "Force Hold"
- Data Capture (measures continuous and peak force values)
- Intuitive Full Color Touchscreen LCD User Interface
- Easy Setup, Operation, and Grip Change
- Force Measurement Range: 2.5 – 250.0 lbf (113kgf or 1112.0N)
- Force Measurement Accuracy: +/- 0.5% Full Scale
- Force Readout in (lbf, kgf, N)
- Pull Rate Speeds: 1 to 10 inches per minute (inch/min)
- Accommodates Most 10 AWG - 26 AWG Wire
- Communication Ports: Serial RS-232, USB 2.0
- Pull Rate Accuracy: 1-5 +/- 0.125 inch/min, 6-10 +/- 0.250 inch/min

### OPTIONAL ACCESSORIES

- Slotted Terminal Grip (P/N 15-3087C)
- Post Ring Terminal Grip (P/N 15-0066C)
- Mini-Vise Miniature Contact Grip (P/N 15-3314)
- Safe-T-Cable® Grip Set (P/N 15-3318)
- Customized Grips are available

### PHYSICAL

- Weight 23.64 lbs (less options)
- Shipping Weight ≈ 40.6 lbs (with standard grips)
- Case Weight 16.12 lbs
- Base Dimensions: 13.3" Wide x 6" High x 11" Deep

## Terminal & Wire Grips

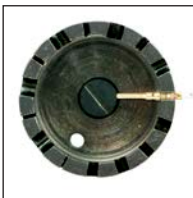
Custom Grips Available. Consult DMC for details.



P/N 15-3202C  
SELF-TIGHTENING  
GRIP (STANDARD)



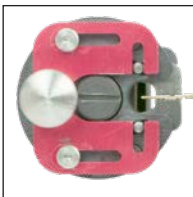
P/N 15-3046  
WIRE PULL GRIP  
(STANDARD)



P/N 15-3087C  
SLOTTED TERMINAL  
GRIP (OPTIONAL)



P/N 15-0066C  
POST TERMINAL GRIP  
(OPTIONAL)



P/N 15-3314  
MINI-VISE GRIP  
(OPTIONAL)



P/N 15-3318  
SAFE-T-CABLE® PULL  
AND GRIP SET  
(OPTIONAL)



P/N MPT-VF  
WEIGHT HANGER FOR  
VERIFICATION (OPTIONAL)



MPT-250C



### MINIMUM TENSILE STRENGTH REQUIREMENT\*

| CONDUCTOR SIZE<br>AWG (REFERENCE) | UL 486A TEST VALUES<br>(COMMERCIAL STANDARD) |        | TYPICAL MIL-SPEC<br>(AS22520, AS7928, ETC) |        |
|-----------------------------------|--|--------|--|--------|
|                                   | AWG  | Pounds | Newtons                                    | Pounds |
| 26                                | 3  | 13.4   | 7  | 31.2   |
| 24                                | 5  | 22.3   | 10   | 44.5   |
| 22                                | 8  | 35.6   | 15   | 66.8   |
| 20                                | 13   | 57.9   | 19   | 84.6   |
| 18                                | 20   | 89.0   | 38   | 169.1  |
| 16                                | 30   | 133.5  | 50   | 222.5  |
| 14                                | 50   | 222.5  | 70   | 311.5  |
| 12                                | 70   | 311.5  | 110  | 489.5  |
| 10                                | 80   | 356.0  | 150  | 667.5  |

\*Consult DMC for specific information on tensile strength standards.

# PT-150HA

## Wire Crimp Pull Tester

The **PT-150HA** Manual Wire Crimp Pull Tester is ideal for testing crimp strength up to size 10 for Mil-Spec applications\*, and size 4 AWG for commercial and automotive applications\*\*. The **PT-150HA** may be used in conjunction with SPC Programs or other Quality Control disciplines in both OEM and maintenance applications. The electronic digital readout display is a fast and reliable source of test data.

The operation of the equipment is simple yet versatile, and DMC will customize the gripping jaws or other components to make test sample installation and removal an easy task.

\* Size 10 MIL Spec wire pull test is typically 150 pounds force. Sample may not break at 150 pounds.

\*\* May require special grips due to wire diameter.



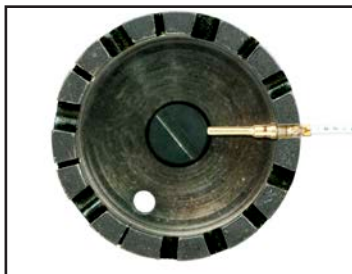
### PT-150HA



## Terminal & Wire Grips

Custom Grips Available. Consult DMC for details.

### SLOTTED TERMINAL GRIP (standard)



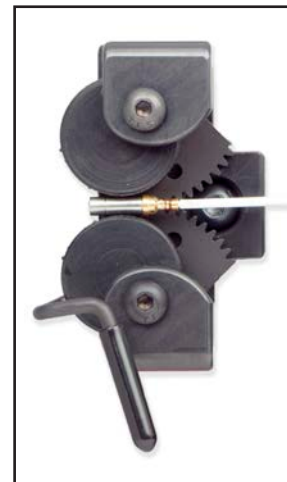
P/N 15-3087

### RING TERMINAL GRIP (optional)



P/N 15-0066

### SELF-TIGHTENING GRIP (optional)



P/N 15-3202

See disclaimer of liability on page 27.

### STANDARD FEATURES

- Capacity: 150 lb, 667 N, 68 Kg
- Display units factory set for pounds, newtons or kilograms
- Resolution: 0.1 lb
- Accuracy:  $\pm 0.5\%$  of full scale
- Digital Display with Peak Hold
- Backlit LCD Display with 0.56" High Digits
- Self-Tightening Wire Grip
- 15 Position Slotted Terminal Contact Grip
- Lever Arm Pull Mechanism
- Input power: 100-240 VAC 50/60 Hz

### OPTIONAL ACCESSORY GRIPS

- Ring Terminal Grip (P/N 15-0066)
- Self-Tightening Grip (P/N 15-3202)
- Right Angle Terminal Grip (P/N 15-3042)

### PHYSICAL

- Weight 15.2 Lbs.
- (Shipping Weight 21 Lbs.)
- Stand Dimensions: H. 5", W. 8.5", D. 16"

### CALIBRATION

- New units supplied with certificate of calibration traceable to NIST
- Factory calibration available

### OPTIONAL FEATURES

- Custom grips available

# HPT-200B Handheld Portable Pull Tester



## HPT-200B

The **HPT-200B** hand held pull tester combines the accuracy and rugged design of the Alphasatron™ pull testers into a portable battery powered unit. We follow that up with our expert factory service and calibration.

The lightweight Alphasatron™ **HPT-200B** is a self-contained tester that extends your testing capability to the shop floor. You no longer have to wait for process samples to arrive in the QA Lab. Durable construction and a convenient carry case ensure protection. The Low Stress tensioning mechanism makes the **HPT-200B** versatile and easy to use.

