# MIL-DTL-5015, Matrix®

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# MIL-DTL-5015 with Crimp Rear Release Contacts

**MS3450**
**WALL MOUNTING RECEPTACLE**

**MS3451**
**CABLE CONNECTING RECEPTACLE**

**MS3452**
**BOX MOUNTING RECEPTACLE**

**MS3454**
**JAM NUT RECEPTACLE**

**MS3456**
**PLUG WITH THREADEDCOUPLING**

**MS3459**
**PLUG WITH SELF-LOCKING COUPLING NUT**

**COMMERCIAL QUICK DISCONNECT PLUG WITH/WITHOUT LANYARD**

## AMPHENOL BROADENS THEIR MS/STANDARD FAMILY OF CONNECTORS WITH THE MIL-DTL-5015 CRIMP REAR RELEASE SERIES

This series provides an improved alternative to the older MIL-C-5015 solder type. It bridges the gap between an old connector standard and the environmental and high performance needs of current technologies.

## DESIGN CHARACTERISTICS

- Medium to heavy weight enviornmental cylindrical
- MS345( ) series intermateable with existing MIL-DTL-5015 solder or crimp versions on existing equipment
- Captive coupling nut mechanism, utilizes retaining rings in combination with “L” washers to prevent inadvertent disassembly
- Multiple interlock systems ensure permanent insert retention
- Positive control of dielectric separation with guaranteed ease of contact insertion
- Positive contact retention provided by a closely toleranced damage-proof metal retention clip
- Completely sealed against environmental extremes with -
  - Individual contact seals (conical risers on pin interface)
  - Interfacial seals between contacts
  - Peripheral gasket shell-to-shell seals
  - Redundant rear wire seals and insert-to-shell seals

## CUSTOMER OPTIONS

- Seven mounting styles, in shell sizes 8 to 40
- Threaded coupling or self-locking plug (MS3459) with an internal ratcheting mechanism to prevent unmating due to vibration and shock, eliminating the need for safety wiring
- Proprietary quick disconnect plug, with or without lanyard available
- Classes include aluminum or stainless steel shells, or firewall capability
- Mil-Spec and custom proprietary versions available
- Some styles are supplied to McDonnell Douglas Specification BAN 7025, DC60 Series
- Accommodation of contact sizes 0 to 16
- Over 100 insert arrangement patterns available, accommodating from a minimum of 1 to a maximum of 85 circuits
- Alternate positioning available
- High power RADSOK socket contacts available

NOTE: MIL-C-5015 is superseded to MIL-DTL-5015 for all Amphenol/Matrix rear release crimp type contacts.

# Amphenol Matrix 5015 Connector With RADSOK® Contacts

Amphenol Aerospace

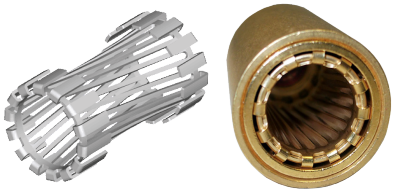
## FOR HIGH POWER APPLICATIONS

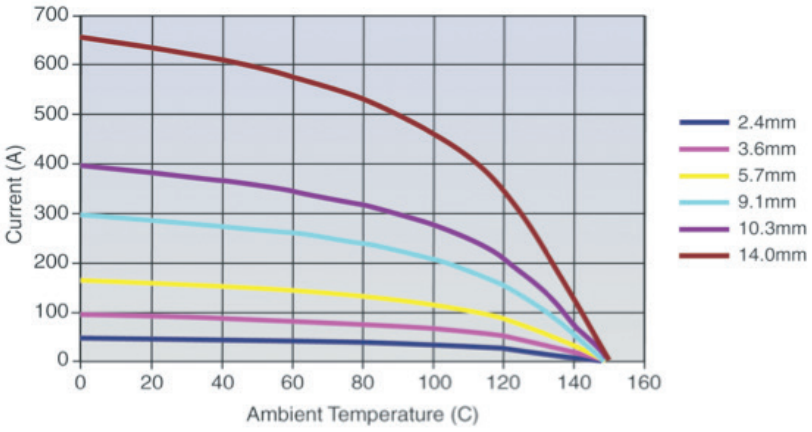
- Completely environmentally sealed with contact seals, gaskets, wire seals and insert-to-shell seals
- Special design enhanced with RADSOK contacts in the plug or receptacle instead of standard rear release crimp contacts
- All the shell styles and finishes of the Matrix 5015 family are available, including firewall styles and non-decoupling style
- Recommended for applications up to 150° operating temperature
- Up to 40% increased current carrying capability
- RADSOK contacts provide high amperage capability with minimal voltage loss and low insertion forces
- The RADSOK contact has a hyperbolic, stamped grid configuration with the socket circular. As a male pin is inserted, axial members in the female socket deflect, enabling high current flow across the connection with minimal voltage loss

**RADSOK**

| Standard Contacts | |
|---|---|
| Size | Amps |
| 8 | 46 |
| 4 | 80 |
| 0 | 150 |

| RADSOK Contacts | | |
|---|---|---|
| Size | Amps | Cartridge size |
| 8 | 70 | 3.6 MM |
| 4 | 120 | 5.7MM |
| 0 | 250 | 9.1MM |






# NEW RoHS FINISHES

### BLACK ZINC NICKEL IS AMPHENOL'S 2ND RoHS COMPLIANT PLATING ALTERNATIVE TO CADMIUM

Amphenol is now offering a new RoHS compliant alternative to Cadmium. Black Zinc Nickel is a non-reflective and conductive black finish approved for 500 hrs salt spray making it an excellent choice for harsh environments. Black Zinc Nickel has been qualified by the DLA. Black Zinc Nickel is compatible with other platings and available on a wide variety of accessories.

### AMPHENOL'S DURMALON™

Durmalon, like Olive-Drab Cadmium plating (Class W), meets 500 hours of dynamic salt spray, combined with 500 mating cycles and meets specified millivolt drop shell-to-shell conductivity. Durmalon also meets a 200° C temperature rating. Durmalon has been proven to meet this requirement as well as Potassium Formate-Deicer fluid testing performed by Boeing.

**BLACK ZINC NICKLE FINISH**

# Insert Availability and Identification

| Insert Arrangement | Service Rating | Total Contacts | Contact Size | | | | |
|---|---|---|---|---|---|---|---|
| | | | 0 | 4 | 8 | 12 | 16 |
| 8S-1 | A | 1 | | | | | 1 |
| 10S-2 | A | 1 | | | | | 1 |
| 10SL-3 | A | 3 | | | | | 3 |
| 10SL-4 | A | 2 | | | | | 2 |
| 12S-1 | A | 2 | | | | | 2 |
| 12S-2 | A | 2 | | | | | 2 |
| 12S-3 | A | 2 | | | | | 2 |
| 12S-4 | D | 1 | | | | | 1 |
| 12-5 | D | 1 | | | | 1 | |
| 14S-2 | Inst. | 4 | | | | | 4 |
| 14-3 | A | 1 | | | 1 | | |
| 14S-5 | Inst. | 5 | | | | | 5 |
| 14S-6 | Inst. | 6 | | | | | 6 |
| 14S-7 | A | 3 | | | | | 3 |
| 14S-9** | A | 2 | | | | | 2 |
| 14S-10 | Inst. | 4 | | | | | 4 |
| 14S-11 | Inst. | 4 | | | | | 4 |
| 14S-12 | A | 3 | | | | | 3 |
| 14S-13 | A | 3 | | | | | 3 |
| 16S-1 | A | 7 | | | | | 7 |
| 16-2* | E | 1 | | | | 1 | |
| 16S-8 | A | 5 | | | | | 5 |
| 16-9 | A | 4 | | | | 2 | 2 |
| 16-10 | A | 3 | | | | 3 | |
| 16-11 | A | 2 | | | | 2 | |
| 16-12 | A | 1 | | 1 | | | |
| 16-13 | A | 2 | | | | 2 | |
| 18-1 | A/Inst. | 10 | | | | | 10 |
| 18-4 | D | 4 | | | | | 4 |
| 18-5 • | D | 3 | | | | 2 | 1 |
| 18-6* | D | 1 | | 1 | | | |
| 18-8 | A | 8 | | | | 1 | 7 |
| 18-9 | Inst. | 7 | | | | 2 | 5 |
| 18-10** | A | 4 | | | | 4 | |
| 18-11 | A | 5 | | | | 5 | |
| 18-12 | A | 6 | | | | | 6 |
| 18-13 | A | 4 | | | 1 | 3 | |
| 18-15 | A | 4 | | | | 4 | |
| 18-17 | Inst. | 7 | | | | 2 | 5 |
| 18-18 | Inst. | 7 | | | | 2 | 5 |
| 18-19** | A | 10 | | | | | 10 |
| 18-22** | D | 3 | | | | | 3 |
| 18-23 | A/Inst. | 10 | | | | | 10 |

| Insert Arrangement | Service Rating | Total Contacts | Contact Size | | | | |
|---|---|---|---|---|---|---|---|
| | | | 0 | 4 | 8 | 12 | 16 |
| 18-24 | A/Inst. | 10 | | | | | 10 |
| 18-27• | D | 3 | | | | 2 | 1 |
| 18-28• | D | 3 | | | | 2 | 1 |
| 20-2 | D | 1 | 1 | | | | |
| 20-4 | D | 4 | | | | 4 | |
| 20-7 | D/A | 8 | | | | | 8 |
| 20-8 | Inst. | 6 | | | 2 | | 4 |
| 20-14 | A | 5 | | | 2 | 3 | |
| 20-15 | A | 7 | | | | 7 | |
| 20-16 | A | 9 | | | | 2 | 7 |
| 20-17 | A | 6 | | | | 5 | 1 |
| 20-18 | A | 9 | | | | 3 | 6 |
| 20-19 | A | 3 | | | 3 | | |
| 20-21 | A | 9 | | | | 1 | 8 |
| 20-22 | A | 6 | | | 3 | | 3 |
| 20-24 | A | 4 | | | 2 | | 2 |
| 20-27 | A | 14 | | | | | 14 |
| 20-29 | A | 17 | | | | | 17 |
| 20-32 | D/A | 8 | | | | | 8 |
| 20-33 | A | 11 | | | | | 11 |
| 22-2 | D | 3 | | | 3 | | |
| 22-5 | D | 6 | | | | 2 | 4 |
| 22-6* | D | 3 | | | 2 | | 1 |
| 22-7* | E | 1 | 1 | | | | |
| 22-10* | E | 4 | | | | | 4 |
| 22-11* | B | 2 | | | | | 2 |
| 22-14 | A | 19 | | | | | 19 |
| 22-19 | A | 14 | | | | | 14 |
| 22-21 | A | 3 | 1 | | | | 2 |
| 22-22 | A | 4 | | | 4 | | |
| 22-23 | D/A | 8 | | | | 8 | |
| 22-30 | A | 19 | | | | | 19 |
| 22-32 | D | 6 | | | | 2 | 4 |
| 24-2 | D | 7 | | | | 7 | |
| 24-5** | A | 16 | | | | | 16 |

* Consult Amphenol Aerospace for availability
** Inactive for new design
• Socket Only

# Insert Availability and Identification

Amphenol Aerospace

| Insert Arrangement | Service Rating | Total Contacts | Contact Size | | | | |
|---|---|---|---|---|---|---|---|
| | | | 0 | 4 | 8 | 12 | 16 |
| 24-7 | A | 16 | | | | 2 | 14 |
| 24-10 | A | 7 | | | 7 | | |
| 24-11 | A | 9 | | | 3 | 6 | |
| 24-12 | A | 5 | | 2 | | 3 | |
| 24-15 | A | 16 | | | | | 16 |
| 24-20 | D | 11 | | | | 2 | 9 |
| 24-22 | D | 4 | | | 4 | | |
| 24-24 | A | 16 | | | | | 16 |
| 24-28 | Inst. | 24 | | | | | 24 |
| 28-1 | D/A | 9 | | | 3 | 6 | |
| 28-2 | D | 14 | | | | 2 | 12 |
| 28-9 | D | 12 | | | | 6 | 6 |
| 28-10 | D/A | 7 | | 2 | 2 | 3 | |
| 28-11 | A | 22 | | | | 4 | 18 |
| 28-12 | A | 26 | | | | | 26 |
| 28-13 | A | 26 | | | | | 26 |
| 28-15 | A | 35 | | | | | 35 |
| 28-17 | B/D/A | 15 | | | | | 15 |
| 28-19* | B/D/A | 10 | | | | 4 | 6 |
| 28-20 | A | 14 | | | | 10 | 4 |
| 28-21 | A | 37 | | | | | 37 |
| 28-22 | D | 6 | | 3 | | | 3 |
| 32-1 | E/D | 5 | 2 | | | 3 | |
| 32-6 | A | 23 | | 2 | 3 | 2 | 16 |
| 32-7 | Inst./A | 35 | | | | 7 | 28 |
| 32-9 | D | 14 | | 2 | | | 12 |
| 32-13 | D | 23 | | | | 5 | 18 |
| 32-15 | D | 8 | 2 | | | 6 | |
| 32-16 | A | 23 | | 2 | 3 | 2 | 16 |
| 32-17 | D | 4 | | 4 | | | |
| 32-19 | E/D | 5 | 2 | | | 3 | |

| Insert Arrangement | Service Rating | Total Contacts | Contact Size | | | | |
|---|---|---|---|---|---|---|---|
| | | | 0 | 4 | 8 | 12 | 16 |
| 32-63 | D | 5 | | 5 | | | |
| 32-73 | A | 46 | | | | | 46 |
| 36-3 | D | 6 | 3 | | | 3 | |
| 36-5 | A | 4 | 4 | | | | |
| 36-6 | A | 6 | 2 | 4 | | | |
| 36-7 | A | 47 | | | | 7 | 40 |
| 36-8 | A | 47 | | | | 1 | 46 |
| 36-9 | A | 31 | | 1 | 2 | 14 | 14 |
| 36-10 | A | 48 | | | | | 48 |
| 36-11 | A | 48 | | | | | 48 |
| 36-12 | A | 48 | | | | | 48 |
| 36-15 | D/A | 35 | | | | | 35 |
| 36-16 | A | 47 | | | | 7 | 40 |
| 36-17 | A | 47 | | | | 7 | 40 |
| 36-18 | A | 31 | | 1 | 2 | 14 | 14 |
| 36-21 | A | 31 | | 1 | 2 | 14 | 14 |
| 36-52 | A | 52 | | | | | 52 |
| 40-1 | D | 30 | | | | 6 | 24 |
| 40-9 | A | 47 | | | 1 | 22 | 24 |
| 40-56 | A | 85 | | | | | 85 |

