

## General Description

Delta 7/16 series connectors are medium size, 50  $\Omega$  impedance connectors with M29 x 1.5 metric threaded coupling. These rugged connectors conform to DIN 47223, and feature good power-handling capability along with VSWR as low as 1.07:1 @ 2 GHz. Because these connectors are designed to minimize signal distortion from intermodulation, silver plating is standard. The optional Albaloy plating provides greatly increased tarnish resistance while preserving the connectors' low intermodulation characteristics; optional nickel plating should only be specified when low intermodulation is not a concern in your system design.

As with our other connector series, Delta's customer-driven design results in 7/16 series connectors with practical and unique features that make your design and assembly process easier. Some of these include:

- VersaCom combination cable connectors (page 170) let you stock various body and cable attachment subassemblies, and assemble them into straight or right angle connectors as needed.
- PressMount receptacles (pages 171 and 172) mount securely in a single round hole, saving space on your components and reducing your housing fabrication costs.
- Panel receptacles with flange sizes to match the same hole pattern as standard type N connectors, letting you drill one hole pattern and mount BNC, N, SMA, TNC, or 7/16 series connectors as needed.
- All Delta 7/16 series plugs feature a coupling nut with a knurled surface for secure grip when hand-tightening, and a hex for tightening with a wrench. All can be supplied with full-length hex coupling nuts as well.

Our 7/16 series product line is still growing, so please call if you don't see what you need.

## 7/16 Configurations

Straight Cable Plugs .....	2
Right Angle Cable Plugs .....	2
Panel Cable Jacks .....	3
Bulkhead Cable Jacks .....	4
VersaCom Combination Cable Connectors .....	5
PressMount Jack Receptacles .....	6
Panel Jack Receptacles (Solder pot contact) .....	6
Panel Jack Receptacles (Threaded contact) .....	6
Panel Jack Receptacles (Tab contact) .....	7

Panel Jack Receptacles (Slotted contact) .....	7
Panel Jack Receptacles (Post contact) .....	7
PressMount Plug Receptacles .....	8
Panel Plug Receptacles (Solder pot contact) .....	8
Panel Plug Receptacles (Threaded contact) .....	8
Panel Plug Receptacles (Tab contact) .....	9
Panel Plug Receptacles (Slotted contact) .....	9
Panel Plug Receptacles (Post contact) .....	9
Adapters Within and Between Series .....	10

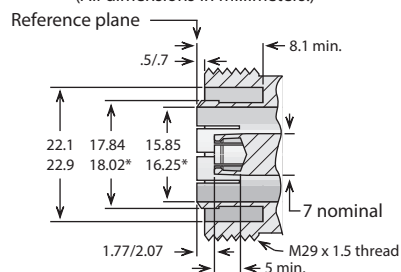
## 7/16 Specifications\*

### Electrical:

Nominal Impedance: 50 ohms.  
 Frequency Range: DC–7.5 GHz.  
 Voltage Rating: 2,700 volts RMS.  
 Dielectric Withstanding Voltage: 4,000 VRMS.  
 Insulation Resistance: 10,000 megohms.

### Jack Interface\*\*

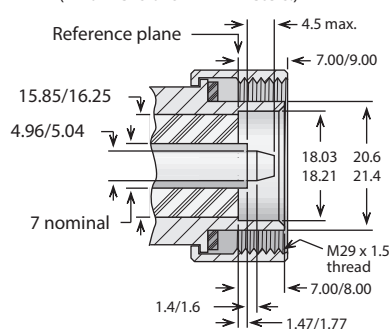
(All dimensions in millimeters.)



\* Dimensions before slotting.  
 Inner and outer contacts slotted and flared to meet performance requirements.

### Plug Interface\*\*

(All dimensions in millimeters.)



\*\*Some proportions altered to illustrate detail.

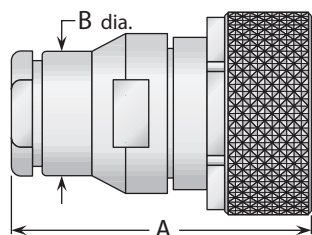
### Materials/Finishes:

Insulators: Teflon per ASTM D1710.  
 Male Contacts: Brass per ASTM B16.  
 Female Contacts: Spring Brass per ASTM B16, or phosphor bronze per ASTM B139  
 Contact Plating: Silver per ASTM B700, or Gold per MIL-DTL-45204.  
 Gaskets: Silicone rubber per ZZ-R-765, Class II, Grade 50.  
 Other Metal Parts: Brass per ASTM B16, plated Silver per ASTM B700.

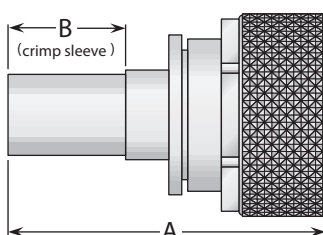
All other specifications are in accordance with the latest issues of DIN 47223 or other applicable IEC, VG, or CECC specifications.

\*These specifications are typical and may not apply to all connectors. Detailed specifications for individual connectors are available on request.

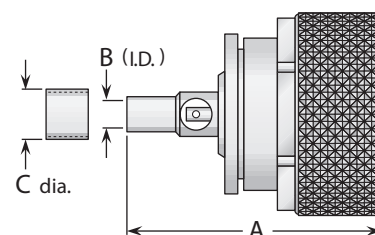
## Straight Plug - For Flexible & Semi-Rigid Cable



**Figure 1**  
(Clamp type for flexible cable)



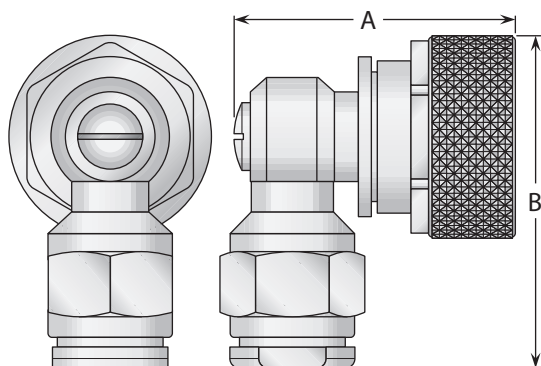
**Figure 2**  
(Crimp type for flexible cable)



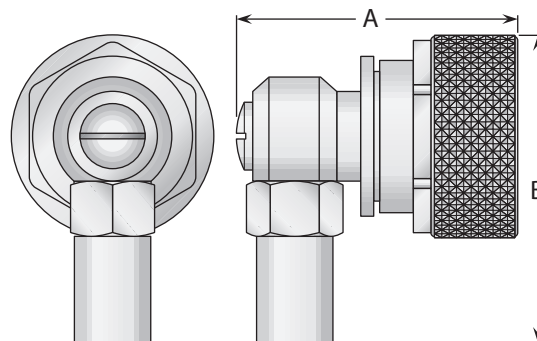
**Figure 3**  
(Solder type for semi-rigid cable)

Cable Group	Figure	Dimensions			Plating		Delta P/N	Assembly Procedure/ Trim Code
		A	B	C	Body	Contact		
2, 3	1	1.85	.750	—	Silver	Gold (C)	9201004A001-000	A/01
4	1	1.85	.750	—	Silver	Gold (C)	9201079A001-000	A/01
3, 4	2	1.89	.630	—	Silver	Silver (C)	9203005A001-000	***
12	3	1.72	.254	.387	Silver	Silver (C)	9201050A003-002	***
13	3	1.59	.148	.319	Silver	Silver (C)	9201031A003-000	***

## Right Angle Plug - For Flexible & Semi-Rigid Cable



**Figure 1**  
(Clamp type for flexible cable  
or solder-clamp for semi-rigid cable)



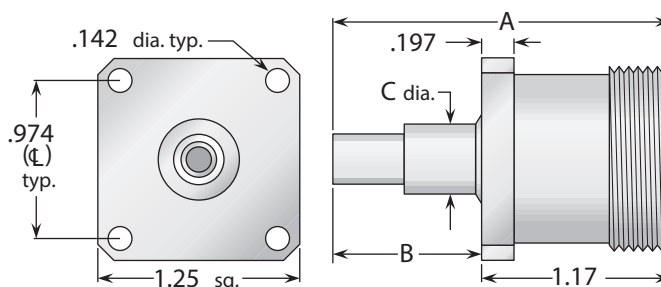
**Figure 2**  
(Crimp type for flexible cable)

Cable Group	Figure	Dimensions		Plating		Delta P/N	Assembly Procedure/ Trim Code
		A	B	Body	Contact		
2, 3	1	1.68	2.04	Silver	Silver (C)	9205005A001-002	A/35
4	1	1.68	2.04	Silver	Silver (C)	9205079A001-001	A/35
5, 6	1	1.68	1.53	Silver	Silver (C)	9205015A001-000	A/36
12	1	1.68	2.04	Silver	Silver (C)	9205050A003-001	***
13	1	1.68	1.53	Silver	Silver (C)	9205031A003-000	***
3, 4	2	1.68	1.86	Silver	Silver (C)	9207005A001-000	B/31
5	2	1.68	1.73	Silver	Silver (C)	9207017A001-000	B/31
6	2	1.68	1.73	Silver	Silver (C)	9207015A001-000	B/31

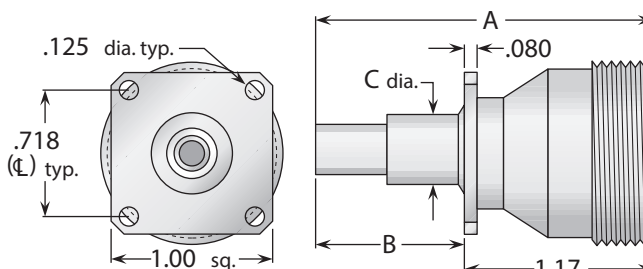
- See page 209 for cable groups.
- Cable assembly instructions start on page 210.
- \*\*\*Contact factory for cable assembly instructions.
- (C) in contact plating column indicates captive contact.
- See page 6 for alternate body plating information.

