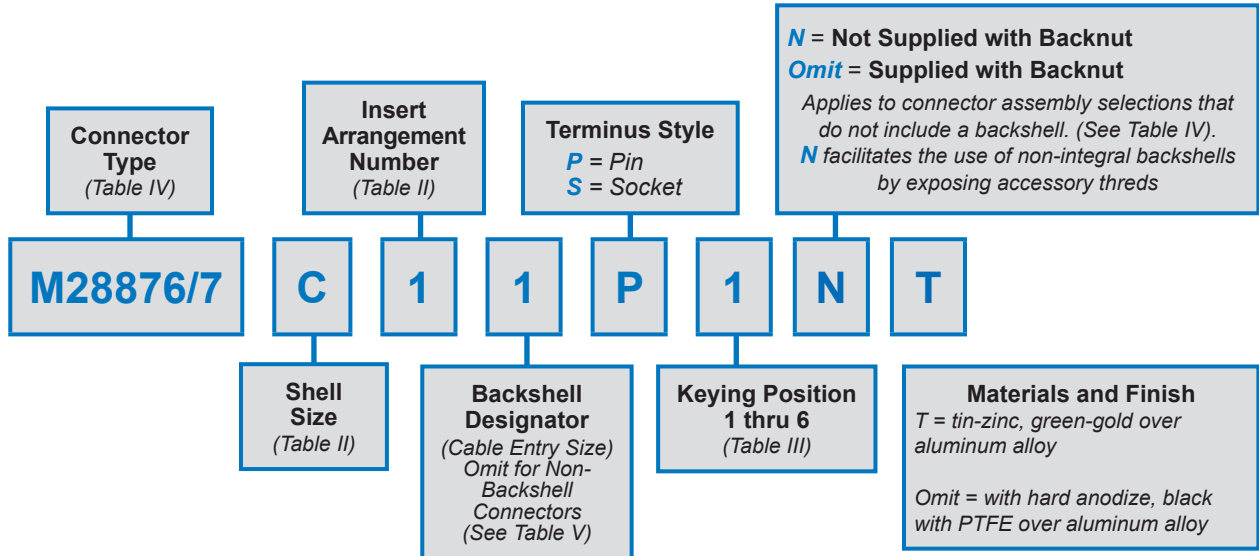




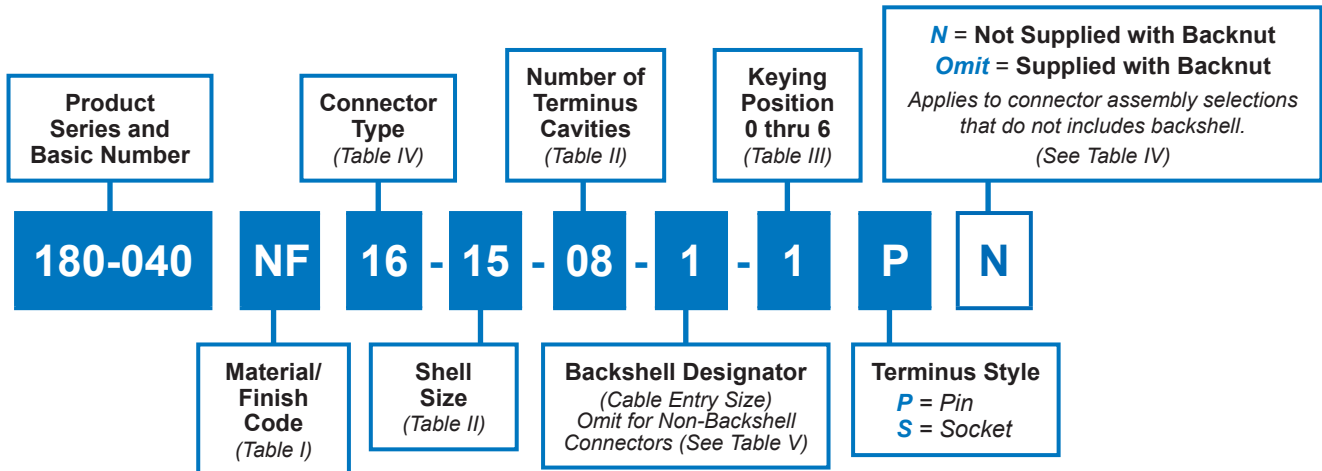
MIL-PRF-28876 QPL Fiber Optic Connectors  
180-040  
How to Order