* Consult Amphenol Aerospace for availability
** Inactive for new design

# Insert Arrangements

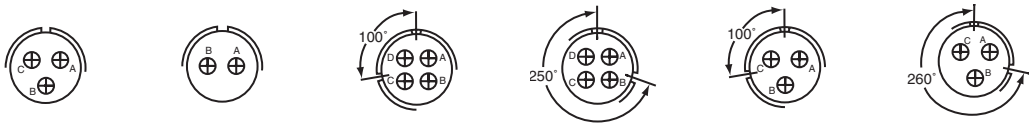
Front Face of Pin Insert or Rear Face of Socket Insert Illustrated

100° Rotation of 12S-3

250° Rotation of 12S-3

| Insert Arrangement | 8S-1 | 10S-2 | 10SL-3 | 10SL-4 | 12S-1 | 12S-2 | 12S-3 |
|---|---|---|---|---|---|---|---|
| Service Rating | A | A | A*** | A | A | A | A |
| Number of Contacts | 1 | 1 | 3 | 2 | 2 | 2 | 2 |
| Contact Size | 16 | 16 | 16 | 16 | 16 | 16 | 16 |

| Insert Arrangement | 12S-4 | 12-5 | 14S-2 | 14-3 | 14S-5 | 14S-6 |
|---|---|---|---|---|---|---|
| Service Rating | D | D | Inst. | A | Inst. | Inst. |
| Number of Contacts | 1 | 1 | 4 | 1 | 5 | 6 |
| Contact Size | 16 | 12 | 16 | 8 | 16 | 16 |




100° Rotation of 14S-2

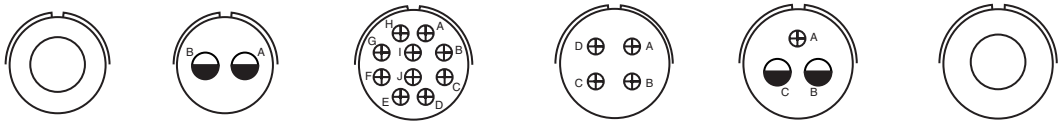
250° Rotation of 14S-2

100° Rotation of 14S-1

260° Rotation of 14S-1

| Insert Arrangement | 14S-7 | 14S-9** | 14S-10 | 14S-11 | 14S-12 | 14S-13 |
|---|---|---|---|---|---|---|
| Service Rating | A | A | Inst. | Inst. | A | A |
| Number of Contacts | 3 | 2 | 4 | 4 | 3 | 3 |
| Contact Size | 16 | 16 | 16 | 16 | 16 | 16 |

| Insert Arrangement | 16S-1 | 16-2* | 16S-8 | 16-9 | | 16-10 | 16-11 |
|---|---|---|---|---|---|---|---|
| Service Rating | A | E | A | A | | A | A |
| Number of Contacts | 7 | 1 | 5 | 2 | 2 | 3 | 2 |
| Contact Size | 16 | 12 | 16 | 12 | 16 | 12 | 12 |



| Insert Arrangement | 16-12 | 16-13 | 18-1 | 18-4 | 18-5 • | | 18-6* |
|---|---|---|---|---|---|---|---|
| Service Rating | A | A | B, C, F, G = A; Bal. = Inst. | D | D | | D |
| Number of Contacts | 1 | 2† | 10 | 4 | 2 | 1 | 1 |
| Contact Size | 4 | 12 | 16 | 16 | 12 | 16 | 4 |

* Consult Amphenol Aerospace for availability.
** Inactive for new design
*** Service rating Inst. Class K
• Socket only
† One Iron contact and one Constantan contact

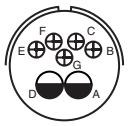
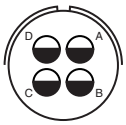
**CONTACT LEGEND**

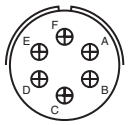
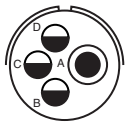
**16** **12** **8** **4** **0**

# Insert Arrangements

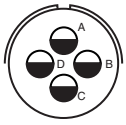
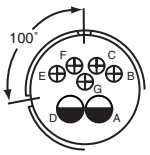
Amphenol Aerospace

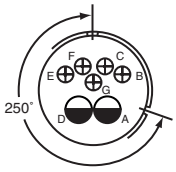
Front Face of Pin Insert or Rear Face of Socket Insert Illustrated

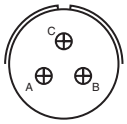
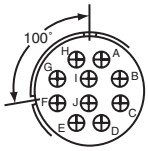



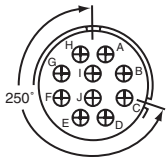
| Insert Arrangement | 18-8* | | 18-9 | | 18-10** | 18-11 | 18-12 | 18-13 | |
|---|---|---|---|---|---|---|---|---|---|
| Service Rating | A | | Inst. | | A | A | A | A | |
| Number of Contacts | 1 | 7 | 2 | 5 | 4 | 5 | 6 | 1 | 3 |
| Contact Size | 12 | 16 | 12 | 16 | 12 | 12 | 16 | 8 | 12 |

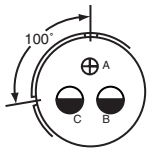


100° Rotation of 18-9

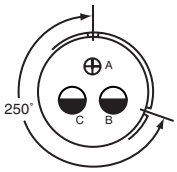

250° Rotation of 18-9

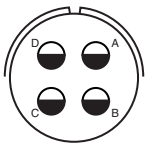
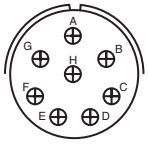


100° Rotation of 18-1

| Insert Arrangement | 18-15 | 18-17 | | 18-18 | | 18-19** | 18-22** | 18-23 |
|---|---|---|---|---|---|---|---|---|
| Service Rating | A | Inst. | | Inst. | | A | D | B, C, F, G = A; Bal. = Inst. |
| Number of Contacts | 4†† | 2 | 5 | 2 | 5 | 10 | 3 | 10 |
| Contact Size | 12 | 12 | 16 | 12 | 16 | 16 | 16 | 16 |

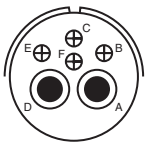
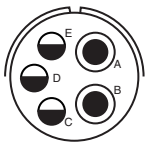

250° Rotation of 18-1

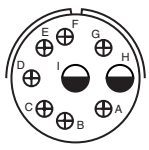
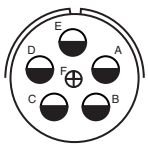

100° Rotation of 18-5


250° Rotation of 18-5

| Insert Arrangement | 18-24 | 18-27 • | | 18-28 • | | 20-2 | 20-4 | 20-7 |
|---|---|---|---|---|---|---|---|---|
| Service Rating | B, C, F, G = A; Bal. = Inst. | D | | D | | D | D | A, B, G, H = D C, D, E, F = A |
| Number of Contacts | 10 | 2 | 1 | 2 | 1 | 1 | 4 | 8 |
| Contact Size | 16 | 12 | 16 | 12 | 16 | 0 | 12 | 16 |

| Insert Arrangement | 20-8* | | 20-14 | | 20-15 | 20-16 | | 20-17 | | 20-18 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Service Rating | Inst. | | A | | A | A | | A | | A | |
| Number of Contacts | 2 | 4 | 2 | 3 | 7 | 2 | 7 | 5 | 1 | 3 | 6 |
| Contact Size | 8 | 16 | 8 | 12 | 12 | 12 | 16 | 12 | 16 | 12 | 16 |

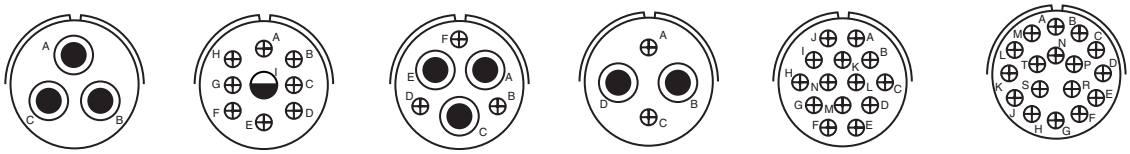
* Consult Amphenol Aerospace for availability.
** Inactive for new design
• Socket only
†† A, C = Iron; B, D = Constantan

**CONTACT LEGEND**

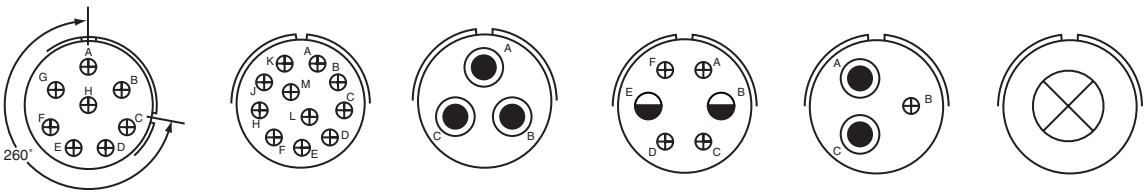
16 12 8 4 0

# Insert Arrangements

Front Face of Pin Insert or Rear Face of Socket Insert Illustrated

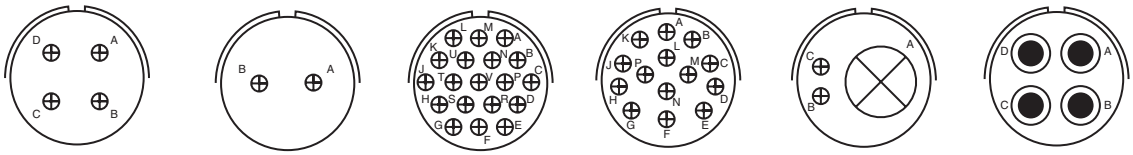


| Insert Arrangement | 20-19 | 20-21 | | 20-22 | | 20-24 | | 20-27 | 20-29 |
|---|---|---|---|---|---|---|---|---|---|
| Service Rating | A | A | | A | | A | | A | A |
| Number of Contacts | 3 | 1 | 8 | 3 | 3 | 2 | 2 | 14 | 17 |
| Contact Size | 8 | 12 | 16 | 8 | 16 | 8 | 16 | 16 | 16 |

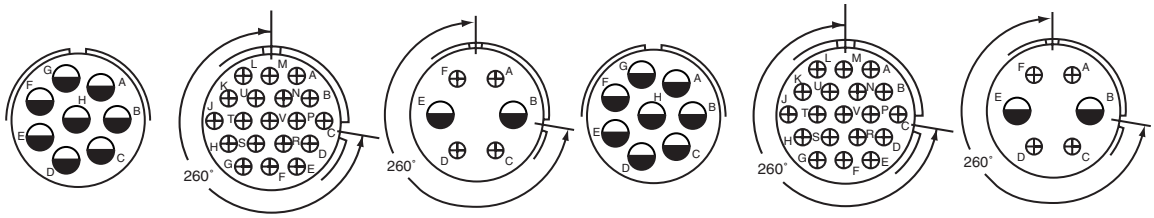


260° Rotation of 20-7

| Insert Arrangement | 20-32 | 20-33 | 22-2 | 22-5 | | 22-6** | | 22-7* |
|---|---|---|---|---|---|---|---|---|
| Service Rating | A, B, G, H = D; Bal. = A | A | D | D | | D | | E |
| Number of Contacts | 8 | 11 | 3 | 2 | 4 | 2 | 1 | 1 |
| Contact Size | 16 | 16 | 8 | 12 | 16 | 8 | 16 | 0 |



| Insert Arrangement | 22-10* | 22-11* | 22-14 | 22-19 | 22-21 | | 22-22 |
|---|---|---|---|---|---|---|---|
| Service Rating | E | B | A | A | A | | A |
| Number of Contacts | 4 | 2 | 19 | 14 | 1 | 2 | 4 |
| Contact Size | 16 | 16 | 16 | 16 | 0 | 16 | 8 |



260° Rotation of 22-14 | 260° Rotation of 22-5 | 260° Rotation of 22-14 | 260° Rotation of 22-5

| Insert Arrangement | 22-23 | 22-30 | 22-32 | | 22-23 | 22-30 | 22-32 | |
|---|---|---|---|---|---|---|---|---|
| Service Rating | H = D; Bal. = A | A | D | | H = D; Bal. = A | A | D | |
| Number of Contacts | 8 | 19 | 2 | 4 | 8 | 19 | 2 | 4 |
| Contact Size | 12 | 16 | 12 | 16 | 12 | 16 | 12 | 16 |

*Consult Amphenol Aerospace for availability.