## Panel Mounted Jacks - For Flexible & Semi-Rigid Cable

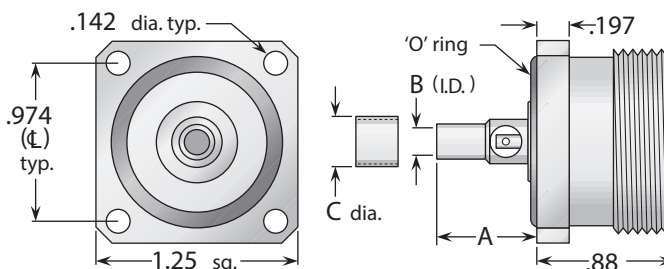
**Figure 1**  
(Crimp type for flexible cable,  
standard flange)



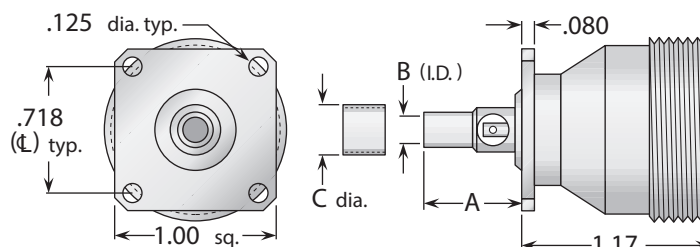
**Figure 2**  
(Crimp type for flexible cable,  
1" square flange; interchangeable  
with type N standard flange)



**Figure 3**  
(Solder type for semi-rigid cable,  
standard flange, with 'O' ring seal)



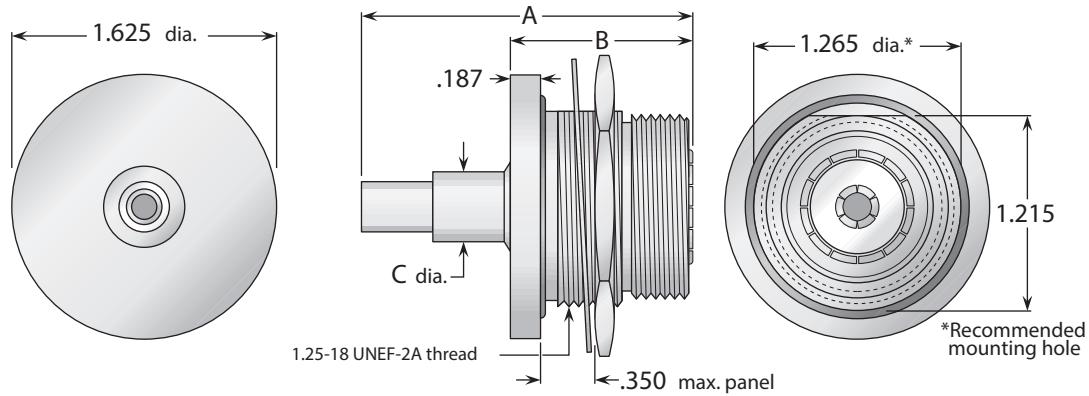
**Figure 4**  
(Solder type for semi-rigid cable,  
1" square flange; interchangeable  
with type N standard flange)



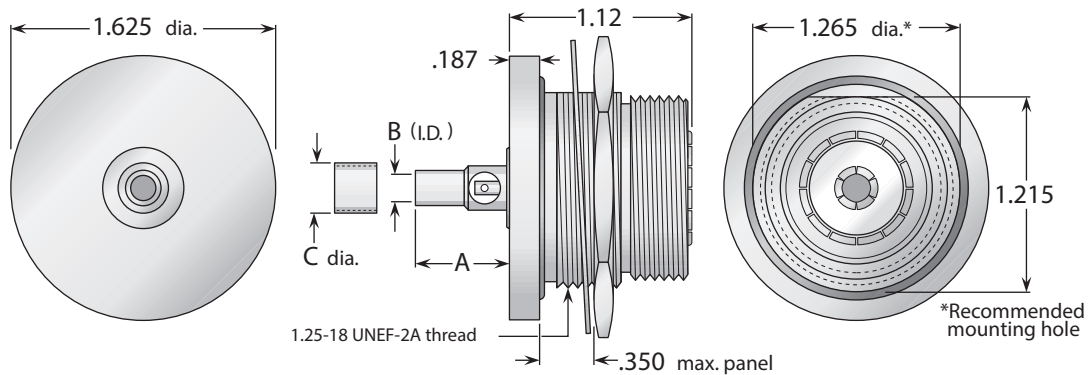
Cable Group	Figure	Dimensions			Plating		Delta P/N	Assembly Procedure/ Trim Code
		A	B	C	Body	Contact		
3, 4	1	2.34	1.17	.625	Silver	Silver	9255005A911-000	B/19
6	1	2.21	1.04	.625	Silver	Silver	9255015A911-000	B/19
3, 4	2	2.34	1.17	.625	Silver	Silver	9255005A331-000	B/19
6	2	2.21	1.04	.625	Silver	Silver	9255015A331-000	B/19
12	3	.600	.254	.387	Silver	Silver (C)	9211050A911-001	***
13	3	.600	.148	.319	Silver	Silver (C)	9211031A911-001	***
12	4	.600	.254	.387	Silver	Gold (C)	9211050A331-000	***
13	4	.600	.148	.319	Silver	Gold (C)	9211031A331-000	***

- See page 209 for cable groups.
- Cable assembly instructions start on page 210.
- \*\*\*Contact factory for cable assembly instructions.
- (C) in contact plating column indicates captive contact.
- See page 6 for alternate body plating information.
- 7/16 connectors with 1" square flanges have lower maximum power rating than standard-flange connectors—contact factory for details.

## Bulkhead Mounted Jacks - For Flexible & Semi-Rigid Cable



**Figure 1**  
(Crimp type for flexible cable)



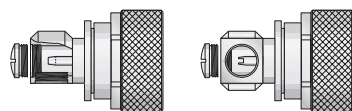
**Figure 2**  
(Solder type for semi-rigid cable)

Cable Group	Figure	Dimensions			Plating		Delta P/N	Assembly Procedure/ Trim Code
		A	B	C	Body	Contact		
3, 4	1	2.34	1.17	.625	Silver	Silver (C)	9219005A911-000	B/19
12	2	.470	.254	.387	Silver	Silver (C)	9216050A911-000	***
13	2	.600	.148	.319	Silver	Silver (C)	9216031A911-000	***

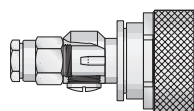
- See page 209 for cable groups.
- Cable assembly instructions start on page 210.
- \*\*\*Contact factory for cable assembly instructions.
- (C) in contact plating column indicates captive contact.
- See page 6 for alternate body plating information.

## The Delta Versatile Combination Connector System

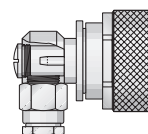
By purchasing VersaCom body assemblies and cable fittings, you can easily assemble straight or right angle connectors as needed—eliminating separate stocks of complete connectors with different body styles and cable attachments



Body assembly (plug type, side and bottom views)



Body assembly and clamp type cable fitting, combined in straight configuration



Same parts in right-angle configuration.

## VersaCom Body Assemblies

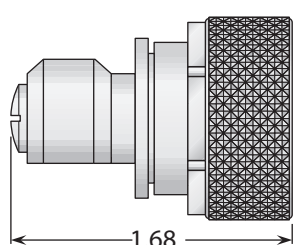


Figure 1

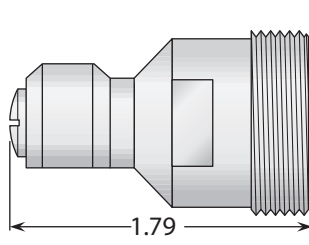


Figure 2

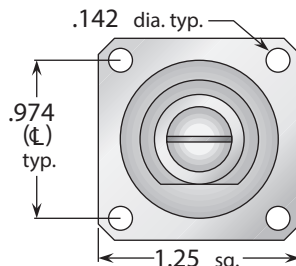


Figure 3

Body Style	Figure	Body Plating	Contact Plating	Delta P/N
Plug	1	Silver	Silver (C)	9203000A001-000
Jack	2	Silver	Silver (C)	9208000A001-000
Panel Jack	3	Silver	Silver (C)	9211000A911-001

## Cable Fittings For VersaCom Connectors

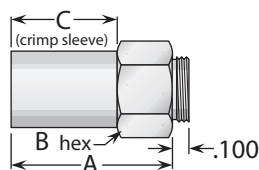


Figure 1  
(Crimp type for flexible cable)

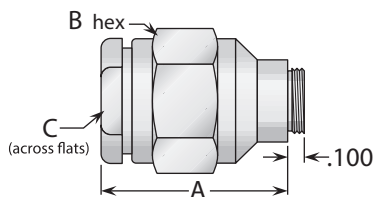


Figure 2  
(Clamp type for flexible cable or solder-clamp for semi-rigid cable)

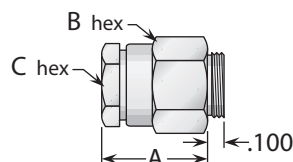


Figure 3  
(Clamp type for flexible cable or solder-clamp for semi-rigid cable)

