# Amphenol® Pyle®
# MIL-C-26500 Connectors

**MS-101-3**

**Amphenol**

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Sales Office Listing


If more information is needed concerning the connectors covered in this publication, or if there are special application needs, please contact:


Amphenol Corporation
Amphenol Aerospace
40-60 Delaware Avenue
Sidney, New York 13838-1395
Telephone: 607-563-5011
Fax: 607-563-5351
**Website: www.amphenol-aerospace.com**


Amphenol is a Certified ISO 9001 Manufacturer.

# Amphenol® /Pyle®
# MIL-C-26500 Connectors - environmental connectors for military/aerospace applications

**High quality and dependability are the earned reputations of the Amphenol®/Pyle® Series of connectors designed to meet the specification requirements of MIL-C-26500. Serving such diverse fields as avionics, missile systems, aircraft general-purpose applications, aircraft engines and firewalls, the Amphenol®/Pyle® MIL-C-26500 connector family meets the myriad of problems with innovative connector solutions.**

Amphenol®/Pyle® MIL-C-26500 Connectors are medium sized connectors with a rugged design, lightweight construction and continuously dependable performance. This product family provides design features and options which are listed below in the order of the sections of this catalog.

---

- **Aluminum Shells in threaded or bayonet coupling, proprietary (ZZY or ZZW), or supplied to military classes R and G**
  - general purpose, environmentally resistant
  - square flange or single hole receptacles, and straight plug shell styles
  - ratchet lock plug style, which eliminates the need for safety wiring, and a mating threaded receptacle
  - black anodize non-conductive finish for class R and a conductive finish in class G that provides a minimum resistance path through the shell for grounding purposes
  - coupling nuts are hardcoat treated for added protection against wear
  - rear accessory threads accommodate standard MS27291 series cable supports or related accessory hardware
- **Stainless Steel Shells in threaded or bayonet coupling, proprietary (ZZY or ZZW), or supplied to military class E**
  - machined from 300 series stainless steel providing superior strength and wear characteristics
  - at elevated temperatures, 204°C (399°F), shells experience a less than 10% loss in yield strength
  - shell hardware resists corrosion for the life of the connector without the need of additional finishes
  - same shell styles offered as in aluminum
  - a variety of stainless steel accessories are available
- **Amphenol special application connector, 48 Series* receptacle short skirt**
  - low profile design for restricted installation requirements
- **Wire splice connector**
  - space saving, single contact, wire splice module
- **Firewall Capability Connectors meet the fireproof requirements of MIL-C-5015, Class K. Proprietary (FPK or FYL), or supplied to military Class K**
  - also **FPL** - threaded coupling, same as FPK but used on Lockheed Aircraft. and **FP5K** - threaded coupling, qualified for General Electric
  - non-magnetic stainless steel shells designed for superior strength and elevated temperatures up to 460°F for extended periods
  - same shell styles as stainless steel and aluminum versions
- **Hermetically sealed MIL-C-26500 connectors, supplied to military class H are also available.**
  - See page 26 for brief description
  - See page 4 for hermetic insert availability
  - Consult Amphenol, Sidney, NY for availability and ordering information.
- **Contacts and Accessories for MIL-C-26500 connectors**
  - MIL-C-39029 qualified contacts and special application contacts including thermocouple, printed circuit board and shielded/coaxial types
  - Boeing specification contacts
  - Aluminum and stainless steel cable supports; aluminum dummy receptacles
  - Contact crimping/ installation/removal tools for Amphenol 48 series and Pyle-National MIL-C-26500 series

* For more information on other Amphenol®/Pyle® 48 Series products consult Amphenol, Sidney, NY.

# MIL-C-26500 Connectors
## features

Amphenol®/Pyle® MIL-C-26500 Connectors are qualified to Military Specification MIL-C-26500, as well as numerous high performance customer specifications. As the chart below indicates, these connectors are available with aluminum or stainless steel shells – bayonet or threaded – and are qualified to meet the specifications of these MIL-C-26500 classes:

| MIL-C-26500 Classes | Amphenol/ Pyle Series Classes | Hardware Description | Finish |
|---|---|---|---|
| Class R: (Environmental Resistant) | A | Aluminum Alloy | Anodize |
| Class G | M | Aluminum Alloy | Chromium |
| Class E | R | Stainless Steel | Passivated |
| Class K Firewall | FPK/FYL | Stainless Steel | Passivated |
| Class H Hermetic | HC | CRS/Stainless Steel | Various |

### Crimp Contacts

Rear insertable, front releasable, crimp style contacts are machined from a copper alloy material, plated gold over nickel, and are qualified to specification MIL-C-39029. Contacts are crimp terminated outside the connector assembly and inserted into the appropriate cavity by means of a hand tool.

Socket contacts utilize a multi-tined construction and feature a “C” spring which grips the tines, and thus insures consistent and repetitive insertion/withdrawal forces. Contact tines are protected by a stainless steel shroud.
An optional pencil-clip thermocouple socket design is also offered. See page 27 for more information on thermocouple contacts.

### Alternate Keying

All MIL-C-26500 Series Connectors with aluminum and stainless steel hardware, can be furnished with normal or any of five alternate key positions. (See page 4).

Each plug shell has a master key and four alternate keys. The position of the alternate keys in relation to the fixed master key determines the key identification. Inserts are bonded to the shell in relation to the master key, thus allowing positive protection against mismating when differing circuits exist side by side.

### Connector Sealing

The insert design utilizes a combination of resilient and rigid insulators to offer a connector with total sealing capabilities.

Bonded interfaces between the resilient and rigid dielectric components eliminate air voids and thus protect the connector from potential degradation due to moisture and altitude conditions.

In Firewall Class K connectors the resilient insert forms the primary contact seal and is bonded to a molded ceramic rigid insert. The insert assembly is physically bonded and mechanically retained to the inside surface of the stainless steel shell, providing a voidless, monoblock configuration impervious to adverse environments.

A pressure seal at the connector interface is accomplished through the aid of a coupling device which compresses the front resilient insulations and thus offers a seal around each contact which prevents the passage of air or moisture through the contact cavity. Back resilient insulators are designed with a triple sealing grip at each wire hole to offer positive sealing and prevent wicking of moisture through the connector without the use of external clamping rings or adapters.

In addition, a dynamic “O” ring seal engages the front of the plug shell when connectors are mated and offers yet another barrier to moisture and containments.

### Fluid/Temperature Resistance

The fluorosilicone compound elastomer, developed by Pyle-National, exceeds all specification requirements and provides excellent resistance to tear, compression set, fluids, and high temperatures.

Amphenol/Pyle’s fluorosilicone compound offered in Class R, G, E and K is capable of reliability resisting MIL-H-5606 hydraulic fluid and MIL-L-9236 lubricating oil; as well as MIL-L-7808 and MIL-L-23699 lubricating oils, MIL-J-5624 (JP-5) jet fuel, glycol, and alkaline cleaning solutions of pH 10 or higher. Test methods are as defined in MIL-C-26500 specification. Alternate compounds have been developed by Pyle-National to solve unique user requirements not addressed by the specifications.

Connectors have the capability of resisting high ambient temperatures up to 200°C (392°F) for long periods of time, thus contributing to an extended connector life. Connectors will withstand a combined ambient and internal temperature due to thermal rise of current carrying capacity of 238°C (469°F).

Amphenol®/Pyle® Firewall, Class K, connectors have the inherent ability to resist high temperatures up to 460°F (total temperature) for extended periods of time and can resist short time exposures (20 minutes) to prevent passage of a direct 2000°F flame.

# MIL-C-26500
## specifications

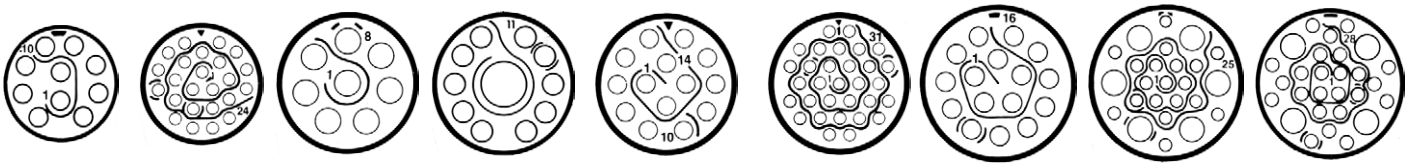
| TEST REQUIREMENTS | MILITARY SPECIFICATIONS | PYLE CONNECTOR CAPABILITIES |
|---|---|---|
| Air Leakage (Classes E, G, R & K) | 1 cu. inch per hr. max. -55°C (-67°F) | Comply |
| Altitude Immersion (Classes E, G, R & K) | Sea level 1 inch of mercury, 3 cycles (IR 5000 megohms hi-pot 1500 volts-submerged) | Comply |
| Contact Retention (Classes E, G, R & K) | Size 20 contact 20 lbs. min.<br>Size 16 contact 25 lbs. min.<br>Size 12 contact 30 lbs.min. | Exceeds specifications |
| Collet Retention | No requirement | Without damage to the collet or its retention means: Size 20 – 75 lbs. min.<br>Size 16 – 140 lbs. min<br>Size 12 – 160 lbs. min. |
| Contact Insertion Force (Classes E, G, R & K) | All size contacts 10 lbs. max. | Comply |
| Coupling Forces | Torque required to couple and uncouple mating plugs and receptacles is not to exceed the values listed:<br>Shell size 8 10 12 14 16 18 20 22 24<br>Torque inch lbs. 9 10 14 17 23 26 31 38 46 | Comply |
| Fluid Resistance (Classes E, G, R & K) | 20 hrs. immersion in MIL-H-5606 hydraulic fluid and MIL-L-9236 lubrication oil. Must meet hi-pot. | 20 hrs. min., fully functional physically and electrically after immersion. No deterioration of resilient material. |
| Ground Resistance (Class G) | .250 ohms backshell of plug to rear of receptacle flange. | Comply |
| High Potential (Classes E, G, R & K) | 1500 VRMS mated & unmated at sea level<br>1000 VRMS mated to 110,000 ft. altitude | Exceed with ample margin of safety. |
| Insert Retention (Classes E, G, R & K) | 75 psi. from either direction for 5 seconds. | Exceeds specifications. |
| Insulation Resistance (Classes E, G, R & K) | 21°C (70°F), 5000 megohms between adjacent contacts and any contact and shell. | Exceeds specifications. |
| Low Temperature (Classes E, G, R & K) | -55°C (-67°F) | Comply |
| Magnetic Permeability (Classes E, G, R & K) | 2 mu. maximum | Comply |
| Moisture Resistance (Classes E, G, R & K) | 1000 megohms min. per mil-std. 202 method 106 | Comply |
| Ozone Exposure (Classes E, G, R & K) | 0.10 to .015% ozone exposure | Comply |
| Physical Shock (Classes E, G, R & K) | 50 G's, 3 axis, per mil-std-202, method 213, test condition C, wired to monitor 1 microsecond discontinuity. | Comply |
| Sand & Dust Exposure (Classes E, G, R & K) | No requirement. | Meet MIL-E-5272 condition "B" |
| Temperature Life (Classes E, G, R & K) | Connector fully functional for 1000 hours at 200°C (392°F) ambient internal temperature 238°C (460°F) | Comply |
| Thermal Shock (Mated) (Classes E, G, R & K) | Cycled five times from -55°C to 260°C, held for 30 minutes at each temperature and transferred to the other in 2 minutes or less, with no evidence of damage. | Comply |
| Vibration (Classes E, G, R & K) | MIL-Std. 202 method 204 condition "D" at R. T., -55°C (-67°F) and +200°C (+392°F). | Comply - monitored for a max. of 1 microsecond discontinuity. |
| Flame Resistance (Class K) | Performance requirements of Paragraph 4.5.18 Fireproof (Class K of MIL-C-5015D) | Exceeds specifications |

# MIL-C-26500
# insert arrangements

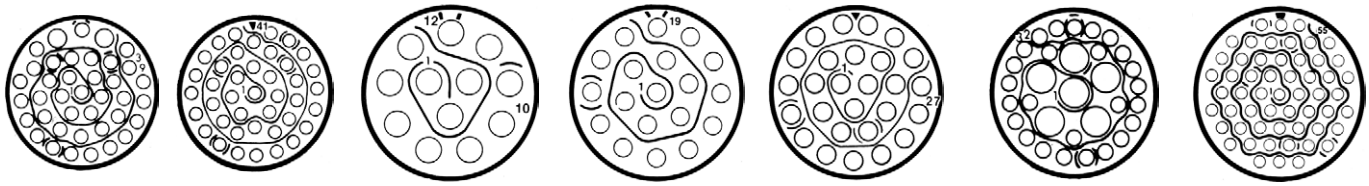
Contact cavities are identified with a spiral guide line indicating cavity sequence. The first and last cavities are numbered and every tenth cavity is bracketed.

Rear face of pin insert shown (socket insert opposite).
Symmetrical about center line.
▲ designates Non-MS Configurations.
**K** designates Firewall Class K inserts.
**H** designates Hermetic inserts.

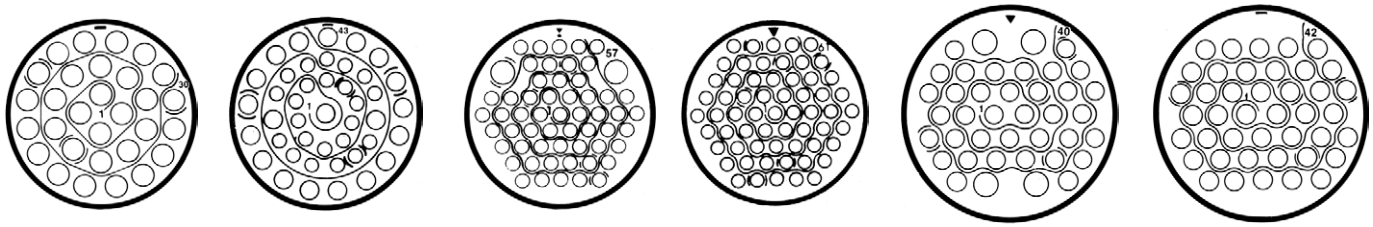
| 08-02 | 08-03 H | 10-02 | 10-05 H | 10-20 H | 12-03 K H | 12-12 H | 14-03 | 14-04 K | 14-07 K H | 14-12 | 14-15 K H |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 # 20 | 3 # 20 | 2 # 20 | 5 # 20 | 2 # 16 | 3 # 16 | 12 # 20 | 1 #1 shielded<br>2 # 16 | 4 # 12 | 7 # 16 | 9 # 20<br>3 # 16 | 15 # 20 |



| 16-10 K H | 16-24 K H | 18-8 K H | 18-11 | 18-14 K H | 18-31 K H | 20-16 | 20-25 | 20-28 |
|---|---|---|---|---|---|---|---|---|
| 10 # 16 | 24 # 20 | 8 # 12 | 1 #1 shielded<br>10 # 16 | 14 # 16 | 31 # 20 | 16 # 16 | 19 # 20<br>6 # 12 | 24 # 20<br>4 # 12 |



| 20-39 | 20-41 | 22-12 K | 22-19 K H | 22-27▲ | 22-32 | 22-55 K H |
|---|---|---|---|---|---|---|
| 37 # 20<br>2 # 16 | 41 # 20 | 12 # 12 | 19 # 16 | 27 # 16 | 26 # 20<br>6 # 12 | 55 # 20 |

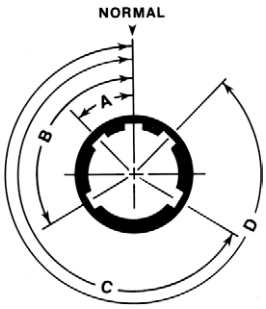


| 24-30 ▲K | 24-43 | 24-57 | 24-61 | 28-40 ▲K | 28-42 ▲K |
|---|---|---|---|---|---|
| 30 # 16 | 23 # 20<br>20 # 16 | 2 # 12<br>55 # 20 | 61 # 20 | 4 # 12<br>36 # 16 | 42 # 16 |

## Alternate Keying

ALTERNATE POLARITY KEYWAY ARRANGEMENTS (Shell sizes 12, 14, 16, 18, 20, 22, 24, 28)
View of front face of receptacle shell. Angles are counter-clockwise from "N" keyway. For plug shell, the key locations are clockwise when viewed from front of plug.

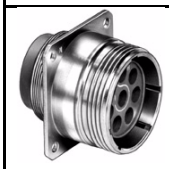
| Position | For Connectors Size 8 and 10 | | | | For Connectors Size 12, 14, 16, 18, 20, 22, 24 and 28 | | | |
|---|---|---|---|---|---|---|---|---|
| | A | B | C | D | A | B | C | D |
| Normal | 105° | 140° | 215° | 265° | 105° | 140° | 215° | 265° |
| 6 | 102° | 132° | 248° | 320° | 18° | 149° | 192° | 259° |
| 7 | 80° | 118° | 230° | 312° | 92° | 152° | 222° | 342° |
| 8 | 35° | 140° | 205° | 275° | 84° | 152° | 204° | 334° |
| 9 | 64° | 155° | 234° | 304° | 24° | 135° | 199° | 240° |
| Y or 10* | 25° | 115° | 220° | 270° | 98° | 152° | 268° | 338° |




* Y is used for all Military part number callouts - aluminum/stainless steel and firewall; 10 is used for Amphenol/Pyle part number callouts - aluminum/stainless steel only. (See how to order pages 7, 8 and 21).