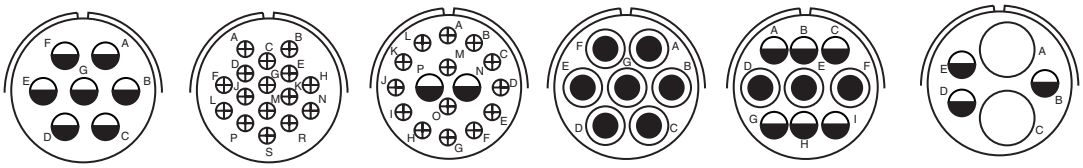
** Inactive for new design

CONTACT LEGEND 16 12 8 4 0

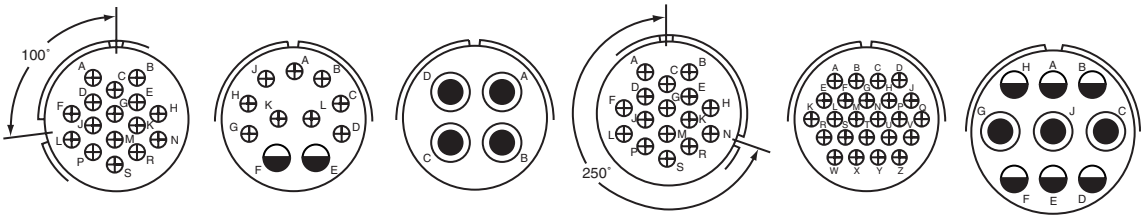
# Insert Arrangements

Amphenol Aerospace

Front Face of Pin Insert or Rear Face of Socket Insert Illustrated



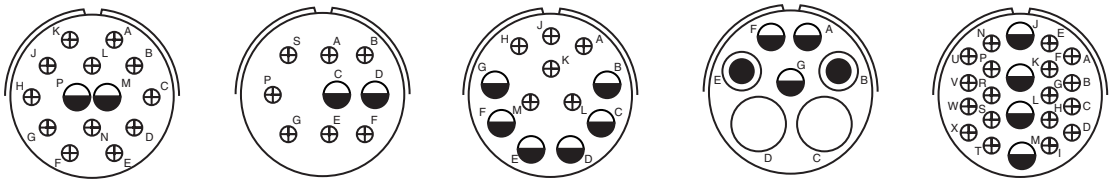
| Insert Arrangement | 24-2 | 24-5** | 24-7 | | 24-10 | 24-11 | | 24-12 | |
|---|---|---|---|---|---|---|---|---|---|
| Service Rating | D | A | A | | A | A | | A | |
| Number of Contacts | 7 | 16 | 2 | 14 | 7 | 3 | 6 | 2 | 3 |
| Contact Size | 12 | 16 | 12 | 16 | 8 | 8 | 12 | 4 | 12 |



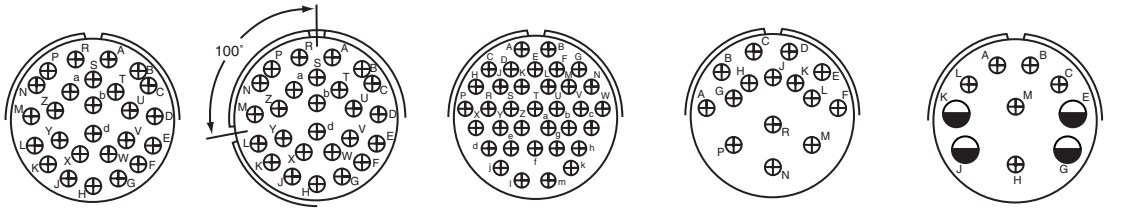

100° Rotation of 24-5

250° Rotation of 24-5

| Insert Arrangement | 24-15 | | 24-20 | 24-22 | 24-24 | 24-28 | 28-1 | |
|---|---|---|---|---|---|---|---|---|
| Service Rating | A | | D | D | A | Inst. | A, J, E = D; Bal. = A | |
| Number of Contacts | 16 | 1 | 9 | 4 | 16 | 24 | 2 | 7 |
| Contact Size | 16 | 8 | 16 | 8 | 16 | 16 | 12 | 6 |



| Insert Arrangement | 28-2 | | 28-4* | | 28-9 | | 28-10 | | | 28-11 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Service Rating | D | | G, P, S = E; Bal. = D | | D | | G = D, Bal. = A | | | A | |
| Number of Contacts | 2 | 12 | 2 | 7 | 6 | 6 | 2 | 2 | 3 | 4 | 18 |
| Contact Size | 12 | 16 | 12 | 16 | 12 | 16 | 4 | 8 | 12 | 12 | 16 |




100° Rotation of 28-12

| Insert Arrangement | 28-12 | 28-13 | 28-15 | 28-17 | 28-19* | |
|---|---|---|---|---|---|---|
| Service Rating | A | A | A | R = B; M, N, P = D; Bal. = A | H, M = B; A, B = D; Bal. = A | |
| Number of Contacts | 26 | 26 | 35 | 15 | 4 | 6 |
| Contact Size | 16 | 16 | 16 | 16 | 12 | 16 |

*Consult Amphenol Aerospace for availability.

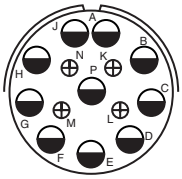
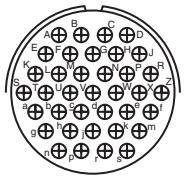
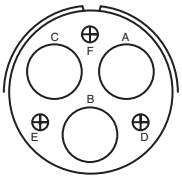
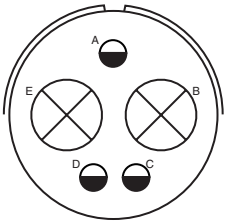
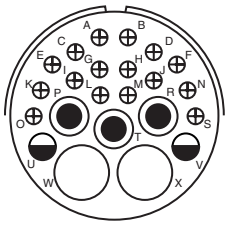
** Inactive for new design

CONTACT LEGEND 16 12 8 4 0

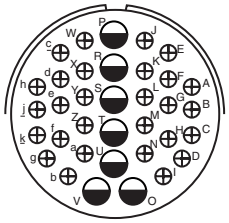
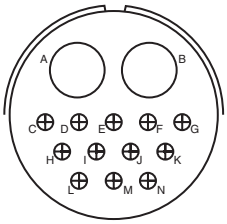
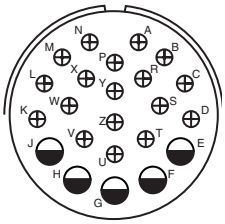
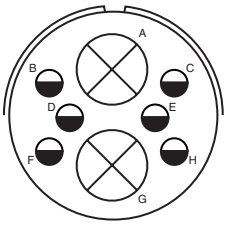
5015 MATRIX M

# Insert Arrangements

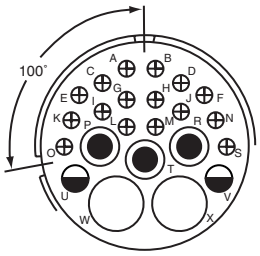
Front Face of Pin Insert or Rear Face of Socket Insert Illustrated

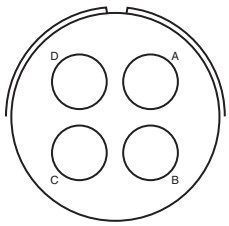
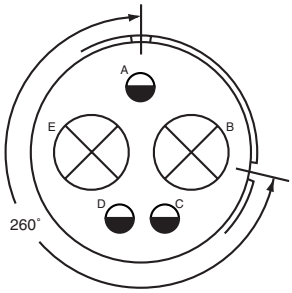
| Insert Arrangement | 28-20 | | 28-21 | 28-22 | | 32-1 | | 32-6 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Service Rating | A | | A | D | | A = E; B, C, D, E = D | | A | | | |
| Number of Contacts | 10 | 4 | 37 | 3 | 3 | 2 | 3 | 2 | 3 | 2 | 16 |
| Contact Size | 12 | 16 | 16 | 4 | 16 | 0 | 12 | 4 | 8 | 12 | 16 |

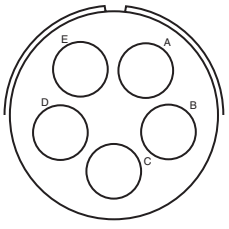
| Insert Arrangement | 32-7 | | 32-9 | | 32-13 | | 32-15 | |
|---|---|---|---|---|---|---|---|---|
| Service Rating | A, B, h, j = Inst.; Bal. = A | | D | | D | | D | |
| Number of Contacts | 7 | 28 | 2 | 12 | 5 | 18 | 2 | 6 |
| Contact Size | 12 | 16 | 4 | 16 | 12 | 16 | 0 | 12 |




100° Rotation of 32-6


260° Rotation of 32-1

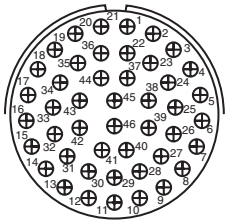


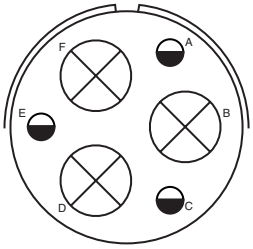
| Insert Arrangement | 32-16 | | | | 32-17 | 32-19 | | 32-63 |
|---|---|---|---|---|---|---|---|---|
| Service Rating | A | | | | D | A = E, Bal. = D | | D |
| Number of Contacts | 2 | 3 | 2 | 16 | 4 | 2 | 3 | 5 |
| Contact Size | 4 | 8 | 12 | 16 | 4 | 0 | 12 | 4 |

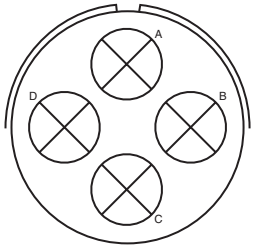
# Insert Arrangements

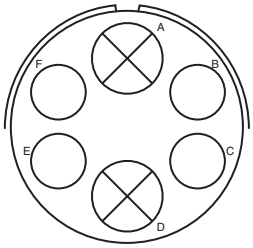
Amphenol Aerospace

Front Face of Pin Insert or Rear Face of Socket Insert Illustrated

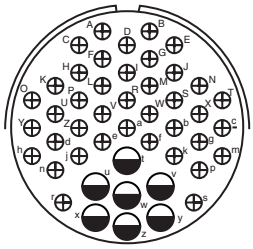


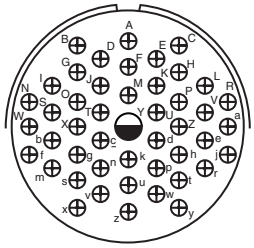


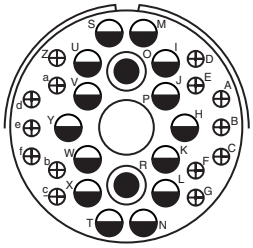



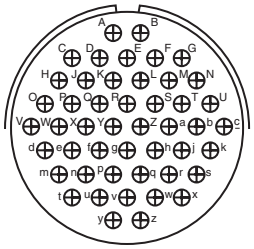




| Insert Arrangement | 32-73 | 36-3 | | 36-5 | 36-6 | |
|---|---|---|---|---|---|---|
| Service Rating | A | D | | A | A | |
| Number of Contacts | 46 | 3 | 3 | 4 | 2 | 4 |
| Contact Size | 16 | 0 | 12 | 0 | 0 | 4 |

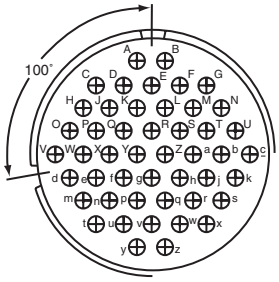




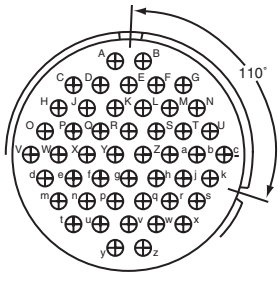




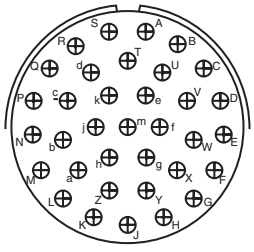
| Insert Arrangement | 36-7 | | 36-8 | | 36-9 | | | | 36-10 |
|---|---|---|---|---|---|---|---|---|---|
| Service Rating | A | | A | | A | | | | A |
| Number of Contacts | 7 | 40 | 1 | 46 | 1 | 2 | 14 | 14 | 48 |
| Contact Size | 12 | 16 | 12 | 16 | 4 | 8 | 12 | 16 | 16 |

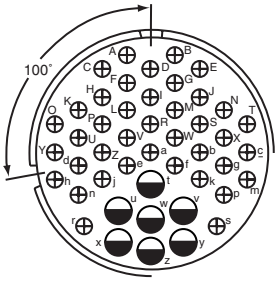



100° Rotation of 36-10




110° Rotation of 36-10





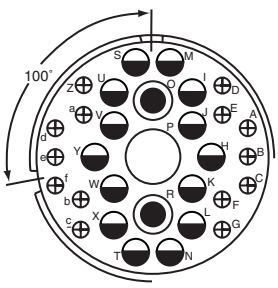

100° Rotation of 36-7

| Insert Arrangement | 36-11 | 36-12 | 36-15 | 36-16 | |
|---|---|---|---|---|---|
| Service Rating | A | A | M = D, Bal. = A | A | |
| Number of Contacts | 48 | 48 | 35 | 7 | 40 |
| Contact Size | 16 | 16 | 16 | 12 | 16 |

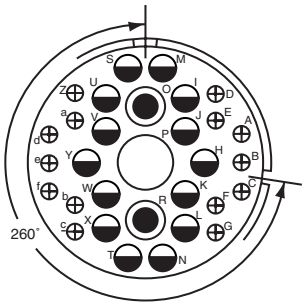
**CONTACT LEGEND** 16 12 8 4 0

# Insert Arrangements

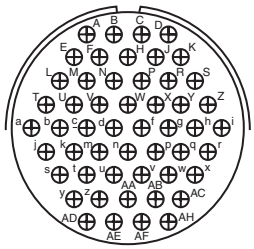
Front Face of Pin Insert or Rear Face of Socket Insert Illustrated

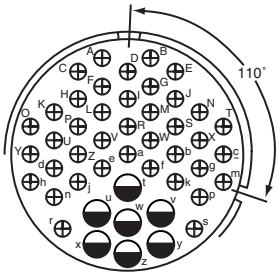



100° Rotation of 36-9



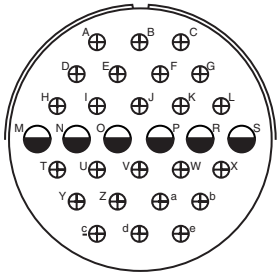

260° Rotation of 36-9

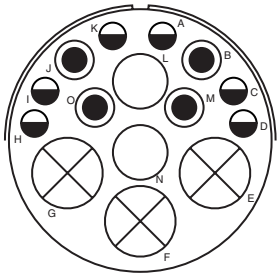


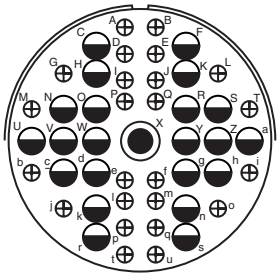


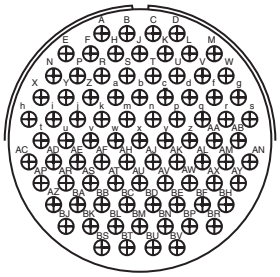

110° Rotation of 36-7

| Insert Arrangement | 36-18 | | | | 36-21 | | | | 36-52 | 36-17 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Service Rating | A | | | | A | | | | A | A | |
| Number of Contacts | 1 | 2 | 14 | 14 | 1 | 2 | 14 | 14 | 52 | 7 | 40 |
| Contact Size | 4 | 8 | 12 | 16 | 4 | 8 | 12 | 16 | 16 | 12 | 16 |









| Insert Arrangement | 40-1 | | 40-5* | | | | 40-9 | | | 40-56 |
|---|---|---|---|---|---|---|---|---|---|---|
| Service Rating | D | | A | | | | A | | | A |
| Number of Contacts | 6 | 24 | 3 | 2 | 4 | 6 | 1 | 22 | 24 | 85 |
| Contact Size | 12 | 16 | 0 | 4 | 8 | 2 | 6 | 12 | 16 | 16 |

* Consult Amphenol Aerospace for availability.