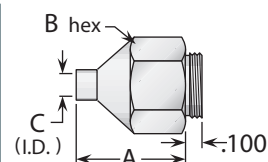
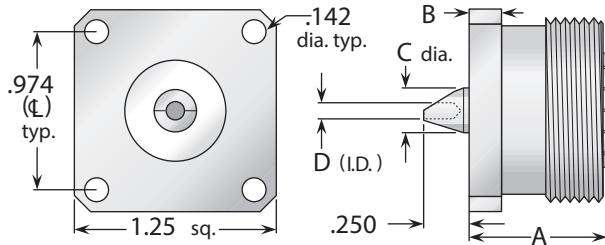


Figure 4  
(Direct solder for semi-rigid cable)

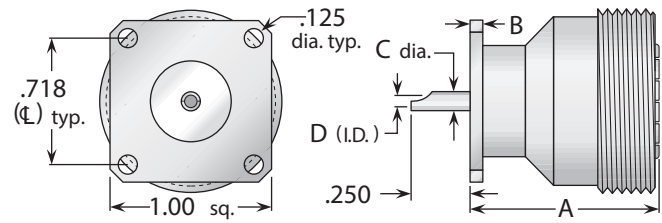
Cable Group	Figure	Dimensions			Plating	Delta P/N	Assembly Procedure/Trim Code
		A	B	C			
2	1	.960	.500	.630	Silver	10-10676-01-AG	B/31
2, 3	2	1.14	.750	.625	Silver	10-10681-01-AG	A/35
3, 4	1	.960	.500	.630	Silver	10-10677-01-AG	B/31
4	2	1.14	.750	.625	Silver	10-10682-01-AG	A/35
5, 6	3	.630	.500	.437	Silver	10-10683-01-AG	A/36
5	1	.830	.500	.500	Silver	10-10678-01-AG	B/31
6	1	.830	.500	.500	Silver	10-10679-01-AG	B/31
7	1	.830	.500	.500	Silver	10-10680-01-AG	B/31
7	3	.630	.500	.437	Silver	10-10684-01-AG	A/36
12	2	1.14	.750	.625	Silver	10-10685-01-AG	***
12	4	.630	.500	.254	Silver	10-10687-01-AG	***
13	3	.630	.500	.437	Silver	10-10686-01-AG	***
13	4	.630	.500	.143	Silver	10-10688-01-AG	***

- See page 209 for cable groups.
- Cable assembly instructions start on page 210.
- \*\*\*Contact factory for cable assembly instructions.
- (C) in contact plating column indicates captive contact.
- See page 6 for alternate body plating information.

## Jack Receptacles - Solder Pot Contact

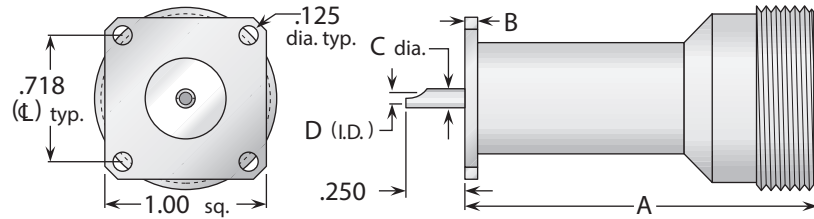


**Figure 1**  
(Standard flange)

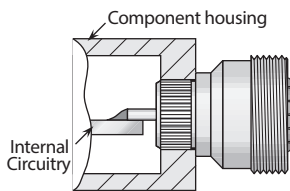


**Figure 2**  
(1" square flange, interchangeable with type N standard flange size)

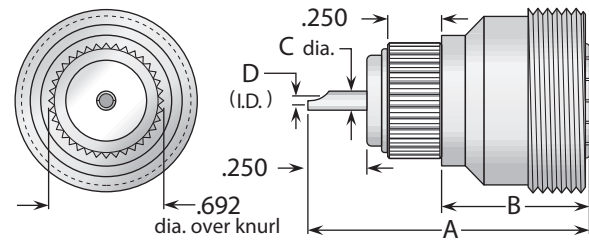
**Figure 3**  
(1" square flange, interchangeable with type N standard flange size)



### Delta PressMount Receptacles



These connectors eliminate the need for complicated mounting hole patterns and mounting hardware. They are simply pressed into a single through hole, and the precisely-engineered knurled mounting section provides retention strength greater than normal mating and unmating forces. An integral shoulder provides a positive stop when mounting.



**Figure 4**  
(PressMount)

Figure	Dimensions				Mounting Figure	Plating		Delta P/N
	A	B	C	D		Body	Contact	
1	.850	.197	.274	.100	See above	Silver	Silver (C)	9213000A911-003
2	1.17	.080	.120	.100	33	Silver	Gold (C)	9213000A911-004
3	2.17	.080	.120	.100	33	Silver	Gold (C)	9213000A911-010
4	1.42	.819	.120	.100	.688±.001 dia.	Silver	Gold (C)	9220000A911-000

## Panel Jack Receptacles - Threaded Contact

**Figure 1**  
(Standard flange)

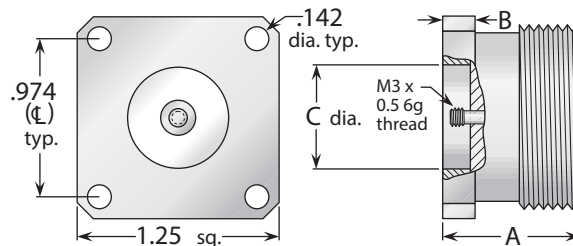


Figure	Dimensions			Mounting Figure	Plating		Delta P/N
	A	B	C		Body	Contact	
1	.850	.197	.630	See above	Silver	Silver (C)	9258000A911-000

- (C) in contact plating column indicates captive contact.
- See page 6 for alternate body plating information.
- All items are available with other flange sizes and contact configurations.

- 7/16 connectors with 1" square flanges have lower maximum power rating than standard-flange connectors—contact factory for details.



## Panel Jack Receptacles - Tab Contact

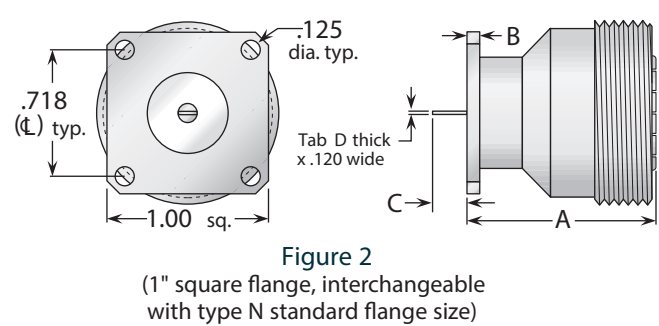
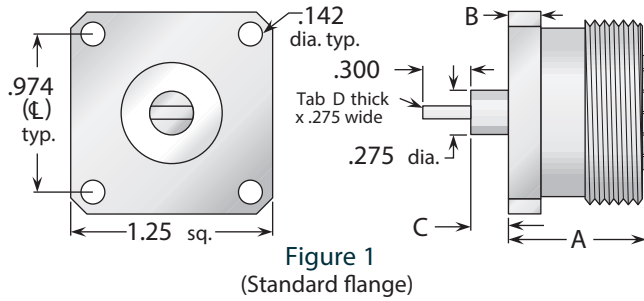


Figure	Dimensions				Mounting Figure	Plating		Delta P/N
	A	B	C	D		Body	Contact	
1	.850	.197	.200	.100	See above	Silver	Silver (C)	9258000A911-006
2	1.17	.080	.100	.005/.008	33	Silver	Gold (C)	9258000A331-000

## Panel Jack Receptacles - Slotted Contact

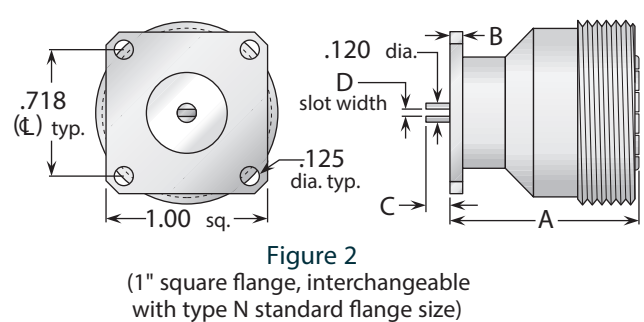
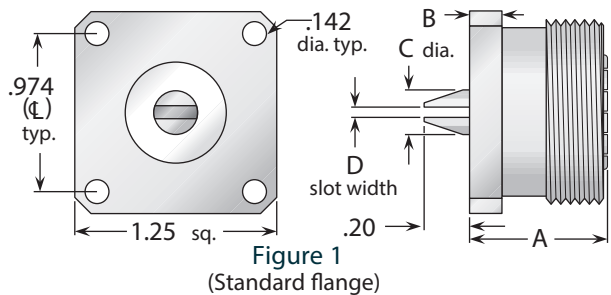


Figure	Dimensions				Mounting Figure	Plating		Delta P/N
	A	B	C	D		Body	Contact	
1	.850	.197	.276	.095	See above	Silver	Silver (C)	9258000A911-007
2	1.17	.080	.050	.013/.017	33	Silver	Gold (C)	9258000A331-010

## Panel Jack Receptacles - Post Contact

**Figure 1**  
(1" square flange, interchangeable with type N standard flange size)

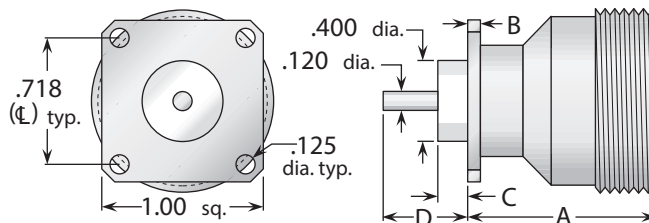
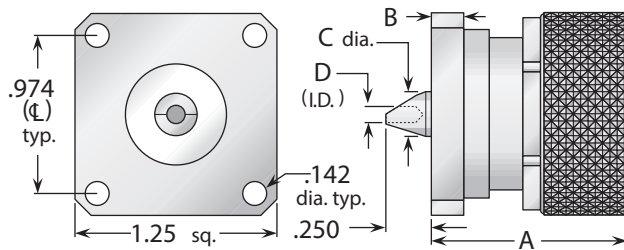