# MIL-C-26500
## aluminum/stainless steel, threaded/bayonet coupling

### THREADED COUPLING
PYLE ZZY
MS2426X( )TXX

| Shell Style (Stainless Steel pictured) | Basic Performance Level | Hardware Description* | Class* | Basic Part Number** |
|---|---|---|---|---|
|  Square Flange Mounted Receptacle Threaded Coupling | General Purpose, Environmental Resistant | Aluminum | Military Class R or G | MS24264(R or G)XXTXX |
| | | | Pyle A or M Series | ZZY-(A or M)X-17XX |
| | Superior Strength, Corrosion Resistance up to 204°C (399°F) | Stainless Steel | Military Class E | MS24264EXXTXX |
| | | | Pyle R Series | ZZY-RX-17XX |
| Single Hole (D-Hole) Mounted Receptacle Threaded Coupling | General Purpose, Environmental Resistant | Aluminum | Military Class R or G | MS24265(R or G)XXTXX |
| | | | Pyle A or M Series | ZZY-(A or M)X-15XX |
| | Superior Strength, Corrosion Resistance up to 204°C (399°F) | Stainless Steel | Military Class E | MS24265EXXTXX |
| | | | Pyle R Series | ZZY-RX-15XX |
| Straight Plug Threaded Coupling | General Purpose, Environmental Resistant | Aluminum | Military Class R or G | MS24266(R or G)XXTXX |
| | | | Pyle A or M Series | ZZY-(A or M)X-10XX |
| | Superior Strength, Corrosion Resistance up to 204°C (399°F) | Stainless Steel | Military Class E | MS24266EXXTXX |
| | | | Pyle R Series | ZZY-RX-10XX |

### BAYONET COUPLING
PYLE ZZW
MS2426X( )BXX

| Shell Style (Stainless Steel pictured) | Basic Performance Level | Hardware Description* | Class* | Basic Part Number** |
|---|---|---|---|---|
| Square Flange Mounted Receptacle Bayonet Coupling | General Purpose, Environmental Resistant | Aluminum | Military Class R or G | MS24264(R or G)XXBXX |
| | | | Pyle A or M Series | ZZW-(A or M)X-17XX |
| | Superior Strength, Corrosion Resistance up to 204°C (399°F) | Stainless Steel | Military Class E | MS24264EXXTXX |
| | | | Pyle R Series | ZZW-RX-17XX |
| Single Hole (D-Hole) Mounted Receptacle Bayonet Coupling | General Purpose, Environmental Resistant | Aluminum | Military Class R or G | MS24265(R or G)XXBXX |
| | | | Pyle A or M Series | ZZW-(A or M)X-15XX |
| | Superior Strength, Corrosion Resistance up to 204°C (399°F) | Stainless Steel | Military Class E | MS24265EXXTXX |
| | | | Pyle R Series | ZZW-RX-15XX |
| Straight Plug Bayonet Coupling | General Purpose, Environmental Resistant | Aluminum | Military Class R or G | MS24266(R or G)XXBXX |
| | | | Pyle A or M Series | ZZW-(A or M)X-10XX |
| | Superior Strength, Corrosion Resistance up to 204°C (399°F) | Stainless Steel | Military Class E | MS24266EXXTXX |
| | | | Pyle R Series | ZZW-RX-10XX |

NA designates not available
* See how to order, page 7, for further description of hardware classes.
** See how to order, page 7, to complete part numbers.

# MIL-C-26500
## aluminum/stainless steel ratchet lock coupling

### RATCHET LOCK PLUG
PYLE ZZY

| Shell Style (Stainless steel only) | Basic Performance Level | Hardware Description* | Class* | Basic Part Number** |
|---|---|---|---|---|
| Ratchet Lock Plug Non-Decoupling | Superior Strength, Corrosion Resistance up to 204°C (399°F) Employs ratchet feature in last 180° of rotation to eliminate need for safety-wiring | Stainless Steel only | Pyle R Series (Proprietary only) | ZZY-RX-12XX |

* See how to order, page 7, for further description of hardware classes.
** See how to order, page 7, to complete part numbers.

### RATCHET LOCK PLUG & MATING FLANGE MOUNTED, THREADED RECEPTACLE
PYLE ZZY

| Shell Style (Stainless steel pictured) | Basic Performance Level | Hardware Description* | Class* | Pyle Basic Part Number** |
|---|---|---|---|---|
| Ratchet Lock Plug Non-Decoupling | Designed to meet high vibration requirements beyond MIL-C-26500. | Aluminum | Pyle A Series | ZZY (A or F) X-12 (D, E or F) XX |
| | | Stainless Steel | Pyle R Series | ZZY-RX-12 (D, E or F)XX |
| Square Flange Mounted Receptacle Threaded Coupling | Designed to meet high vibration requirements beyond MIL-C-26500. | Aluminum | Pyle A Series | ZZY (A or F) X-17(D, E or F) XX |
| | | Stainless Steel | Pyle R Series | ZZY-RX-17 (D, E or F) XX |

* See how to order, page 8, for further description of hardware classes.
** See how to order, page 8, to complete part numbers.

# MIL-C-26500 – how to order
## aluminum/stainless steel, threaded/bayonet/ratchet lock coupling

### Military Designation

Sample ordering number: **MS24266 R 22 T 55 P 6**

**Shell Style**
MS24264 – Square Flange Receptacle
MS24265 – Single Hole Mounting Receptacle
MS24266 – Straight Plug

**Class**
R – Aluminum, non-conductive (black anodize finish)
G – Aluminum, conductive (chromium finish)
E – Stainless steel, passivated

**Shell Size**
8, 10, 12, 14, 16, 18, 20, 22, 24

**Coupling Type**
Threaded – T
Bayonet – B

**Insert Arrangement**
(See chart, page 4)

**Contact Type**
Pin – P
Socket – S

**Alternate Keying**
6, 7, 8, 9, Y (N for normal) See page 4

### Amphenol®/Pyle-National® Designation

Sample ordering number: **ZZY – A C – 10 22 – 55 P 06 D – HXX**

**Shell Style**
ZZY – Threaded Coupling
ZZW – Bayonet Coupling

**Class**
A – Aluminum, non-conductive (black anodize finish)
M– Aluminum, conductive (chromium finish)
R – Stainless steel, passivated

**Accessories***
No Digit – with contacts and cable support
C – without cable support, with contacts
D – without contacts, with cable support
O – without contacts or cable support

**Shell Style**
10 – Straight Plug
12 – Non-Decoupling (Ratchet Lock)
15 – Single Hole Mounting Receptacle
17 – Square Flange Receptacle

**Shell Size**
8, 10, 12, 14, 16, 18, 20, 22, 24, 28

**Insert Arrangement**
See chart, page 4

**Contact Type**
Pin – P
Socket – S

**Alternate Keying**
06, 07, 08, 09, 10 (omit for normal) See page 4

**Contact Plating**
Gold – D
Rhodium – T

**Variations**
Hardware Deviation – HXX
Insert Deviation – AXX

* Accessory threads for aluminum and stainless steel hardware differ, and care should be taken in selection of alternate accessory hardware that will conform to the threads noted in the dimensional tables within this catalog.

# MIL-C-26500 – how to order
## aluminum/stainless steel, ratchet lock plug, mating flange receptacle

Amphenol®/Pyle® connectors are specifically designed to meet high vibration requirements above and beyond the specification requirements of MIL-C-26500. The plug connector features a unique non-decoupling device which offers a ratchet mechanism designed to engage as the threaded connectors approach a bottomed condition. Connector coupling assembly continues to ratchet for approximately 120 degrees until the mated connectors reach a complete metal-to-metal bottomed condition. The ratchet device maintains the connectors in a fully coupled condition, thus eliminating the need for safety wiring.

**Additional features include:**

- Modified accessory thread to accommodate MIL-C-83723 backshell hardware.
- Rear accessory teeth are featured on both the plug and receptacle shell to assure non-rotation of accessory hardware
- Intermateable with all MIL-C-26500 threaded connectors of like insert arrangement and key position

### Amphenol®/Pyle-National® Designation

Sample ordering number:

**ZZY – A C – 12 D 14 – 04 P 06 D**

**Shell Style**
ZZY – Threaded Coupling

**Series**
A – Anodized Aluminum Shell
R – Stainless Steel, passivated
F – Clear Cadmium plated Aluminum Shell

**Contacts & Accessories**
No Digit – with contacts, with clamp
C – with contacts
O – without contacts

**Shell Style**
12 – Non-Decoupling Plug, Ratchet Lock
17 – Square Flange Receptacle

**Contact Finish**
Gold plate per MIL-C-39029 – D
Rhodium plate per MIL-C-26636 – T

**Alternate Key Position**
06, 07, 08, 09, 10 (omit for normal)
See page 4

**Contact Type**
Pin – P
Socket – S

**Insert Arrangement**
See chart, page 4

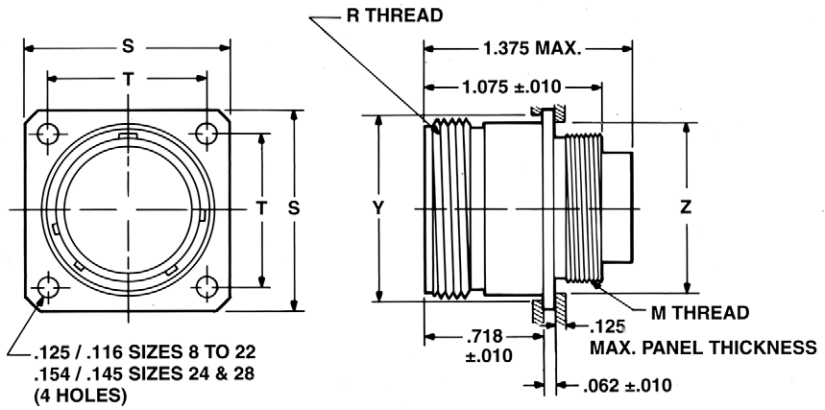
**Shell Size**
10, 12, 14, 16, 18, 20, 22, 24, 28

**Accessory Size***
Rear accessories per MIL-C-83723 – D
Rear accessories per MS 3155 – E
Rear accessories per MS 3155 with EMI Band – F

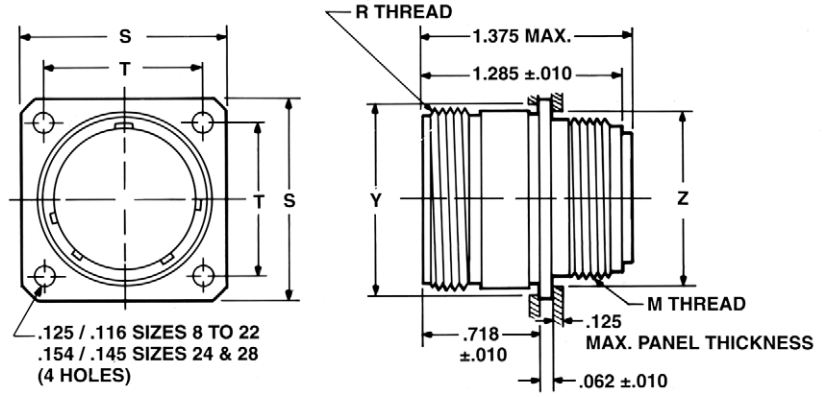
* Accessory threads for aluminum and stainless steel hardware differ, and care should be taken in selection of alternate accessory hardware that will conform to the threads noted in the dimensional tables within this catalog.

# Flange Mounted Receptacle

## aluminum/stainless steel threaded coupling




**STAINLESS STEEL**
**Pyle ZZY-RC-17XX* Series**
**MS24264EXXTXX***
**Military Class E**




**ALUMINUM**
**Pyle ZZY-AC-17XX* Series**
**MS24264RXXTXX***
**Military Class R**

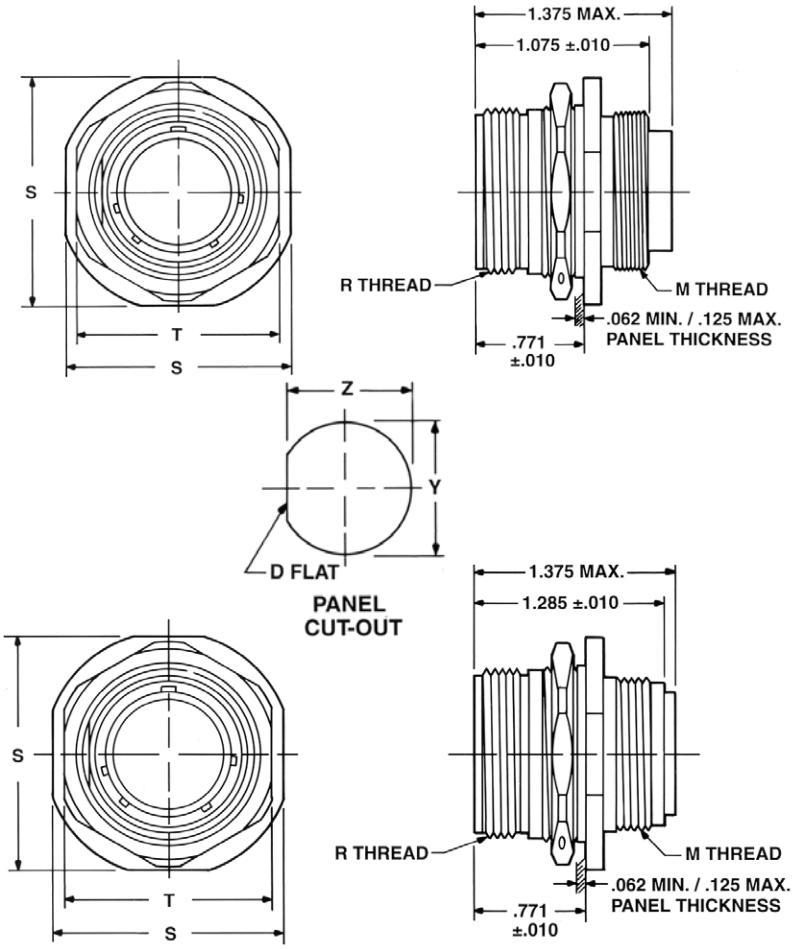
* To complete order number, see how to order, page 7.

| Shell Size | Cable Support Thread M | | Aluminum Connector Weight (lbs.) max including Contacts | | Coupling Thread R | Flange Width S ±.005 | Mounting Hole Centers T ±.005 | Back Mount Min. Hole Y | Front Mount Min. Hole Z |
|---|---|---|---|---|---|---|---|---|---|
| | Steel NS-2A | Alum. UNEF-2A Modified | Pin Insert | Socket Insert | | | | | |
| 08** | NA | .437-28 | .025 | .026 | .562-24 | .812 | .594 | .606 | .443 |
| 10 | .563-36 | .562-24 | .042 | .044 | .687-24 | .937 | .719 | .748 | .572 |
| 12 | .733-36 | .750-20 | .061 | .062 | .875-20 | 1.031 | .812 | .913 | .760 |
| 14 | .803-36 | .812-20 | .072 | .074 | .937-20 | 1.125 | .906 | .980 | .822 |
| 16 | .930-36 | .937-20 | .087 | .090 | 1.062-18 | 1.250 | .969 | 1.107 | .948 |
| 18 | 1.036-36 | 1.062-18 | .110 | .112 | 1.187-18 | 1.343 | 1.062 | 1.209 | 1.072 |
| 20 | 1.161-36 | 1.187-18 | .130 | .134 | 1.312-18 | 1.437 | 1.156 | 1.325 | 1.197 |
| 22 | 1.286-36 | 1.312-18 | .152 | .159 | 1.437-18 | 1.562 | 1.250 | 1.452 | 1.322 |
| 24 | 1.411-36 | 1.437-18 | .181 | .188 | 1.562-18 | 1.703 | 1.375 | 1.577 | 1.448 |
| 28† | 1.661-36 | NA | NA | NA | 1.812-16 | 2.000 | 1.562 | 1.827 | 1.700 |

NA designates not available. ** Not available in Stainless Steel. † Not available in Aluminum.
All dimensions for reference only.

# D-Hole Mounted Receptacle

## aluminum/stainless steel threaded coupling




**STAINLESS STEEL**
**Pyle ZZY-RC-15XX* Series**
**MS24265EXXTXX***
**Military Class E**

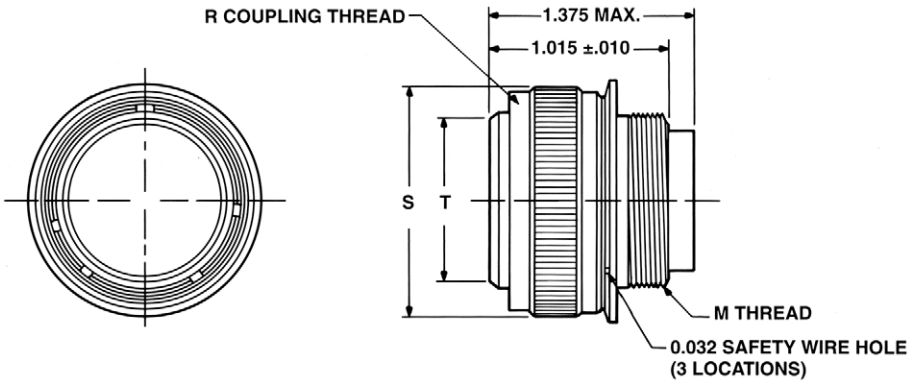
**ALUMINUM**
**Pyle ZZY-AC-15XX* Series**
**MS24265RXXTXX***
**Military Class R**

* To complete order number, see how to order, page 7.

