

# MIL-DTL-26482, Series 2, Matrix® Bayonet Coupling Connectors

## With Crimp Rear Release Contacts

Amphenol Aerospace offers the Matrix® Product line of MIL-DTL-26482\*, Series 2 connectors.

This series provides a bayonet coupling connector with crimp rear insertable, rear releasable contacts.

### DESIGN CHARACTERISTICS

- Medium size, environmentally resistant connector
- Recommended operating voltage to 1,000 VAC (RMS) at sea level
- Quick positive coupling assured by 3 point bayonet coupling system
- Visual confirmation of complete coupling
- Eliminates mismatching by the use of five key/keyway design
- Insertion and removal of contacts from the rear of the connector assures no damage to the front that might affect the sealing characteristics
- Utilizes same standard qualified rear-release type plastic tool for contact insertion and removal
- Contacts are qualified to SAE AS39029\*\* requirements – BIN coded (three color bands), and are crimped with standard crimp tools per MIL-DTL-22520
- Grommets are constructed of tear-resistant elastomer and experience no degradation when exposed to a broad range of fluids
- Sealing over a range of wire diameters is assured by a triple webbed grommet at the rear of the connector
- Closed entry socket side of the insert is designed with a lead-in chamfer and a hard face that will accept a pin contact bent within pre-established limits
- Elastomer interfacial seal on the pin side has raised barriers around each pin which displace into the socket chamfer when mated, providing a positive moisture seal

### CUSTOMER OPTIONS

- Shell styles within this family include: Wall mount with either a narrow or a wide flange, jam nut single hole mount, and cable connecting receptacles, along with standard plugs or plugs with RFI grounding fingers, in shell sizes 8 to 24
- MS and Proprietary versions available
- Accommodation of contact sizes 20, 16 and 12
- 34 insert arrangement patterns available, accommodating from a minimum of 3 to a maximum of 55 circuits
- Alternate positioning available
- Various finishes are available (for information on non-cadmium zinc alloy plating, consult Amphenol Aerospace)

\* MIL-DTL-26482 supersedes MIL-C-26482

\*\* SAE AS39029 supersedes MIL-C-39029



MS3470  
wall mounting receptacle  
with narrow flange



MS3471  
cable connecting recep-  
tacle



MS3474  
jam nut receptacle



MS3476  
straight plug  
MS3475  
plug with RFI grounding  
fingers

38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts Connectors Cables

EMI Filter  
Transient

26482  
Matrix 2

83723 III  
Matrix | Pyle

26500  
Pyle

5015  
Crimp Rear Release Matrix

22992  
Class 1

Back-Shell

Options  
Others

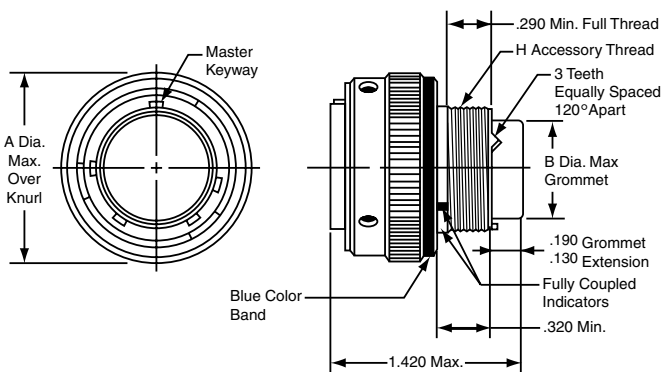
# MS3476 (MB16) – MIL-DTL-26482, Series 2 Straight Plug

## PART #

\*To complete, see how to order page 338.

	Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Rotation of Insert	Modification Number
<b>Military</b>	<b>MS</b>	<b>3476</b>	X	X-X	X	X	NA
<b>Commercial</b>	<b>MB1</b>	<b>6</b>	X	X-X	X	X	(XXX)

**MS3476  
MB16**



Shell Size	A Dia. Max.	B Dia. Max.	H Accessory Thread Class 2A
8	.782	.305	.5000-20 UNF
10	.926	.405	.6250-24 UNEF
12	1.043	.531	.7500-20 UNEF
14	1.183	.665	.8750-20 UNEF
16	1.305	.790	1.0000-20 UNEF
18	1.391	.869	1.0625-18 UNEF
20	1.531	.994	1.1875-18 UNEF
22	1.656	1.119	1.3125-18 UNEF
24	1.777	1.244	1.4375-18 UNEF

All dimensions for reference only.

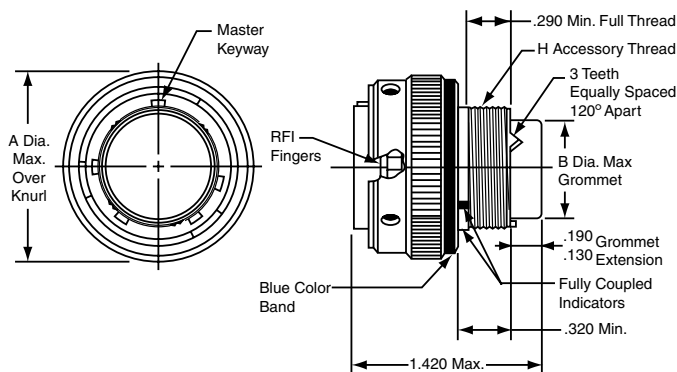
# MS3475 (MB18) – MIL-DTL-26482, Series 2 Straight Plug (With RFI Grounding Fingers)

## PART #

\*To complete, see how to order page 338.

	Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Rotation of Insert	Modification Number
<b>Military</b>	<b>MS</b>	<b>3475</b>	X	X-X	X	X	NA
<b>Commercial</b>	<b>MB1</b>	<b>8</b>	X	X-X	X	X	(XXX)

**MS3475  
MB18**



Shell Size	A Dia. Max.	B Dia. Max.	H Accessory Thread Class 2A
8	.782	.305	.5000-20 UNF
10	.926	.405	.6250-24 UNEF
12	1.043	.531	.7500-20 UNEF
14	1.183	.665	.8750-20 UNEF
16	1.305	.790	1.0000-20 UNEF
18	1.391	.869	1.0625-18 UNEF
20	1.531	.994	1.1875-18 UNEF
22	1.656	1.119	1.3125-18 UNEF
24	1.777	1.244	1.4375-18 UNEF

All dimensions for reference only.

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

HIGH SPEED

- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter  
Transient

26482  
Matrix 2

83723 III  
Matrix | Pyle

26500  
Pyle

5015  
Cramp Rear  
Release  
Matrix

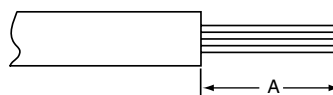
22992  
Class 1

Back-  
Shells

Options  
Others

### Wire Stripping

1. Strip wire to required length. (See Figure at right). When using hot wire stripping do not wipe melted insulation material on wire strands; with mechanical strippers do not cut or nick strands.
  2. See Table 1 for proper finished outside wire dimensions.
  3. Twist strands together to form a firm bundle.
  4. Insert stripped wire into contact applying slight pressure until wire insulation butts against wire well. Check inspection hole to see that wire strands are visible. If there are strayed wire strands, entire wire end should be re-twisted.
- When wire is stripped and properly installed into contact, the next step is to crimp the wire inside the contact by using the proper crimping tool.



Stripping Dimensions

Wire Size	A
20	.188 (4.77)
16	.188 (4.77)
12	.188 (4.77)

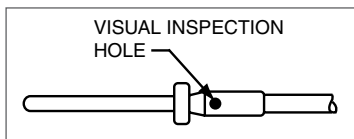
Table 1

Contact Size	Wire Dimension (inches)**	
	Min.	Max.
12	.040	.083
16	.053	.103
20	.097	.153

### Crimping

See table on preceding page for recommended M22520 series crimping tools, turret head or positioner selection settings according to contact size, part number and wire gauge size.