Figure	Dimensions				Mounting Figure	Plating		Delta P/N
	A	B	C	D		Body	Contact	
1	1.17	.080	.325	.500	33	Silver	Silver (C)	9258000A331-005
1	1.17	.080	.000	.750	33	Silver	Silver (C)	9258000A331-002
1	1.17	.080	.000	.562	33	Silver	Silver (C)	9258000A331-003

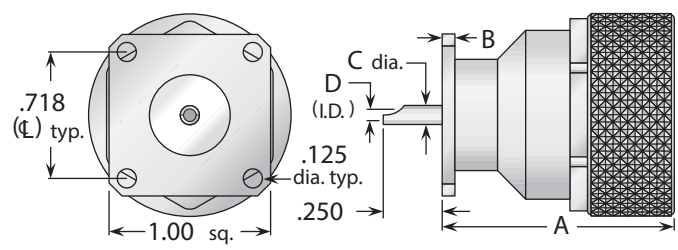
- (C) in contact plating column indicates captive contact.
- See page 6 for alternate body plating information.
- All items are available with other flange sizes and contact configurations.

• 7/16 connectors with 1" square flanges have lower maximum power rating than standard-flange connectors—contact factory for details.

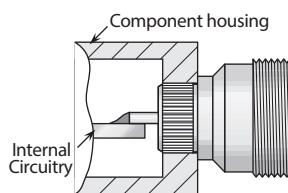
## Plug Receptacles - Solder Pot Contact



**Figure 1**  
(Standard flange)



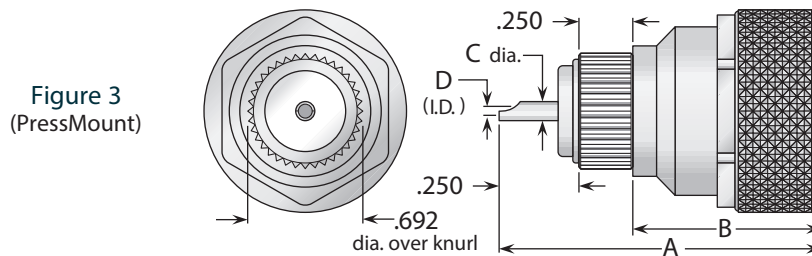
**Figure 2**  
(1" square flange, interchangeable  
with type N standard flange size)



### Delta PressMount Receptacles

These connectors eliminate the need for complicated mounting hole patterns and mounting hardware.

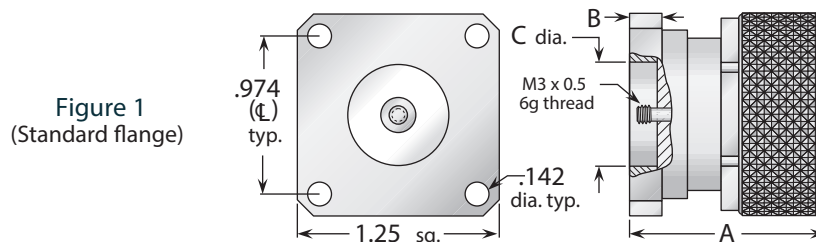
They are simply pressed into a single through hole, and the precisely-engineered knurled mounting section provides retention strength greater than normal mating and unmating forces. An integral shoulder provides a positive stop when mounting.



**Figure 3**  
(PressMount)

Figure	Dimensions				Mounting Figure	Plating		Delta P/N
	A	B	C	D		Body	Contact	
1	1.21	.197	.274	.100	See above	Silver	Silver (C)	9223000A911-000
2	1.40	.080	.120	.100	33	Silver	Gold (C)	9223000A911-003
3	1.65	1.05	.120	.100	.688±.001 dia.	Silver	Gold (C)	9224000A911-000

## Panel Plug Receptacles - Threaded Contact



**Figure 1**  
(Standard flange)

Figure	Dimensions			Mounting Figure	Plating		Delta P/N
	A	B	C		Body	Contact	
1	1.21	.197	.630	See above	Silver	Silver (C)	9223000A911-001

• (C) in contact plating column indicates captive contact. • See page 6 for alternate body plating information.

• All items are available with other flange sizes and contact configurations.

• 7/16 connectors with 1" square flanges have lower maximum power rating than standard-flange connectors—contact factory for details.



## Panel Plug Receptacles - Tab Contact

**Figure 1**  
(1" square flange, interchangeable with type N standard flange size)

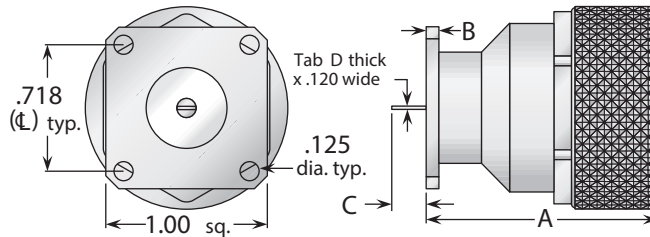
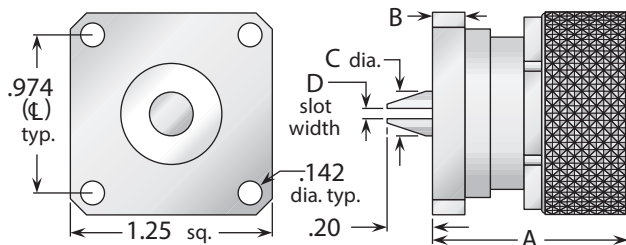
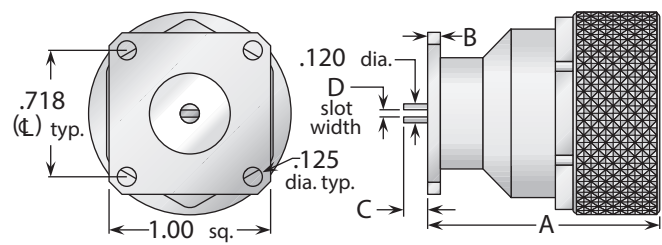


Figure	Dimensions				Mounting Figure	Plating		Delta P/N
	A	B	C	D		Body	Contact	
1	1.40	.080	.100	.005/.008	33	Silver	Gold (C)	9259000A331-000

## Panel Plug Receptacles - Slotted Contact



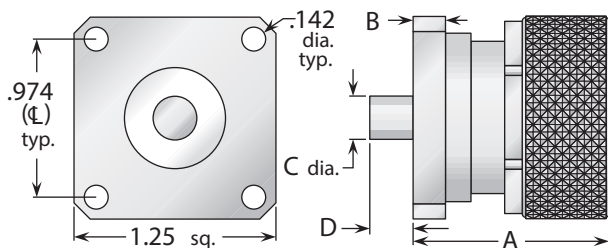
**Figure 1**  
(Standard flange)



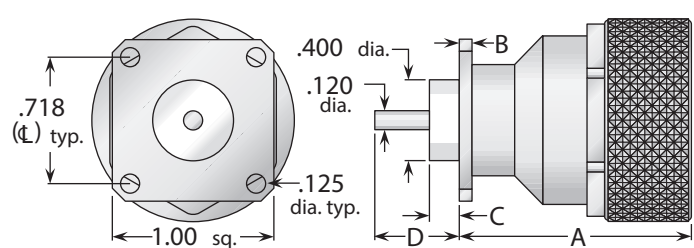
**Figure 2**  
(1" square flange, interchangeable with type N standard flange size)

Figure	Dimensions				Mounting Figure	Plating		Delta P/N
	A	B	C	D		Body	Contact	
1	1.21	.197	.276	.095	See above	Silver	Silver (C)	9223000A911-002
2	1.40	.080	.050	.013/.017	33	Silver	Gold (C)	9259000A331-006

## Panel Plug Receptacles - Post Contact



**Figure 1**  
(Standard flange)



**Figure 2**  
(1" square flange, interchangeable with type N standard flange size)

Figure	Dimensions				Mounting Figure	Plating		Delta P/N
	A	B	C	D		Body	Contact	
1	1.21	.197	.274	.250	See above	Silver	Silver (C)	9259000A911-004
2	1.40	.080	.325	.500	33	Silver	Silver (C)	9259000A331-007
2	1.40	.080	.000	.562	33	Silver	Gold (C)	9259000A331-001

- (C) in contact plating column indicates captive contact.
- See page 6 for alternate body plating information.
- All items are available with other flange sizes and contact configurations.

7/16 connectors with 1" square flanges have lower maximum power rating than standard-flange connectors—contact factory for details.