**CONTACT LEGEND**

## CLASS DESCRIPTIONS

| MILITARY MIL-DTL-5015 | |
|---|---|
| Class L* | Aluminum shell, electroless nickel finish, fluid resistant insert |
| Class W | Aluminum shell, cadmium olive drab finish, fluid resistant insert |
| Class LS | Stainless steel shell, passivated, fluid resistant insert |
| Class KT** | Firewall, steel shell, cadmium olive drab finish, non-flammable hard dielectric and fluid resistant insert |
| Class KS | Firewall, stainless steel shell, passivated, non-flammable hard dielectric and fluid resistant insert |

* Class L inactivates older Class U (aluminum, electroless nickel)
** Class KT (ferrous alloy, cadmium/olive drab) inactivates older Class K (ferrous alloy, electroless nickel)

| AMPHENOL/MATRIX | |
|---|---|
| Class A | Aluminum shell, black anodize finish, fluid resistant insert |
| Class F | Aluminum shell, electroless nickel finish, fluid resistant insert |
| Class W | Aluminum shell, cadmium/olive drab finish, fluid resistant insert |
| Class FS | Stainless steel shell, passivated, fluid resistant insert |
| Class KT | Firewall, steel shell, cadmium olive drab finish, non-flammable hard dielectric and fluid resistant insert |
| Class KS | Firewall, stainless steel shell, passivated, non-flammable hard dielectric and fluid resistant insert |
| Class DT | Aluminum shell, Durmalon (Nickle PTFE) |
| Class DZ | Aluminum shell, Black Zinc Nickel* |

* Not available in size 36 or 40

## PERFORMANCE SPECIFICATIONS

| VOLTAGE RATING | | | | | | |
|---|---|---|---|---|---|---|
| Altitude | Inst. | A | D | E | B | C |
| Sea Level | 1000 | 2000 | 2800 | 3500 | 4500 | 7000 |
| 50,000 ft. | 400 | 600 | 675 | 750 | 825 | 975 |
| 70,000 ft. | 260 | 360 | 400 | 440 | 480 | 560 |
| 110,000 ft. | 200 | 200 | 200 | 200 | 200 | 200 |

### SHOCK

Wired, mated connectors are subjected to one shock in each of three mutually perpendicular axes with pulse of an approximate half sine wave of 50g magnitude for a duration of 11 milliseconds. All contacts wired in series circuit with 100 ±10 Milliamperes of current flow.

### OPERATING TEMPERATURE RANGE

Classes L, LS and KS have temperature range of
–55°C (–75°F) to 200°C (392°F)
Classes W and KT have temperature range of
–55°C (–75°F) to 175°C (347°F)

### ENVIRONMENTAL SEAL

Wired, mated connectors with the specified accessory attached will meet the altitude immersion test specified in MIL-DTL-5015.

### DURABILITY

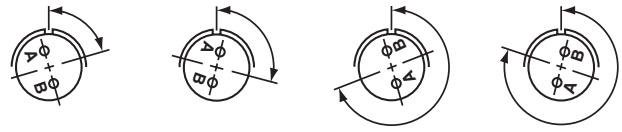
Minimum of 100 mating cycles.

# Insert Alternate Positioning

To avoid cross-plugging problems in applications requiring the use of more than one connector of the same size and arrangement, alternate rotations are available as indicated in the accompanying charts.

As shown in the diagram below, the front face of the pin insert is rotated within the shell in a clockwise direction from the normal shell key. The socket insert would be rotated counter-clockwise the same number of degrees in respect to the normal shell key.

The charts give the W, X, Y, Z positions for the alternate rotations available for the insert arrangements of the rear release MIL-DTL-5015 series of connectors. If an insert arrangement number is not given, then there is no available alternate rotation for that pattern.



Position W Position X Position Y Position Z

View looking into front face of pin insert or rear of socket insert.

The following insert arrangements have the same alternate insert rotations for W, X, Y and Z, which are:

| Degrees | | | |
|---|---|---|---|
| W | X | Y | Z |
| 80 | 110 | 250 | 280 |

| | | | | | |
|---|---|---|---|---|---|
| 16-7 | 20-22 | 24-4 | 28-4 | 28-21 | 40-3 |
| 18-5 | 22-6 | 24-5 | 28-8 | 32-1 | 40-4 |
| 18-9 | 22-12 | 24-6 | 28-9 | 32-3 | 40-5 |
| 18-13 | 22-14 | 24-7 | 28-10 | 32-6 | 40-6 |
| 18-14 | 22-15 | 24-12 | 28-11 | 32-9 | 40-7 |
| 20-7 | 22-17 | 24-16 | 28-15 | 32-13 | 40-11 |
| 20-8 | 22-18 | 24-20 | 28-16 | 32-22 | |
| 20-9 | 22-19 | 24-21 | 28-17 | 36-7 | |
| 20-14 | 22-21 | 24-28 | 28-19 | 36-8 | |
| 20-16 | 24-1 | 28-1 | 28-20 | 40-2 | |

| Insert Arrangement | Degrees | | | |
|---|---|---|---|---|
| | W | X | Y | Z |
| 12S-3 | 70 | 145 | 215 | 290 |
| 14S-2 | – | 120 | 240 | – |
| 14S-5 | – | 110 | – | – |
| 14S-7 | 90 | 180 | 270 | – |
| 14S-9 | 70 | 145 | 215 | 290 |
| 16S-1 | 80 | – | – | 280 |
| 16S-4 | 35 | 110 | 250 | 325 |
| 16S-8 | – | 170 | 265 | – |
| 16-9 | 35 | 110 | 250 | 325 |
| 16-10 | 90 | 180 | 270 | – |
| 16-11 | 35 | 110 | 250 | 325 |
| 16-13 | 35 | 110 | 250 | 325 |
| 18-1 | 70 | 145 | 215 | 290 |
| 18-4 | 35 | 110 | 250 | 325 |
| 18-8 | 70 | – | – | 290 |
| 18-10 | – | 120 | 240 | – |
| 18-11 | – | 170 | 265 | – |
| 18-12 | 80 | – | – | 280 |
| 18-15 | – | 120 | 240 | – |
| 18-19 | – | 120 | 240 | – |
| 18-22 | 70 | 145 | 215 | 290 |
| 20-4 | 45 | 110 | 250 | – |
| 20-15 | 80 | – | – | 280 |

| Insert Arrangement | Degrees | | | |
|---|---|---|---|---|
| | W | X | Y | Z |
| 20-17 | 90 | 180 | 270 | – |
| 20-18 | 35 | 110 | 250 | 325 |
| 20-19 | 90 | 180 | 270 | – |
| 20-21 | 35 | 110 | 250 | 325 |
| 20-24 | 35 | 110 | 250 | 325 |
| 20-27 | 35 | 110 | 250 | 325 |
| 20-29 | 80 | – | – | 280 |
| 22-2 | 70 | 145 | 215 | 290 |
| 22-4 | 35 | 110 | 250 | 325 |
| 22-5 | 35 | 110 | 250 | 325 |
| 22-9 | 70 | 145 | 215 | 290 |
| 22-10 | 35 | 110 | 250 | 325 |
| 22-11 | 35 | 110 | 250 | 325 |
| 22-22 | – | 110 | 250 | – |
| 22-23 | 35 | – | 250 | – |
| 22-27 | 80 | – | 250 | 280 |
| 22-36 | 90 | – | 270 | – |
| 24-2 | 80 | – | – | 280 |
| 24-10 | 80 | – | – | 280 |
| 24-11 | 35 | 110 | 250 | 325 |
| 24-22 | 45 | 110 | 250 | – |
| 24-27 | 80 | – | – | 280 |
| 24-80 | 35 | 145 | 240 | 300 |

| Insert Arrangement | Degrees | | | |
|---|---|---|---|---|
| | W | X | Y | Z |
| 28-2 | 35 | 110 | 250 | 325 |
| 28-3 | 70 | 145 | 215 | 290 |
| 28-5 | 35 | 110 | 250 | 325 |
| 28-12 | 90 | 180 | 270 | – |
| 28-18 | 70 | 145 | 215 | 290 |
| 28-22 | 70 | 145 | 215 | 290 |
| 32-2 | 70 | 145 | 215 | 290 |
| 32-7 | 80 | 125 | 235 | 280 |
| 32-15 | 35 | 110 | 250 | 280 |
| 32-17 | 45 | 110 | 250 | – |
| 32-73 | 36 | – | – | – |
| 36-3 | 70 | 145 | 215 | 290 |
| 36-5 | – | 120 | 240 | – |
| 36-6 | 35 | 110 | 250 | 325 |
| 36-9 | 80 | 125 | 235 | 280 |
| 36-10 | 80 | 125 | 235 | 280 |
| 36-15 | 60 | 125 | 245 | 305 |
| 36-52 | 72 | 144 | 216 | 288 |
| 36-66 | 110 | 250 | 260 | 280 |
| 40-1 | 65 | 130 | 235 | 300 |
| 40-9 | 65 | 125 | 255 | 310 |
| 40-10 | 65 | 125 | 255 | 310 |
| 40-56 | 72 | 144 | 216 | 288 |
| 40-62 | 30 | 130 | 220 | 290 |

# How to Order

Amphenol Aerospace

| | 1. | 2. | 3. | 4. | 5. | 6. | 7. |
|---|---|---|---|---|---|---|---|
| MIL-DTL-5015 with rear release crimp contacts | Connector Type | Shell Style | Service class | Shell Size–Insert Arrangement | Contact Types | Alternate Positions | Modification Number |
| MILITARY | MS | 3456 | L | 16S–8 | P | W | NA |
| COMMERCIAL | 944 | 6 | F | 16S–8 | P | W | (XXX) |

## 1. MILITARY CONNECTORY TYPE

| | |
|---|---|
| MS | Designates Military Standard |

## 2. SHELL STYLE - THREADED COUPLING

| | |
|---|---|
| 3450 | Wall mounting receptacle |
| 3451 | Cable connecting receptacle |
| 3452 | Box mounting receptacle |
| 3454 | Jam nut receptacle |
| 3456 | Straight plug |
| 3459 | Straight plug with self-locking coupling nut |

## 3. SERVICE CLASS

| | |
|---|---|
| L | Aluminum shell, electroless nickel finish, fluid resistant insert |
| W | Aluminum shell, cadmium olive drab finish, fluid resistant insert |
| LS | Stainless steel shell, passivated, fluid resistant insert |

**FIREWALL STYLES ONLY AVAILABLE FOR 3450, 3456, 3459 PER MIL SPEC:**

| | |
|---|---|
| KT | Firewall, steel shell, cadmium/olive drab finish, non-flammable hard dielectric and fluid resistant insert |
| KS | Firewall, stainless steel shell, passivated, non-flammable hard dielectric and fluid resistant insert |

Note: Class L inactivates older Class U.
Class K is inactive and has been replaced by Class KT for all applications.

## 4. SHELL SIZE & INSERT ARRANGEMENT
SEE PAGES 3-13

First number represents Shell Size,
second number is the Insert Arrangement.

## 5. CONTACT TYPE

| | |
|---|---|
| P | Pin |
| S | Socket |
| A | Less pins |
| B | Less sockets |

## 6. ALTERNATE POSITIONS

"W", "X", "Y", "Z" designate that insert is rotated in its shell from normal position. No letter required for normal (no rotation) position. See page 15 for description of alternate positions.

## 1. COMMERCIAL CONNECTOR TYPE

| | |
|---|---|
| 944 | Designates Amphenol/Matrix Commercial Series |
| 981 | Designates self locking/Quick disconnect (+)(-) lanyard |

## 2. SHELL STYLE - THREADED COUPLING

| | |
|---|---|
| 0 | Wall mounting receptacle |
| 1 | Cable connecting receptacle |
| 2 | Box mounting receptacle |
| 4 | Jam nut receptacle |
| 6 | Straight plug |

## 2. SELF LOCKING/QUICK DISCONNECT (981)

| | |
|---|---|
| 6 | Straight plug with self-locking coupling nut |
| 7 | Quick disconnect plug with lanyard |
| 8 | Quick disconnect plug without lanyard |

## 3. SERVICE CLASS

| | |
|---|---|
| A | Aluminum shell, black anodize finish, fluid resistant insert (not MIL-Spec) |
| F | Aluminum shell, electroless nickel finish, fluid resistant insert |
| W | Aluminum shell, cadmium olive drab finish, fluid resistant insert |
| FS | Stainless steel shell, passivated, fluid resistant insert |
| RS | Fluid resistant insert |
| KT | Firewall, steel shell, cadmium/olive drab finish, non-flammable hard dielectric and fluid resistant insert |
| KS | Firewall, stainless steel shell, passivated, non-flammable hard dielectric and fluid resistant insert |
| NEW DT | Aluminum shell, Durmalon (Nickle PTFE) |
| NEW DZ | Aluminum shell, Black Zinc Nickel* |

* Not available in size 36 or 40

## 4. SHELL SIZE & INSERT ARRANGEMENT
SEE PAGES 3-13

First number represents Shell Size,
second number is the Insert Arrangement.

## 5. CONTACT TYPE

| | |
|---|---|
| P | Pin |
| S | Socket |

## 6. ALTERNATE POSITIONS

"W", "X", "Y", "Z" designate that insert is rotated in its shell from normal position. No letter required for normal (no rotation) position. See page 15 for description of alternate positions.