1. Insert stripped wire into contact crimp pot. Wire must be visible through inspection hole.
2. Using correct crimp tool and locator, cycle the tool once to be sure the indentors are open, insert contact and wire into locator. Squeeze tool handles firmly and completely to insure a proper crimp. The tool will not release unless the crimp indentors in the tool head have been fully actuated.
3. Release crimped contact and wire from tool. Be certain the wire is visible through inspection hole in contact.



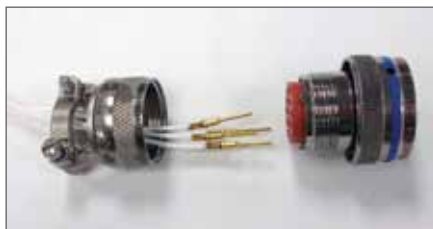
\*\* Min. diameters to ensure moisture proof assembly; max. diameters to permit use of metal removal tools.



Example M22520 Series Crimping Tool for size 20, 16 or 12 contacts, and has a positioner that can be dialed for each contact size.

### Contact Insertion

1. First remove hardware from the plug and receptacle and slide the hardware over wires in proper sequence.



2. Use proper plastic or metal insertion tool for corresponding contact. (Consult tool table on preceding page). Slide correct tool (with plastic tool use colored end) over wire insulation and slide forward until tool bottoms against rear contact shoulder.



Plastic tool with contact in proper position.



Metal tool with contact.

3. Next align the tool and contact up to the properly identified cavity at rear of connector plug. Use firm, even pressure; do not use excessive pressure. It is recommended to start at the center cavity. Contact must be aligned with grommet hole and not inserted at an angle. Push forward until contact is felt to snap into position within insert.



Continued on next page.

Note: All plastic tools are double-ended. The colored side is the insertion tool and the white side is the removal tool.

- III
- HD
- Dualok
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- I
- SJT
- Accessories
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- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter
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- 26482
- Matrix 2

- 83723 III
- Matrix | Pyle

- 26500
- Pyle

- 5015
- Crimp Rear Release Matrix

- 22992
- Class 1

- Back-Shell's

- Options
- Others

38999

III  
HD  
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Release  
Matrix

22992  
Class I

Back-  
Shells

Options  
Others

**Contact Insertion, cont.**

4. Remove tool and pull back lightly on wire, making sure contact stays properly seated and isn't dragged back with the tool. Repeat operation with remainder of contacts to be inserted, beginning with the center cavity and working outward in alternating rows.



5. After all contacts are inserted, fill any empty cavities with wire sealing plugs. (Refer to sealing plug charts for Series III on page 18, for Series I, II, and SJT on page 19.)



6. Reassemble plug or receptacle hardware - slide forward and tighten using connector pliers. Connector holding tools are recommended while tightening back accessories. When using strain relief, center wires at bar clamp. Slide clamp grommet into position and tighten clamp bar screws. When tightening screws, pressure should be applied in the same direction that clamp is threaded to rear threads of connector. When not using clamp grommet, build up wire bundle with vinyl tape so clamp bar will maintain pressure on wires.



CAUTION when inserting or removing contacts, do not spread or rotate tool tips.

**Contact Removal**

1. Remove hardware from plug or receptacle and slide hardware back along wire bundle.



2. Use proper plastic or metal removal tool for corresponding contact. (Consult tool table on page 277). Slide correct size tool over wire insulation.



Use white end of plastic tool for removal of contacts.

3. Insert plastic or metal removal tool into contact cavity until tool tips enter rear grommet and come to a positive stop. Hold tool tip firmly against positive stop on contact shoulder. Grip wire and simultaneously remove tool and contact. (On occasion, it may be necessary to remove tool, rotate 90° and reinsert.)



Removal of contacts with metal tool.