## Bulkhead Mounted Jack-Jack Adapter (Connects Two Plugs)

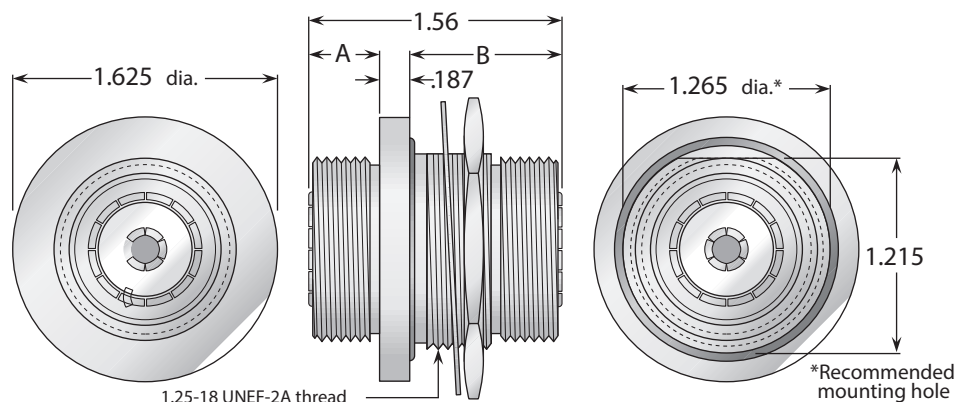


Figure 1

Figure	Dimensions		Max. Panel	Mounting Figure	Plating		Delta P/N
	A	B			Body	Contact	
1	.440	.933	.350	See above	Silver	Silver (C)	9226000A911-001

## 7/16 To N Adapters

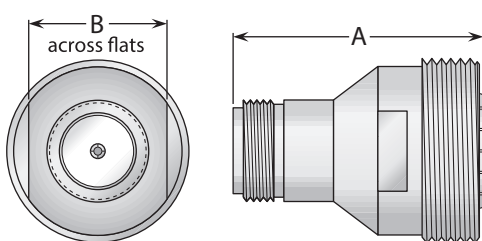


Figure 1  
(7/16 jack-N jack)

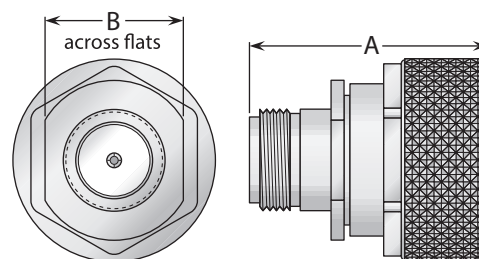


Figure 2  
(7/16 plug-N jack)

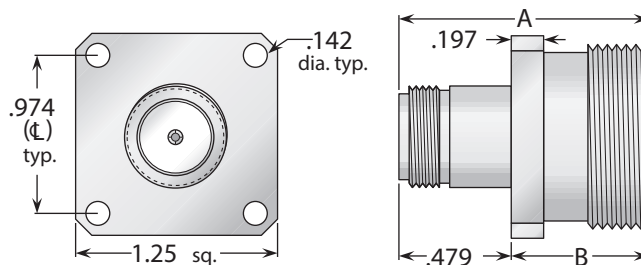


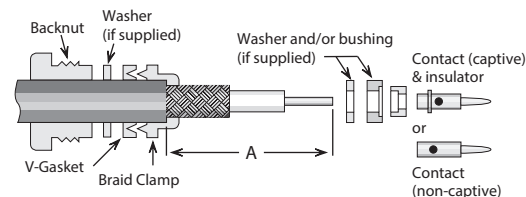
Figure 3  
(7/16 jack-N jack, panel mounted)

Figure	Dimensions		Plating		Delta P/N
	A	B	Body	Contact	
1	1.33	.937	Silver	Gold (C)	2228000A001-029
2	1.41	.875	Silver	Gold (C)	2234000A001-122
3	1.33	.850	Silver	Silver (C)	2225000A911-009

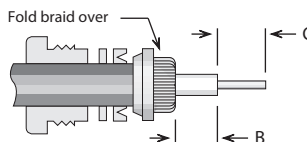
- (C) in contact plating column indicates captive contact.
- See page 6 for alternate body plating information.

## Assembly Procedure A

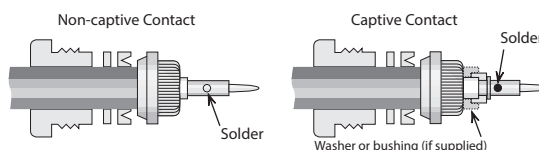
- 1) Trim cable jacket to dimension A.  
Slide backnut, washer, V-gasket, and braid clamp onto cable as shown.  
Cable jacket should bottom on step in braid clamp.



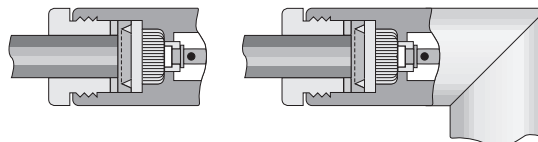
- 2) Comb braid wires out straight and fold back over front shoulder of braid clamp (braid wires should not overlap one another after folding). Trim braid wires flush with step of braid clamp. Trim cable dielectric and center conductor to dimensions B and C.



- 3) If support insulator is provided for RG-62 or 71 cable, insert into hollow in dielectric. Assemble rear bushing or washer (if supplied), rear insulator (if captive contact) and contact, and solder contact to center conductor. Rear of contact should be flush with cable dielectric end. For right angle connectors with access cap, omit this step entirely.



- 4) Insert prepared cable and hardware into body and tighten backnut. For right angle connectors with access cap, solder center conductor into slot in contact and tighten access cap.

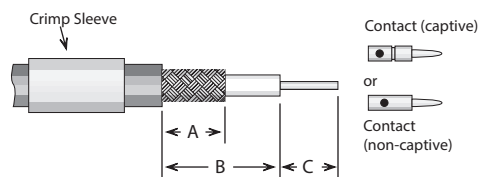


## Trim Codes For Assembly Procedure A

Code	A	B	C	Code	A	B	C
A/01	.375 (3/8)	.047 (3/64)	.203 (13/64)	A/20	.375 (3/8)	.047 (3/64)	.172 (11/64)
A/02	.375 (3/8)	.109 (7/64)	.203 (13/64)	A/21	.500 (1/2)	.313 (5/16)	.172 (11/64)
A/03	.438 (7/16)	.250 (1/4)	.188 (3/16)	A/22	.375 (3/8)	.188 (3/16)	.141 (9/64)
A/04	.281 (9/32)	.047 (3/64)	.125 (1/8)	A/23	.438 (7/16)	.078 (5/64)	.172 (11/64)
A/05	.313 (5/16)	.125 (1/8)	.109 (7/64)	A/24	.500 (1/2)	.094 (3/32)	.141 (9/64)
A/06	.594 (19/32)	.391 (25/64)	.156 (5/32)	A/25	.438 (7/16)	.141 (9/64)	.172 (11/64)
A/07	.375 (3/8)	.047 (3/64)	.125 (1/8)	A/26	.625 (5/8)	.281 (9/32)	.250 (1/4)
A/08	.281 (9/32)	.109 (7/64)	.094 (3/32)	A/27	.688 (11/16)	.281 (9/32)	.125 (1/8)
A/09	.344 (11/32)	.109 (7/64)	.094 (3/32)	A/28	.656 (21/32)	.297 (19/64)	.250 (1/4)
A/10	.406 (13/32)	.109 (7/64)	.203 (13/64)	A/29	.688 (11/16)	.125 (1/8)	.313 (5/16)
A/11	.500 (1/2)	.281 (9/32)	.156 (5/32)	A/30	.688 (11/16)	.469 (15/32)	.156 (5/32)
A/12	.343	.040	.219	A/31	.700 (21/32)	.453 (29/64)	.250 (1/4)
A/13	.375 (3/8)	.125 (1/8)	.156 (5/32)	A/32	.313 (5/16)	.078 (5/64)	.188 (3/16)
A/14	.355	.090	.188 (3/16)	A/33	.250 (1/4)	.078 (5/64)	.094 (3/32)
A/15	.425	.094 (3/32)	.259	A/34	.250 (1/4)	.062 (1/16)	.109 (7/64)
A/16	.328 (21/64)	.094 (3/32)	.188 (3/16)	A/35	.837	.575	.150
A/17	.375 (3/8)	.109 (7/64)	.125 (1/8)	A/36	.450	.250	.150
A/18	.375 (3/8)	.062 (1/16)	.172 (11/64)	A/37	.281	.038	.188
A/19	.375 (3/8)	.188 (3/16)	.094 (3/32)	A/38	.281	.069	.156

## Assembly Procedure B

- 1) Trim cable per chart. Slide crimp sleeve back onto cable.



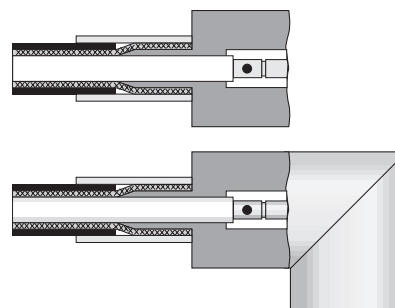
- 2) If support insulator is provided for RG-62 or 71 cable, insert into hollow in dielectric. Solder contact onto center conductor; back of contact flush with trimmed end of cable dielectric (omit this step for right angle connectors with access caps). Flare cut end of braid slightly by rotating dielectric.



- 3) Insert cable/contact into rear of body, with all braid wires on outside of crimp tail.
- For captive contact connectors, push cable in until contact snaps into insulator.
  - For noncaptive contact connectors, push cable in until cable dielectric bottoms in connector.
  - For right angle or tee connectors with access caps, push cable in until end of braid touches connector body shoulder, and cable center conductor rests in contact slot.

Trim excess braid wires even with shoulder of body. Slide crimp sleeve forward until flush with body and crimp (see page 211 for hex die sizes).

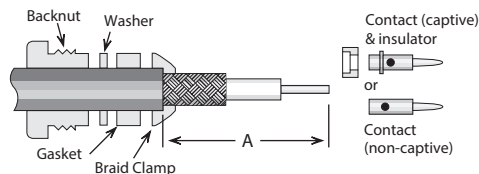
For right angle or tee connectors with access caps: Solder center conductor into contact slot, assemble insulator disc (if supplied), then press cap into body until seated or screw into place.