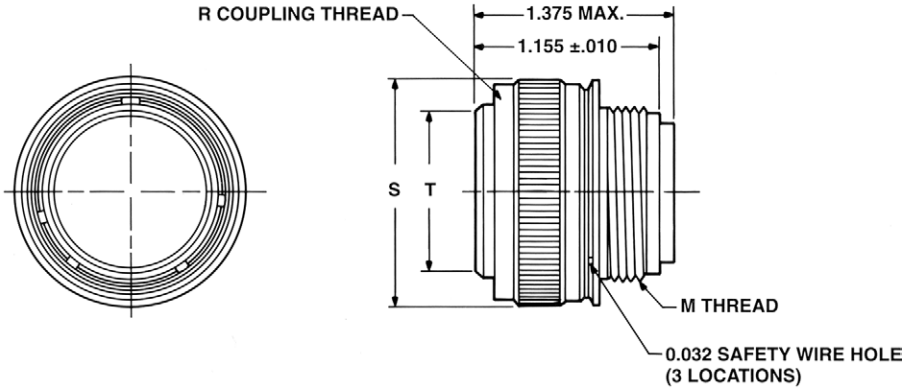
| Shell Size | Cable Support Thread M | | Aluminum Connector Weight (lbs.) max including Contacts | | Coupling Thread R | Flange Width S ±.005 | Lock Nut Flats T | | Mounting Hole Dia. Y | Mounting Hole Flat Z | Rec. min. Torque Jam Nut Inch/Lbs. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Steel NS-2A | Alum. UNEF-2A Modified | Pin Insert | Socket Insert | | | Steel | Alum. | | | |
| 08 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 10 | .563-36 | .562-24 | .049 | .050 | 1.171-24 | 1.104 | .937 | .937 | .760 | .730 | 36 |
| 12** | NA | .750-20 | .069 | .070 | .875-20 | 1.291 | 1.125 | 1.125 | .947 | .917 | 56 |
| 14 | .803-36 | .812-20 | .087 | .089 | .937-20 | 1.391 | 1.062 | 1.187 | 1.010 | .980 | 65 |
| 16 | .930-36 | .937-20 | .104 | .106 | 1.062-18 | 1.516 | 1.187 | 1.312 | 1.135 | 1.105 | 69 |
| 18 | 1.036-36 | 1.062-18 | .131 | .133 | 1.187-18 | 1.614 | 1.312 | 1.437 | 1.260 | 1.225 | 81 |
| 20 | NA | NA | .152 | .157 | NA | NA | NA | NA | NA | NA | 100 |
| 22 | 1.286-36 | 1.312-18 | .181 | .187 | 1.312-18 | 1.954 | 1.562 | 1.687 | 1.510 | 1.475 | 123 |
| 24 | 1.411-36 | 1.437-18 | .208 | .212 | NA | NA | NA | NA | NA | NA | 133 |
| 28 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |

NA designates not available. ** Not available in Stainless Steel.
All dimensions for reference only.

# Straight Plug
## aluminum/stainless steel threaded coupling




**STAINLESS STEEL**
**Pyle ZZY-RC-10XX* Series**
**MS24266EXXTXX***
**Military Class E**



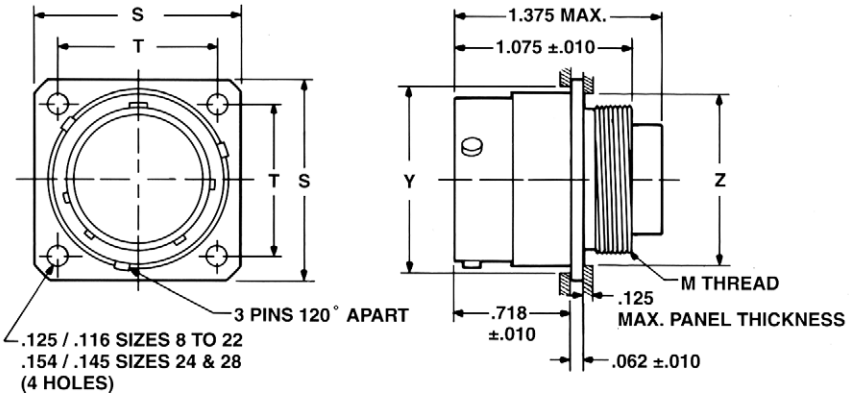

**ALUMINUM**
**Pyle ZZY-AC-10XX* Series**
**MS24266RXXTXX***
**Military Class R**

* To complete order number, see how to order, page 7.

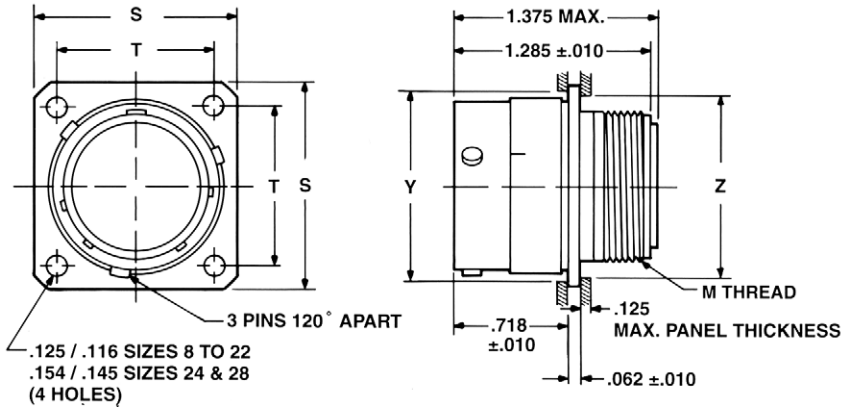
| Shell Size | Cable Support Thread M | | Aluminum Connector Weight (lbs.) max including Contacts | | Coupling Thread R | Coupling Nut Dia S Max. | | Shell Dia. T +.000 −.005 |
|---|---|---|---|---|---|---|---|---|
| | Steel NS-2A | Alum. UNEF-2A Modified | Pin Insert | Socket Insert | | Steel | Alum. | |
| 08** | NA | .437-28 | .030 | .031 | .562-24 | NA | .776 | .424 |
| 10 | .563-36 | .562-24 | .044 | .045 | .687-24 | .826 | .906 | .526 |
| 12 | .733-36 | .750-20 | .063 | .064 | .875-20 | .996 | 1.078 | .696 |
| 14 | .803-36 | .812-20 | .074 | .076 | .937-20 | 1.066 | 1.141 | .765 |
| 16 | .930-36 | .937-20 | .091 | .094 | 1.062-18 | 1.193 | 1.266 | .892 |
| 18 | 1.036-36 | 1.062-18 | .110 | .112 | 1.187-18 | 1.299 | 1.375 | .998 |
| 20 | 1.161-36 | 1.187-18 | .133 | .136 | 1.312-18 | 1.424 | 1.510 | 1.123 |
| 22 | 1.286-36 | 1.286-18 | .154 | .160 | 1.437-18 | 1.549 | 1.625 | 1.248 |
| 24 | 1.411-36 | 1.437-18 | .184 | .188 | 1.562-18 | 1.674 | 1.670 | 1.373 |
| 28† | 1.661-36 | NA | NA | NA | 1.812-16 | 1.912 | NA | 1.623 |

NA designates not available. ** Not available in Stainless Steel. † Not available in Aluminum.
All dimensions for reference only.

# Flange Mounted Receptacle
## aluminum/stainless steel
## bayonet coupling




**STAINLESS STEEL**
**Pyle ZZW-RC-17XX* Series**
**MS24264EXXBXX***
**Military Class E**




**ALUMINUM**
**Pyle ZZW-AC-17XX* Series**
**MS24264RXXBXX***
**Military Class R**

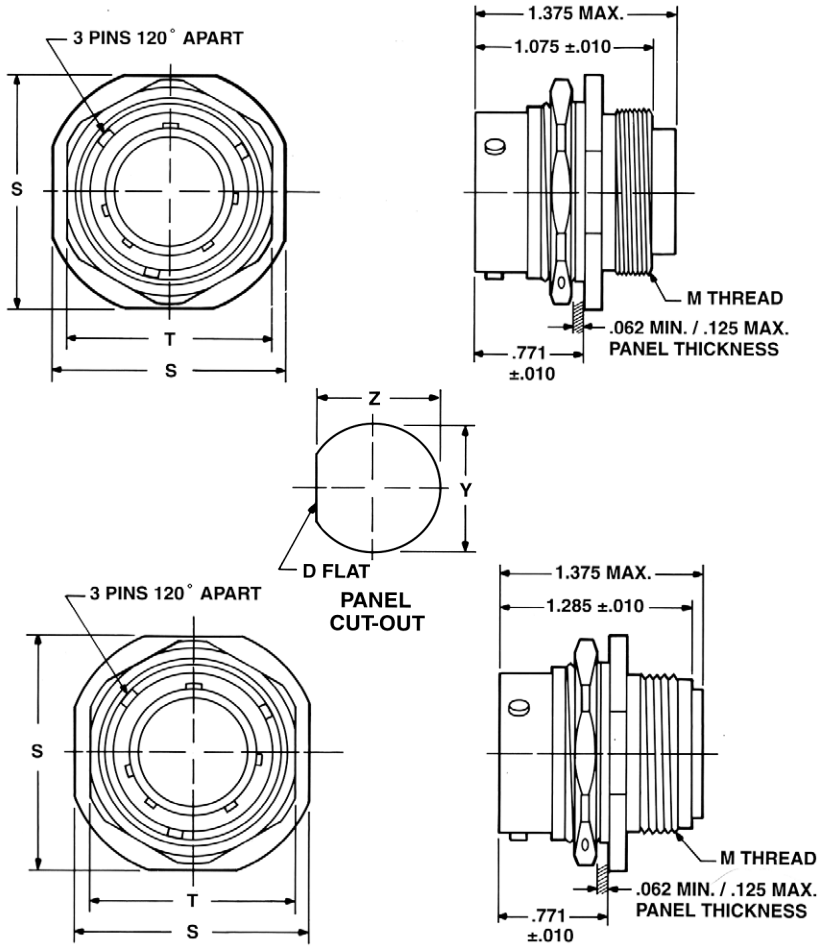
* To complete order number, see how to order, page 7.

| Shell Size | Cable Support Thread M | | Aluminum Connector Weight (lbs.) max including Contacts | | Flange Width S ±.005 | Mounting Hole Centers T ±.005 | Back Mount Min. Hole Y | Front Mount Min. Hole Z |
|---|---|---|---|---|---|---|---|---|
| | Steel NS-2A | Alum. UNEF-2A Modified | Pin Insert | Socket Insert | | | | |
| 08** | NA | .437-28 | .025 | .026 | .812 | .594 | .606 | .443 |
| 10 | .563-36 | .562-24 | .042 | .044 | .937 | .719 | .748 | .572 |
| 12 | .733-36 | .750-20 | .061 | .062 | 1.031 | .812 | .913 | .760 |
| 14 | .803-36 | .812-20 | .072 | .074 | 1.125 | .906 | .980 | .822 |
| 16 | .930-36 | .937-20 | .087 | .090 | 1.250 | .969 | 1.107 | .948 |
| 18 | 1.036-36 | 1.062-18 | .110 | .112 | 1.343 | 1.062 | 1.209 | 1.072 |
| 20 | 1.161-36 | 1.187-18 | .130 | .134 | 1.437 | 1.156 | 1.325 | 1.197 |
| 22 | 1.286-36 | 1.312-18 | .152 | .159 | 1.562 | 1.250 | 1.452 | 1.322 |
| 24** | NA | 1.437-18 | .181 | .188 | 1.703 | 1.375 | 1.577 | 1.447 |
| 28 | NA | NA | NA | NA | NA | NA | NA | NA |

NA designates not available. ** Not available in Stainless Steel.
All dimensions for reference only.

# D-Hole Mounted Receptacle

## aluminum/stainless steel bayonet coupling




**STAINLESS STEEL**
**Pyle ZZW-RC-15XX* Series**
**MS24265EXXBXX***
**Military Class E**

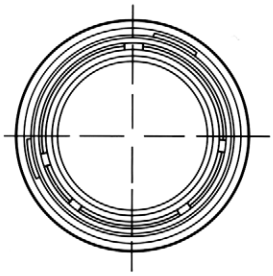
**ALUMINUM**
**Pyle ZZW-AC-15XX* Series**
**MS24265RXXBXX***
**Military Class R**

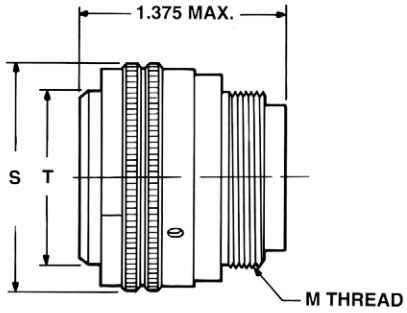
* To complete order number, see how to order, page 7.

| Shell Size | Cable Support Thread M | | Aluminum Connector Weight (lbs.) max including Contacts | | Flange Width S ±.005 | Lock Nut Flats T | | Mounting Hole Dia. Y | Mounting Hole Flat Z | Recom. min. Torque Jam Nut Lb. - inches |
|---|---|---|---|---|---|---|---|---|---|---|
| | Steel NS-2A | Alum. UNEF-2A Modified | Pin Insert | Socket Insert | | Steel | Alum. | | | |
| 08** | NA | .437-28 | .029 | .030 | .979 | NA | .812 | .635 | .605 | 33 |
| 10 | .563-36 | .562-24 | .049 | .050 | 1.104 | .937 | .937 | .760 | .730 | 36 |
| 12** | NA | .750-20 | .069 | .070 | 1.291 | 1.125 | 1.125 | .947 | .917 | 56 |
| 14 | .803-36 | .812-20 | .087 | .089 | 1.391 | 1.062 | 1.187 | 1.010 | .980 | 65 |
| 16 | .930-36 | .937-20 | .104 | .106 | 1.561 | 1.187 | 1.312 | 1.135 | 1.105 | 69 |
| 18 | 1.036-36 | 1.062-18 | .131 | .133 | 1.641 | 1.312 | 1.437 | 1.260 | 1.225 | 81 |
| 20 | 1.161-36 | 1.187-18 | .152 | .157 | 1.766 | 1.562 | NA | 1.385 | 1.350 | 100 |
| 22 | 1.286-36 | 1.312-18 | .181 | .187 | 1.954 | 1.585 | 1.687 | 1.510 | 1.475 | 123 |
| 24 | 1.411-36 | 1.437-18 | .208 | .212 | 2.079 | 1.687 | 1.812 | 1.635 | 1.600 | 133 |
| 28 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |

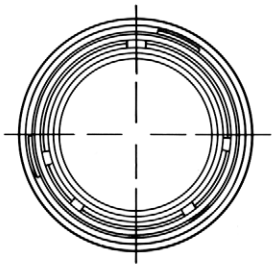
NA designates not available. ** Not available in Stainless Steel.
All dimensions for reference only.

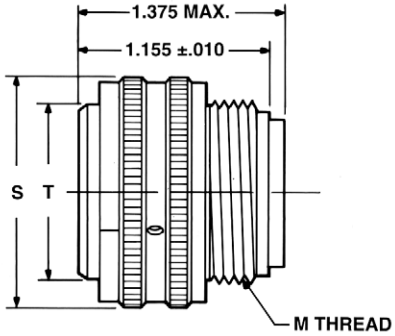
# Straight Plug
## aluminum/stainless steel bayonet coupling






**STAINLESS STEEL**
**Pyle ZZW-RC-10XX* Series**
**MS24266EXXBXX***
**Military Class E**






**ALUMINUM**
**Pyle ZZW-AC-10XX* Series**
**MS24266RXXBXX***
**Military Class R**

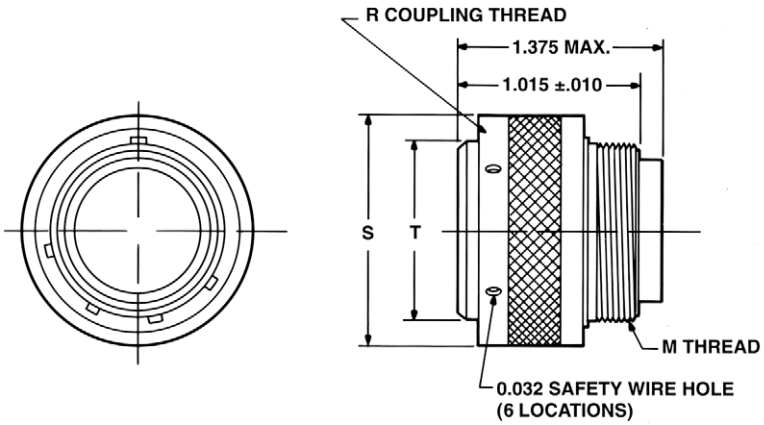
* To complete order number, see how to order, page 7.

| Shell Size | Cable Support Thread M | | Aluminum Connector Weight (lbs.) max including Contacts | | Coupling Nut Dia S Max. | | Shell Dia. T +.000 –.005 |
|---|---|---|---|---|---|---|---|
| | Steel NS-2A | Alum. UNEF-2A Modified | Pin Insert | Socket Insert | Steel | Alum. | |
| 08** | NA | .437-28 | .030 | .031 | NA | .762 | .424 |
| 10 | .563-36 | .562-24 | .044 | .045 | .848 | .904 | .526 |
| 12 | .733-36 | .750-20 | .063 | .064 | 1.018 | 1.076 | .696 |
| 14 | .803-36 | .812-20 | .074 | .076 | 1.087 | 1.122 | .765 |
| 16 | .930-36 | .937-20 | .091 | .094 | 1.214 | 1.264 | .892 |
| 18 | 1.036-36 | 1.062-18 | .110 | .112 | 1.320 | 1.373 | .998 |
| 20 | 1.161-36 | 1.187-18 | .133 | .136 | 1.445 | 1.503 | 1.123 |
| 22 | 1.286-36 | 1.312-18 | .154 | .160 | 1.570 | 1.623 | 1.248 |
| 24 | 1.411-36 | 1.437-18 | .184 | .188 | 1.695 | 1.752 | 1.373 |
| 28 | NA | NA | NA | NA | NA | NA | NA |

NA designates not available. ** Not available in Stainless Steel.
All dimensions for reference only.