### STANDARD FEATURES

- Portable, lightweight and ergonomic design
- Built-in NIMH battery, with charger/AC power
- Up to 24 hours use on a single charge
- Low stress tensioning mechanism
- Protective carrying case
- Built-in calibration procedure
- Accuracy: (0.5% of full scale)
- Resolution: (0.1 pounds)
- Display in lbf, ozF, kgF, gF, or N
- Measure Lite data capture software

### SPECIFICATIONS

- Capacity: 200 LBF, 90.7 kg, 889N
- Accuracy:  $\pm .5\%$  of full scale
- Resolution: .1 lbf
- Display Type: Digital display w/peak hold reading
- Display: LCD w/.15 in. high digits
- Electrical: 100-240VAC charging adapter
- AC or 8.4 V NIMH rechargeable battery
- Operating Temperature: 40°F to 100°F (10° to 38°C)
- Height: 5.88 in. (14.94 cm) case
- Width: 2.53 in. (6.43 cm) case
- Depth: 1.32 in. (3.36 cm) case
- Weight: .7 lbs. (1.21 kg) case and hand unit



# PT-40XP Low Range Precision Pull Tester



## PT-40XP

The **PT-40XP** Electronic Manual Tensile Test System is specially designed to test the lower range tensile values from 0.1 to 40 lbs. The **PT-40XP** may be used in conjunction with SPC Programs or other Quality Control disciplines in both OEM and maintenance applications. The electronic digital readout display is a fast and reliable source of test data. This unit easily accommodates short wire leads (.75" minimum length test sample).

### STANDARD FEATURES

- Capacity: 40 lb, 170 N/18.2 KGS
- Display units factory set for pounds, kilograms or newtons
- Resolution: 0.1 lb / 0.1 N
- Accuracy:  $\pm 0.5\%$  of full scale
- Digital Display with Peak Hold
- LCD Display with 0.56" High Digits
- Two Self-Tightening Wedge-Grips and One Cam-Grip Assembly
- Precise Screw Pull Mechanism

### POWER SPECS

- Built-in NIMH Battery, with Charger
- 14 Hours of Use on a Single Charge
- 100-240 VA Power Adapter with
- 3 interchangeable plug adapters included

### PHYSICAL



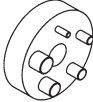
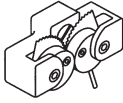




- Weight 5.7 lbs.
- Dimensions: Height: 5.9", Width: 11.75", Depth 5.8"

### CALIBRATION



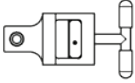
- Verify Calibration Anytime
- Factory calibration available
- New units supplied with certificate of calibration traceable to NIST
- In order to maintain NIST traceability, Do Not Exceed 12 Months Between Factory Calibrations



# Terminal and Wire Grips



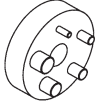
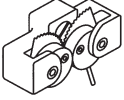

| MPT-250C   | PART NUMBER     | ILLUSTRATION  | CAPACITY | TYPE                                      | APPLICATION                        |
|--|-----------------|---|----------|---|------------------------------------|
|  | <b>15-3087C</b> |    | 250 lbf  | General Purpose Lower Grip                | Terminal Lugs<br>Machined Contacts |
|  | <b>15-0066C</b> |    | 250 lbf  | Ring Lower Grip                           | Ring Terminal Lugs                 |
|  | <b>15-3202C</b> |    | 250 lbf  | Self Tightening Lower Grip                | All Wire Terminations              |
|  | <b>15-3314</b>  |   | 250 lbf  | Mini-Vise Grip                            | Miniature Contacts                 |
|  | <b>15-3242C</b> |  | 100 lbf  | Low Tensile Miniature Contact, Lower Grip | Ring Terminals                     |
|  | <b>15-3046</b>  |  | 250 lbf  | T-Handle Large Insulation Upper Grip      | High Force Wire Grip               |
|  | <b>15-3318</b>  |  | 250 lbf  | Safe-T-Cable® Pull and Grip Set           | Safe-T-Cable® Testing              |



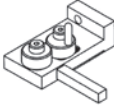
Tensile Testing Equipment

| HPT-200B  | PART NUMBER       | ILLUSTRATION  | CAPACITY | TYPE                             | APPLICATION |
|---|-------------------|---|----------|----------------------------------|-------------|
|  | <b>15-3035</b>    |  | 200 lbf  | Standard Slotted Disc Upper Grip | Terminals   |
|   | <b>TST-250-12</b> |  | 200 lbf  | Clamp Grip                       | Terminals   |



# Terminal and Wire Grips

| PT-150HA  | PART NUMBER    | ILLUSTRATION   | CAPACITY | TYPE                                   | APPLICATION                        |
|---|----------------|--|----------|--|------------------------------------|
|  | <b>15-3087</b> |   | 250 lbf  | General Purpose<br>Lower Grip          | Terminal Lugs<br>Machined Contacts |
|   | <b>15-0066</b> |   | 250 lbf  | Ring<br>Lower Grip                     | Ring Terminal Lugs                 |
|   | <b>15-3202</b> |   | 250 lbf  | Self Tightening<br>Lower Grip          | All Wire<br>Terminations           |
|   | <b>15-3242</b> |  | 250 lbf  | Locking Ring<br>Terminal<br>Lower Grip | Ring Terminals                     |

| PT-40XP   | PART NUMBER        | ILLUSTRATION  | CAPACITY | TYPE                     | APPLICATION        |
|---|--------------------|---|----------|--------------------------|--------------------|
|  | <b>GF-11</b>       |  | 40 lbf   | Standard<br>Contact Grip | Miniature Contacts |
|   | <b>PT-40XP-GA1</b> |  | 40 lbf   | Standard<br>Wire Grip    | Wire Grip          |