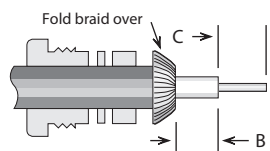
### Trim Codes For Assembly Procedure B

Code	A	B	C	Code	A	B	C
B/01	.320	.470	.140	B/20	.250	.375	.156
B/02	.422	.578	.172	B/21	.425	.550	.156
B/03	.406	.500	.187	B/22	.375	.500	.156
B/04	.285	.505	.140	B/23	.281	.469	.125
B/05	.335	.460	.140	B/24	.250	.700	.109
B/06	.187	.437	.219	B/25	.343	.775	.125
B/07	.422	.610	.156	B/26	.343	.437	.109
B/08	.422	.562	.219	B/27	.313	.437	.187
B/09	.313	.610	.203	B/28	.219	.271	.078
B/10	.280	.436	.187	B/29	.200	.320	.060
B/11	.430	.542	.156	B/30	.500	.650	.219
B/12	.300	.434	.156	B/31	.350	.840	.150
B/13	.300	.447	.156	B/32	.175	.260	.095
B/14	.420	.645	.187	B/33	.195	.270	.045
B/15	.300	.420	.120	B/34	.150	.250	.105
B/16	.312	.609	.125	B/35	.195	.280	.170
B/17	.250	.500	.156	B/36	.150	.325	.090
B/18	.437	.562	.109	B/37	.195	.295	.075
B/19	.343	.437	.156	B/38	.150	.225	.095
				B/39	.250	.300	.135

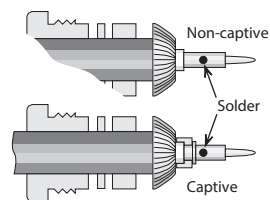
## Assembly Procedure C



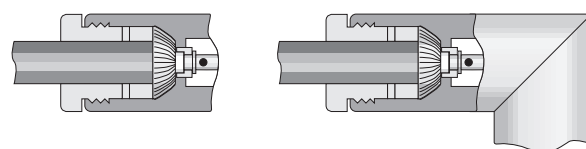
- 1) Trim cable jacket to dimension A. Slide backnut, washer, gasket, and braid clamp onto cable as shown. Cable jacket should bottom on step in braid clamp.



- 2) Comb braid wires out straight and fold back over front shoulder of braid clamp (braid wires should not overlap one another after folding). Trim braid wires flush with edge of braid clamp. Trim cable dielectric and center conductor to dimensions B and C.



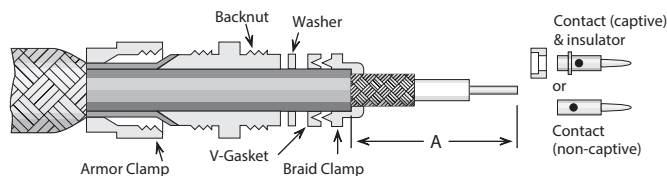
- 3) If support insulator is provided for RG-62 or 71 cable, insert into hollow in dielectric. Assemble rear insulator (if captive contact) and contact, and solder contact to center conductor. Rear of contact should be flush with cable dielectric end.



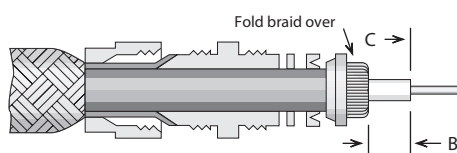
- 4) Insert prepared cable and hardware into body and tighten backnut. For right angle connectors with access cap, solder cable center conductor to slot in contact and tighten access cap.

Trim Codes			
Code	A	B	C
C/01	.656 (21/32)	.141 (9/64)	.250 (1/4)
C/02	.500 (1/2)	.125 (1/8)	.250 (1/4)
C/03	.450	.136	.187
C/04	.375 (3/8)	.109 (7/64)	.125 (1/8)
C/05	.375 (3/8)	.062 (1/16)	.250 (1/4)
C/06	.500 (1/2)	.188 (3/16)	.125 (1/8)
C/07	.575	.438	.094
C/08	.625 (5/8)	.141 (9/64)	.219 (7/32)

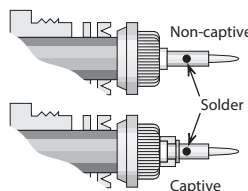
## Assembly Procedure D



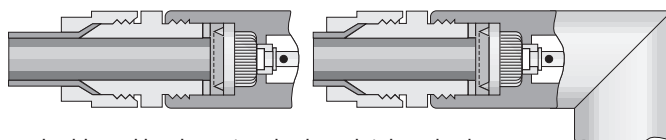
- 1) Slide armor clamp over cable. Push armor back to expose cable end. Slide backnut, washer (if supplied), gasket, and braid clamp onto cable as shown. Cable jacket should bottom on step in braid clamp. Trim cable jacket to dimension A.



- 2) Comb braid wires out straight and fold back over front shoulder of braid clamp (braid wires should not overlap one another after folding). Trim braid wires flush with edge of braid clamp. Trim cable dielectric and center conductor to dimensions B and C.



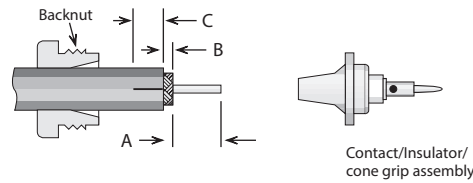
- 3) Assemble rear insulator (if captive contact) and contact, and solder contact to center conductor. Rear of contact should be flush with cable dielectric end.



- 4) Insert prepared cable and hardware into body and tighten backnut. Trim armor to fit between armor clamp and braid clamp. Tighten armor clamp.

Trim Codes			
Code	A	B	C
D/01	.375 (3/8)	.047 (3/64)	.250 (1/4)
D/02	.500 (1/2)	.188 (3/16)	.219 (7/32)
D/03	.344 (11/32)	.047 (3/64)	.219 (7/32)
D/04	.313 (5/16)	.047 (3/64)	.172 (11/64)
D/05	.625 (5/8)	.281 (9/32)	.250 (1/4)
D/06	.313 (5/16)	.062 (1/16)	.109 (7/64)

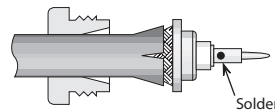
## Assembly Procedure E



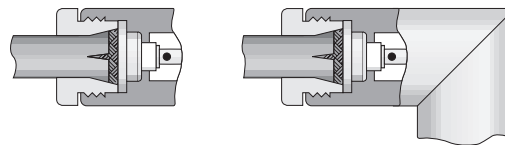
- 1) Slide backnut onto cable as shown. Trim cable to dimensions A and B as shown. Slit jacket to dimension C in two places, 180° apart.

Trim Codes

Code	A	B	C
E/01	.250 (1/4)	.141 (9/64)	.313 (5/16)
E/02	.219 (7/32)	.063 (1/16)	.250 (1/4)
E/03	.250 (1/4)	.031 (1/32)	.250 (1/4)



- 2) Slide cone/insulator/contact assembly under braid until braid is flush with shoulder. Solder contact to center conductor.

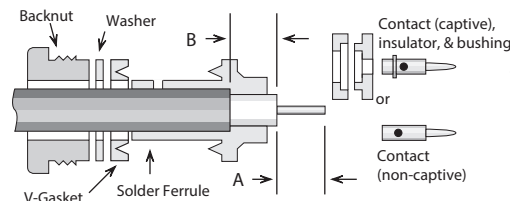


- 3) Insert prepared cable and hardware into body; tighten assembly by holding nut stationary and turning body.

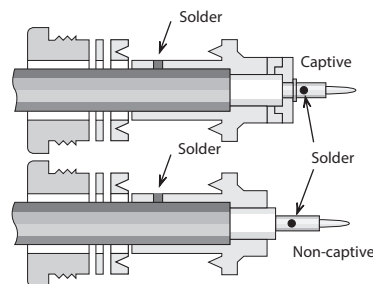
## Assembly Procedure F

Trim Codes

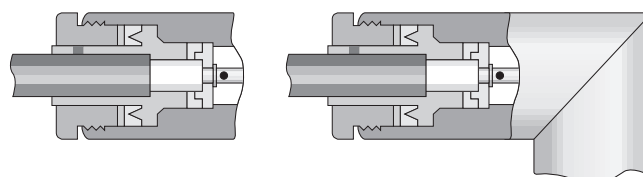
Code	A	B
F/01	.250 (1/4)	.219 (7/32)
F/02	.250 (1/4)	.172 (11/64)
F/03	.188 (3/16)	.188 (3/16)
F/04	.109 (7/64)	.265 (17/64)
F/05	.156 (5/32)	.250 (1/4)
F/06	.219 (7/32)	.250 (1/4)
F/07	.156 (5/32)	.172 (11/64)
F/08	.109 (7/64)	.219 (7/32)



- 1) Trim cable per chart. Slide backnut, washer, v-gasket, and solder ferrule onto cable. Trimmed end of cable jacket should bottom on step in solder ferrule.



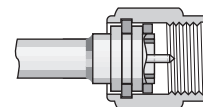
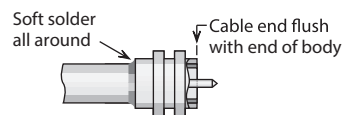
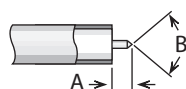
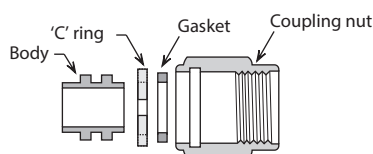
- 2) Solder ferrule to cable jacket as shown. Retrim cable dielectric to proper length if it has extruded from soldering heat. Slide bushing and rear insulator over cable dielectric if captive contact. Solder contact onto center conductor; back of contact flush with trimmed end of cable dielectric.