# Non-Decoupling, Ratchet Lock Plug

## stainless steel
## ratchet lock coupling




**STAINLESS STEEL**
**Pyle ZZY-RC-12XX* Series**
**Military Class E**

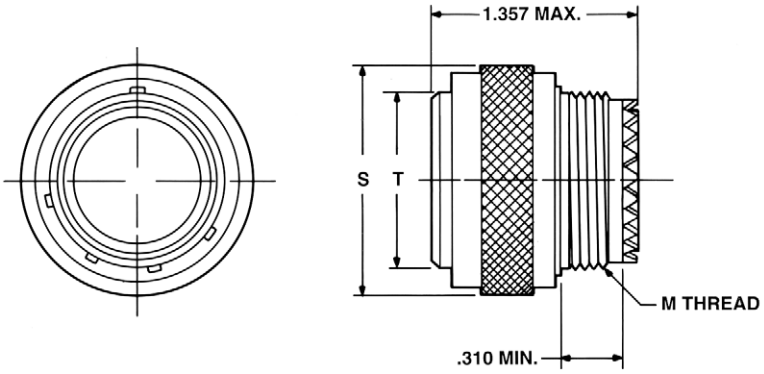
* To complete order number, see how to order, page 7.

| Shell Size | Cable Support Thread M | Coupling Thread R | Coupling Nut Dia S | Shell Dia. T |
|---|---|---|---|---|
| 08 | NA | NA | NA | NA |
| 10 | .563-36 | .687-24 | .931 | .526 |
| 12 | .733-36 | .875-20 | 1.111 | .696 |
| 14 | .803-36 | .937-20 | 1.175 | .765 |
| 16 | .930-36 | .812-20 | 1.302 | .892 |
| 18 | 1.036-36 | .937-20 | 1.408 | .998 |
| 20 | NA | NA | NA | NA |
| 22 | 1.286-36 | 1.437-18 | 1.658 | 1.248 |
| 24 | 1.411-36 | 1.562-18 | 1.783 | 1.373 |
| 28 | 1.661-36 | 1.812-16 | 2.038 | 1.623 |

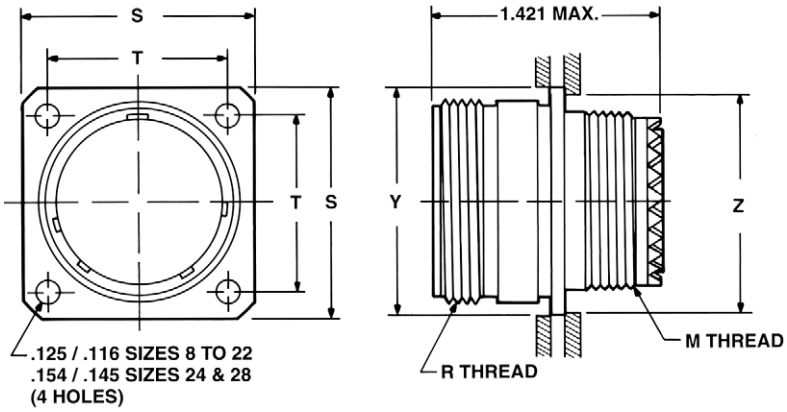
NA designates not available.
All dimensions for reference only.

# Ratchet Lock Plug and Mating Flange Receptacle

## aluminum/stainless steel ratchet lock coupling




**RATCHET LOCK PLUG**
**Stainless Steel/Aluminum**
**Pyle ZZY-RC/AC-12XX* Series**




**MATING FLANGE MOUNTED, THREADED RECEPTACLE**
**Stainless Steel/Aluminum**
**Pyle ZZY-RC/AC-17XX* Series**

* To complete order number, see how to order, page 8.

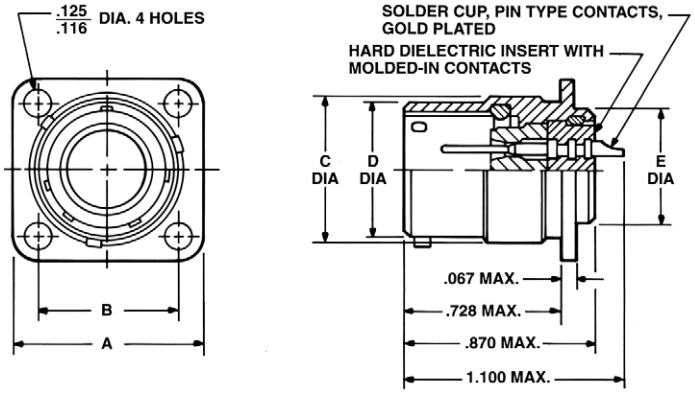
| Shell Size | Cable Support Thread M | Plug | | Receptacle | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Coupling Nut Dia. S Max. | Shell Dia. T +.000 −.005 | Coupling Thread R | Flange Width S ±.005 | Mounting Hole Centers T ±.005 | Back Mount Hole (min.) Y | Front Mount Hole (min.) Z |
| 08 | NA | NA | NA | NA | NA | NA | NA | NA |
| 10 | .6250-24 | .945 | .526 | .6875-24 | .937 | .719 | .706 | .635 |
| 12 | .7500-20 | 1.165 | .696 | .8750-20 | 1.031 | .812 | .885 | .760 |
| 14 | .8750-20 | 1.230 | .765 | .9375-20 | 1.125 | .906 | .947 | .885 |
| 16 | 1.0000-20 | 1.353 | .892 | 1.0625-18 | 1.250 | .969 | 1.072 | 1.010 |
| 18 | 1.0625-18 | 1.468 | .998 | 1.1875-18 | 1.343 | 1.062 | 1.197 | 1.072 |
| 20 | 1.1875-18 | 1.607 | 1.123 | 1.3125-18 | 1.437 | 1.156 | 1.322 | 1.197 |
| 22 | 1.3125-18 | 1.733 | 1.248 | 1.4375-18 | 1.562 | 1.250 | 1.447 | 1.322 |
| 24 | 1.4375-18 | 1.858 | 1.373 | 1.5625-18 | 1.703 | 1.375 | 1.572 | 1.448 |
| 28 | 1.7500-18 | 2.113 | 1.623 | 1.8120-16 | 2.000 | 1.562 | 1.822 | 1.760 |

NA designates not available.
All dimensions for reference only.

# MIL-C-26500 – 48 Series
## receptacle short skirt

### Receptacle Short Skirt – Aluminum – Bayonet Coupling

Shorter, lighter, and more economical than the standard MIL-C-26500 connector receptacles, the 48 Series receptacle short skirt comes in two versions: with standard flange and with reduced flange. Both versions are 1.100” long which is .275” shorter than the length of the standard MIL-C-26500 connector. They have molded epoxy fiberglass inserts and can operate continuously up to 125°C (257°F), but otherwise they offer the same environmental sealing, from the panel out, as standard MIL-C-26500 connectors. They have bayonet coupling and mate with standard MIL-C-26500 plugs. The hard dielectric inserts, with resilient face seal and molded-in gold plated solder cup pin contacts, are available in insert arrangements shown in the chart below.




**AVAILABLE WITH PIN CONTACTS ONLY**

**Receptacle Short Skirt with Standard Flange**

| Insert Arrangement | Amphenol Part Number* | A ±.005 | B ±.005 | C Max. | D +.000 –.005 | E Max. |
|---|---|---|---|---|---|---|
| 10-5 | 48-7115-XX | .937 | .719 | .696 | .659 | .562 |
| 12-3 | 48-7116-XX | 1.031 | .812 | .875 | .829 | .750 |
| 12-12 | 48-7117-XX | 1.031 | .812 | .875 | .829 | .750 |
| 14-4 | 48-7118-XX | 1.125 | .906 | .935 | .898 | .812 |
| 14-7 | 48-7119-XX | 1.125 | .906 | .935 | .898 | .812 |
| 14-15 | 48-7120-XX | 1.125 | .906 | .935 | .898 | .812 |
| 16-24 | 48-7121-XX | 1.250 | .969 | 1.062 | 1.025 | .938 |
| 18-8 | 48-7122-XX | 1.343 | 1.062 | 1.187 | 1.131 | 1.062 |
| 18-14 | 48-7123-XX | 1.343 | 1.062 | 1.187 | 1.131 | 1.062 |
| 18-31 | 48-7124-XX | 1.343 | 1.062 | 1.187 | 1.131 | 1.062 |
| 20-25 | 48-7251-XX | 1.437 | 1.156 | 1.312 | 1.256 | 1.182 |
| 20-28 | 48-7175-XX | 1.437 | 1.156 | 1.312 | 1.256 | 1.182 |
| 22-12 | 48-7125-XX | 1.562 | 1.250 | 1.437 | 1.381 | 1.312 |
| 22-19 | 48-7126-XX | 1.562 | 1.250 | 1.437 | 1.381 | 1.312 |
| 22-55 | 48-7127-XX | 1.562 | 1.250 | 1.437 | 1.381 | 1.312 |

**Receptacle Short Skirt with Reduced Flange**

| Insert Arrangement | Amphenol Part Number* | A Max. | B ±.005 | C Max. | D +.000 –.005 | E Max. |
|---|---|---|---|---|---|---|
| 10-5 | 48-7132-XX | .870 | .647 | .696 | .659 | .562 |
| 12-3 | 48-7133-XX | .996 | .773 | .875 | .829 | .750 |
| 12-12 | 48-7134-XX | .996 | .773 | .875 | .829 | .750 |

* To complete part number: Replace XX with alternate keying positions (omit for normal position). See page 4.

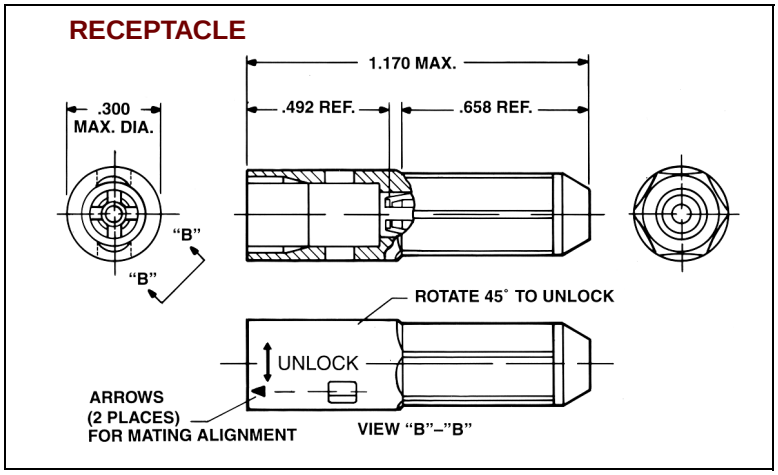
# MIL-C-26500 – 48 Series
## wire splice connector

### Special Application Wire Splice Connector

The Amphenol® 48 Series wire splice connector is a low cost, space-saving connector design that can be used for various design applications. The push-mating/twist-pull-unmating feature provides a simple solution to many design requirements without sacrificing performance. This wire splice connector utilizes a metal retention clip for a single size 16 pin and socket contact.

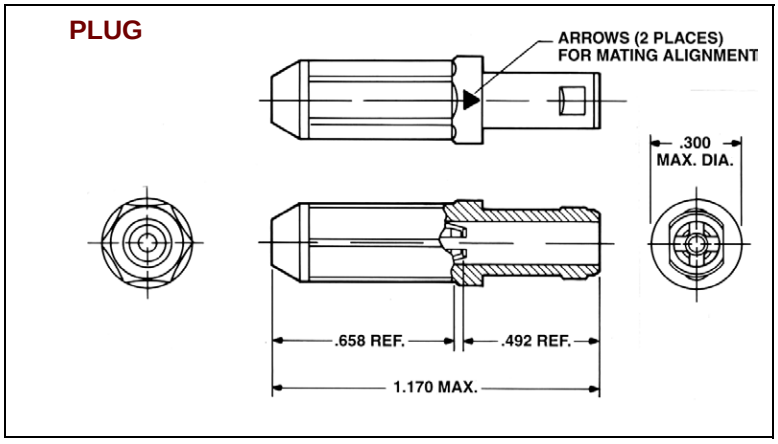
Features and benefits include:

- Push-mating/twist-pull-unmating
- Uses standard M39029/31-229 pin and M39029/32-248 socket contacts
- Incorporates environmental sealing grommet
- Metal collet retention
- Uses standard MIL-C-26500 contact removable tools
- Low cost
- Weight savings design
- Space savings design
- Color coded connector halves - red or blue




**Receptacle Wire Splice**

| Amphenol 48 Series Part Number | Amphenol 10- Part Number | Color | Size 16 Contact Part Number |
|---|---|---|---|
| 48-7191 | 10-804342 | Blue | Pin ZZL-4016-36LD<br>Socket ZZL-4116-36LD |
| 48-7191-1 | 10-804342-1 | Red | |




**Plug Wire Splice**

| Amphenol 48 Series Part Number | Amphenol 10- Part Number | Color | Size 16 Contact Part Number |
|---|---|---|---|
| 48-7190 | 10-804341 | Blue | Pin ZZL-4016-36LD<br>Socket ZZL-4116-36LD |
| 48-7190-1 | 10-804341-1 | Red | |

# MIL-C-26500 – Firewall Class K

## Class K stainless steel threaded coupling

**THREADED COUPLING, FIREWALL**
PYLE FPK, FPL, FP5K
MS2761X-KXXTXX

| Shell Style (Firewall stainless steel only) | Basic Performance Level | Hardware Description* | Class* | Basic Part Number** |
|---|---|---|---|---|
| Square Flange Mounted Receptacle Threaded Coupling | High performance. Environmentally sealed. Resists high temperatures up to 238°C (460°F). | Class K Firewall Stainless Steel | Military Class K | MS27613-KXXTXX |
| | | | Pyle FPK or FPL or FP5K Series | FPK-17( ) or FPL-17( ) or FP5K-17( ) |
| Single Hole (D-Hole) Mounted Receptacle Threaded Coupling | High performance. Environmentally sealed. Resists high temperatures up to 238°C (460°F). | Class K Firewall Stainless Steel | Military Class K | MS27614-KXXTXX |
| | | | Pyle FPK or FPL or FP5K Series | FPK-19( ) or FPL-19( ) or FP5K-19( ) |
| Straight Plug Threaded Coupling | High performance. Environmentally sealed. Resists high temperatures up to 238°C (460°F). | Class K Firewall Stainless Steel | Military Class K | MS27615-KXXTXX |
| | | | Pyle FPK or FPL | FPK-11( ) or FPL-11( ) |
| Ratchet Locking Plug Threaded Coupling | High performance. Environmentally sealed. Resists high temperatures up to 238°C (460°F). | Class K Firewall Stainless Steel | Military Class K | MS27615KXXSXX |
| | | | Pyle FPK or FPL or FP5K Series | FPK-12( ) or FPL-12( ) or FP5K-12( ) |

* See how to order, page 21, for further description of hardware classes.
** See how to order, page 21, to complete part numbers.

# MIL-C-26500 – Firewall Class K

## Class K stainless steel bayonet coupling

**BAYONET COUPLING, FIREWALL**
PYLE FYL
MS2761X-KXXBXX

| Shell Style (Firewall stainless steel only) | Basic Performance Level | Hardware Description* | Class* | Basic Part Number** |
|---|---|---|---|---|
| Square Flange Mounted Receptacle Bayonet Coupling | High performance. Environmentally sealed. Resists high temperatures up to 238°C (460°F). | Class K Firewall Stainless Steel | Military Class K | MS27613-KXXBXX |
| | | | Pyle FYL Series | FYL-17 ( ) |
| Single Hole (D-Hole) Mounted Receptacle Bayonet Coupling | High performance. Environmentally sealed. Resists high temperatures up to 238°C (460°F). | Class K Firewall Stainless Steel | Military Class K | MS27614-KXXBXX |
| | | | Pyle FYL Series | FYL-19 ( ) |
| Straight Plug Bayonet Coupling | High performance. Environmentally sealed. Resists high temperatures up to 238°C (460°F). | Class K Firewall Stainless Steel | Military Class K | MS27615-KXXBXX |
| | | | Pyle FYL Series | FYL-11 ( ) |

* See how to order, page 21, for further description of hardware classes.
** See how to order, page 21, to complete part numbers.