# Wire Standards Pull Test Values

| CONDUCTOR SIZE<br>AWG (REFERENCE) | UL 486A CAPACITY<br>(COMMERCIAL STANDARD) |         | TYPICAL MIL-SPEC*<br>(AS22520, AS7928, ETC) |         |
|-----------------------------------|---|---------|---|---------|
|                                   | Pounds                                    | Newtons | Pounds                                      | Newtons |
| 30                                | 1-1.5                                     | 6.7     | N/A   | N/A     |
| 28                                | 2   | 8.9     | N/A   | N/A     |
| 26                                | 3   | 13.4    | 7   | 31.2    |
| 24                                | 5   | 22.3    | 10  | 44.5    |
| 22                                | 8   | 35.6    | 15  | 66.8    |
| 20                                | 13  | 57.9    | 19  | 84.6    |
| 18                                | 20  | 89.0    | 38  | 169.1   |
| 16                                | 30  | 133.5   | 50  | 222.5   |
| 14                                | 50  | 222.5   | 70  | 311.5   |
| 12                                | 70  | 311.5   | 110   | 489.5   |
| 10                                | 80  | 356.0   | 150   | 667.5   |
| 8                                 | 90  | 400.5   | 225   | 1001.3  |
| 6                                 | 100                                       | 445.0   | 300   | 1335.0  |
| 4                                 | 140                                       | 623.0   | 400   | 1780.0  |
| 3                                 | 160                                       | 712.0   | N/A   | N/A     |
| 2                                 | 180                                       | 801.0   | 550   | 2447.5  |
| 1                                 | 200                                       | 890.0   | 650   | 2892.5  |
| 1/0                               | 250                                       | 1112.5  | 700   | 3115.0  |
| 2/0                               | 300                                       | 1235.0  | 750   | 337.5   |
| 3/0                               | 350                                       | 1557.5  | 825   | 3671.3  |
| 4/0                               | 450                                       | 2202.5  | 875   | 3893.8  |
| 250 MCM                           | 500                                       | 2225.0  | N/A   | N/A     |
| 300 MCM                           | 550                                       | 2447.5  | N/A   | N/A     |
| 350 MCM                           | 650                                       | 2670.5  | N/A   | N/A     |
| 400 MCM                           | 650                                       | 2892.5  | N/A   | N/A     |
| 500 MCM                           | 800                                       | 3560.0  | N/A   | N/A     |
| 600 MCM                           | 900                                       | 4005.0  | N/A   | N/A     |
| 700-2000                          | 1000                                      | 4450.0  | N/A   | N/A     |

Tensile Testing Equipment

\*This table lists general crimp termination tensile values. For specific information, consult DMC.

DMC does not provide connectors, contacts or wiring components. Parts shown here are for reference only. See disclaimer of liability on page 18.

# ST825 Swaging Tool for Cable (Wire Rope)

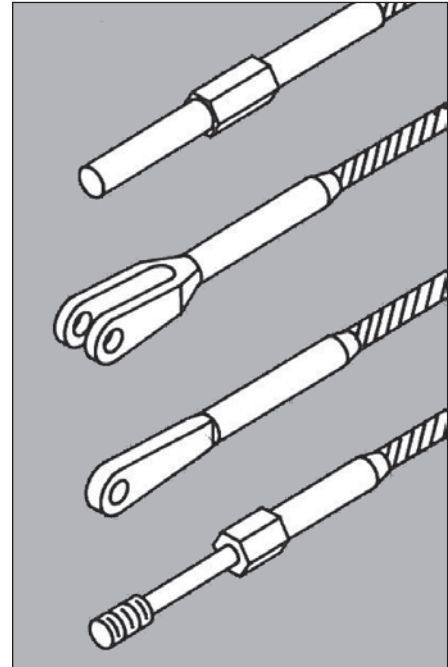


All swaging and cutting dies are of a hardened steel and are polished and heat treated to withstand high impact. Each die is marked to indicate the type and size terminal to be swaged, or cable to be cut.

This rugged tool, minus the dies, weighs less than 20 lbs. It operates on standard shop air pressure of 80 to 120 PSI and is designed for hand operation or it can be mounted on a cushion base plate for bench top use.

The DMC **ST825** Swaging Tool is used to swage terminals to flexible aircraft cable (usually stainless steel) and is built to meet government specifications. The complete tool consists of a cylinder and yoke assembly that is easily accessible for quick changing of dies, air hose assembly with a shut off valve and a single action foot control valve assembly with lubricator and air filter.

## TYPICAL SWAGING APPLICATIONS



# ST825 Swaging Tool for Cable (Wire Rope)



**ST825 WITH SWAGING DIES**



**ST825 WITH CUTTING DIES**



**DMC99 TOOL KIT**

This tool is also offered in the form of a tool kit (P/N **DMC99**). This includes additional items such as a base plate, gages, the complete range of cutting and swaging dies, an instruction manual, all packaged in a durable metal carrying case. This tool kit meets federal specification GGG-S-00825A (GSA-FSS) NSN 5130-00-712-4855.

**TO BE USED ON MIL-W-83420, MIL-W-87161 AND SPECIFIED WIRES.**

| DMC PART NO. | QTY. | TERMINAL REF. (MIL.#) | DESCRIPTION         | CABLE DIA. | CROSS REF. ATI P/N |
|--------------|------|-----------------------|---------------------|------------|--------------------|
| G689         | 1    |                       | GAGE SET            |            | AT5205G            |
| ST825003     | 1    |                       | SPACER              |            | AT520SP-1          |
| ST825SDB-2   | 2    | MS20663-2             | SWAGING DIE         | 1/6"       | AT520CDB-2         |
| ST825SDB-3   | 2    | MS20663-3             | SWAGING DIE         | 3/32"      | AT520CDB-3         |
| ST825SDB-4   | 2    | MS20663-4             | SWAGING DIE         | 1/8"       | AT520CDB-4         |
| ST825SDB-5   | 2    | MS20663-5             | SWAGING DIE         | 5/32"      | AT520CDB-5         |
| ST825SDB-6   | 2    | MS20663-6             | SWAGING DIE         | 3/16"      | AT520CDB-6         |
| ST825SSB-2-L | 1    | MS20664-2 (L)         | SWAGING DIE , LEFT  | 1/16"      |                    |
| ST825SSB-2-R | 1    | MS20664-2 (R)         | SWAGING DIE , RIGHT | 1/16"      | *AT520CSB-2        |
| ST825SSB-3-L | 1    | MS20664-3 (L)         | SWAGING DIE , LEFT  | 3/32"      |                    |
| ST825SSB-3-R | 1    | MS20664-3 (R)         | SWAGING DIE , RIGHT | 3/32"      | *AT520CSB-3        |
| ST825SSB-4-L | 1    | MS20664-4 (L)         | SWAGING DIE, LEFT   | 1/8"       |                    |
| ST825SSB-4-R | 1    | MS20664-4 (R)         | SWAGING DIE, RIGHT  | 1/8"       | * AT520CSB-4       |
| ST825SSB-5-L | 1    | MS20664-5 (L)         | SWAGING DIE , LEFT  | 5/32"      |                    |
| ST825SSB-5-R | 1    | MS20664-5 (R)         | SWAGING DIE, RIGHT  | 5/32"      | *AT520CSB-5        |
| ST825SSB-6-L | 1    | MS20664-6 (L)         | SWAGING DIE, LEFT   | 3/16"      |                    |
| ST825SSB-6-R | 1    | MS20664-6 (R)         | SWAGING DIE , RIGHT | 3/16"      | *AT520CSB-6        |
| ST825SB-2    | 2    | BA3-2                 | SWAGING DIE         | 1/16"      | AT520CB-2          |
| ST825SB-3    | 2    | BA3-3                 | SWAGING DIE         | 3/32"      | AT520CB-3          |
| ST825SB-4    | 2    | BA3-4                 | SWAGING DIE         | 3/32"      | AT520CB-4          |
| ST825SL-2    | 2    | ** -2                 | SWAGING DIE         | 1/16"      | AT520CS-2          |
| ST825SL-3    | 2    | ** -3                 | SWAGING DIE         | 3/32"      | AT520CS-3          |
| ST825SL-4    | 2    | ** -4                 | SWAGING DIE         | 1/8"       | AT520CS-4          |
| ST825SL-5    | 2    | ** -5                 | SWAGING DIE         | 5/32"      | AT520CS-5          |
| ST825SL-6    | 2    | ** -6                 | SWAGING DIE         | 3/16"      | AT520CS-6          |
| ST825SL-7    | 2    | ** -7 (NOTE)          | SWAGING DIE         | 7/32"      | AT520CS-7          |
| ST825SL-8    | 2    | ** -8                 | SWAGING DIE         | 1/4"       | AT520CS-8          |
| ST825CD-2-1  | 1    |                       | CUTTING DIE         | 1/16"      | AT520CD-2          |
| ST825CD-2-2  | 1    |                       | CUTTING PUNCH       | 1/16"      | AT520CP-2          |
| ST825CD-3-1  | 1    |                       | CUTTING DIE         | 3/32"      | AT520CD-3          |
| ST825CD-3-2  | 1    |                       | CUTTING PUNCH       | 3/32"      | AT520CP-3          |
| ST825CD-4-1  | 1    |                       | CUTTING DIE         | 1/8"       | AT520CD-4          |
| ST825CD-4-2  | 1    |                       | CUTTING PUNCH       | 1/8"       | AT520CP-4          |
| ST825CD-5-1  | 1    |                       | CUTTING DIE         | 5/32"      | AT520CD -5         |
| ST825CD-5-2  | 1    |                       | CUTTING PUNCH       | 5/32"      | AT520CP-5          |
| ST825CD-6-1  | 1    |                       | CUTTING DIE         | 3/16"      | AT520CD-6          |
| ST825CD-6-2  | 1    |                       | CUTTING PUNCH       | 3/16"      | AT520CP-6          |
| ST825CD-7-1  | 1    |                       | CUTTING DIE         | 7/32"      | AT520CD-7          |
| ST825CD-7-2  | 1    |                       | CUTTING PUNCH       | 7/32"      | AT520CP-7          |
| ST825CD-8-1  | 1    |                       | CUTTING DIE         | 1/4"       | AT520CD-8          |
| ST825CD-8-2  | 1    |                       | CUTTING PUNCH       | 1/4"       | AT520CP-8          |