- 3) Insert prepared cable and hardware into body and tighten backnut.



## Assembly Procedure G



Trim Codes

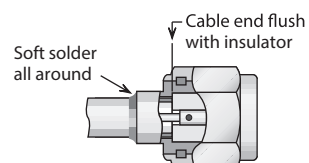
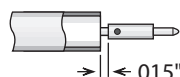
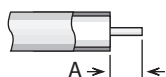
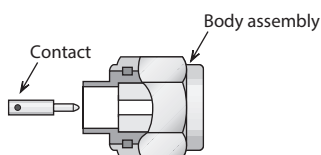
Code	A	B
G/01	.090	70-90°

1) Trim cable as shown. Remove any burrs from jacket and center conductor.

2) Soft solder cable jacket to body, making sure that end of cable is flush with end of body. After solder joint has cooled, retrim any protruding dielectric flush with end of body.

3) Assemble 'C' ring and gasket to body. Compress 'C' ring and slide body assembly into coupling nut until ring is seated in groove.

## Assembly Procedure H



Trim Codes

Code	A
H/01	.090
H/02	.060
H/03	.115
H/04	.150

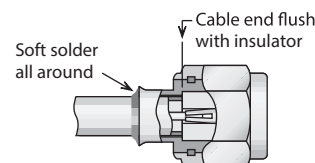
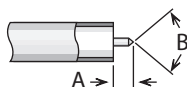
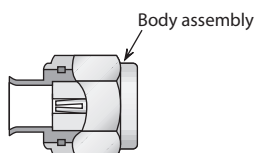
1) Trim cable as shown. Remove any burrs from jacket and center conductor.

2) Solder contact to center conductor, fixturing to maintain gap as shown. Remove any excess solder from outside of contact.

3) Insert cable into body and solder cable jacket to body, keeping end of cable flush with insulator as shown.

Plug body assembly and contact shown; procedure is identical for jack connectors.

## Assembly Procedure I



Trim Codes

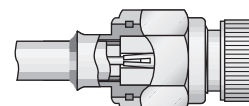
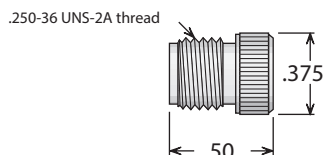
Code	A	B
I/01	.090	70-90°

1) Trim cable as shown. Remove any burrs from jacket and center conductor.

2) Insert cable into body and solder cable jacket to body, keeping end of cable flush with insulator as shown.

Plug body assembly and contact shown; procedure is identical for jack connectors.

### Cable Positioner



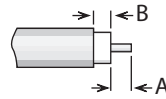
For .085" Cable:  
P/N 63-10072-2

For .141" Cable:  
P/N 63-10072-1

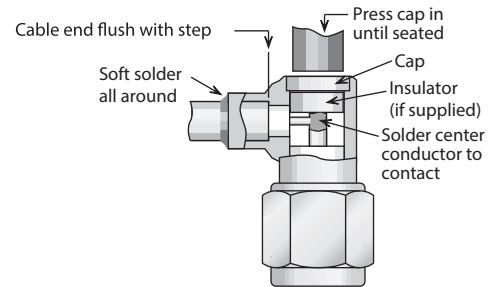
Using this positioner in the final step of assembly procedure H or I (for plugs only) will ensure that the contact and insulator are retained in the proper position to meet MIL-C-39012 requirements. The positioner should be screwed finger-tight into the mating end of the connector (as shown at right) before the cable jacket is soldered to the body assembly.

## Assembly Procedure J

Trim Codes		
Code	A	B
J/01	.109	.047
J/02	.059	.039
J/03	.059	.079
J/04	.050	.059

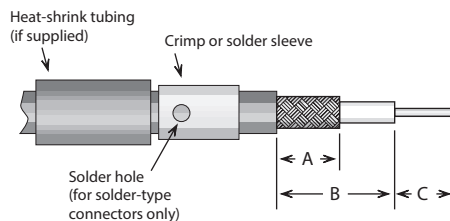


- 1) Trim cable as shown. Remove any burrs from jacket and center conductor.



- 2) Soft solder cable jacket to body, making sure that end of cable is flush with step in body. Solder center conductor into contact slot, assemble insulator disc (if supplied), then press cap into body until seated or screw into place.

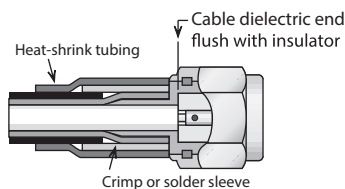
## Assembly Procedure K



- 1) Trim cable per chart. Slide crimp (or solder) sleeve and heat-shrink tubing (if supplied) back onto cable.



- 2) Solder contact onto center conductor, fixturing to maintain gap as shown. Flare cut end of braid slightly by rotating dielectric.



- 3) Insert cable/contact into rear of body, with all braid wires on outside of crimp tail. Push cable in until cable dielectric bottoms in connector. Trim excess braid wires even with shoulder of body. Slide crimp sleeve forward until flush with body and crimp (see page 211 for hex die sizes). (For solder-type connectors, solder braid to body and sleeve through hole in sleeve.) Slide heat-shrink tubing into place and shrink with hot-air gun.

Plug body assembly and contact shown; procedure is identical for jack connectors.

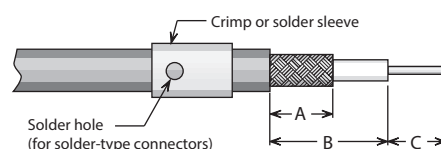
Trim Codes							
Code	A	B	C	Code	A	B	C
K/01	.250	.270	.110	K/07	.220	.290	.135
K/02	.200	.270	.140	K/08	.420	.620	.090
K/03	.225	.290	.110	K/09	.090	.135	.160
K/04	.225	.330	.110	K/10	.250	.415	.115
K/05	.250	.330	.110	K/11	.250	.400	.150
K/06	.250	.315	.095	K/12	.282	.390	.140

## Assembly Procedure L

### Trim Codes

Code	A	B	C
L/01	.250	.438	.109
L/02	.125	.219	.109
L/03	.234	.344	.109
L/04	.195	.270	.050
L/05	.095	.155	.050
L/06	.281	.390	.070

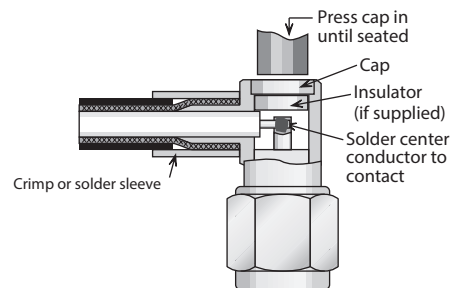
- 1) Trim cable per chart. Slide crimp (or solder) sleeve onto cable.



- 2) Insert cable into rear of body, with all braid wires on outside of crimp tail. Push cable in until end of braid touches connector body shoulder and center conductor rests in contact slot.

Slide crimp sleeve forward until flush with body and crimp (see page 211 for hex die sizes). (For solder-type connectors, solder braid to body and sleeve through hole in sleeve.)

Solder center conductor into contact slot, assemble insulator disc (if supplied), then press cap into body until seated or screw into place.

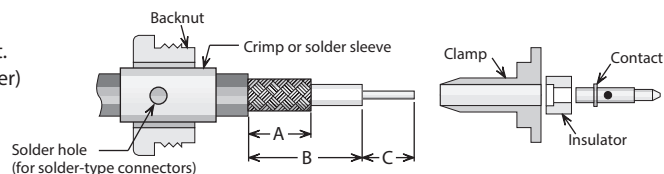


## Assembly Procedure M

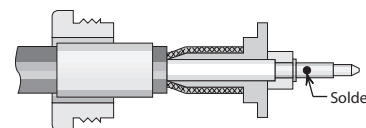
### Cable Trim Codes

Code	A	B	C
M/01	.281	.390	.140

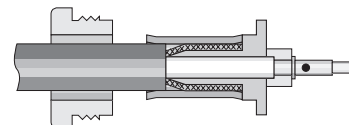
- 1) Trim cable per chart. Slide crimp (or solder) sleeve and backnut onto cable.



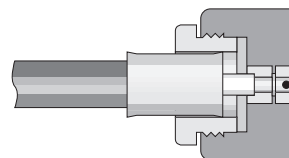
- 2) Flare cut end of braid slightly by rotating dielectric. Insert cable into rear of clamp, with all braid wires on outside of crimp tail. Slide insulator over cable dielectric until it is flush with front of clamp, and cable insulation bottoms inside insulator. Slide contact onto center conductor, with contact shoulder flush with front of insulator. Solder contact to center conductor.



- 3) Slide crimp sleeve forward until flush with clamp shoulder; crimp as close to shoulder as possible. (see page 211 for hex die sizes). (For solder-type connectors, solder braid to body and sleeve through hole in sleeve.)



- 4) Insert prepared cable into back of body. Slide nut forward and tighten to 12-15 inch-pounds.



## Crimp Tools For Flexible Cable

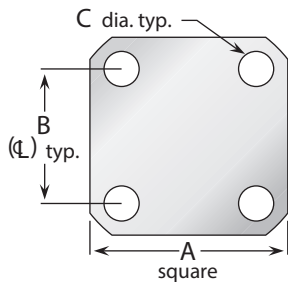


\* For Delta cable groups. See MIL-PRF-39012 specifications for die sizes used with M39012 cable groups.