# MIL-C-26500 – Firewall, Class K how to order

## Class K stainless steel, threaded/bayonet/ratchet lock coupling

### Military Designation

Sample ordering number:

**MS27613 K 14 T 7 P 6 – D**

**Shell Type**
MS27613 – Square Flange Receptacle
MS27614 – Single Hole Mounting Receptacle
MS27615 – Straight Plug

**Class K – Firewall** – Stainless steel, passivated

**Shell Size**
12, 14, 16, 18, 22, 24, 28

**Coupling Type**
B – Bayonet
S – Ratchet Locking Thread
T – Standard Threaded

**Cable Support**
Long (MS27658) – D
Short (MS27657) – P
Right Angle (MS27659) – J
(omit for no support)

**Alternate Keying**
6, 7, 8, 9, Y (omit for normal) See page 4

**Contact Type**
Pin – P
Socket – S

**Insert Arrangement**
See chart, page 4

### Amphenol®/Pyle-National® Designation

Sample ordering number:

**FPK – 11 28 – 42 S T 06 – D – WXX**

**Connector Type**
FPK – Threaded Coupling, qualified to MIL-C-26500 and BACC63 Series
FPL – Threaded Coupling, same as FPK, but used on Lockheed Aircraft
FP5K – Threaded Coupling, qualified for General Electric
FYL – Bayonet Coupling, qualified to MIL-C-26500

**Shell Type**
11 – Straight Plug
12 – Ratchet Locking Threaded Plug
13 – Improved Non-Decoupling Plug
17 – Square Flange Receptacle
19 – D-Hole Mounting Receptacle

**Shell Size**
12, 14, 16, 18, 22, 24, 28

**Insert Arrangement**
See chart, page 4

**Variations**
Insert – W
Hardware – Y
Standard for Plug Bayonet Hardware – Y19

**Cable Support**
Long – D
Short – P
Right Angle – J
(omit for no support)

**Alternate Keying**
06, 07, 08, 09, Y (omit for normal) See page 4

**Contact Style**
No Contacts – E
Rhodium – T
Gold Contacts – D

**Contact Type**
Pin – P
Socket –S

### Boeing Company Designation

Sample ordering number:

**BAC C 63X 14 – 07 P 6**

**Boeing Aircraft Company**

**Electrical Connector**

**Shell Type**
63X – Plug, Threaded, Fire Barrier
63Y – Receptacle, Threaded Fire Barrier
63AE – Plug, Threaded, for use with No. 20 Wire Fire Barrier
63AF – Receptacle, Flange Mount, Threaded, Fire Barrier, For use with No. 20 Wire Fire Barrier.
Note: AE & AF require W11 variation on Pyle Number.

**Alternate Keying**
6, 7, 8, 9, Y, (omit for normal) See page 4

**Contact Type**
Pin – P
Socket – S

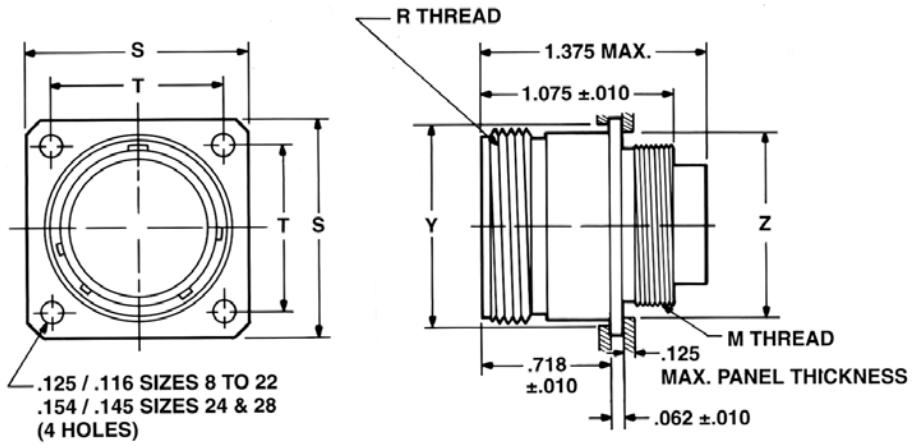
**Insert Arrangement**
See chart, page 4

**Accessories**
To order with D Cable Clamp, replace – with Letter C

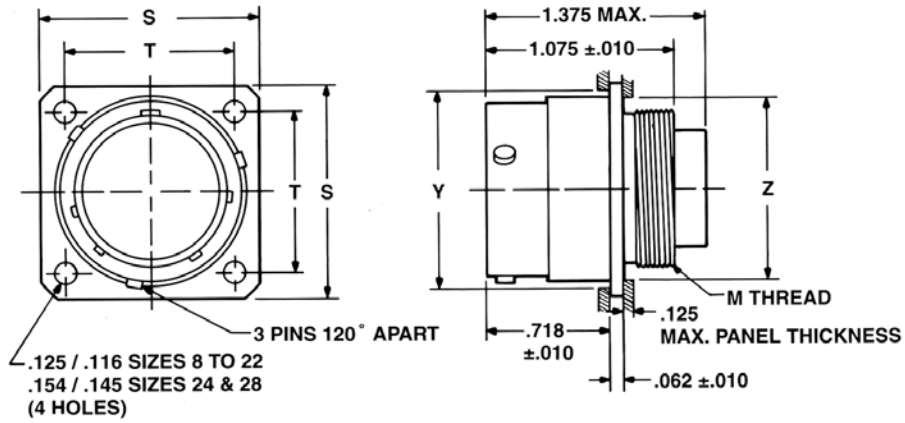
**Shell Size**
12, 14, 16, 18, 22, 24, 28

# Firewall Class K
# Flange Mounted Receptacle

## Class K stainless steel, threaded/bayonet coupling




**THREADED COUPLING**
**Class K Stainless Steel**
**Pyle FPK-17XX* Series**
**MS27613KXXTXX***
**Military Class K**




**BAYONET COUPLING**
**Class K Stainless Steel**
**Pyle FYL-17XX* Series**
**MS27613KXXBXX***
**Military Class K**

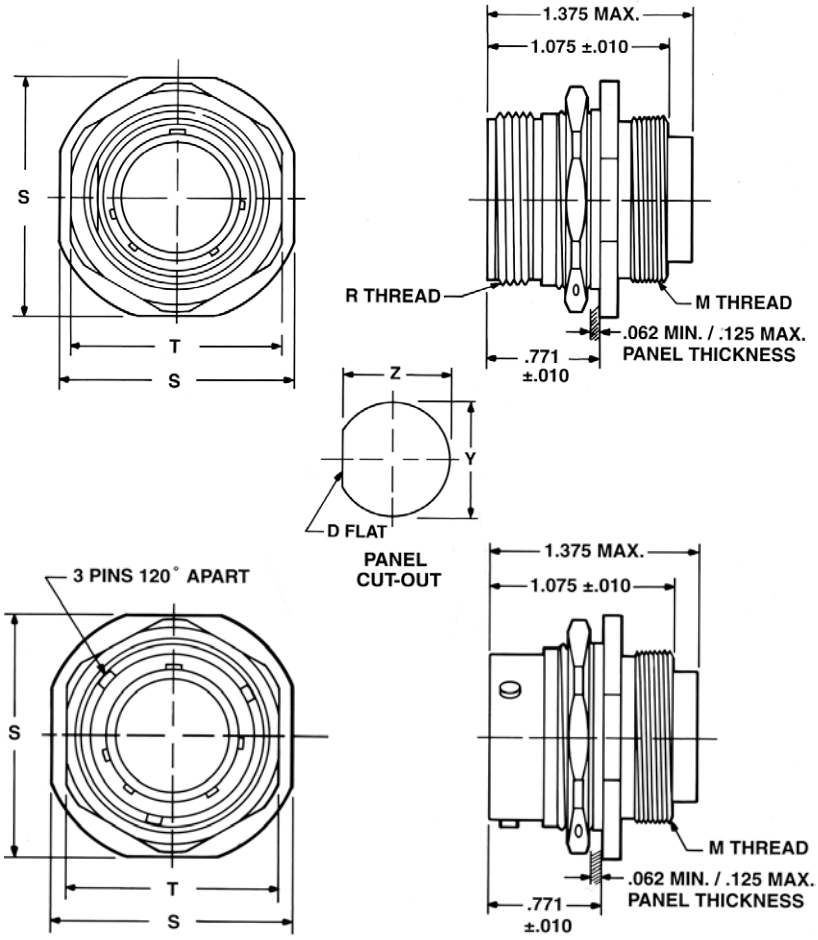
* To complete order number, see how to order, page 21.

| Shell Size | Cable Support Thread M | Coupling Thread R | Flange Width S ±.005 | Mounting Hole Centers T ±.005 | Back Mount Min. Hole Y | Front Mount Min. Hole Z |
|---|---|---|---|---|---|---|
| 08 | NA | NA | NA | NA | NA | NA |
| 10 | NA | NA | NA | NA | NA | NA |
| 12** | .733-36 | .875-20 | 1.031 | .812 | .913 | .760 |
| 14 | .803-36 | .937-20 | 1.125 | .906 | .980 | .822 |
| 16 | .930-36 | 1.062-18 | 1.250 | .969 | 1.107 | .948 |
| 18 | 1.036-36 | 1.187-18 | 1.343 | 1.062 | 1.209 | 1.072 |
| 20 | NA | NA | NA | NA | NA | NA |
| 22 | 1.286-36 | 1.437-18 | 1.562 | 1.250 | 1.452 | 1.322 |
| 24** | 1.411-36 | 1.562-18 | 1.703 | 1.375 | 1.577 | 1.422 |
| 28** | 1.661-36 | 1.812-16 | 2.000 | 1.562 | 1.827 | 1.700 |

NA designates not available. ** Available in Threaded Coupling only.
All dimensions for reference only.

# Firewall Class K
# D-Hole Mounted Receptacle

## Class K stainless steel, threaded/bayonet coupling




**THREADED COUPLING**
**Class K Stainless Steel**
**Pyle FPK-19XX* Series**
**MS27614KXXTXX***
**Military Class K**

**BAYONET COUPLING**
**Class K Stainless Steel**
**Pyle FYL-19XX* Series**
**MS27614KXXBXX***
**Military Class K**

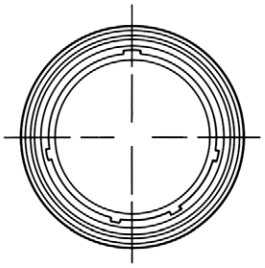
* To complete order number, see how to order, page 21.

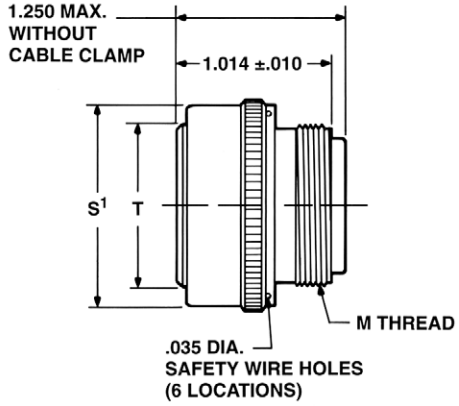
| Shell Size | Cable Support Thread M | Coupling Thread R | Flange Width S | Lock Nut Flats T | Mounting Hole Dia. Y | Mounting Hole Flat Z | Recom. min. Torque Jam Nut |
|---|---|---|---|---|---|---|---|
| 08 | NA | NA | NA | NA | NA | NA | 33 |
| 10 | NA | NA | NA | NA | NA | NA | 36 |
| 12** | .733-36 | .875-20 | 1.291 | 1.215 | .947 | .917 | 56 |
| 14 | .803-36 | .937-20 | 1.391 | 1.062 | 1.010 | .980 | 65 |
| 16 | .930-36 | 1.062-18 | 1.516 | 1.187 | 1.135 | 1.105 | 69 |
| 18 | 1.036-36 | 1.187-18 | 1.614 | 1.312 | 1.260 | 1.225 | 81 |
| 20 | NA | NA | NA | NA | NA | NA | 100 |
| 22** | 1.286-36 | 1.437-18 | 1.954 | 1.562 | 1.510 | 1.475 | 123 |
| 24 | NA | NA | NA | NA | NA | NA | 133 |
| 28 | NA | NA | NA | NA | NA | NA | NA |

NA designates not available. ** Available in Threaded Coupling only.
All dimensions for reference only.

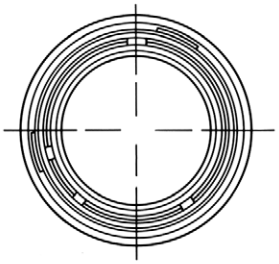
# Firewall Class K
# Straight Plug

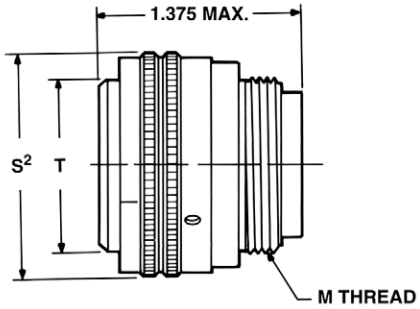
## Class K stainless steel, threaded/bayonet coupling






**THREADED COUPLING**
**Class K Stainless Steel**
**Pyle FPK-11XX* Series**
**MS27615KXXTXX***
**Military Class K**






**BAYONET COUPLING**
**Class K Stainless Steel**
**Pyle FYL-11XX* Series**
**MS27615KXXBXX***
**Military Class K**

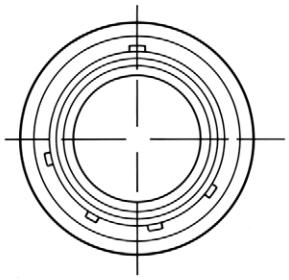
* To complete order number, see how to order, page 21.

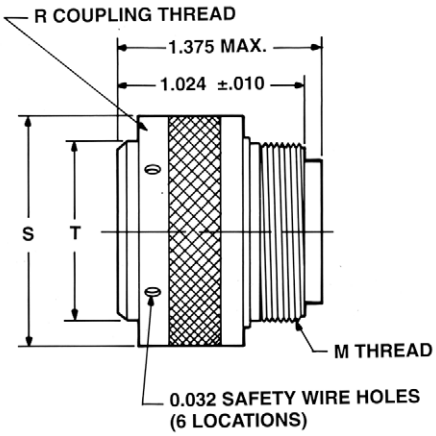
| Shell Size | Cable Support Thread M | Coupling Thread R | Coupling Nut | | Shell Dia. T |
|---|---|---|---|---|---|
| | | | Dia. $S^1$ | Dia. $S^2$ | |
| 08 | NA | NA | NA | NA | NA |
| 10 | NA | NA | NA | NA | NA |
| 12 | .733-36 | .875-20 | .984 | 1.018 | .696 |
| 14 | .803-36 | .937-20 | 1.054 | 1.087 | .765 |
| 16 | .930-36 | 1.062-18 | 1.181 | 1.214 | .892 |
| 18 | 1.036-36 | 1.187-18 | 1.287 | 1.320 | .998 |
| 20 | NA | NA | NA | NA | NA |
| 22 | 1.286-36 | 1.437-18 | 1.537 | 1.570 | 1.248 |
| 24 | 1.411-36 | 1.562-18 | 1.662 | 1.695 | 1.373 |
| 28** | 1.661-36 | 1.812-16 | 1.912 | NA | 1.623 |

NA designates not available. ** Available in Threaded Coupling only.
All dimensions for reference only.

# Firewall Class K Ratchet Lock Plug,

Class K stainless steel, threaded coupling






**RATCHET LOCK PLUG**
**Threaded Coupling**
**Class K Stainless Steel**
**Pyle FPK-12XX* Series**
**MS27615KXXSXX**
**Military Class K**

* To complete order number, see how to order, page 21.

| Shell Size | Cable Support Thread M | Coupling Thread R | Coupling Nut Dia S | Shell Dia. T |
|---|---|---|---|---|
| 08 | NA | NA | NA | NA |
| 10 | .563-36 | .687-24 | .931 | .526 |
| 12 | .733-36 | .875-20 | 1.111 | .696 |
| 14 | .803-36 | .937-20 | 1.175 | .765 |
| 16 | .930-36 | 1.062-18 | 1.302 | .892 |
| 18 | 1.036-36 | 1.187-18 | 1.408 | .998 |
| 20 | NA | NA | NA | NA |
| 22 | 1.286-36 | 1.437-18 | 1.658 | 1.248 |
| 24 | 1.411-36 | 1.562-18 | 1.783 | 1.373 |
| 28 | 1.661-36 | 1.812-16 | 2.038 | 1.623 |

NA designates not available.
All dimensions for reference only.