\*Sets only

\*\*MS20658, MS20667, MS2160, MS21259

(NOTE) Uses the ST825SL-6 die set for MS20658-7 terminal.

Swaging Tool for Cable



# DMC Maintenance Kit Solutions

**DMC has built Wiring System Maintenance Kits for over 60 years and has tool kits already designed for most Military and Commercial Aircraft & Ground Vehicles. This includes Helicopters, Shipboard Systems, Weapons Systems, and other High-Demand Electrical Systems.**

## THE PROBLEM

**Complex Wiring Systems:** Today's sophisticated aircraft and weaponry electronics have become increasingly complex, and the electrical system operation is critical.

**Personnel Training:** The technicians who must maintain these systems may not have current knowledge about all types of terminations and tooling needed to repair the vast number of interconnections which make up these systems.

## TIME CONSTRAINTS/AOG (Aircraft on Ground)

**Time Requirements:** Once the aircraft becomes inoperable because of a connector failure, it is necessary to replace the connector, contact, terminal, or other wiring device as quickly as possible to avoid revenue loss due to AOG. DMC kits supply your staff with both the information and the tools necessary to make this type of repair in the **shortest time possible.**

## THE SOLUTION

**Research:** DMC's knowledgeable staff does the necessary research to relieve this pressure, and eliminate the guesswork or haphazard (trial-and-error) utilization of tools and wiring devices by the development of detailed Tool Selection Charts which cross reference all of the connectors with complete repair tool data.



**Packaging:** DMC then packages these Tool Selection Charts, Contents Charts, and Instruction Sheets with all the crimping tools, turret heads, dies, wire strippers, installing tools, removal tools and other accessories necessary to support the electrical wiring system in durable cases or rugged cabinets so the tools are properly organized and protected. Each tool has a well-designed cavity which extends the life and capability of the tool.

**Ready Access:** The technician now has ready access to the technical data and tools for reliable, cost-effective Total Wiring System Support.

## CUSTOM KITS

Building a tool kit to service an entire wiring system involves extensive research to select correct tooling and ensure all serviceable connectors, terminals, splices and contacts are covered. Technicians who are responsible for the maintenance or production of entire systems cannot be expected to know all the answers, nor do they have the time to do the necessary research or locate tooling.

DMC can work with you to select or custom design the right Wiring System Maintenance Kit to meet your individual requirements. After you have purchased a DMC Maintenance Kit, our trained personnel are available with the information and tools you need to keep your kit up-to-date.



# Custom Maintenance Kits

## 60 YEARS OF INDUSTRY KNOWLEDGE

DMC has the knowledge and does the technical research for your application. We apply our decades of connector industry experience and wealth of tooling information into developing the technical data for every Wiring System Maintenance Kit we build. We design and manufacture a tool kit package which includes: All the necessary tooling (crimping tools, dies, heads, installing tools, removal tools, gages, wire strippers for circular and R.F. connectors and more), valuable tool application data which eliminates guesswork, and complete instructions on set up and use of each tool and accessory.

## ENVIRONMENTAL PACKAGING

An analysis of the environmental conditions and other factors is of absolute necessity from the beginning. On-site field maintenance requires a packaging system where maximum portability and component protection are the controlling factors, whereas maintenance kits designed for depot-level support are based primarily on convenient location of components and other significant factors important to that environment.

## CUSTOM SIZES

Depending upon the complexity of the system being supported, the tools and technical data are protected in various formats: from a single metal tool box for basic, on-site repairs to multi-drawer, roll-around cabinets for depot-level repairs.

## FOAM INSERTS

Foam inserts (standard for all DMC kits) provide each component with a designated storage space which is indicated on the Contents Charts. This assures the technician that no needed components are missing prior to departing to make the repair. The technician also knows, prior to leaving the on-site repair, that if a foam compartment is empty, then a component is missing and must be retrieved. This helps eliminate FOD (Foreign Object Damage) problems.

## ALL IN ONE

Since all of these tools, together with their operating instructions, are contained in a single kit, the connector repair can be made in the shortest time possible, thus permitting a rapid return of your aircraft to service.



Optional color contrast foam



DMC kits are available in multiple case materials including: fiberglass, steel, and copolymer polypropylene. Kits are available in multiple sizes, colors, and configurations. Roll-around kits are also available in multiple sizes.