Frame only—P/N M22520/5-01 —Use with interchangeable dies listed below.

Cable Group*	Hex Die Size	Die Set P/N	Closure
2, 3, 4	.429 hex, .400 wide	M22520/5-61	A
5, 6	.213 hex, .400 wide	M22520/5-19	B
7	.255 hex, .400 wide	M22520/5-19	A
9	.128 hex, .400 wide	M22520/5-35	B
10	.151 hex, .400 wide	M22520/5-37	B
11	.105 hex, .400 wide	M22520/5-33	B

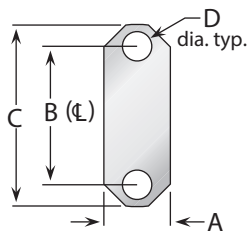
## Connector Flanges (Panel Mounted Connectors)



4-hole flanges

Figure	A	B	C
04	1/2	.360	.089
05	1/2	.340	.102
07	11/16	.500	#3-56 tap
08	11/16	.500	.136
09	11/16	.500	.125
10	11/16	.500	.120
12	11/16	.500	.109
18	3/4	.531	.136
26	1	.718	#6-32 tap
27	1	.718	#4-40 tap
30	1	.718	.166
32	1	.718	.136
32A	1	.718	.136*
33	1	.718	.125
34	1 3/32	.812	.150
36	1 3/16	.906	#6-32 tap
39	1 3/16	.906	.152
40	1 3/16	.906	.125
45	2	1.437	.257
91	.375	.250	.067
91A	.375	.232	.093

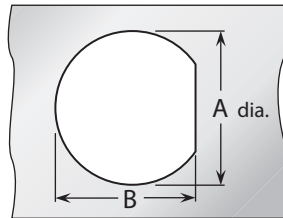
\* Countersunk to .245 dia.



2-hole flanges

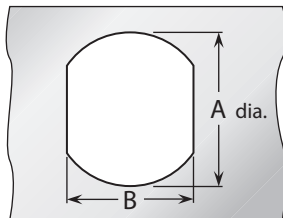
Figure	A	B	C	D
92	.223	.481	.625	.102
92A	.260	.481	.625	.102
95	.640	1.015	1.30	.125

## Panel Cutouts (Bulkhead Mounted Connectors)



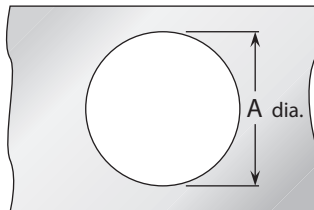
D-Hole

Figure	A	B
51	.755	.723
54	.630	.598
55	.630	.583
57	.557	.531
59	.505	.473
62	.442	.410
63	.407	.362
65	.380	.348
66	.319	.292
67	.255	.236
68	.195	.176



Double D-Hole

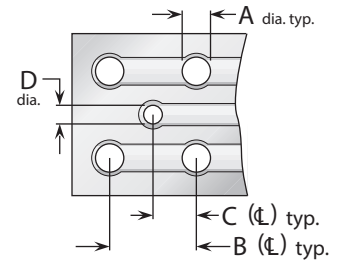
Figure	A	B
69	.755	.692
72	.630	.536
75	.380	.341
84	.319	.278



Round Hole

Figure	A
82	.255
89	.380

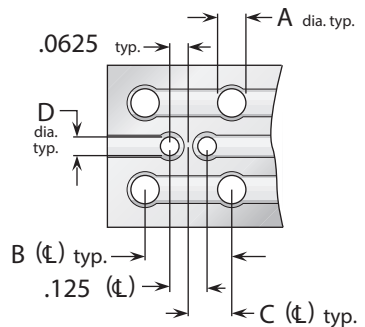
## P.C. Board Drilling



(PCB traces are shown for illustrative purpose only, and are not representative of actual circuitry.)

Coaxial connectors

Figure	A	B	C	D
PCB01	.067	.400	.200	.045
PCB02	.045	.500	.250	.045
PCB03	.067	.300	.150	.035
PCB05	.067	.200	.100	.055
PCB06	.067	.200	.100	.045
PCB07	.045	.177	.088	.045
PCB08	.032	.100	.050	.032



(PCB traces are shown for illustrative purpose only, and are not representative of actual circuitry.)

Twinax Connectors

Figure	A	B	C	D
PCB04	.045	.500	.250	.045

## Delta Cable Groups

Group	Cables
1	1A RG-5, 5A, 5B, 21, 21A; M17/73, /162
	1B RG-6, 6A; M17/2
	1C RG-143, 143A, 212, 222; M17/73, /112, /162
2	2A RG-8, 8A, 213; M17/74
	2B RG-11, 11A; M17/6
3	3A RG-9, 9A, 9B, 214; M17/75
	3B RG-13A, 216; M17/77
	3C RG-225; M17/127
4	RG-393; M17/127
5	RG-58, 58A, 58C, 141, 141A; M17/28, /111
6	6A RG-55A, 142, 142A, 223, 400; M17/60, /84, /128
	6B RG-55, 55B, 142B; M17/60, /84
7	7A RG-59, 59A, 59B, 62, 62A, 62B, 62C, 210; M17/29, /30, /97
	7B RG-71, 71A, 71B; M17/90
8	8A RG-122; M17/54
	8B RG-180, 180A, 180B, 195; M17/95, /137
9	9A RG-174, 188, 188A, 316; M17/152
	9B RG-179A, 179B, 187, 187A; M17/94, /136
10	Double-Shielded RG-174, 316; M17/152
11	RG-178, 178A, 178B, 196, 196A; M17/93
12	.250" semi-rigid; RG-401; M17/129
13	.141" semi-rigid; RG-402; M17/130
14	.085" semi-rigid; RG-405; M17/133
15	RG-10, 12, 215; M17/6, /74
16	RG-14A, 217; M17/78, /165
17	RG-17A, 218
18	RG-18A, 219
19	RG-115A
20	RG-118A, 228A
21	RG-126
22	RG-302
23	RG-303
24	RG-304
25	Special 8X cable; contact factory for details.
26	Belden 8281
27	RG-108, 108A; M17/45
28	RG-22, 22A, 22B; M17/15
29	Belden 9207; Dearborn 6207; IBM 7362211
30	M17/176
31	AT&T 735A

## Cable Group Finder

Cable	Group	Cable	Group
RG-5, 5A, B	1A	RG-225	3C
RG-6, 6A	1B	RG-228A	20
RG-8, 8A	2A	RG-302	22
RG-9, 9A, B	3A	RG-303	23
RG-10	15	RG-304	24
RG-11, 11A	2B	RG-316	9A
RG-12	15	RG-316DS	10
RG-13A	3B	RG-393	4
RG-14A	16	RG-400	6A
RG-17A	17	RG-401	12
RG-18A	18	RG-402	13
RG-21, 21A	1A	RG-405	14
RG-22, 22A, B	28	M17/2	1B
RG-55, 55B	6B	M17/6	2B
RG-55A	6A	M17/15	28
RG-58, 58A, C	5	M17/28	5
RG-59, 59A, B	7A	M17/29	7A
RG-62, 62A, B, C	7A	M17/30	7A
RG-71, 71A, B	7B	M17/45	27
RG-108, 108A	27	M17/73	1A
RG-115A	19	M17/162	1A
RG-118A	20	M17/112	1C
RG-122	8A	M17/74	2A
RG-126	21	M17/75	3A
RG-141, 141A	5	M17/127	3C
RG-142, 142A	6A	M17/77	3B
RG-142B	6B	M17/60	6A
RG-143, 143A	1C	M18/84	6A
RG-174	9A	M17/128	6A
RG-174DS	10	M17/97	7A
RG-178, 178A, B	11	M17/54	8A
RG-179A, 179B	9B	M17/95	8B
RG-180, 180A, B	8B	M17/137	8B
RG-187, 187A	9B	M17/152	9A
RG-188, 188A	9A	M17/93	11
RG-195	8B	M17/129	12
RG-196, 196A	11	M17/130	13
RG-210	7A	M17/133	14
RG-212	1C	M17/78	16
RG-213	2A	M17/165	16
RG-214	3A	M17/176	30
RG-215	15	AT&T 735A	31
RG-217	16	Belden 8281	26
RG-218	17	Belden 9207	29
RG-219	18	Dearborn 6207	29
RG-222	1C	IBM 7362211	29
RG-223	6A		

Note: MIL-PRF-39012 QPL connectors have cable groups defined by the MIL specification, not the Delta cable groups shown here. See page 185 for M39012 cable groups.

## Warranty

We warrant our parts to be free of defects and workmanship for one year from purchase. During that time we will repair or replace (at our option) any parts found to be defective. The warranty does not apply to parts that have been modified, used in conditions exceeding Seller's, or military specifications, or disassembled. We will not, under any circumstances, be responsible for consequential or incidental damages or installation costs. No other warranties apply, and no other liability may be assumed or extended by representatives or distributors. The terms of the applicable warranty or warranties, as the case may be, as set forth herein are the sole and exclusive warranty terms that shall have any force or effect in the any product order, resulting from the quotation and such terms and in lieu of all other warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose, which are hereby expressly excluded.



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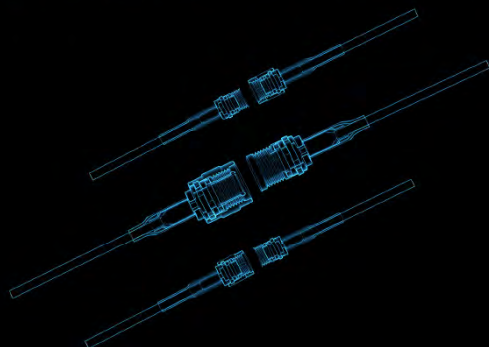




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