## 7. MODIFICATION NUMBER

Consult Amphenol Aerospace for information.
For strain reliefs use the following modification codes:

| | | |
|---|---|---|
| | (189) | E-nut M85049/31 configuration |
| | (190) | Straight strain relief M85049/52 configuration |
| | (191) | 90° strain relief M85049/51 configuration |
| NEW | (988) | RADSOK sockets (sizes 0-8 guage only) |

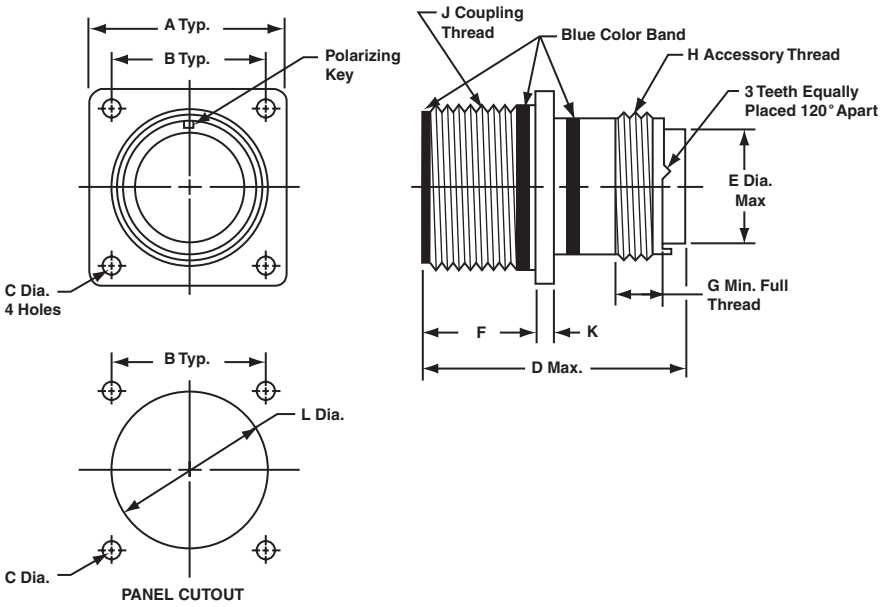
# Wall Mounting Receptacle

## Military (MS3450), Commercial (9440)

PART NUMBER BUILDER PAGE M16

**MILITARY** MS3450

COMMERCIAL 9440




| Shell Size* | A ±.031 | B | C Dia. +.010 −.005 | | D Max. | | E Dia. Max. | F | G Min. | H Thread Class 2A | J Thread Class 2A | K | L Dia. ±.010 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Class A, F, R, W | Class K | Size 16 & 12 Contacts | Size 8, 4, 0 Contacts | | | | | | | |
| 8S | .875 | .594 | .120 | .150 | 2.031 | – | .305 | .593/.562 | .290 | .5000-20 UNEF | .5000-28 UNEF | .083 | .562 |
| 10S | 1.000 | .719 | .120 | .150 | 2.031 | – | .405 | .593/.562 | .290 | .6250-24 UNEF | .6250-24 UNEF | .083 | .688 |
| 10SL | 1.000 | .719 | .120 | .150 | 2.031 | – | .405 | .593/.562 | .290 | .6250-24 UNEF | .6250-24 UNEF | .083 | .688 |
| 12 | 1.094 | .812 | .120 | .150 | 2.125 | – | .549 | .781/.750 | .290 | .7500-20 UNEF | .7500-20 UNEF | .083 | .812 |
| 12S | 1.094 | .812 | .120 | .150 | 2.031 | – | .549 | .593/.562 | .290 | .7500-20 UNEF | .7500-20 UNEF | .083 | .812 |
| 14 | 1.188 | .906 | .120 | .150 | 2.125 | – | .665 | .781/.750 | .290 | .8750-20 UNEF | .8750-20 UNEF | .083 | .938 |
| 14S | 1.188 | .906 | .120 | .150 | 2.031 | – | .665 | .593/.562 | .290 | .8750-20 UNEF | .8750-20 UNEF | .083 | .938 |
| 16 | 1.281 | .969 | .120 | .150 | 2.125 | 2.500 | .790 | .781/.750 | .290 | 1.0000-20 UNEF | 1.0000-20 UNEF | .083 | 1.062 |
| 16S | 1.281 | .969 | .120 | .150 | 2.031 | – | .790 | .593/.562 | .290 | 1.0000-20 UNEF | 1.0000-20 UNEF | .083 | 1.062 |
| 18 | 1.375 | 1.062 | .120 | .177 | 2.125 | 2.500 | .869 | .781/.750 | .290 | 1.0625-18 UNEF | 1.1250-18 UNEF | .125 | 1.188 |
| 20 | 1.500 | 1.156 | .120 | .177 | 2.125 | 2.500 | .994 | .781/.750 | .290 | 1.1875-18 UNEF | 1.2500-18 UNEF | .125 | 1.312 |
| 22 | 1.625 | 1.250 | .120 | .177 | 2.125 | 2.500 | 1.119 | .781/.750 | .290 | 1.3125-18 UNEF | 1.3750-18 UNEF | .125 | 1.438 |
| 24 | 1.750 | 1.375 | .147 | .177 | 2.125 | 2.500 | 1.244 | .843/.812 | .290 | 1.4375-18 UNEF | 1.5000-18 UNEF | .125 | 1.562 |
| 28 | 2.000 | 1.562 | .147 | .177 | 2.125 | 2.500 | 1.465 | .843/.812 | .467 | 1.7500-18 UNS | 1.7500-18 UNS | .125 | 1.812 |
| 32 | 2.250 | 1.750 | .173 | .209 | 2.125 | 2.500 | 1.715 | .906/.875 | .467 | 2.0000-18 UNS | 2.0000-18 UNS | .125 | 2.062 |
| 36 | 2.500 | 1.938 | .173 | .209 | 2.125 | 2.500 | 1.930 | .906/.875 | .467 | 2.2500-16 UN | 2.2500-16 UN | .125 | 2.312 |
| 40 | 2.750 | 2.188 | .173 | .209 | 2.125 | 2.500 | 2.145 | .906/.875 | .467 | 2.5000-16 UN | 2.5000-16 UN | .125 | 2.562 |

* Consult Amphenol Aerospace for availability of shell sizes 44 and 48.

# Cable Connecting Receptacle

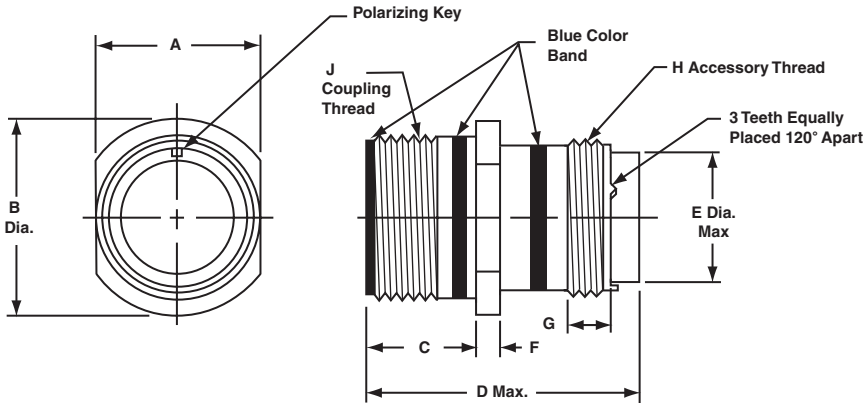
## Military (MS3451), Commercial (9441)

Amphenol Aerospace

PART NUMBER BUILDER PAGE M16

**MILITARY** MS3451

**COMMERCIAL** 9441




| Shell Size | A | B Dia. ±.031 | C | D Max. | | E Dia. Max. | F ±.015 | G Min. | H Thread Class 2A | J Thread Class 2A |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Size 16 & 12 Contacts | Size 8, 4, 0 Contacts | | | | | |
| 8S | .504/.496 | .729 | .577/.562 | 2.031 | – | .305 | .083 | .290 | .5000-20 UNEF | .5000-28 UNEF |
| 10S | .629/.621 | .854 | .577/.562 | 2.031 | – | .405 | .083 | .290 | .6250-24 UNEF | .6250-24 UNEF |
| 10SL | .629/.621 | .854 | .577/.562 | 2.031 | – | .405 | .083 | .290 | .6250-24 UNEF | .6250-24 UNEF |
| 12 | .754/.746 | .974 | .765/.750 | 2.125 | – | .549 | .083 | .290 | .7500-20 UNEF | .7500-20 UNEF |
| 12S | .754/.746 | .974 | .577/.562 | 2.031 | – | .549 | .083 | .290 | .7500-20 UNEF | .7500-20 UNEF |
| 14 | .879/.871 | 1.099 | .765/.750 | 2.125 | – | .665 | .083 | .290 | .8750-20 UNEF | .8750-20 UNEF |
| 14S | .879/.871 | 1.099 | .577/.562 | 2.031 | – | .665 | .083 | .290 | .8750-20 UNEF | .8750-20 UNEF |
| 16 | 1.005/.996 | 1.224 | .765/.750 | 2.125 | 2.500 | .790 | .083 | .290 | 1.0000-20 UNEF | 1.0000-20 UNEF |
| 16S | 1.005/.996 | 1.224 | .577/.562 | 2.031 | – | .790 | .083 | .290 | 1.0000-20 UNEF | 1.0000-20 UNEF |
| 18 | 1.131/1.121 | 1.349 | .765/.750 | 2.125 | 2.500 | .869 | .125 | .290 | 1.0625-18 UNEF | 1.1250-18 UNEF |
| 20 | 1.256/1.246 | 1.474 | .765/.750 | 2.125 | 2.500 | .994 | .125 | .290 | 1.1875-18 UNEF | 1.2500-18 UNEF |
| 22 | 1.381/1.371 | 1.599 | .765/.750 | 2.125 | 2.500 | 1.119 | .125 | .290 | 1.3125-18 UNEF | 1.3750-18 UNEF |
| 24 | 1.506/1.496 | 1.715 | .827/.812 | 2.125 | 2.500 | 1.244 | .125 | .290 | 1.4375-18 UNEF | 1.5000-18 UNEF |
| 28 | 1.756/1.746 | 1.974 | .827/.812 | 2.125 | 2.500 | 1.465 | .125 | .467 | 1.7500-18 UNS | 1.7500-18 UNS |
| 32 | 2.007/1.996 | 2.224 | .890/.870 | 2.125 | 2.500 | 1.715 | .125 | .467 | 2.0000-18 UNS | 2.0000-18 UNS |
| 36 | 2.257/2.246 | 2.474 | .890/.870 | 2.125 | 2.500 | 1.930 | .125 | .467 | 2.2500-16 UN | 2.2500-16 UN |
| 40 | 2.511/2.456 | 2.724 | .890/.870 | 2.125 | 2.500 | 2.145 | .125 | .467 | 2.5000-16 UN | 2.5000-16 UN |

* Consult Amphenol Aerospace for availability of shell sizes 44 and 48.

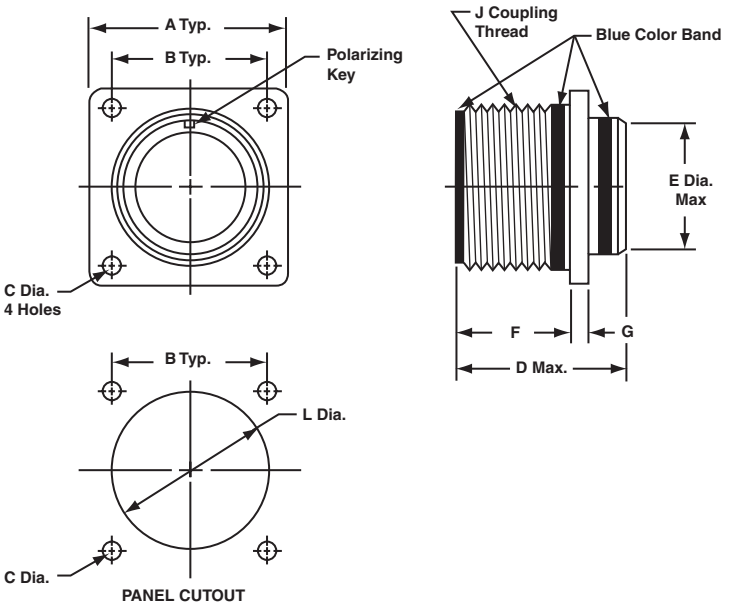
# Box Mounting Receptacle

## Military (MS3452), Commercial (9442)

PART NUMBER BUILDER PAGE M16

**MILITARY** MS3452

**COMMERCIAL** 9442




| Shell Size* | A ±.031 | B | C Dia. | D Max. | | E Dia. ±.016 | F | G ±.015 | J Thread Class 2A | L Dia. ±.010 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Size 16 & 12 Contacts | Size 8, 4, 0 Contacts | | | | | |
| 8S | .875 | .594 | .130/.115 | 1.662 | – | .500 | .578/.562 | .083 | .5000-28 UNEF | .562 |
| 10S | 1.000 | .719 | .130/.115 | 1.662 | – | .625 | .578/.562 | .083 | .6250-24 UNEF | .688 |
| 10SL | 1.000 | .719 | .130/.115 | 1.662 | – | .625 | .578/.562 | .083 | .6250-24 UNEF | .688 |
| 12 | 1.094 | .812 | .130/.115 | 1.662 | – | .750 | .765/.750 | .083 | .7500-20 UNEF | .812 |
| 12S | 1.094 | .812 | .130/.115 | 1.662 | – | .750 | .578/.562 | .083 | .7500-20 UNEF | .812 |
| 14 | 1.188 | .906 | .130/.115 | 1.662 | – | .875 | .765/.750 | .083 | .8750-20 UNEF | .938 |
| 14S | 1.188 | .906 | .130/.115 | 1.662 | – | .875 | .577/.562 | .083 | .8750-20 UNEF | .938 |
| 16 | 1.281 | .969 | .130/.115 | 1.662 | 1.937 | 1.000 | .765/.750 | .083 | 1.0000-20 UNEF | 1.062 |
| 16S | 1.281 | .969 | .130/.115 | 1.662 | – | 1.000 | .577/.562 | .083 | 1.0000-20 UNEF | 1.062 |
| 18 | 1.375 | 1.062 | .130/.115 | 1.662 | 1.937 | 1.062 | .765/.750 | .125 | 1.1250-18 UNEF | 1.188 |
| 20 | 1.500 | 1.156 | .130/.115 | 1.662 | 1.937 | 1.187 | .765/.750 | .125 | 1.2500-18 UNEF | 1.312 |
| 22 | 1.625 | 1.250 | .130/.115 | 1.662 | 1.937 | 1.312 | .765/.750 | .125 | 1.3750-18 UNEF | 1.438 |
| 24 | 1.750 | 1.375 | .157/.142 | 1.662 | 1.937 | 1.437 | .827/.812 | .125 | 1.5000-18 UNEF | 1.562 |
| 28 | 2.000 | 1.562 | .157/.142 | 1.662 | 1.937 | 1.750 | .827/.812 | .125 | 1.7500-18 UNS | 1.812 |
| 32 | 2.250 | 1.750 | .183/.168 | 1.662 | 1.937 | 2.000 | .988/.875 | .125 | 2.0000-18 UNS | 2.062 |
| 36 | 2.500 | 1.938 | .183/.168 | 1.662 | 1.937 | 2.250 | .988/.875 | .125 | 2.2500-16 UN | 2.312 |
| 40 | 2.750 | 2.188 | .183/.168 | 1.662 | 1.937 | 2.500 | .988/.875 | .125 | 2.5000-16 UN | 2.562 |

* Consult Amphenol Aerospace for availability of shell sizes 44 and 48.