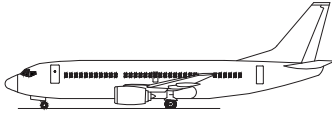
# Technical Data Package

## INSTRUCTIONS AND TOOL SELECTION CHARTS

**DMC1264**

ELECTRICAL CONNECTOR MAINTENANCE/REPAIR KIT FOR

**BOEING 737-600  
737-600, 737-700 AND 737-800**



PERIODIC CALIBRATION & REFURBISHMENT SERVICE AND REPLACEMENT OF LOST/DAMAGED TOOLS ARE AVAILABLE  
CONTACT:

**DMC DANIELS MANUFACTURING CORPORATION**

526 THORPE ROAD ORLANDO, FLORIDA 32824 USA  
TELEPHONE: (407) 855-6161 FAX: (407) 855-6884  
www.dmctools.com dmc@dmctools.com

REV. B

DMC1264-CS

## TECHNICAL DATA PACKAGE

The technical data package is affixed to the Kit and protected by transparent, plastic lamination to prevent environmental damage. DMC has years of experience in supporting the connector industry. This experience has enabled DMC to develop a wealth of information which can be easily accessed in the technical data package in your Kit. The technical data package typically consists of three sets of data: Contents Charts, Tool Instruction Sheets, and Tool Selection charts.

## CONTENTS CHARTS

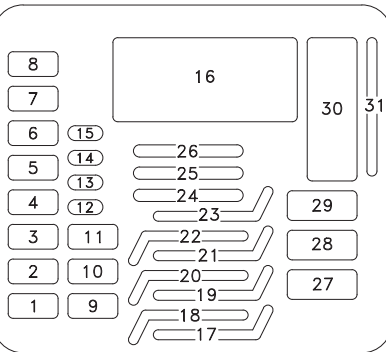
**Increase Efficiency/Reduce FOD.** These charts offer a visual representation of the storage compartments for all tools in the kit. These charts enable the technician to quickly scan the kit to be assured that no tools are missing prior to making a repair. While this obviously allows the user to easily locate the required tools, it also decreases the likelihood that important components will become lost or left behind in areas where they may later cause damage to electrical circuitry, or system failure (Foreign Object Debris-F.O.D.). The contents charts also list all the tools by part number, so re-ordering information is immediately available should a component require replacement. All tools are identified by common industry part numbers, and available from the normal supply chain.

## INSTRUCTION SHEETS

DMC provides detailed step-by-step directions on how to prepare each tool for use. Instruction sheets are also available to meet foreign language or unique special purpose tool requirements for wire prep, termination, and assembly.

## Technical Data Package

### CONTENTS CHART COMPARTMENT A



| ITEM | DESCRIPTION  |
|------|--|
| A1.  | WS-45 (DANIELS) JACKET TRIM JIG  |
| A2.  | WS-46 (DANIELS) JACKET TRIM JIG  |
| A3.  | WS-47 (DANIELS) JACKET TRIM JIG  |
| A4.  | WS-48 (DANIELS) JACKET TRIM JIG  |
| A5.  | WS-49 (DANIELS) JACKET TRIM JIG  |
| A6.  | WS-50 (DANIELS) JACKET TRIM JIG  |
| A7.  | WS-51 (DANIELS) JACKET TRIM JIG  |
| A8.  | WS-52 (DANIELS) JACKET TRIM JIG  |
| A9.  | WS-53 (DANIELS) JACKET TRIM JIG  |
| A10. | WS-54 (DANIELS) JACKET TRIM JIG  |
| A11. | WS-55 (DANIELS) JACKET TRIM JIG  |
| A12. | WS-56 (DANIELS) DIELECTRIC TRIM JIG  |
| A13. | WS-57 (DANIELS) DIELECTRIC TRIM JIG  |
| A14. | WS-58 (DANIELS) DIELECTRIC TRIM JIG  |
| A15. | WS-59 (DANIELS) DIELECTRIC TRIM JIG  |
| A16. | TW-1 (110v) (TELEDYNE KINETICS) or TW-1HW (220v) (TELEDYNE KINETICS) THERMAL IRIG. STRIPPER w/ STAND |
| A17. | DAK83-16 (DANIELS) INSTALLING TOOL   |
| A18. | DRK83-16 (DANIELS) REMOVAL TOOL  |
| A19. | DAK83-20 (DANIELS) INSTALLING TOOL   |
| A20. | DRK83-20 (DANIELS) REMOVAL TOOL  |
| A21. | DAK95-168 (DANIELS) INSTALLING TOOL  |
| A22. | DRK95-168 (DANIELS) REMOVAL TOOL   |
| A23. | DAK145 (DANIELS) REMOVAL TOOL  |
| A24. | DAK20B (DANIELS) INSTALLING TOOL   |
| A25. | DAK16B (DANIELS) INSTALLING TOOL   |
| A26. | DAK12B (DANIELS) INSTALLING TOOL   |
| A27. | 45-162 (IDEAL) COAXIAL CABLE STRIPPER  |
| A28. | 45-163 (IDEAL) COAXIAL CABLE STRIPPER  |
| A29. | 45-165 (IDEAL) COAXIAL CABLE STRIPPER  |
| A30. | 45-164 (IDEAL) COAXIAL CABLE STRIPPER  |
| A31. | 45-123 (IDEAL) WIRE CUTTER   |

## Contents Charts

### M22520/1-01 CRIMP TOOL (DANIELS AF8)

**INSTRUCTIONS FOR CHANGING TURRET HEAD ASSEMBLIES**

- PRESS TRIGGER WHICH RELEASES TURRET TO TROUSER POSITION.
- PLACE SELECTED TURRET HEAD ASSEMBLY INTO TROUSER POSITION AND ALLOW SPRINGS TO RETURN HEAD TO LOCK POSITION.
- AFTER TURRET HEAD ASSEMBLY IS SEATED WITH INDEX MARKS, TURRET HEAD SPRINGS SHOULD RESET EASILY WITHOUT BENDING THE WIRE. IF THIS DOES NOT OCCUR, SPRINGS RETAINER RING AND REMOVE WITH A STRAIGHT TROUSER.

**INSTRUCTIONS FOR INDEXING TURRET HEAD ASSEMBLIES**

- REMOVE TURRET WHICH RELEASES TURRET TO TROUSER POSITION.
- SELECT POSITIONER DESIRED FROM COLOR CODED POSITIONERS.
- INSERT TURRET INTO CRIMP HEAD ASSEMBLY.
- TO LOCK TURRET UNTIL IT SNAPS INTO LOCKED POSITION, PRESS TRIGGER UNTIL IT SNAPS INTO LOCKED POSITION.

**INSTRUCTIONS FOR USING INDENTER CLOSURE SELECTOR**

- REFER TO INSTRUCTION SHEET FOR INDENTER CLOSURE SELECTOR.
- ASSEMBLY, THE CONTACT INDENTER CLOSURE SELECTOR IS USED TO SELECT WIRE SIZE.
- ADJUST THE SPRING CLIP LOCK FROM THE BOTTOM OF THE SPRING CLIP LOCK.
- TOOL MUST BE IN OPEN POSITION WHEN SPRING CLIP LOCK IS RELEASED.
- SELECTED POSITION NUMBER AND TOOL IS IDENTIFIED BY SPRING CLIP LOCK WIRE.
- REPAIR INSTRUCTIONS PROCEDURES WHEN CHANGING CONTACT AND/OR WIRE SIZES.