# Hermetic MIL-C-26500 Connectors
## hermetically sealed

Amphenol®/Pyle® is an experienced supplier of highly reliable hermetic connectors for the aircraft industry. Amphenol's ZZL and ZZB series of hermetic receptacles are designed to the requirements of MIL-C-26500, and are available in tin-plated cold-rolled steel shells and gold-plated nickel-iron alloy contacts. Other material variations, including stainless steel, are available.

Hermetic receptacles are available in shell sizes 8, 10, 12, 14, 16, 18, 22, 24 and 28. The hermetic series is offered in a variety of receptacle shell styles, which include solder mount, square flange and "D" hole mount. These connectors can be ordered with either eyelet, solderwell or printed circuit tail pin contacts.

Consult Amphenol, Sidney, NY for more information on hermetic connectors, and for optional connector designs.

### Amphenol®/Pyle® How to Order Designation for Hermetic Connectors

Sample ordering number:

**ZZL – HC – 14 12 – 03 P 06 W – H45**

**Series Designation**
ZZL – Threaded Coupling
ZZB – Bayonet Coupling

**Class**
HC – Denotes Hermetic Class

**Shell Style**
14 – Solder Mount Receptacle
15 – Single Hole Mounting Receptacle
17 – Square Flange Receptacle

**Shell Size**
8, 10, 12, 14, 16, 18, 22, 24, 28

**Insert Arrangement**
See inserts labeled with an "H" on page 4.

**Contact Type**
P denotes male pin contacts with standard gold plate

**Alternate Key Position**
06, 07, 08, 09, 10 (omit for normal)
(See page 4)

**Special Modifications**
H45 – 304L stainless steel shell
H52 – Tinned termination tails
H56 – Same as standard; gold contacts
H77 – 304L stainless steel shell, Inconel contacts
H127 – Same as H125 except 304L stainless steel shell
H146 – 303 stainless steel shell, 100 microinch gold
H152 – 304L stainless steel shell with individual beads, loose seals
H177 – 303 stainless steel shell, loose seals
H181 – Tin plated contacts

**Contact Style**
E – designates eyelet
W – designates solderwell
Consult Amphenol, Sidney, NY for ordering information of printed circuit tail contacts.

# Contacts and Accessories
## for MIL-C-26500 cylindrical connectors

### Crimp Contacts per MIL-C-39029 – Copper Alloy, Gold Plating

| PIN CONTACTS | | | | |
|---|---|---|---|---|
| Contact Size | Spec. Number | Bin Code | MS Number | Amphenol/Pyle No. |
| 20 | M39029/31 | 241 | MS24254-20P | ZZL-4020-36LD* |
| 16 | M39029/31 | 229 | MS24254-16P | ZZL-4016-36LD* |
| 12 | M39029/31 | 235 | MS24254-12P | ZZL-4012-36LD* |

| SOCKET CONTACTS | | | | |
|---|---|---|---|---|
| Contact Size | Spec. Number | Bin Code | MS Number | Amphenol/Pyle No. |
| 20 | M39029/32 | 260 | MS24255-20S | ZZL-4120-36LD* |
| 16 | M39029/32 | 248 | MS24255-16S | ZZL-4116-36LD* |
| 12 | M39029/32 | 254 | MS24255-12S | ZZL-4112-36LD* |

* Add – H139 for Boeing Marking for Pin/Socket, Standard Plating.
Add – H148 for Boeing Marking for Pin/Socket, Select Plate.

### Amphenol®/Pyle® Special Application Contacts

| Copper Alloy, Rhodium plated Contacts† | | | |
|---|---|---|---|
| Contact Size | Description | Amphenol/Pyle Pin No. | Amphenol/Pyle Socket No. |
| 20 | Copper Alloy/ Rhodium plated | ZZL-4020-36LT | ZZL-4120-36LT |
| 16 | Copper Alloy/ Rhodium plated | ZZL-4016-36LT | ZZL-4116-36LT |
| 12 | Copper Alloy/ Rhodium plated | ZZL-4012-36LT | ZZL-4112-36LT |

† Contacts qualified to Boeing BACC47CN/CP.

| Thermocouple Contacts | | | | | |
|---|---|---|---|---|---|
| Contact Size | Material | Amphenol/Pyle Pin No. | Amphenol/Pyle Socket No. | | |
| | | | Pencil Clip Design* | Split Tine Design** | Color Code |
| 20 | Alumel<br>Chromel<br>Constantan | ZZL-4020-10R<br>ZZL-4020-10P<br>ZZL-4020-10N | ZZL-4120-10R<br>ZZL-4120-10P<br>ZZL-4120-10N | ZZY-4120-10R<br>ZZY-4120-10P<br>ZZY-4120-10N | Green<br>White<br>Yellow |
| 16 | Alumel<br>Chromel<br>Constantan | ZZL-4016-10R<br>ZZL-4016-10P<br>ZZL-4016-10N | ZZL-4116-10R<br>ZZL-4116-10P<br>ZZL-4116-10N | ZZY-4116-10R<br>ZZY-4116-10P<br>ZZY-4116-10N | Green<br>White<br>Yellow |
| 12 | Alumel<br>Chromel<br>Constantan | ZZL-4012-10R<br>ZZL-4012-10P<br>ZZL-4012-10N | ZZL-4112-10R<br>ZZL-4112-10P<br>ZZL-4112-10N | ZZY-4112-10P<br>ZZY-4112-10P<br>ZZY-4112-10N | Green<br>White<br>Yellow |

* Pencil clip socket design - see page 2 for description.
** Split tine socket with napkin ring design - see page 2 for description.

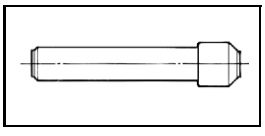
### Printed Circuit Board/Wire-Wrap Contacts

A variety of different designs are available; please consult Amphenol, Sidney, NY for more information.

### Reel Contacts

2000 contacts per reel (gold or rhodium plated) are available. Consult Amphenol, Sidney, NY for more information.

### Sealing Plugs

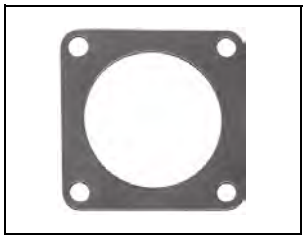


For sealing spare contact holes. Same sealing plug is used in both plug and receptacle.

| Contact Size | Amphenol/Pyle No. | MS Number | Color Code |
|---|---|---|---|
| 20 | 10-405996-20 | MS-27488-20 | Red |
| 16 | 10-405996-16 | MS-27488-16 | Blue |
| 12 & #1 Shielded | 10-405996-12 | MS-27488-12 | Yellow |
| # 2 Shielded | 10-405996-8 | MS27187-4 | White |

### Sealing Gaskets

For use with square flange mounted receptacles. Provide waterproofing and pressure sealing features.



| Contact Size | Amphenol/ Pyle No. |
|---|---|
| 08 | ZZL-6508-10D |
| 10 | ZZL-6510-10D |
| 12 | ZZL-6512-10D |
| 14 | ZZL-6514-10D |
| 16 | ZZL-6516-10D |
| 18 | ZZL-6518-10D |
| 20 | ZZL-6520-10D |
| 22 | ZZL-6522-10D |
| 24 | NA |

### Cable Supports - Aluminum

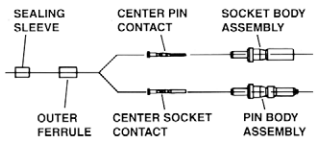
# Shielded/Coaxial Contacts
## for MIL-C-26500 cylindrical connectors

| Drawing (See below and on next page) | Shielded Contact Part No./ Contact Type | Cable Stripping Dim.*** +.0156 −.0000 | | | Amphenol Crimp Tools (Center Contact) | | | Outer Ferrule Crimping Tool†† | Cable Application |
|---|---|---|---|---|---|---|---|---|---|
| | | A | B | C | Tool | Nest Bushing | Crimp Setting | | |
| ***Type 1*** #1 Shielded | 48-1226-02 Pin<br>48-1227-02 Socket<br>48-1227-50 Socket | .2189 | .0781 | .1094 | 294-268*<br>294-289** | 294-1631 | #3 | 294-529 | #22 AWG per MIL-C-7078 Type II and MIL-C-27500-22 KING RG-174/U, -188/U |
| | | | | | | | #1 | 294-529 | RG-161/U, -179/U, -179A/U, -187/U |
| | 48-1226-57 Pin<br>48-1227-57 Socket | .2189 | .0781 | .1094 | 294-268*<br>294-289** | 294-1631 | #1 | 294-528 | Raychem 9530A11 |
| ***Type 2*** #1 Shielded | 48-1226-51, -54 Pin<br>48-1227-51, -54, -56 Socket | .2189 | .0313 | .1563 | 294-268*<br>294-289** | 294-1631 | #1 | 294-528 | RG-180/U, -180A/U, -180B/U, -195/U |
| ***Type 3*** #1 Shielded | 48-1226-55 Pin<br>48-1227-55 Socket | .2344 | .0313 | .1563 | 294-268*<br>294-289** | 294-1631 | #1 | 294-529 | RG-178/U, -178A/U, -178B/U, -196-U |
| ***Type 4*** #2 Shielded | 48-2187-02 Pin<br>48-2188-02 Socket | .2189 | .1094 | .1406 | 294-126**<br>294-243**<br>294-1166**†<br>294-358**<br>294-268* | 294-1014 Turret Head<br>294-1014<br>294-1015<br>299-1630 | .030 - .040 | 294-528 | #18, 20, 22 AWG per MIL-C-7078, Type II and MIL-C-27500-18, -20, -22 KING Extruded Jacket |
| | 48-2187-50, -51 Pin<br>48-2188-50, -51, -53, -54 Socket | .2189 | .1094 | .1406 | 294-1166**†<br>294-358**<br>294-268* | 294-1014<br>294-1015<br>294-1630 | .030<br>.040<br>#3 | 294-528 | RG-180/U, -180A/U, -180B/U, -195/U |
| ***Type 5*** #2 Shielded | 48-2187-52 Pin<br>48-2188-52 Socket | .3125 | .1094 | .1406 | 294-358**<br>294-268* | 294-1015<br>294-1630 | .037 - .041 | 294-530 | RG-59/U and 21-541 |

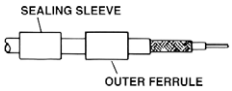
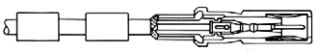
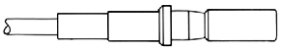
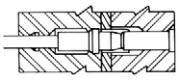
* Conforms to MIL-C-22520/2 specification.
** MS3191 tools are inactive for new procurement, but can be used if available.
*** Refer to illustration on page 29.

† Same as 294-126, less positioners.
†† Including Hex Die Set

***Type 1***



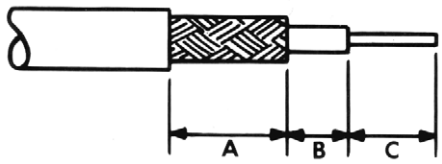

### Shielded Contact Assembly Procedure

| | | |
|---|---|---|
| Step 1 | Slide sealing boot or sleeve and outer ferrule onto cable and strip cable as shown at right.<br>After stripping, slide spacer over center conductor as shown for ***Type 2*** and ***Type 3***.<br>For ***Type 3*** slide spacer under wire braid. |  |
| Step 2 | Insert stripped center conductor into contact until wire shows through inspection hole and dielectric ***(Type 1, Type 4 and Type 5)*** or spacer ***(Type 2 and Type 3)*** butts against contact. Fully seat contact in nest bushing of crimp tool and crimp in one full stroke. (Follow same crimping procedures except use nest bushing crimping tool from table above). | |
| Step 3 | Slightly flair out ends of wire braid to facilitate insertion of inner ferrule of body assembly.<br>Do not comb braid. | |
| Step 4 | Install center contact in body assembly and slide inner ferrule underneath wire braid as shown. Push center contact until it is locked in place in the body assembly. Pull lightly on cable to make sure that contact is securely locked in place. |  |
| Step 5 | Slide outer ferrule over braid and up against body as shown. There should be no slack in the wire braid. Crimp the outer ferrule with proper tool from table above. Then for ***Type 1, Type 3 and Type 5*** slide sealing sleeve toward contact until sleeve touches outer ferrule. |  |
| Step 6 | Insert the assembled shielded contact into the connector in the same way as the standard contact using applicable insertion tool (see page 28). This completes assembly for ***Type 1, Type 2, Type 3 and Type 5.*** |  |
| Step 7 | To complete assembly for ***Type 4***, push sealing boot into connector grommet until O-ring riser of boot snaps into place and seals the assembly. | |

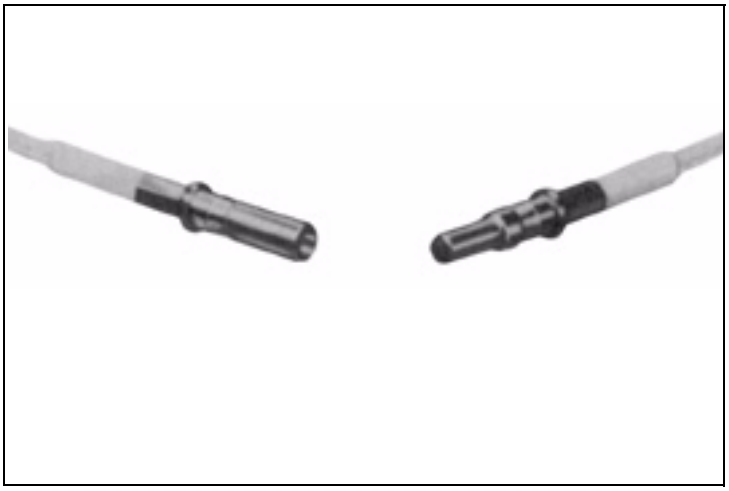
# Shielded/Coaxial Contacts, cont.
## for MIL-C-26500 cylindrical connectors

### Cable Stripping

Strip cable jacket, braid and dielectric to the dimensions shown in the table on page 28. Make all cuts square and sharp, being careful not to nick braid, dielectric, or center conductor when cutting. If conductor ends fray, twist them to their normal lay.

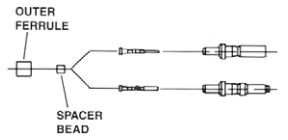
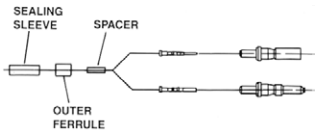
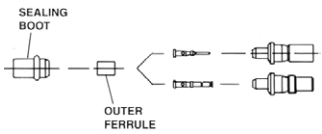
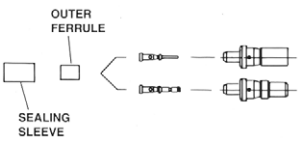
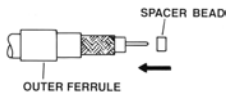
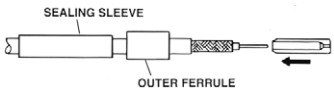
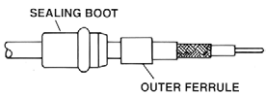
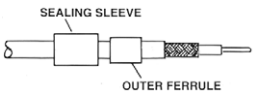
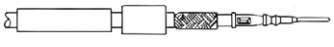
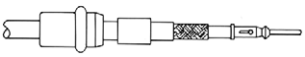
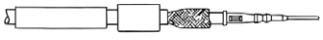
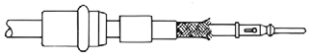
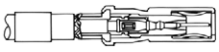
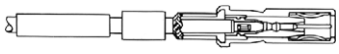
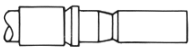
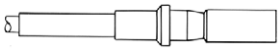
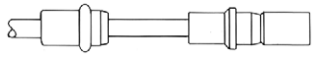
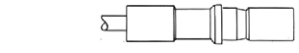
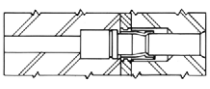
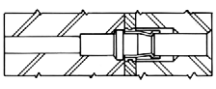
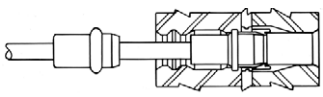
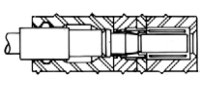
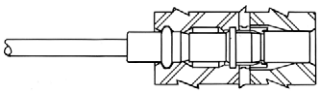



(Refer to stripping dimensions in chart on page 28)



**Shielded Contacts after Crimping**

### Shielded Contact Assembly Procedure, cont.

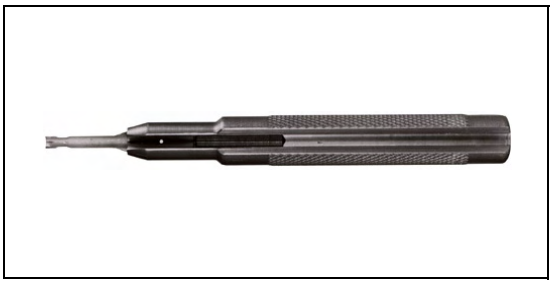
| *Type 2* | *Type 3* | *Type 4* | *Type 5* |
|---|---|---|---|
|  |  |  |  |
|  |  |  |  |
| |  |  | |
| |  |  | |
|  |  | | |
|  |  |  |  |
|  |  |  |  |
| | |  | |