# Jam Nut Receptacle

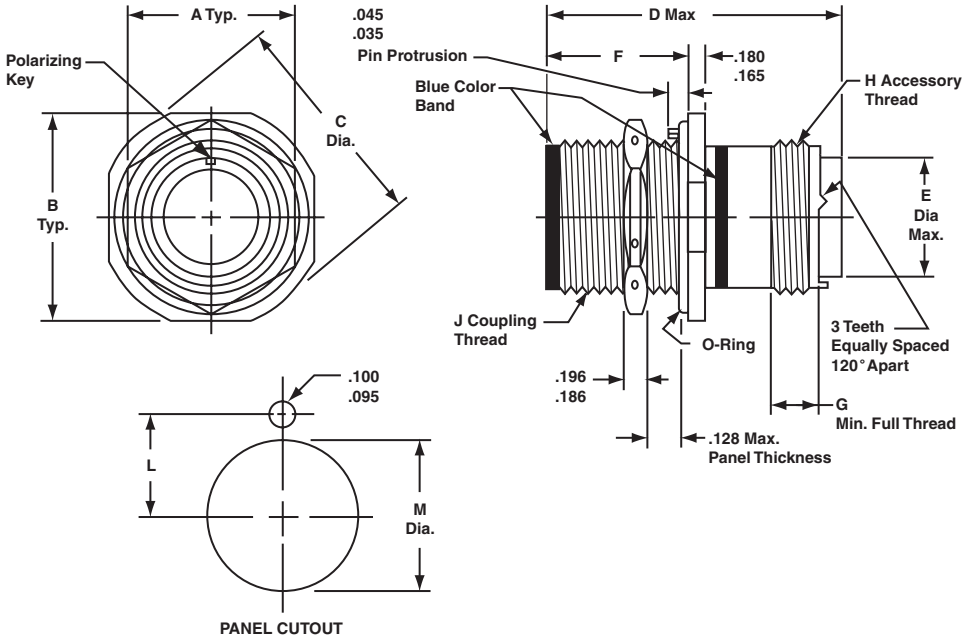
## Military (MS3454), Commercial (9444)

Amphenol Aerospace

PART NUMBER BUILDER PAGE M16

**MILITARY** MS3454

**COMMERCIAL** 9444




| Shell Size* | A ±.010 | B ±.005 | C Dia. ±.005 | D Max. | | E Dia. Max. | F ±.005 | G Min. | H Thread Class 2A | J Thread Class 2A | Panel Cutout Dimensions | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Size 16 & 12 Contacts | Size 8, 4, 0 Contacts | | | | | | L ±.005 | M Dia. +.015 −.000 |
| 8S | .687 | 1.187 | 1.272 | 2.031 | – | .305 | .720 | .290 | .5000-20 UNEF | .5000-28 UNEF | .323 | .505 |
| 10S | .812 | 1.312 | 1.397 | 2.031 | – | .405 | .720 | .290 | .6250-24 UNEF | .6250-24 UNEF | .385 | .630 |
| 10SL | .812 | 1.312 | 1.397 | 2.031 | – | .405 | .720 | .290 | .6250-24 UNEF | .6250-24 UNEF | .385 | .630 |
| 12 | .937 | 1.437 | 1.522 | 2.125 | – | .549 | .970 | .290 | .7500-20 UNEF | .7500-20 UNEF | .448 | .755 |
| 12S | .937 | 1.437 | 1.522 | 2.031 | – | .549 | .720 | .290 | .7500-20 UNEF | .7500-20 UNEF | .448 | .755 |
| 14 | 1.125 | 1.562 | 1.647 | 2.125 | – | .665 | .970 | .290 | .8750-20 UNEF | .8750-20 UNEF | .510 | .880 |
| 14S | 1.125 | 1.562 | 1.647 | 2.031 | – | .665 | .720 | .290 | .8750-20 UNEF | .8750-20 UNEF | .510 | .880 |
| 16 | 1.250 | 1.687 | 1.772 | 2.125 | 2.500 | .790 | .970 | .290 | 1.0000-20 UNEF | 1.0000-20 UNEF | .573 | 1.005 |
| 16S | 1.250 | 1.687 | 1.772 | 2.031 | – | .790 | .720 | .290 | 1.0000-20 UNEF | 1.0000-20 UNEF | .573 | 1.005 |
| 18 | 1.375 | 1.812 | 1.897 | 2.125 | 2.500 | .869 | .970 | .290 | 1.0625-18 UNEF | 1.1250-18 UNEF | .635 | 1.130 |
| 20 | 1.500 | 1.937 | 2.022 | 2.125 | 2.500 | .994 | .970 | .290 | 1.1875-18 UNEF | 1.2500-18 UNEF | .698 | 1.255 |
| 22 | 1.625 | 2.156 | 2.241 | 2.125 | 2.500 | 1.119 | .970 | .290 | 1.3125-18 UNEF | 1.3750-18 UNEF | .760 | 1.380 |
| 24 | 1.750 | 2.281 | 2.366 | 2.125 | 2.500 | 1.244 | .970 | .290 | 1.4375-18 UNEF | 1.5000-18 UNEF | .823 | 1.505 |
| 28 | 2.000 | 2.531 | 2.616 | 2.125 | 2.500 | 1.465 | .970 | .467 | 1.7500-18 UNS | 1.7500-18 UNS | .948 | 1.755 |
| 32 | 2.375 | 2.781 | 2.866 | 2.125 | 2.500 | 1.715 | .970 | .467 | 2.0000-18 UNS | 2.0000-18 UNS | 1.073 | 2.005 |
| 36 | 2.625 | 3.031 | 3.116 | 2.125 | 2.500 | 1.930 | .970 | .467 | 2.2500-16 UN | 2.2500-16 UN | 1.198 | 2.255 |
| 40 | 2.875 | 3.281 | 3.366 | 2.125 | 2.500 | 2.145 | .970 | .467 | 2.5000-16 UN | 2.5000-16 UN | 1.323 | 2.505 |

* Consult Amphenol Aerospace for availability of shell sizes 44 and 48.

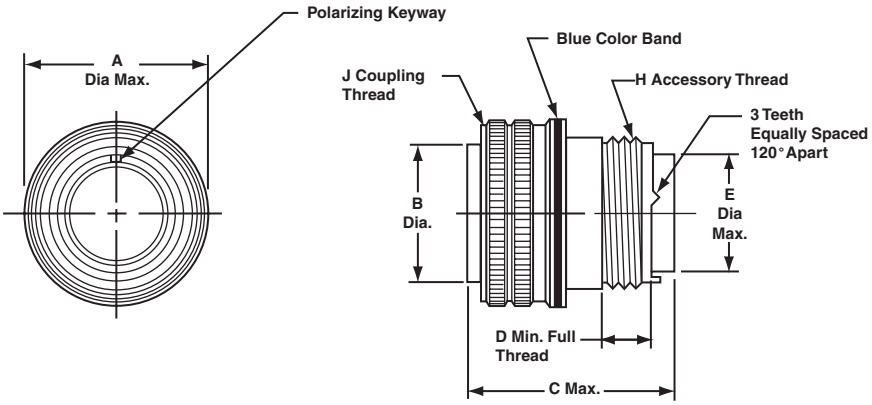
# Straight Plug

## Military (MS3456), Commercial (9446)

**PART NUMBER BUILDER PAGE M16**

**MILITARY** MS3456

**COMMERCIAL** 9446




| Shell Size* | A Dia. Max. | B Dia. ±.005 | C Max. | | D Min. | E Dia. Max. | H Thread Class 2A | J Thread Class 2B |
|---|---|---|---|---|---|---|---|---|
| | | | Size 16 & 12 Contacts | Size 8, 4, 0 Contacts | | | | |
| 8S | .844 | .360 | 2.031 | – | .290 | .305 | .5000-20 UNF | .5000-28 UNEF |
| 10S | .969 | .435 | 2.031 | – | .290 | .405 | .6250-24 UNEF | .6250-24 UNEF |
| 10SL | .969 | .441** | 2.031 | – | .290 | .405 | .6250-24 UNEF | .6250-24 UNEF |
| 12 | 1.062 | .550 | 2.125 | – | .290 | .549 | .7500-20 UNEF | .7500-20 UNEF |
| 12S | 1.062 | .550 | 2.031 | – | .290 | .549 | .7500-20 UNEF | .7500-20 UNEF |
| 14 | 1.156 | .670 | 2.125 | – | .290 | .665 | .8750-20 UNEF | .8750-20 UNEF |
| 14S | 1.156 | .670 | 2.031 | – | .290 | .665 | .8750-20 UNEF | .8750-20 UNEF |
| 16 | 1.250 | .800 | 2.125 | 2.500 | .290 | .790 | 1.0000-20 UNEF | 1.0000-20 UNEF |
| 16S | 1.250 | .800 | 2.031 | – | .290 | .790 | 1.0000-20 UNEF | 1.0000-20 UNEF |
| 18 | 1.344 | .925 | 2.125 | 2.500 | .290 | .869 | 1.0625-18 UNEF | 1.1250-18 UNEF |
| 20 | 1.469 | 1.045 | 2.125 | 2.500 | .290 | .994 | 1.1875-18 UNEF | 1.2500-18 UNEF |
| 22 | 1.594 | 1.170 | 2.125 | 2.500 | .290 | 1.119 | 1.3125-18 UNEF | 1.3750-18 UNEF |
| 24 | 1.719 | 1.295 | 2.125 | 2.500 | .290 | 1.244 | 1.4375-18 UNEF | 1.5000-18 UNEF |
| 28 | 1.969 | 1.515 | 2.125 | 2.500 | .467 | 1.465 | 1.7500-18 UNS | 1.7500-18 UNS |
| 32 | 2.219 | 1.765 | 2.125 | 2.500 | .467 | 1.715 | 2.0000-18 UNS | 2.0000-18 UNS |
| 36 | 2.469 | 1.975 | 2.125 | 2.500 | .467 | 1.930 | 2.2500-16 UN | 2.2500-16 UN |
| 40 | 2.719 | 2.225 | 2.125 | 2.500 | .467 | 2.145 | 2.5000-16 UN | 2.5000-16 UN |

* Consult Amphenol Aerospace for availability of shell sizes 44 and 48.

** Tolerance on this dimension is +.000 –.006

# Straight Plug with Self-locking Coupling Nut

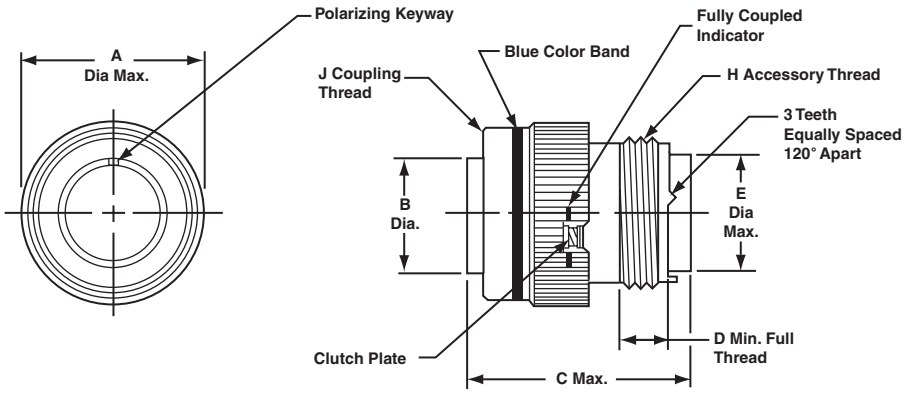
## Military (MS3459), Commercial (9816)

Amphenol Aerospace

### PART NUMBER BUILDER PAGE M16

**MILITARY** MS3459

**COMMERCIAL** 9816




| Shell Size* | A Dia. Max. | B Dia. ±.005 | C Max. | | D Min. | E Dia. Max. | H Thread Class 2A | J Thread Class 2B |
|---|---|---|---|---|---|---|---|---|
| | | | Size 16 & 12 Contacts | Size 8, 4, 0 Contacts | | | | |
| 8S | .963 | .360 | 1.510 | – | .290 | .305 | .5000-20 UNEF | .5000-28 UNEF |
| 10S | 1.088 | .435 | 1.510 | – | .290 | .405 | .6250-24 UNEF | .6250-24 UNEF |
| 10SL | 1.088 | .441** | 1.510 | – | .290 | .405 | .6250-24 UNEF | .6250-24 UNEF |
| 12 | 1.213 | .550 | 1.780 | – | .290 | .549 | .7500-20 UNEF | .7500-20 UNEF |
| 12S | 1.213 | .550 | 1.510 | – | .290 | .549 | .7500-20 UNEF | .7500-20 UNEF |
| 14 | 1.358 | .670 | 1.780 | – | .290 | .665 | .8750-20 UNEF | .8750-20 UNEF |
| 14S | 1.358 | .670 | 1.510 | – | .290 | .665 | .8750-20 UNEF | .8750-20 UNEF |
| 16 | 1.463 | .800 | 1.780 | 2.500 | .290 | .790 | 1.0000-20 UNEF | 1.0000-20 UNEF |
| 16S | 1.463 | .800 | 1.510 | – | .290 | .790 | 1.0000-20 UNEF | 1.0000-20 UNEF |
| 18 | 1.588 | .925 | 1.850 | 2.500 | .290 | .869 | 1.0625-18 UNEF | 1.1250-18 UNEF |
| 20 | 1.713 | 1.045 | 1.850 | 2.500 | .290 | .994 | 1.1875-18 UNEF | 1.2500-18 UNEF |
| 22 | 1.788 | 1.170 | 1.850 | 2.500 | .290 | 1.119 | 1.3125-18 UNEF | 1.3750-18 UNEF |
| 24 | 1.963 | 1.295 | 1.850 | 2.500 | .290 | 1.244 | 1.4375-18 UNEF | 1.5000-18 UNEF |
| 28 | 2.213 | 1.515 | 1.850 | 2.500 | .467 | 1.465 | 1.7500-18 UNS | 1.7500-18 UNS |
| 32 | 2.463 | 1.765 | 1.850 | 2.500 | .467 | 1.715 | 2.0000-18 UNS | 2.0000-18 UNS |
| 36 | 2.713 | 1.975 | 1.850 | 2.500 | .467 | 1.930 | 2.2500-16 UN | 2.2500-16 UN |
| 40 | 2.963 | 2.225 | 1.850 | 2.500 | .467 | 2.145 | 2.5000-16 UN | 2.5000-16 UN |

* Consult Amphenol Aerospace for availability of shell sizes 44 and 48.