### M22520/2-01 CRIMP TOOL (DANIELS AFM8)

**INSTRUCTIONS FOR CHANGING POSITIONERS**

- SELECT CORRECT POSITIONER FOR CONTACT WIRE SIZES.
- INSERT POSITIONER INTO POSITIONER LOCK PLATE, PUSH AND ROTATE TO SET POSITION.
- TURNING POSITIONER SETTING FOR THE WIRE SIZE FROM THE DATAPLATE ON THE END OF POSITIONER.
- LEFT SELECTOR KNOB AND ROTATE UNTIL SELECTOR NUMBER ALIGNS WITH INDEX MARK.
- TOOL IS NOW READY FOR USE.

**CRIMPING INSTRUCTIONS**

- INSERT CONTACT THROUGH INDENTER OPENING AND INTO POSITIONERS.
- INSERT WIRE INTO CONTACT AND HOLD SECURELY TO INSURE THAT IT BOTTOMS IN CONTACT CLOSURE SHANKS UNTIL TOOL BOTTOMS AND CONTACT SHANKS RELEASE HANDLE AND REMOVE CRIMPED CONTACT.

**NOTE:** AFTER CRIMPING CYCLE IS COMPLETED, INSPECT CONTACT. MAKE SURE THE WIRE IS VISIBLE THROUGH THE INSPECTION HOLE OF THE CONTACT AND THERE ARE NO FRACURES IN THE CONTACT.



## Instruction Sheets



# Tool Selection Charts

## TOOL SELECTION CHARTS

**Eliminate Trial And Error Tool Selection.** These detailed charts are developed from the actual connector lists of the system being supported, and are designed to direct the technician in the selection of the proper tools and accessories. DMC does all the research to cross reference the appropriate tooling for proper assembly, repair, and disassembly of the power, RF, and other wire terminations in the system.

The tool selection charts identify the connectors in alpha/numeric order by their military and/or commercial designations; identify the contacts by part number and color code where applicable; list applicable wire sizes; and identify the appropriate crimp tool and associated turret head/positioner/die, installing tool and removal tool for wired and unwired contacts where applicable. The Tool Selection Charts include information on the replacement parts for the connectors & wiring devices.

| DMC1264 TOOL SELECTION CHART                              |                       |                     |        |             |          |              |                     |              |                    |                                   |                      |                      |                                   |              |     |
|---|-----------------------|---------------------|--------|-------------|----------|--------------|---------------------|--------------|--------------------|-----------------------------------|----------------------|----------------------|-----------------------------------|--------------|-----|
| VENDOR (CODE) CONNECTOR SERIES AND TYPE                   | CONNECTOR PART NUMBER | CONTACT PART NUMBER | P OF S | COLOR BANDS | BIN CODE | CONTACT SIZE | WIRE RANGE OR CABLE | CONTACT GAGE | CRIMP TOOL         | TURRET HEAD POSITIONER OR DIE SET | INSTALLING TOOL      | REMOVAL TOOL         | REMOVAL TOOL FOR UNWIRED CONTACTS | ADAPTOR TOOL |     |
|   |                       |                     |        |             |          |              |                     |              |                    |                                   |                      |                      |                                   |              | 1st |
| MIL-DTL-26482 SERIES 1 CIRCULAR FRONT RELEASE CONTACTS    | MS2091                | MS2091/21-240       | P      | RED         | BLU      | 362          | 22-26               | CG22         | AFM8 (M22520/1-01) | THA (M22520/1-02)                 | DAK200 (M1969/17-01) | DRK200 (M1969/19-06) | DRK200 (M1969/19-06)              |              |     |
|   |                       | MS2091/21-228       | P      | RED         | GRN      | 356          | 22-26               | CG22         | AFM8 (M22520/1-01) | THA (M22520/1-02)                 | DAK200 (M1969/17-01) | DRK200 (M1969/19-06) | DRK200 (M1969/19-06)              |              |     |
|   |                       | MS2091/21-247       | P      | RED         | GRN      | 356          | 22-26               | CG22         | AFM8 (M22520/1-01) | THA (M22520/1-02)                 | DAK200 (M1969/17-01) | DRK200 (M1969/19-06) | DRK200 (M1969/19-06)              |              |     |
|   |                       | MS2091/21-224       | P      | RED         | GRN      | 356          | 22-26               | CG22         | AFM8 (M22520/1-01) | THA (M22520/1-02)                 | DAK200 (M1969/17-01) | DRK200 (M1969/19-06) | DRK200 (M1969/19-06)              |              |     |
| MIL-DTL-26482 SERIES 2 CIRCULAR REAR RELEASE CONTACTS     | MS2091                | MS2091/11-115       | S      | ORN         | GRN      | 356          | 22-26               | CG22         | AFM8 (M22520/1-01) | THA (M22520/1-02)                 | DAK200 (M1969/17-01) | DRK200 (M1969/19-06) | DRK105-15A (M1969/19-06)          |              |     |
|   |                       | MS2091/11-110       | S      | ORN         | GRN      | 356          | 22-26               | CG22         | AFM8 (M22520/1-01) | THA (M22520/1-02)                 | DAK200 (M1969/17-01) | DRK200 (M1969/19-06) | DRK105-15A (M1969/19-06)          |              |     |
|   |                       | MS2091/11-116       | S      | ORN         | GRN      | 356          | 22-26               | CG22         | AFM8 (M22520/1-01) | THA (M22520/1-02)                 | DAK200 (M1969/17-01) | DRK200 (M1969/19-06) | DRK105-15A (M1969/19-06)          |              |     |
|   |                       | MS2091/11-111       | S      | ORN         | GRN      | 356          | 22-26               | CG22         | AFM8 (M22520/1-01) | THA (M22520/1-02)                 | DAK200 (M1969/17-01) | DRK200 (M1969/19-06) | DRK105-15A (M1969/19-06)          |              |     |
| MIL-DTL-38999 SERIES 2 CIRCULAR REAR RELEASE CONTACTS     | MS2750E1853P          | MS2750E1853P        | P      | ORN         | BLU      | 362          | 22-26               | CG22         | AFM8 (M22520/1-01) | THA (M22520/1-02)                 | DAK200 (M1969/17-01) | DRK200 (M1969/19-06) | DRK105-15A (M1969/19-06)          | CM3895-22    |     |
|   |                       | MS2750E1853S        | S      | ORN         | GRN      | 356          | 22-26               | CG22         | AFM8 (M22520/1-01) | THA (M22520/1-02)                 | DAK200 (M1969/17-01) | DRK200 (M1969/19-06) | DRK105-15A (M1969/19-06)          | CM3895-24    |     |
|   |                       | MS2750E1853P        | P      | ORN         | BLU      | 362          | 22-26               | CG22         | AFM8 (M22520/1-01) | THA (M22520/1-02)                 | DAK200 (M1969/17-01) | DRK200 (M1969/19-06) | DRK105-15A (M1969/19-06)          | CM3895-22    |     |
|   |                       | MS2750E1853S        | S      | ORN         | GRN      | 356          | 22-26               | CG22         | AFM8 (M22520/1-01) | THA (M22520/1-02)                 | DAK200 (M1969/17-01) | DRK200 (M1969/19-06) | DRK105-15A (M1969/19-06)          | CM3895-24    |     |
| MIL-STD-883C "3457" SERIES CIRCULAR REAR RELEASE CONTACTS | MS3408S141-5          | MS3408S141-5        | P      | ORN         | BLU      | 362          | 22-26               | CG22         | AFM8 (M22520/1-01) | THA (M22520/1-02)                 | DAK200 (M1969/17-01) | DRK200 (M1969/19-06) | DRK105-15A (M1969/19-06)          | CM3895-22    |     |
|   |                       | MS3408S141-5        | S      | ORN         | GRN      | 356          | 22-26               | CG22         | AFM8 (M22520/1-01) | THA (M22520/1-02)                 | DAK200 (M1969/17-01) | DRK200 (M1969/19-06) | DRK105-15A (M1969/19-06)          | CM3895-24    |     |
|   |                       | MS3408S141-5        | P      | ORN         | BLU      | 362          | 22-26               | CG22         | AFM8 (M22520/1-01) | THA (M22520/1-02)                 | DAK200 (M1969/17-01) | DRK200 (M1969/19-06) | DRK105-15A (M1969/19-06)          | CM3895-22    |     |
|   |                       | MS3408S141-5        | S      | ORN         | GRN      | 356          | 22-26               | CG22         | AFM8 (M22520/1-01) | THA (M22520/1-02)                 | DAK200 (M1969/17-01) | DRK200 (M1969/19-06) | DRK105-15A (M1969/19-06)          | CM3895-24    |     |