# Accessories - contact terminating tools
## for MIL-C-26500 cylindrical connectors

### Contact Crimping Tools

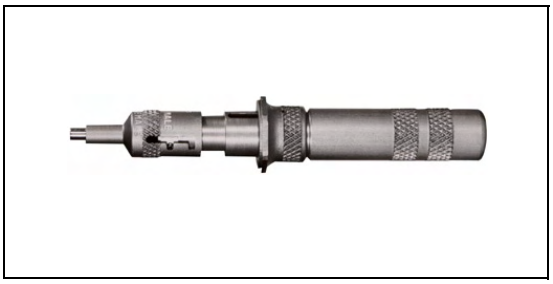
| Contact Size | Crimping Tool with Indenters | | Adjustable Turret | | Checking Gage for Crimping Tool | |
|---|---|---|---|---|---|---|
| | Amphenol/ Pyle No. | Mil. No. | Amphenol/ Pyle No. | Mil. No. | Amphenol/ Pyle No. | Mil. No. |
| 20 | TP-201354 | M22520/1-01 (Class 1) | TP-201355 | M22520/1-02 (Class 1) | TP-201356 | M22520/3 |
| 16 | | | | | | |
| 12 | | | | | | |

### Contact Insertion Tools



| Contact Size | Insertion Tool | | | Insertion Tool Replacement Tip & Pin | |
|---|---|---|---|---|---|
| | Amphenol/ Pyle No. | Mil. No. | Color Code | Amphenol/ Pyle No. | Mil. No. |
| 20 | ZZL-R-9510-A-20 | MIL-I-81969/17-9 | Red | ZZL-R-9531-A-20 | – |
| 16 | ZZL-R-9510-16 | MIL-I-81969/17-4 | Blue | ZZL-R-9531-16 | – |
| 12 | ZZL-R-9510-12 | MIL-I-81969/17-5 | Yellow | ZZL-R-9531-12 | – |

### Contact Removal Tools



| Contact Size | Removal Tool | | | Removal Tool Replacement Tip | |
|---|---|---|---|---|---|
| | Amphenol/ Pyle No. | Mil. No. | Color Code | Amphenol/ Pyle No. | Mil. No. |
| 20 | ZZL-R-9511-20 | MS-24256-R-20 | Red | ZZL-R-9557-20 | – |
| 16 | ZZL-R-9511-16 | MS-24256-R-16 | Blue | ZZL-R-9557-16 | – |
| 12 | ZZL-R-9511-12 | MS-24256-R-12 | Yellow | ZZL-R-9557-12 | – |

### Contact Termination

Use table below to determine correct wire stripping length for your wire sizes. When stripping the wire, avoid nicking wires or damaging insulation, as it is a functional part of the sealing system.

| Contact Size | Wire Size | Stripping Length |
|---|---|---|
| 20 | 20 to 24 | .170” – .201” |
| 16 | 16 to 18 | .207” – .238” |
| 12 | 12 to 14 | .207” – .238” |

See pages 32 and 33 for assembly instructions for proper contact termination and contact insertion/removal.

# Accessories - contact terminating tools
## for 48 Series MIL-C-26500 connectors

### Crimping Tools for Shielded Contacts

Amphenol Tool 357-100

Amphenol Tool 294-529 or 294-528

| Shielded Contact Size | For Crimping Center Contact | | For Crimping Outer Ferrule | |
|---|---|---|---|---|
| | Basic Crimp Tool | Contact Positioner | Basic Crimp Tool (Hex dies included) | Hex Dimension |
| # 1 Shielded | 357-100 | 294-1631 | 294-529 | .128 Hex |
| # 2 Shielded | | 294-1630 | 294-528 | .160 Hex |

### Standard Crimping Tool for Power Contacts

| Basic Crimp Tool | | Use with Turret Head |
|---|---|---|
| Amphenol Part No. | Military Part No. | |
| 294-542 | M22520/1-01 | M22520/1-02 |

| Contact Size | Color Code | Wire Size |
|---|---|---|
| 20 | Red | 20–22–24 |
| 16 | Blue | 16–18–20 |
| 12 | Yellow | 12–14 |

### Contact Insertion Tools

| Contact Size | Amphenol Part No. | Military Part No. |
|---|---|---|
| 20 | 294-88 | MS2456A20 |
| 16 | 294-96 | MS2456A16 |
| #12, # 1 Shielded | 294-72 | MS2456A12 |
| #2 Shielded | 294-128 | – |

### Contact Removal Tools

| Contact Size | Amphenol Part No. | Military Part No. |
|---|---|---|
| 20 | 294-89 | MS2456R20 |
| 16 | 294-97 | MS2456R16 |
| #12, # 1 Shielded | 294-73 | MS2456R12 |
| #2 Shielded | 294-127 | – |

For more information on other tools available consult Amphenol, Sidney, NY.

NOTE: Amphenol and Pyle tools are interchangeable.

# Assembly Instructions for MIL-C-26500 Connectors

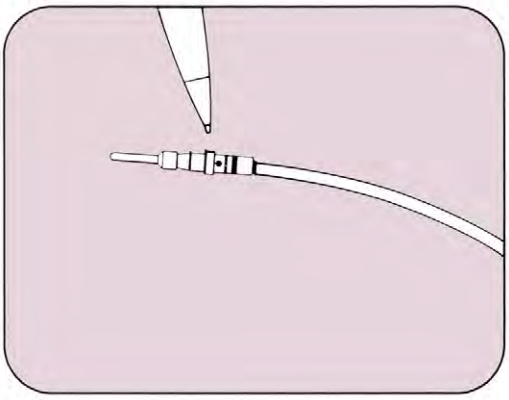
## Contact Termination

Contacts should be crimped to the wire with MS Standard hand crimping tools or specification automatic crimping machines.

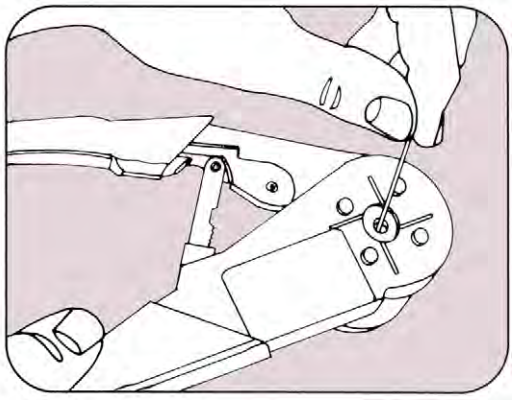
When stripping the wire avoid nicking wires or damaging the insulation as it is a functional part of the sealing system.

| Contact Size | Wire Size | Stripping Length |
|---|---|---|
| 20 | 20 to 24 | .170” – .201” |
| 16 | 16 to 18 | .207” – .238” |
| 12 | 12 to 14 | .207” – .238” |

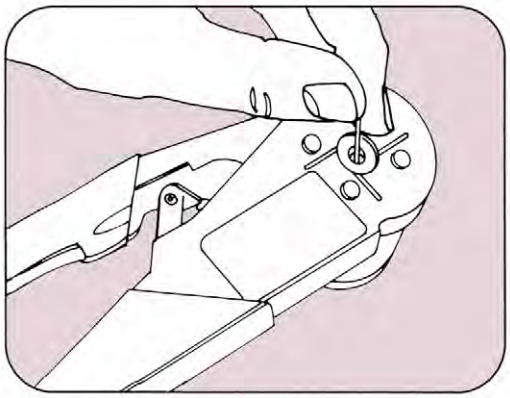
Follow steps 1 – 4, as shown below, for proper contact crimping:



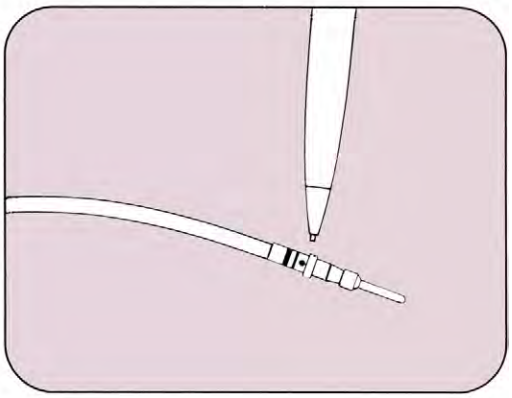
1. Insert stripped wire into contact pocket until it is visible through inspection hole.



2. Carefully seat contact in crimp tool positioner.



3. Crimp in one full stroke. (The ratchet will not release jaws until tool has completed stroke).

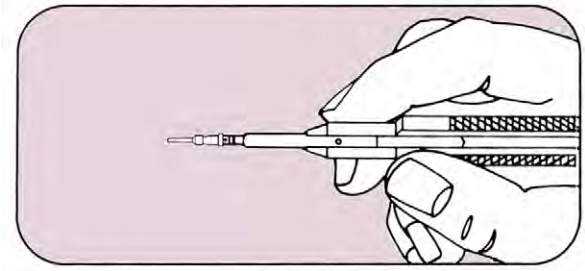


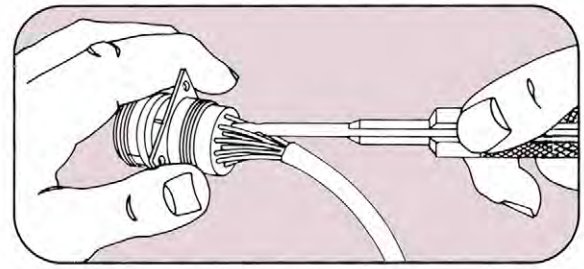
4. Inspect crimp for wire visibility through inspection hole.

# Assembly Instructions for MIL-C-26500 Connectors, cont.

## Contact Insertion into the Connector

The following steps are recommended for assembly.



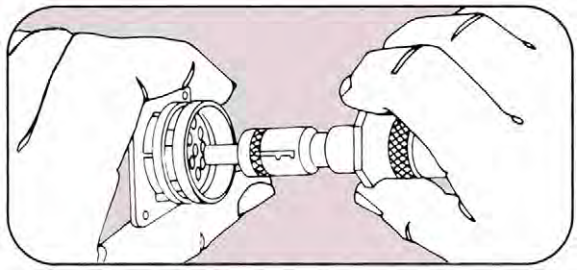


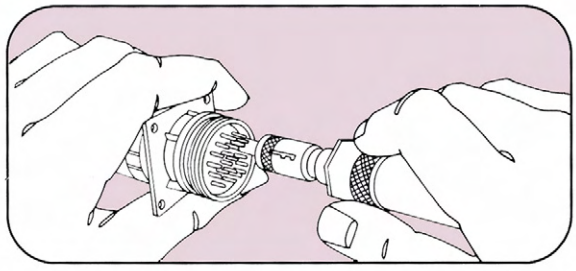
NOTE:
The Pyle Miniature Connector is designed with a unique sealing principle. Assembly of contacts into the connector must be made with reasonable care to avoid damage to the silicone rubber insert.

1. Lubricate wire cavities in back face of insert with a very thin film of DC-200 Silicone Oil or equal before inserting contacts.
2. Locate contact in insertion tool (as shown in illustration).
3. Align contact with hole in rear face of insert. The alignment of insertion tool with contact must be coaxial with the axis of the connector. When contact has entered rear seal portion of insert, maintain alignment of contact and tool parallel to, and in line with hole. Insert contact to full depth. Seating of the contact in the retention collet is audible. The contact insertion force is less than five pounds.
4. Extract insertion tool, keeping it aligned with hole.

## Contact Removal from the Connector

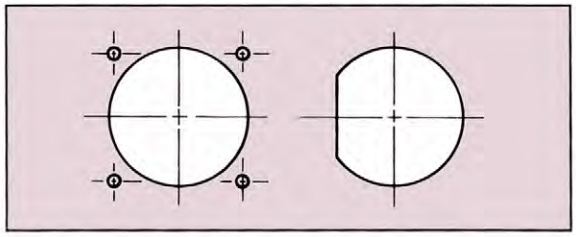
A contact is removed from the connector insert with the extraction tool as follows:





1. Set the spacer sleeve in the proper position for removal of male or female contact.
2. Place tool over the contact and insert into front face of cavity. The alignment of removal tool with contact must be coaxial with axis of connector.
3. Exert a nominal force axially (from 5 to 10 lbs.) to release retention collet. Spacer sleeve will shoulder at front face of insulation when tool is inserted to proper depth.
4. Push extraction plunger to force the contact out of the rear of the insert.
5. Grasp contact or wire at rear face of insert and complete the extraction.
6. Remove extraction tool axially.
7. After using extraction tool the spacer sleeve should be set forward in last notch to protect the end of the plunger guide.

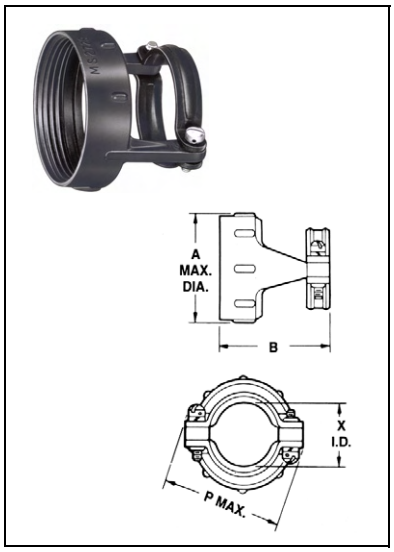
## Panel Mounting



Two receptacle shell styles, flange mount and D-hole mount, are available for panel mounting. See the applicable drawings for mounting hole dimensions. The square flange receptacle, sizes 10 through 22, is fastened to the panel with four size #4-40 machine screws. The 24 and 28 size shells are fastened with #6-32 machine screws.

# Accessories - cable supports
## for MIL-C-26500 cylindrical connectors

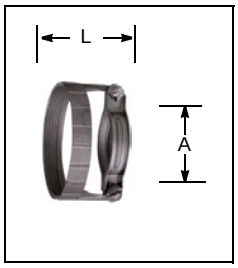
### Cable Supports - Aluminum




Cable clamps support cable or wire at the plug or receptacle and prevent twisting and pulling.

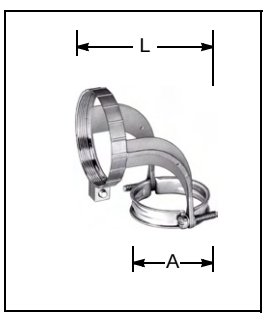
| Shell Size | Non-Conductive, Black Anodize Finish | | Conductive, Chromium Finish | | A Max. Dia. | B ±.015 | X I.D. ±.38 | Thread UNEF-2B | P Max. |
|---|---|---|---|---|---|---|---|---|---|
| | MS. No. | Amphenol/ Pyle No. | MS No. | Amphenol/ Pyle No. | | | | | |
| 08 | MS27291-13 | ZZL-R-5308-A | MS27291-701 | ZZL-M-5308 | .582 | .935 | .180 | .4375-28 | .785 |
| 10 | MS27291-1 | ZZL-R-5310-A | MS27291-101 | ZZL-M-5310 | .731 | .935 | .270 | .5625-24 | .914 |
| 12 | MS27291-2 | ZZL-R-5312-A | MS27291-201 | ZZL-M-5312 | .919 | .935 | .400 | .7500-20 | 1.026 |
| 14 | MS27291-3 | ZZL-R-5314-A | MS27291-301 | ZZL-M-5314 | .981 | 1.170 | .460 | .8125-20 | 1.090 |
| 16 | MS27291-4 | ZZL-R-5316-A | MS27291-401 | ZZL-M-5316 | 1.106 | 1.170 | .610 | .9375-20 | 1.250 |
| 18 | MS27291-5 | ZZL-R-5318-A | MS27291-501 | ZZL-M-5318 | 1.231 | 1.170 | .690 | 1.0625-18 | 1.358 |
| 20 | MS27291-14 | ZZL-R-5320-A | MS27291-801 | ZZL-M-5320 | 1.356 | 1.170 | .830 | 1.1875-18 | 1.496 |
| 22 | MS27291-6 | ZZL-R-5322-A | MS27291-601 | ZZL-M-5322 | 1.481 | 1.170 | .940 | 1.3125-18 | 1.604 |
| 24 | MS27291-15 | ZZL-R-5324-A | MS27291-901 | ZZL-M-5324 | 1.606 | 1.170 | 1.040 | 1.4375-18 | 1.740 |

### Cable Supports - Stainless Steel, Straight




| Shell Size | Standard Straight Support (L = .781) | | | | | | Long Straight Support | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | MS No. | Amphenol/ Pyle No. | A | MS No. | Amphenol/ Pyle No. | A | Similar to MS No. | Amphenol/ Pyle No. | A | L | Thread |
| 10 | NA | NA | NA | NA | NA | NA | NA | FPL-R-5310L | NA | NA | .563-36 |
| 12 | NA | NA | NA | NA | NA | NA | MS27658-12 | FPL-R-5312L | .435 | 1.070 | .753-36 |
| 14 | MS27657-14 | ZZL-R-5314 | .230 | MS27657-1 | FPL-R-5314 | .382 | MS27658-14 | FPL-R-5314L | .504 | 1.170 | .803-36 |
| 16 | MS27657-16 | ZZL-R-5316 | .292 | MS27657-2 | FPL-R-5316 | .462 | MS27658-16 | FPL-R-5316L | .686 | 1.270 | .930-36 |
| 18 | MS27657-18 | ZZL-R-5318 | .392 | MS27657-3 | FPL-R-5318 | .556 | MS27658-18 | FPL-R-5318L | .794 | 1.370 | 1.036-36 |
| 20 | NA | NA | NA | NA | NA | NA | NA | FPL-R-5320L | NA | NA | NA |
| 22 | MS27657-22 | ZZL-R-5322 | .516 | MS27657-4 | FPL-R-5322 | .608 | MS27658-22 | FPL-R-5322L | 1.038 | 1.570 | 1.286-36 |
| 24 | NA | NA | NA | NA | NA | NA | MS27658-24 | FPL-R-5324L | 1.162 | 1.670 | 1.411-36 |
| 28 | NA | NA | NA | NA | NA | NA | MS27658-28 | FPL-R-5328L | 1.412 | 1.870 | 1.661-36 |