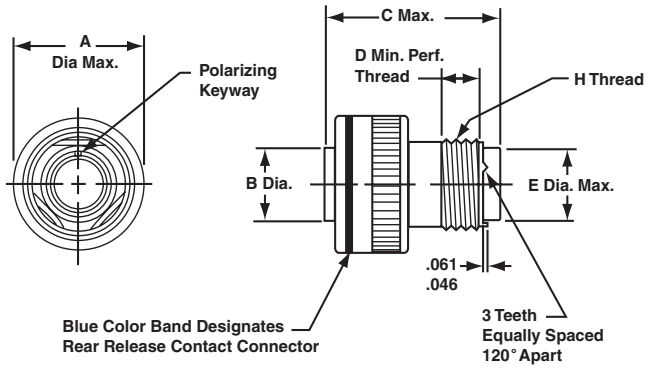
** Tolerance on this dimension is +.000 –.006

# Quick Disconnect Plug, with/without Lanyard

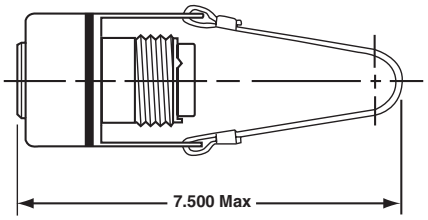
## Commercial (9817)

**PART NUMBER BUILDER PAGE M16**

COMMERCIAL **9818** **9817**




**9818 CONNECTOR**

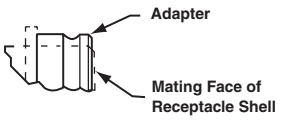



**9817 CONNECTOR WITH LANYARD**

| Shell Size* | A Dia. Max. | B Dia. | C Max. Size 16 & 12 Contacts | C Max. Size 8, 4, 0 Contacts | D Min. | E Dia. Max. | H Thread Class 2A | Amphenol/ Matrix Part Number for Adapter Ring |
|---|---|---|---|---|---|---|---|---|
| 8S | 1.087 | .360 | 2.031 | – | .290 | .305 | .5000-20 UNF | 2500-008-0X08 |
| 10S | 1.224 | .435 | 2.031 | – | .290 | .405 | .6250-24 UNEF | 2500-008-0X10 |
| 10SL | 1.224 | .441 | 2.031 | – | .290 | .405 | .6250-24 UNEF | 2500-008-0X10 |
| 12 | 1.355 | .550 | 2.125 | – | .290 | .549 | .7500-20 UNEF | 2500-008-0X12 |
| 12S | 1.355 | .550 | 2.031 | – | .290 | .549 | .7500-20 UNEF | 2500-008-0X13 |
| 14 | 1.482 | .670 | 2.125 | – | .290 | .665 | .8750-20 UNEF | 2500-008-0X14 |
| 14S | 1.482 | .670 | 2.031 | – | .290 | .665 | .8750-20 UNEF | 2500-008-0X15 |
| 16 | 1.609 | .800 | 2.125 | 2.500 | .290 | .790 | 1.0000-20 UNEF | 2500-008-0X16 |
| 16S | 1.609 | .800 | 2.031 | – | .290 | .790 | 1.0000-20 UNEF | 2500-008-0X17 |
| 18 | 1.817 | .925 | 2.125 | 2.500 | .290 | .869 | 1.0625-18 UNEF | 2500-008-0X18 |
| 20 | 1.942 | 1.045 | 2.125 | 2.500 | .290 | .994 | 1.1875-18 UNEF | 2500-008-0X20 |
| 22 | 2.075 | 1.170 | 2.125 | 2.500 | .290 | 1.119 | 1.3125-18 UNEF | 2500-008-0X22 |
| 24 | 2.203 | 1.295 | 2.125 | 2.500 | .290 | 1.244 | 1.4375-18 UNEF | 2500-008-0X24 |
| 28 | 2.516 | 1.515 | 2.125 | 2.500 | .467 | 1.465 | 1.7500-18 UNS | 2500-008-0X28 |
| 32 | 2.735 | 1.765 | 2.125 | 2.500 | .467 | 1.715 | 2.0000-18 UNS | 2500-008-0X32 |
| 36 | 3.015 | 1.975 | 2.125 | 2.500 | .467 | 1.930 | 2.2500-16 UN | 2500-008-0X36 |
| 40 | 3.306 | 2.225 | 2.125 | 2.500 | .467 | 2.145 | 2.5000-16 UN | 2500-008-0X40 |

Required to mate the quick disconnect plug with receptacle. Not furnished with the quick disconnect plug and must be ordered separately.

Note: Use Locktite Material on the threads for a permanent installation to the shell. How to Order Adapter Ring




**Part Number**
**2500-008-0 X XX**

Shell Size (varies from connector shell size designation, see last column of table at left)

Finish
0 - Electroless Nickel
1 - Black Anodize
2 - Cadmium/Olive Drab
3 - Stainless Steel, Passivated

* Consult Amphenol Aerospace for availability of shell sizes 44 and 48.

Receptacle Adapter Ring

# Contact Information, Sealing Plugs, Crimping and Insertion/Removal Tools

Amphenol Aerospace

## MS/STANDARD CRIMP REAR RELEASE CONTACTS

| Contact Size | Wire Range | | Socket Contacts | | Pin Contacts | |
|---|---|---|---|---|---|---|
| | AWG | mm² | Military Part Number | Amphenol/Matrix Part Number | Military Part Number | Amphenol/Matrix Part Number |
| 16S* | 20–16 | 0.5–1.4 | M39029/30-217 | M5100-033-1601L | M39029/29-212 | M5000-029-0016L |
| 16 | 20–16 | 0.5–1.4 | M39029/30-218 | M5100-033-1602L | M39029/29-212 | M5000-029-0016L |
| 12 | 14–12 | 2–3 | M39029/30-219 | M5100-033-0012 | M39029/29-213 | M5000-029-0012 |
| 8 | 10–8† | 5–8.5 | M39029/30-220 | M5100-033-0008 | M39029/29-214 | M5000-029-0008 |
| 4 | 6–4† | 13–21 | M39029/30-221 | M5100-033-0004 | M39029/29-215 | M5000-029-0004 |
| 0 | 2–0† | 34–60 | M39029/30-222 | M5100-033-0000 | M39029/29-216 | M5000-029-0000 |

* Shorter wire barrel

† Use MS3348 bushing kit to accommodate smaller wire.

Note: For information on thermocouple contacts, consult Amphenol Aerospace

## CONTACT CURRENT RATING AND RETENTION

| Contact Size** | Current Rating | | | Contact Retention | |
|---|---|---|---|---|---|
| | Amperes Max. | RADSOK Amps Max. | Voltage Drops Millivolts | Axial Load | |
| | | | | lb. | N |
| 16 | 13 | N/A | 50 | 25 | 111.2 |
| 12 | 23 | N/A | 50 | 30 | 133.4 |
| 8 | 46 | 70 | 25 | 50 | 222.4 |
| 4 | 80 | 120 | 14 | 60 | 266.9 |
| 0 | 150 | 150 | 12 | 75 | 333.6 |

** Organize individual circuits to maintain heat rise within operating temperature requirements.

## SEALING PLUGS

| Contact Size | Sealing Plugs | |
|---|---|---|
| | Military Part Number | Amphenol/Matrix Part Number |
| 16S | MS27488-16-3 | 10-405996-163 |
| 16 | MS27488-16-3 | 10-405996-163 |
| 12 | MS27488-12-3 | 10-405996-123 |
| 8 | MS27488-8-3 | 10-405996-083 |
| 4 | MS27488-4-3 | 10-405996-043 |
| 0 | MS27488-0-3 | 10-405996-003 |

## CRIMPING TOOLS

| Contact Size | Wire Range | | Finished Wire Dia. Range | | Color Code | Crimping Tool Part Number | Turret or Positioner Part Number |
|---|---|---|---|---|---|---|---|
| | AWG | mm² | Inch | mm | | | |
| 16S | 20–16 | 0.5–1.4 | .053–.103 | 1.34–2.62 | Red/White | M22520/1-01 | M22520/1-02 |
| 16 | 20–16 | 0.5–1.4 | .053–.103 | 1.34–2.62 | Blue/White | M22520/1-01 | M22520/1-02 |
| 12 | 14–12 | 2–3 | .085–.158 | 2.15–4.01 | Yell./White | M22520/1-01 | M22520/1-02 |
| 8 | 10–8 | 5–8.5 | .132–.255 | 3.35–6.48 | White/Red | M22520/23-01 | M22520/23-02 |
| 4 | 6–4 | 13–21 | .237–.370 | 6.01–9.40 | White/Blue | M22520/23-01 | M22520/23-04 |
| 0 | 2–0 | 34–60 | .360–.550 | 9.14–13.97 | White/Yell. | M22520/23-01 | M22520/23-05 |

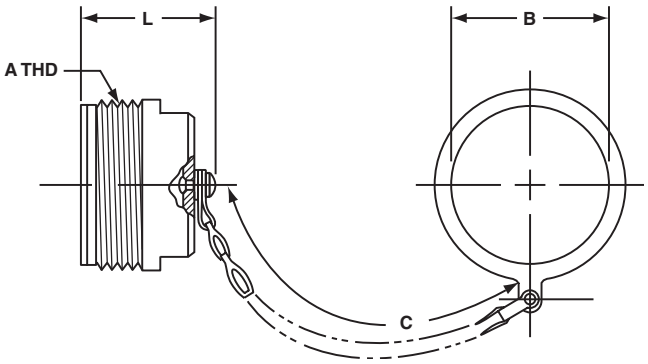
## INSERTION/REMOVAL TOOLS

| Contact Size | Color Code | Military Part Number | Amphenol/Matrix Part Number |
|---|---|---|---|
| 16 | Blue/White | M81969/14-03 | 10-538988-016 |
| 12 | Yellow/White | M81969/14-04 | 10-538988-012 |
| 8 | Red | M81969/14-06 | 6500-018-0008 |
| 4 | Blue | M81969/14-07 | 6500-018-0004 |
| 0 | Yellow | M81969/14-08 | 6500-018-0000 |

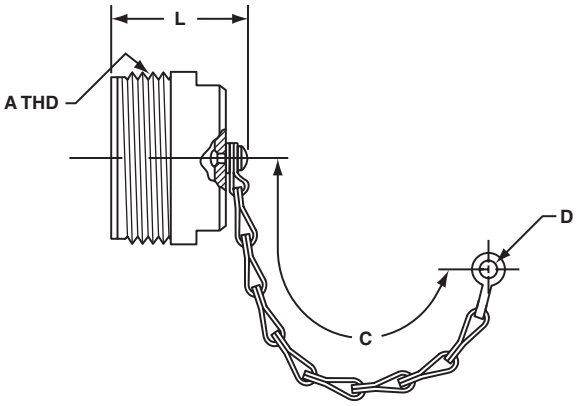
Amphenol installation instructions, L-2106, gives information on insertion, removal and crimping of contacts for Matrix MIL-DTL-5015 connectors.

# Protection Caps – Plug

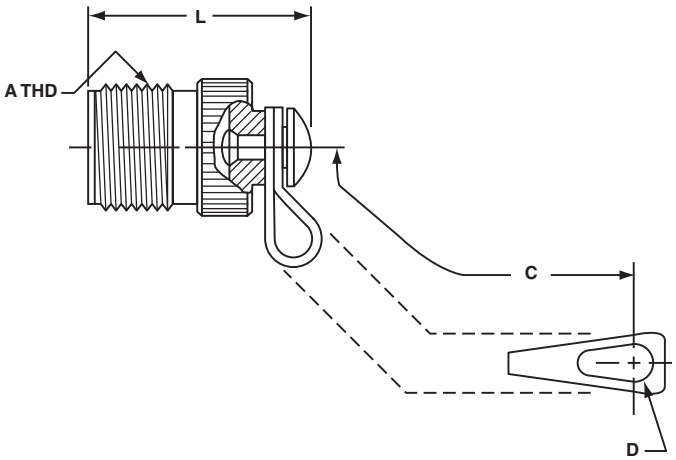
## PLUG PROTECTION CAP 10-329393-




## XX*




## PLUG PROTECTION CAP 10-229125-XX*




## PLUG PROTECTION CAP MS25042-XXDA*

| Assembly Number | A Thread Class 2A | B Dia. +.010 –.000 | C Approx. | L Max. |
|---|---|---|---|---|
| 10-329393-10 (*) | .625-24UNEF | .641 | 3.5 | 1.312 |
| 10-329393-11(*) | .625-24UNEF | .641 | 3.5 | 1.312 |
| 10-329393-12(*) | .750-20UNEF | .766 | 3.5 | 1.500 |
| 10-329393-14(*) | .875-20UNEF | .891 | 3.5 | 1.500 |
| 10-329393-16(*) | 1.000-20UNEF | 1.016 | 3.5 | 1.500 |
| 10-329393-18(*) | 1.125-18UNEF | 1.141 | 3.5 | 1.500 |
| 10-329393-20(*) | 1.250-18UNEF | 1.266 | 4.0 | 1.500 |
| 10-329393-22(*) | 1.375-18UNEF | 1.391 | 4.0 | 1.500 |
| 10-329393-24(*) | 1.500-18UNEF | 1.641 | 4.5 | 1.500 |
| 10-329393-28(*) | 1.750-18UNS | 1.891 | 4.5 | 1.500 |
| 10-329393-32(*) | 2.000-18UNS | 2.078 | 5.0 | 1.500 |
| 10-329393-36(*) | 2.250-16UN | 2.328 | 5.0 | 1.500 |
| 10-329393-40(*) | 2.500-16UN | 2.641 | 5.0 | 1.500 |