## WORLDWIDE SUPPORT

DMC has developed a worldwide network of professionals to aid you in answering technical questions, designing new service kits, modifying existing kits, and processing orders for kits and individual components. DMC is continually working with the government and major manufacturers towards the development of support materials to keep pace with the most recent developments in technology. DMC's full service facility in Orlando, Florida, has a qualified staff to recalibrate tools to meet FAA requirements and to refurbish kits. As you continually review changes in your interconnect systems and forward this information to DMC, we will update your Tool Kit to support any new configurations. DMC will remain your partner long after you receive your initial Wiring System Service Kit, so you will keep current with all the advances made by the connector industry.

DMC Maintenance Kits

## Tool Selection Charts

The image shows various DMC tools used for connector work. Callouts from the tools point to specific rows in the DMC1264 Tool Selection Chart. For example, a blue crimp tool points to the 'CRIMP TOOL' column, and a contact probe points to the 'REMOVAL TOOL' column.

## Refurbishment & Repair of DMC Maintenance Kits

DMC offers comprehensive refurbishment and repair of all of our Maintenance Kits. Our trained personnel are available with the information and tools you need to keep your kit up-to-date and in production. Each tool in your kit will be inspected and calibrated, and if necessary, repaired or replaced. In addition, the kit will be evaluated to ensure it is up-to-date and can support the latest version of your aircraft. Finally, an optional certificate of calibration can be created that covers every tool within the kit. See page 180 for more info.

# Repair and Calibration

## DMC Offers Repair & Calibration for All DMC Tools

DMC has earned a reputation for High Quality and Reliable Tooling throughout the world. Our tools and related products have been used to manufacture and support some of the most complex and sophisticated systems in the Aerospace Industry, and we are proud to support what we sell with factory repair and calibration services.

When you send your tool(s) to the DMC Factory in Orlando, FL USA, or an authorized DMC Repair/Calibration Center, our experienced factory trained technicians will evaluate your tool, and when repairs are justified, original DMC Factory Parts and Equipment will be used to restore the tool to the required level of performance to which it was designed.

We strongly recommend periodic Go-No/Go Gage Inspection of all Crimp Tools and Dies used in wiring production, and when the Gage Inspection indicates a tool has experienced wear or abuse, it is time for DMC Factory Repair. Certificates available upon request.

## Repair & Calibration of Alphasron® Tensile Testers

DMC offers complete repair and calibration services for our entire line of Alphasron® Tensile Testers. Our skilled technicians will inspect the hardware and software of your Alphasron® Tensile Tester. The unit will be calibrated and updated with the latest software. An optional certificate of calibration with before and after readings is available.

## Refurbishment & Repair of DMC Maintenance Kits

DMC offers comprehensive refurbishment and repair of all of our Maintenance Kits. Our trained personnel are available with the information and tools you need to keep your kit up-to-date and in production. Each tool in your kit will be inspected and calibrated, and if necessary, repaired or replaced. In addition, the kit will be evaluated to ensure it is up-to-date and can support the latest version of your aircraft. Finally, an optional certificate of calibration can be created that covers every tool within the kit.

## Contact DMC to Learn More

Our Customer Service team is available to assist in coordinating the repair and calibration of your tooling. Please contact us at: (407) 855-6161 or [dmc@dmctools.com](mailto:dmc@dmctools.com).

## World-Wide Support

Outside of the United States, we have Authorized DMC Repair Facilities globally to assist you in getting your tooling repaired and back into production. Please visit: <http://www.dmctools.com/Support/support.html>



# Repair and Calibration

| DMC Repairs and Calibrates   |
|--|
| Hand Crimp Tool, 4 Indent (AF, AFM, MH, M, GS)   |
| Pneumatic 4-Indent Crimp Tools (WA22, WA27)  |
| WA23 Pneumatic Crimp Tool (Large AWG)  |
| Open Frame (HX3, HX4, UDT3, UDT4)  |
| Open Frame Pneumatic Crimp Tools (HX23, PHX3, HX33)  |
| GMT Style Crimp Tools  |
| DBS Style Banding Tools  |
| Pneumatic Banding Tools (PBT, PMBT)  |
| Hydraulic Crimp Tools (HD36, HD51, HD120)  |
| Hydraulic Safe-T-Cable with Nose Replacement   |
| Hydraulic Safe-T-Cable without Nose Replacement  |
| Battery Operated Crimp Tools (AFE8B, HXE4B, HDE36B, HDE51B, HDE120, EMC3300)                       |
| Alphatron Tensile Tester (PT, HPT, MPT, RTCG, DBS-CG4D) (Calibration Only, Repair Quoted Seperate) |
| Safe-T-Cable Tools without Nose Replacement (SCT/SCTR)   |
| Pneumatic Safe-T-Cable Tools without Nose Replacement (SCTP/SCTPR)                                 |
| Safe-T-Cable Tools with Nose Replacement (SCT/SCTR)  |
| Battery Operated Safe-T-Cable with Nose Replacement (SCTE)   |
| Battery Operated Safe-T-Cable without Nose Replacement (SCTE)                                      |
| Pneumatic Safe-T-Cable Tools with Nose Replacement (SCTP/SCTPR)                                    |
| Twist Strip Tool   |
| Signed Certificate of Calibration without Readings with Qualifying Repair listed above             |
| DBS Calibration Fixture (DBS-CG1)  |
| DBS Calibration Fixture (DBS-CG2, -CG3, -CG7, -CG8)  |
| Signed Certificate of Calibration with Readings with Qualifying Repair listed above                |
| Calibration Only with Signed Certificate of Calibration without Readings                           |
| Calibration Only with Signed Certificate of Calibration with Readings                              |