### Cable Supports - Stainless Steel, Right Angle

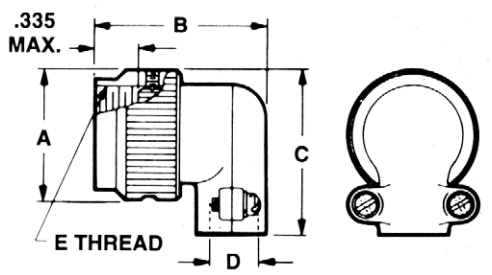



| Shell Size | Cable Support, Right Angle | | | | |
|---|---|---|---|---|---|
| | Similar to MS No. | Amphenol/Pyle No. | A | L | Thread |
| 10 | NA | FPL-R-5210 | NA | NA | .563-36 |
| 12 | MS27659-12 | FPL-R-5212 | .435 | 1.298 | .753-36 |
| 14 | MS27659-14 | FPL-R-5214 | .504 | 1.388 | .803-36 |
| 16 | MS27659-16 | FPL-R-5216 | .686 | 1.523 | .930-36 |
| 18 | MS27659-18 | FPL-R-5218 | .794 | 1.622 | 1.036-36 |
| 22 | MS27659-22 | FPL-R-5222 | 1.038 | 1.878 | 1.286-36 |
| 24 | MS27659-24 | FPL-R-5224 | 1.162 | 2.000 | 1.411-36 |
| 28 | MS27659-28 | FPL-R-5228 | 1.412 | 2.250 | 1.661-36 |

# Accessories - cable supports, cont.
## for MIL-C-26500 cylindrical connectors

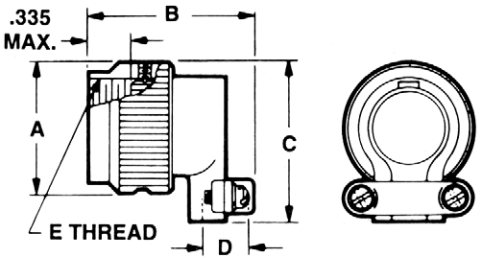
Additional right angle conduit adapters and cable support clamps are available which provide added protection for the cable or wiring. Closed back cable support clamps have a removable cover; while open back cable support clamps have a strap to protect the wires at the right angle bend.

### Cable Supports - Stainless Steel, Closed Right Angle



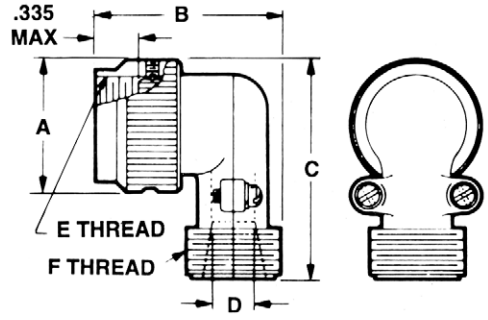

| Shell Size | Cable Support - Closed Right Angle | | | | | | |
|---|---|---|---|---|---|---|---|
| | MS No. | Amphenol No. | A Dia. Max. | B Max. | C Max | D Max | E Thread UNEF-2B |
| 8 | MS27558-1 | 48-2222-08100 | .672 | 1.200 | .938 | .245 | .4375-28 |
| 10 | MS27558-2 | 48-2222-10100 | .797 | 1.320 | 1.049 | .370 | .5625-24 |
| 12 | MS27558-3 | 48-2222-12100 | 1.016 | 1.320 | 1.248 | .370 | .7500-20 |
| 14 | MS27558-4 | 48-2222-14100 | 1.110 | 1.487 | 1.330 | .520 | .8125-20 |
| 16 | MS27558-5 | 48-2222-16100 | 1.234 | 1.470 | 1.447 | .520 | .9375-20 |
| 18 | MS27558-6 | 48-2222-18100 | 1.360 | 1.588 | 1.577 | .645 | 1.0625-18 |
| 20 | MS27558-7 | 48-2222-20100 | 1.485 | 1.759 | 1.698 | .780 | 1.1875-18 |
| 22 | MS27558-8 | 48-2222-22100 | 1.610 | 1.759 | 1.820 | .780 | 1.3125-18 |
| 24 | MS27558-9 | 48-2222-24100 | 1.735 | 2.027 | 1.945 | 1.065 | 1.4375-18 |

### Cable Supports - Stainless Steel, Open Right Angle




| Shell Size | Cable Support - Open Right Angle | | | | | | |
|---|---|---|---|---|---|---|---|
| | MS No. | Amphenol No. | A Dia. Max. | B Max. | C Max | D Max | E Thread UNEF-2B |
| 8 | MS27559-1 | 48-2222-08200 | .672 | 1.173 | .938 | .201 | .4375-28 |
| 10 | MS27559-2 | 48-2222-10200 | .797 | 1.293 | 1.049 | .328 | .5625-24 |
| 12 | MS27559-3 | 48-2222-12200 | 1.016 | 1.293 | 1.248 | .328 | .7500-20 |
| 14 | MS27559-4 | 48-2222-14200 | 1.110 | 1.460 | 1.330 | .452 | .8125-20 |
| 16 | MS27559-5 | 48-2222-16200 | 1.234 | 1.443 | 1.447 | .508 | .9375-20 |
| 18 | MS27559-6 | 48-2222-18200 | 1.360 | 1.561 | 1.577 | .571 | 1.0625-18 |
| 20 | MS27559-7 | 48-2222-20200 | 1.485 | 1.732 | 1.698 | .748 | 1.1875-18 |
| 22 | MS27559-8 | 48-2222-22200 | 1.610 | 1.732 | 1.819 | .748 | 1.3125-18 |
| 24 | MS27559-9 | 48-2222-24200 | 1.735 | 2.000 | 1.945 | .996 | 1.4375-18 |

### Conduit Adapter- Stainless Steel, Right Angle



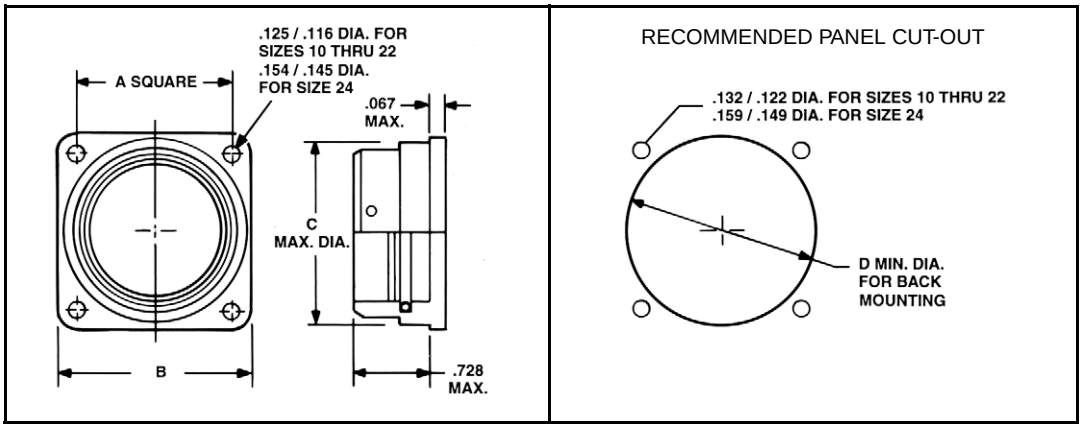

| Shell Size | Conduit Adapter - Right Angle | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Equivalent MS No. | Amphenol No. | A Dia. Max. | B Max. | C Max | D Max | E Thread UNEF-2B | F Thread UNEF-2A |
| 8 | MS27557-1 | 48-2222-08000 | .672 | 1.300 | 1.403 | .245 | .4375-28 | .6250-24 |
| 10 | MS27557-2 | 48-2222-10000 | .797 | 1.420 | 1.514 | .370 | .5625-24 | .7500-20 |
| 12 | MS27557-3 | 48-2222-12000 | 1.016 | 1.420 | 1.713 | .370 | .7500-20 | .7500-20 |
| 14 | MS27557-4 | 48-2222-14000 | 1.110 | 1.575 | 1.795 | .520 | .8125-20 | .8750-20 |
| 16 | MS27557-5 | 48-2222-16000 | 1.234 | 1.558 | 1.912 | .520 | .9375-20 | .8750-20 |
| 18 | MS27557-6 | 48-2222-18000 | 1.360 | 1.675 | 2.042 | .645 | 1.0625-18 | 1.0000-20 |
| 20 | MS27557-7 | 48-2222-20000 | 1.485 | 1.863 | 2.163 | .780 | 1.1875-18 | 1.1875-18 |
| 22 | MS27557-8 | 48-2222-22000 | 1.610 | 1.863 | 2.285 | .780 | 1.3125-18 | 1.1875-18 |
| 24 | MS27557-9 | 48-2222-24000 | 1.735 | 2.118 | 2.410 | 1.065 | 1.4375-18 | 1.4375-18 |

# Accessories - dummy receptacles
## for MIL-C-26500 cylindrical connectors

### Dummy Receptacles - Aluminum - Threaded or Bayonet

Used as an anchoring place for disconnected plugs, dummy receptacles eliminate the problems involved in letting plugs swing freely. They also provide a limited air seal and prevent accumulation of foreign material on the face of the plug. Order by part numbers in chart below.

Threaded Style pictured

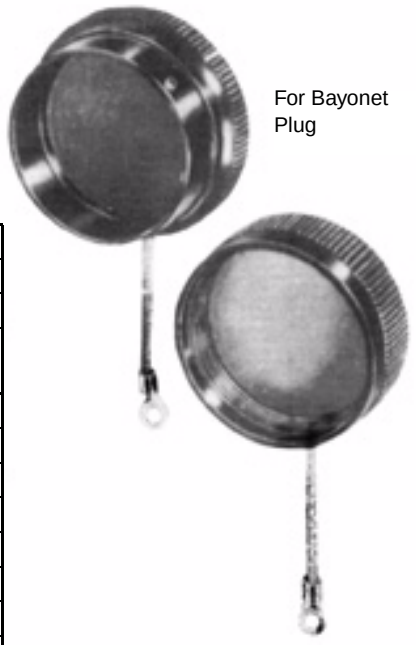



| Size | Dimensional Data | | | | | How to Order | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Bayonet | | Threaded | |
| | Thread Size UNEF-2A | A Square ±.005 | B ±.005 | C Max. Dia. | D Min. Dia. | Amphenol Part No. | Equivalent MS Part No. | Amphenol Part No. | Equivalent MS Part No. |
| 10 | .6875-24 | .719 | .937 | .696 | .748 | 48-149-10000 | MS27297-1 | 48-172-10000 | MS27296-1 |
| 12 | .8750-20 | .812 | 1.031 | .875 | .913 | 48-149-12000 | MS27297-2 | 48-172-12000 | MS27296-2 |
| 14 | .9375-20 | .906 | 1.125 | .935 | .980 | 48-149-14000 | MS27297-3 | 48-172-14000 | MS27296-3 |
| 16 | 1.0625-18 | .969 | 1.250 | 1.062 | 1.107 | 48-149-16000 | MS27297-4 | 48-172-16008 | MS27296-4 |
| 18 | 1.1875-18 | 1.062 | 1.343 | 1.187 | 1.209 | 48-149-18000 | MS27297-5 | 48-172-18000 | MS27296-5 |
| 20 | 1.3125-18 | 1.156 | 1.437 | 1.312 | 1.337 | 48-149-20000 | MS27297-8 | 48-172-20000 | MS27296-8 |
| 22 | 1.4375-18 | 1.250 | 1.562 | 1.437 | 1.452 | 48-149-22000 | MS27297-6 | 48-172-22000 | MS27296-6 |
| 24 | 1.5625-18 | 1.375 | 1.703 | 1.562 | 1.577 | 48-149-24000 | MS27297-9 | 48-172-24000 | MS27296-9 |

# Accessories - protection caps
## for MIL-C-26500 cylindrical connectors

### Protection Caps and Chains - Threaded or Bayonet

Protective metal caps provide an environmental seal for the connector face. They exclude dirt, dust, moisture and other foreign materials from the face of unmated plugs and receptacles. The caps have a woven steel strap so they can be easily attached near their point of use.

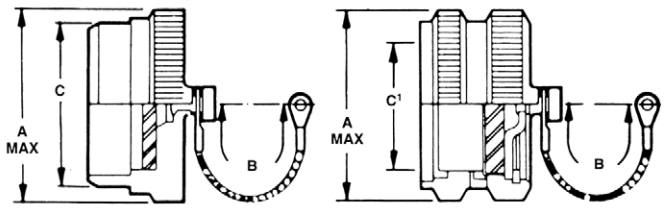


For Bayonet Plug

For Threaded Receptacle

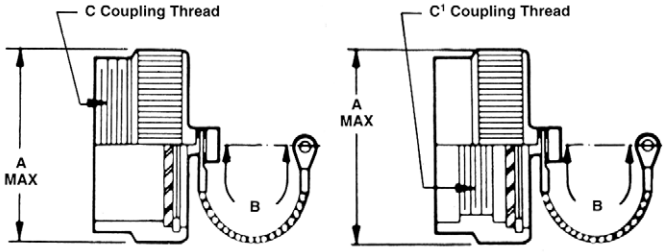
| Dimensional Data | | | | | | |
|---|---|---|---|---|---|---|
| Size | A Max. Dia. | B ±.250 Chain Length | Bayonet Cap | | Threaded Cap | |
| | | | Plug | Receptacle | Plug | Receptacle |
| | | | C +.000 –.005 | $C^1$ +.005 –.000 | C Thread UNEF-2A | $C^1$ Thread UNEF-2B |
| 10 | .906 | 3.00 | .659 | .662 | .6875-24 | .6875-24 |
| 12 | 1.078 | 3.00 | .829 | .832 | .8750-20 | .8750-20 |
| 14 | 1.141 | 5.00 | .898 | .901 | .9375-20 | .9375-20 |
| 16 | 1.266 | 5.00 | 1.025 | 1.028 | 1.0625-18 | 1.0625-18 |
| 18 | 1.375 | 5.00 | 1.131 | 1.134 | 1.1875-18 | 1.1875-18 |
| 20 | 1.510 | 5.00 | 1.256 | 1.263 | 1.3125-18 | 1.3125-18 |
| 22 | 1.625 | 5.00 | 1.381 | 1.384 | 1.4375-18 | 1.4375-18 |
| 24 | 1.760 | 5.00 | 1.506 | 1.511 | 1.5625-18 | 1.5625-18 |

**BAYONET**




Plug Cap  Receptacle Cap

**THREADED**




Plug Cap  Receptacle Cap

| How to Order Bayonet Cap & Chain | | | | |
|---|---|---|---|---|
| Size | Plug | | Receptacle | |
| | Amphenol Part No. | Equivalent MS Part No. | Amphenol Part No. | Equivalent MS Part No. |
| 10 | 48-2144 | MS27293-1 | 48-2150 | MS27295-1 |
| 12 | 48-2143 | MS27293-2 | 48-2149 | MS27295-2 |
| 14 | 48-2142 | MS27293-3 | 48-2148 | MS27295-3 |
| 16 | 48-2141 | MS27293-4 | 48-2147 | MS27295-4 |
| 18 | 48-2140 | MS27293-5 | 48-2146 | MS27295-5 |
| 20 | 48-2773 | MS27293-8 | 48-2774 | MS27295-8 |
| 22 | 48-2139 | MS27293-6 | 48-2145 | MS27295-6 |
| 24 | 48-2767 | MS27293-9 | 48-2768 | MS27295-9 |

| How to Order Threaded Cap & Chain | | | | |
|---|---|---|---|---|
| Size | Plug | | Receptacle | |
| | Amphenol Part No. | Equivalent MS Part No. | Amphenol Part No. | Equivalent MS Part No. |
| 10 | 48-2340-10 | MS27292-1 | 48-2301-10 | MS27294-1 |
| 12 | 48-2340-12 | MS27292-2 | 48-2301-12 | MS27294-2 |
| 14 | 48-2340-14 | MS27292-3 | 48-2301-14 | MS27294-3 |
| 16 | 48-2340-16 | MS27292-4 | 48-2301-16 | MS27294-4 |
| 18 | 48-2340-18 | MS27292-5 | 48-2301-18 | MS27294-5 |
| 20 | 48-2340-20 | MS27292-8 | 48-2301-20 | MS27294-8 |
| 22 | 48-2340-22 | MS27292-6 | 48-2301-22 | MS27294-6 |
| 24 | 48-2340-24 | MS27292-9 | 48-2301-24 | MS27294-9 |