* 3 = OD Cadmium Plating
G = Electroless Nickel Plating

| Assembly Number | A Thread Class 2A | B Dia. +.010 –.000 | C Approx. | L Max. |
|---|---|---|---|---|
| 10-329393-44(*) | 2.750-16UN | 2.891 | 6.0 | 1.500 |

| Assembly Number | A Thread Class 2A | C Approx. | D Ref. | L Max. |
|---|---|---|---|---|
| 10-229125-10 | .625-24NEF | 3.0 | .140 | 1.233 |
| 10-229125-12 | .750-20UNEF | 3.5 | .140 | 1.421 |
| 10-229125-14 | .875-20UNEF | 3.5 | .140 | 1.421 |
| 10-229125-16 | 1.000-20UNEF | 3.5 | .140 | 1.421 |
| 10-229125-18 | 1.125-18NEF | 3.5 | .140 | 1.421 |
| 10-229125-20 | 1.250-18NEF | 3.5 | .193 | 1.421 |
| 10-229125-22 | 1.375-18NEF | 3.5 | .193 | 1.421 |
| 10-229125-24 | 1.500-18NEF | 4.5 | .193 | 1.421 |

| Assembly Number | A Thread Class 2A | C Approx. | D Ref. | L Max. |
|---|---|---|---|---|
| 10-229125-28 | 1.750-18NS | 4.5 | .193 | 1.421 |
| 10-229125-32 | 2.000-18NS | 5.0 | .193 | 1.421 |
| 10-229125-36 | 2.250-16UN | 5.0 | .193 | 1.421 |
| 10-229125-40 | 2.500-16UN | 5.0 | .193 | 1.421 |

| MS Number | A Thread Class 2A | B Dia. +.010 –.005 | C Approx. | L Max. |
|---|---|---|---|---|
| MS25042-8DA | .500-28UNEF | .156 | 4.00 | .969 |
| MS25042-10DA | .625-24UNEF | .156 | 4.00 | .969 |
| MS25042-12DA | .750-20UNEF | .156 | 4.50 | 1.156 |
| MS25042-14DA | .875-20UNEF | .156 | 4.50 | 1.156 |
| MS25042-16DA | 1.000-20UNEF | .156 | 4.50 | 1.156 |
| MS25042-18DA | 1.125-18UNEF | .156 | 4.50 | 1.156 |
| MS25042-20DA | 1.250-18UNEF | .187 | 5.00 | 1.156 |
| MS25042-22DA | 1.375-18UNEF | .187 | 5.00 | 1.156 |
| MS25042-24DA | 1.500-18UNEF | .187 | 5.50 | 1.156 |
| MS25042-28DA | 1.750-18UNS | .187 | 7.75 | 1.156 |
| MS25042-32DA | 2.000-18UNS | .218 | 7.75 | 1.156 |
| MS25042-36DA | 2.250-16UN | .218 | 7.75 | 1.156 |
| MS25042-40DA | 2.500-16UN | .218 | 7.75 | 1.156 |

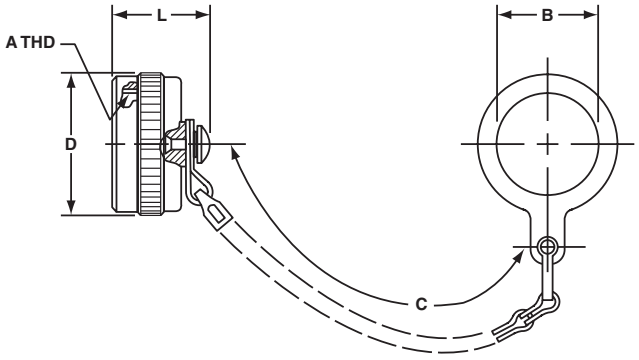
* Protective caps are illustrated with sash chains and are available with beaded chains or without chains. Optional terminations are also available. Consult Amphenol Aerospace when ordering.

# Protection Caps – Receptacle

### RECEPTACLE PROTECTION CAP MS25043-XXDA*

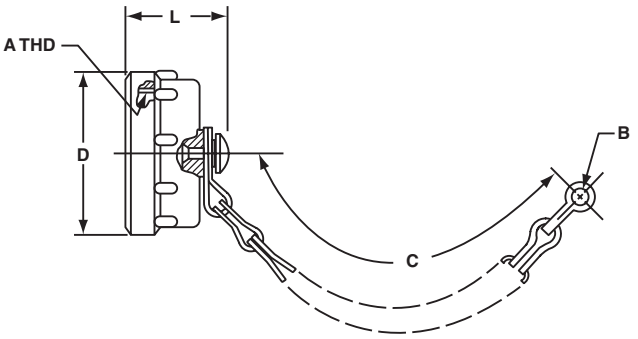
| Assembly Number | A Thread Class 2B | B Dia. Min. | C Approx. | D Dia. Max. | L Max. |
|---|---|---|---|---|---|
| 10-329394-10 | .625-24UNEF | .641 | 3.5 | .875 | .793 |
| 10-329394-12 | .750-20UNEF | .766 | 3.5 | 1.000 | .793 |
| 10-329394-14 | .875-20UNEF | .891 | 3.5 | 1.125 | .793 |
| 10-329394-16 | 1.000-20UNEF | 1.016 | 3.5 | 1.250 | .793 |
| 10-329394-18 | 1.125-18UNEF | 1.094 | 3.5 | 1.375 | 1.024 |
| 10-329394-20 | 1.250-18UNEF | 1.203 | 4.0 | 1.500 | 1.024 |
| 10-329394-22 | 1.375-18UNEF | 1.343 | 4.0 | 1.625 | 1.024 |
| 10-329394-24 | 1.500-18UNEF | 1.453 | 4.5 | 1.750 | 1.024 |
| 10-329394-28 | 1.750-18UNS | 1.766 | 4.5 | 2.000 | 1.024 |
| 10-329394-32 | 2.000-18UNS | 2.016 | 5.0 | 2.250 | 1.024 |
| 10-329394-36 | 2.250-16UN | 2.266 | 5.0 | 2.500 | 1.024 |
| 10-329394-40 | 2.500-16UN | 2.516 | 5.0 | 2.656 | 1.024 |
| 10-329394-44 | 2.750-16UN | 2.766 | 6.0 | 2.938 | 1.024 |

### RECEPTACLE PROTECTION CAP 10-329394-XX*




| Assembly Number | A Thread Class 2B | B Ref. | C Approx. | D Dia. Max. | L Max. |
|---|---|---|---|---|---|
| 10-422905-103 | .625-24UNEF | .140 | 3.0 | .875 | .812 |
| 10-422905-123 | .750-20UNEF | .140 | 3.5 | 1.000 | .812 |
| 10-422905-143 | .875-20UNEF | .140 | 3.5 | 1.125 | .812 |
| 10-422905-163 | 1.000-20UNEF | .140 | 3.5 | 1.250 | .812 |
| 10-422905-183 | 1.125-18UNEF | .193 | 3.5 | 1.375 | 1.031 |
| 10-422905-203 | 1.250-18UNEF | .193 | 4.0 | 1.500 | 1.031 |
| 10-422905-223 | 1.375-18UNEF | .193 | 4.0 | 1.625 | 1.031 |
| 10-422905-243 | 1.500-18UNEF | .193 | 4.5 | 1.750 | 1.031 |
| 10-422905-283 | 1.750-18UNS | .193 | 4.5 | 2.000 | 1.031 |
| 10-422905-323 | 2.000-18UNS | .193 | 5.0 | 2.250 | 1.031 |

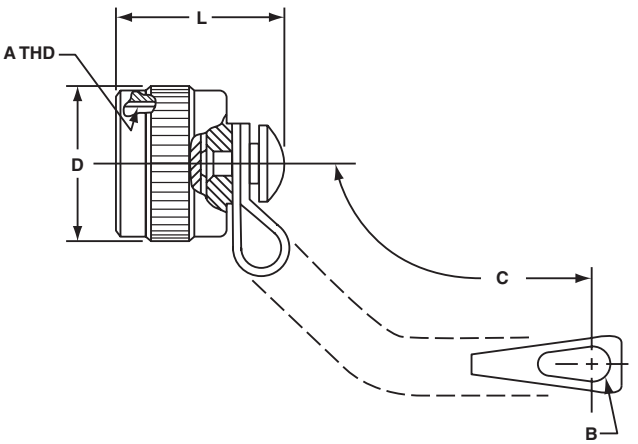
### RECEPTACLE PROTECTION CAP 10-422905-




| Assembly Number | A Thread Class 2B | B Ref. | C Approx. | D Dia. Max. | L Max. |
|---|---|---|---|---|---|
| 10-422905-363 | 2.250-16UN | .193 | 5.0 | 2.500 | 1.031 |
| 10-422905-403 | 2.500-16UN | .193 | 5.0 | 2.656 | 1.031 |

| MS Number | A Thread Class 2B | B +.010 –.005 | C Approx. | D Dia. Max. | L Max. |
|---|---|---|---|---|---|
| MS25043-8DA | .500-28UNEF | .140 | 4.00 | .688 | .750 |
| MS25043-10DA | .625-24UNEF | .140 | 4.00 | .815 | .750 |
| MS25043-12DA | .750-20UNEF | .140 | 4.50 | 1.000 | .750 |
| MS25043-14DA | .875-20UNEF | .140 | 4.50 | 1.125 | .750 |
| MS25043-16DA | 1.000-20UNEF | .140 | 4.50 | 1.188 | .750 |
| MS25043-18DA | 1.125-18UNEF | .140 | 4.50 | 1.344 | .750 |
| MS25043-20DA | 1.250-18UNEF | .140 | 5.00 | 1.469 | .750 |
| MS25043-22DA | 1.375-18UNEF | .140 | 5.00 | 1.594 | .750 |
| MS25043-24DA | 1.500-18UNEF | .171 | 5.50 | 1.719 | .750 |
| MS25043-28DA | 1.750-18UNS | .171 | 7.75 | 1.969 | .812 |
| MS25043-32DA | 2.000-18UNS | .187 | 7.75 | 2.219 | .812 |
| MS25043-36DA | 2.250-16UN | .187 | 7.75 | 2.469 | .812 |
| MS25043-40DA | 2.500-16UN | .187 | 7.75 | 2.719 | .812 |

### XXX*

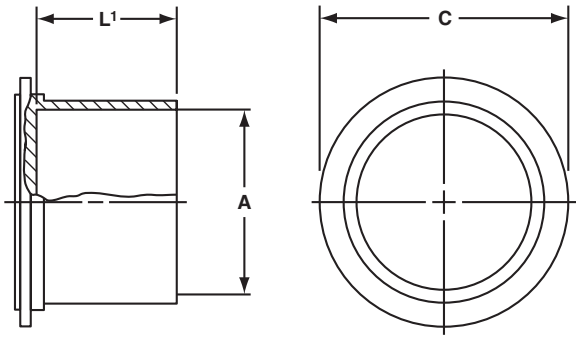



* Protective caps are illustrated with sash chains and are available with beaded chains or without chains. Optional terminations are also available. Consult Amphenol Aerospace when ordering.

# MIL-DTL-5015 Accessories

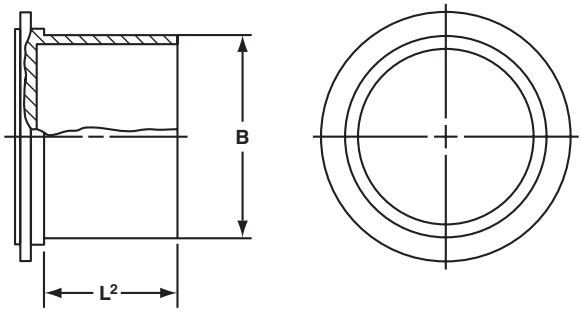
## Dust Caps

### 10-70500 RECEPTACLE DUST CAP FOR EXTERNAL THREADS




| MS Shell Size | Order Number | A Dia. Nominal Thread | C Dia. ±.031 | L¹ ±.062 |
|---|---|---|---|---|
| 8S | 10-70500-8 | .500 | .750 | .500 |
| 10S | 10-70500-10 | .625 | .875 | .500 |
| 10SL | 10-70500-10 | .625 | .875 | .500 |
| 12S | 10-70500-12 | .750 | 1.000 | .500 |
| 12 | 10-70500-12 | .750 | 1.000 | .500 |
| 14S | 10-70500-14 | .875 | 1.125 | .500 |
| 14 | 10-70500-14 | .875 | 1.125 | .500 |
| 16S | 10-70500-16 | 1.000 | 1.250 | .500 |
| 16 | 10-70500-16 | 1.000 | 1.250 | .500 |
| 18 | 10-70500-18 | 1.125 | 1.375 | .562 |
| 20 | 10-70500-20 | 1.250 | 1.500 | .562 |
| 22 | 10-70500-22 | 1.375 | 1.625 | .562 |
| 24 | 10-70500-24 | 1.500 | 1.750 | .562 |
| 28 | 10-70500-28 | 1.750 | 1.938 | .562 |
| 32 | 10-70500-32 | 2.000 | 2.250 | .562 |
| 36 | 10-70500-36 | 2.250 | 2.500 | .625 |
| 40 | 10-70500-40 | 2.500 | 2.750 | .625 |

### 10-70506 PLUG DUST CAP FOR INTERNAL THREADS




| MS Shell Size | Order Number | B Dia. Min. | L² ±.125 |
|---|---|---|---|
| 8S | 10-70506-8S | .469 | .625 |
| 10S | 10-70506-10S | .587 | .625 |
| 10SL | 10-70506-10S | .587 | .625 |
| 12S | 10-70506-12 | .704 | .625 |
| 12 | 10-70506-12 | .704 | .625 |
| 14S | 10-70506-14 | .828 | .625 |
| 14 | 10-70506-14 | .828 | .625 |
| 16S | 10-70506-16 | .953 | .625 |
| 16 | 10-70506-16 | .953 | .625 |
| 18 | 10-70506-18 | 1.072 | .625 |
| 20 | 10-70506-20 | 1.197 | .625 |
| 22 | 10-70506-22 | 1.322 | .625 |
| 24 | 10-70506-24 | 1.447 | .625 |
| 28 | 10-70506-28 | 1.697 | .625 |
| 32 | 10-70506-32 | 1.947 | .625 |
| 36 | 10-70506-36 | 2.190 | .625 |
| 40 | 10-70506-40 | 2.440 | .625 |