Contact DMC for pricing



# Limited Warranty

## LIMITED WARRANTY

LIMITED WARRANTY: DMC warrants each new product sold by it to be free from defects in material and workmanship under normal use and service. DMC's obligation under this warranty is limited to the free correction or, at DMC's option, the refund of the purchase price of any such product which proves defective in normal service within ninety (90) days after delivery to the first user, provided that the product is returned to DMC with all transportation charges prepaid and which shall appear to DMC's satisfaction, after DMC's inspection, to have been

defective in material or workmanship, it being understood that DMC products are not consumer products. This warranty shall not cover any damage to any product which, in the opinion of DMC, was caused by normal wear, misuse, improper operation, tampering, neglect, or accident.

This warranty is in lieu of all other warranties express or implied. No warranty, express or implied, is made or authorized to be made or assumed with respect to products of Daniels Manufacturing Corporation other than those herein set forth.



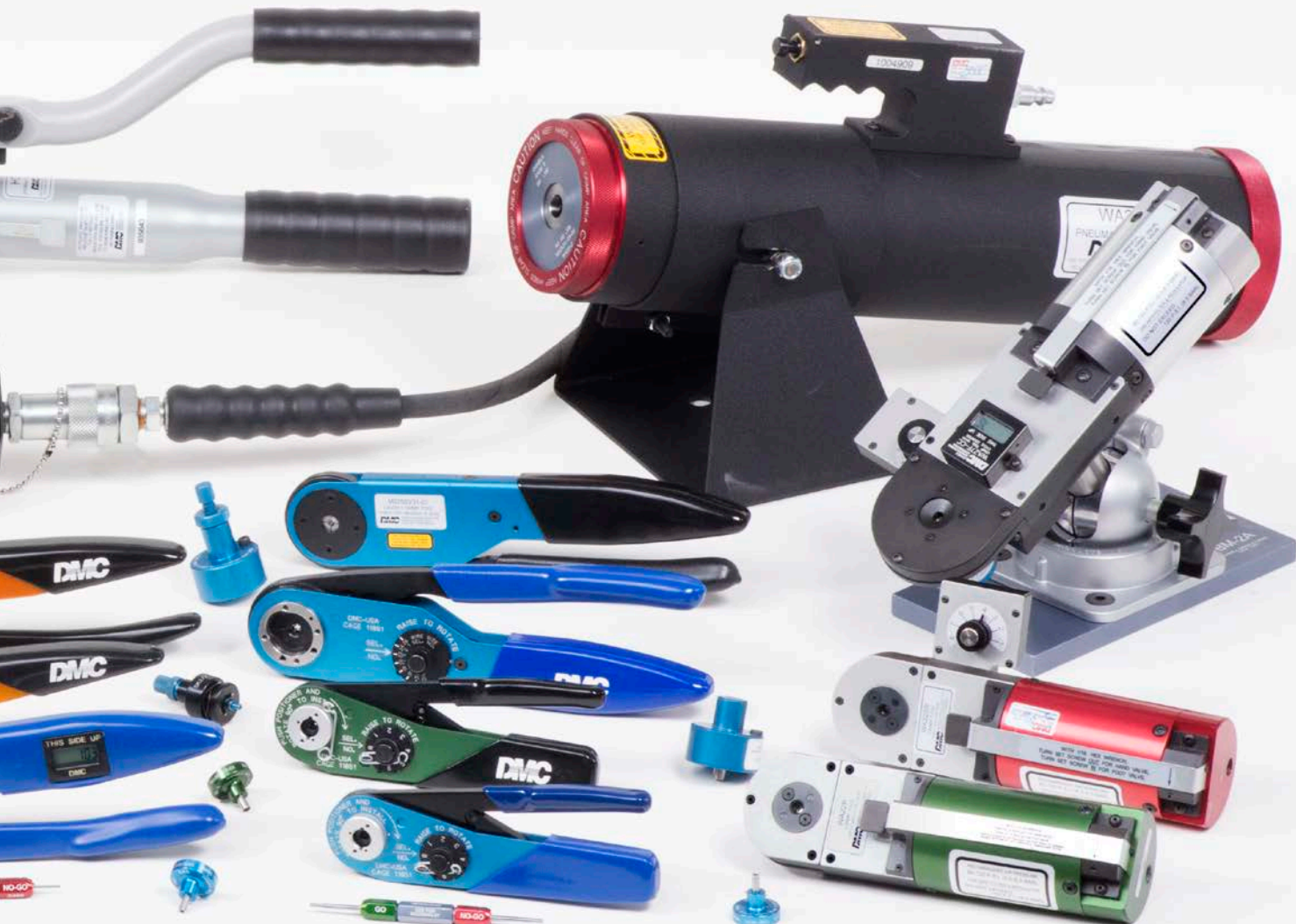
## ERGONOMICS CHALLENGE

Ergonomic guidelines set for less demanding and mechanically complicated hand tools (such as hammers, wrenches, wire cutters and pliers) cannot be applied to crimping tools which require thousands of pounds of force.

DMC's years of experience as a leader in the crimp tool industry have confirmed that the most effective ergonomic improvements for workers can be achieved by substituting power assisted crimp tools for existing hand crimp tools wherever feasible. DMC's pneumatic, hydraulic, and battery operated power assisted crimp tools are already supporting OEM Production Line Operations where crimping is being done 24/7.

For hand crimp tools, DMC's ergonomic philosophy is to design the most mechanically efficient hand crimp tool linkage possible and to fit the hand crimp tools with comfortable grips and handle shapes, thereby producing ergonomic hand crimp tools with the same quality, precision, and repeatability that have become synonymous with the DMC name.

The solution to the Ergonomics Challenge is to provide power assisted crimp tools for all crimping operations of sufficient volume where the user will see the value of ergonomic benefits.





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"We are committed to Daniels Manufacturing Corporation (DMC) remaining the major supplier of high reliability tools and maintenance kits for electronic wiring systems to the global aerospace, military, transportation, electrical, and electronic industries through our continuous improvement of all of our business practices and processes."

A handwritten signature in white ink, reading "George Daniels".

George Daniels, President

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