Military QPL M28876/1 through /14 fiber optic connectors



Glenair commercial equivalent MIL-PRF-28876 type fiber optic connectors



# MIL-PRF-28876 QPL Fiber Optic Connectors

## 180-040

### How to Order



**Table I: Material and Finishes (Commercial)**

Code	Material	Finish Description
<b>GB4</b>	Aluminum Alloy	Hard Anodize, Black with PTFE
<b>M*</b>		Electroless Nickel
<b>ME</b>		Electroless Nickel
<b>MT*</b>		Nickel-PTFE, Grey
<b>NF</b>		Cadmium, Olive Drab
<b>TZ</b>		Tin-Zinc, Green-Gold
<b>ZR</b>		Zinc-Nickel, Black

\*Inactive for new design. Use "ME" finish  
Refer to Appendix for material/finish details

**Table II: Shell Size and Insert Arrangement**

Mil-Spec		Commercial	
Shell Size	Insert Arrangement	Shell Size	Number of Cavities
<b>A</b>	<b>1</b>	<b>11</b>	<b>02</b>
<b>B</b>	<b>1</b>	<b>13</b>	<b>04</b>
<b>C</b>	<b>2</b>	<b>15</b>	<b>06</b>
	<b>1</b>		<b>08</b>
<b>F</b>	<b>2</b>	<b>23</b>	<b>18</b>
	<b>1</b>		<b>31</b>

Consult factory for QPL status

**Table V: Backshell Designator**

Backshell Designator	Max Allowable Cable Diameter by Shell Size			
	A (11)	B (13)	C (15)	F (23)
<b>1</b>	.250 (6.4)	.285 (7.2)	.500 (12.7)	.866 (22.0)
<b>2</b>	.346 (8.8)	.346 (8.8)	.250 (6.4)	1.000 (25.4)
<b>3</b>		.453 (11.5)	.375 (9.5)	.600 (15.2)

**Table IV: Connector Type**

Connector Type	Backshell Type	MIL-Spec	Commercial
Wall Mount Receptacle	None	<b>M28876/1</b>	<b>03</b>
	Straight	<b>M28876/2</b>	<b>13</b>
	45°	<b>M28876/3</b>	<b>23</b>
	90°	<b>M28876/4</b>	<b>33</b>
In-Line Receptacle	Straight	<b>M28876/5</b>	<b>15</b>
Plug	None	<b>M28876/6</b>	<b>06</b>
	Straight	<b>M28876/7</b>	<b>16</b>
	45°	<b>M28876/8</b>	<b>26</b>
	90°	<b>M28876/9</b>	<b>36</b>
Jam Nut Receptacle	None	<b>M28876/11</b>	<b>04</b>
	Straight	<b>M28876/12</b>	<b>14</b>
	45°	<b>M28876/13</b>	<b>24</b>
	90°	<b>M28876/14</b>	<b>34</b>

### Material and Finish

A. M28876 part numbers supplied with two finish designator options driven by part number formulation (see above).

T = Tin-Zinc, Green-Gold over Aluminum Alloy

Omit = Hard Anodize, Black with PTFE over Aluminum Alloy.

See Table I for commercial plating options.

B. Hardware: Aluminum alloy/chem film, stainless steel/passivate

C. Insert: Aluminum alloy/anodize

D. Seals and boot: Fluorosilicone

### Notes

Termini (Not Supplied with Connector):

M29504/14 - Pin terminus, MIL-Spec

M29504/15 - Socket Terminus, MIL-Spec

M29504/03 - Dummy Terminus, MIL-Spec

181-039 - Pin Terminus, MIL-Spec Style

181-040 - Socket terminus, MIL-Spec Style

181-051 - Dummy Terminus, MIL-Spec Style

Backnut retained using thread-locking compound

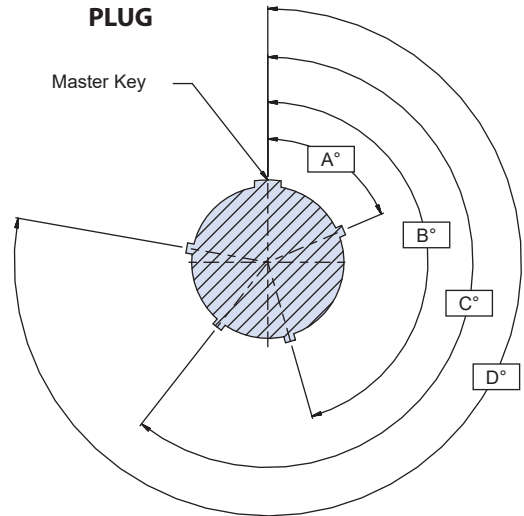
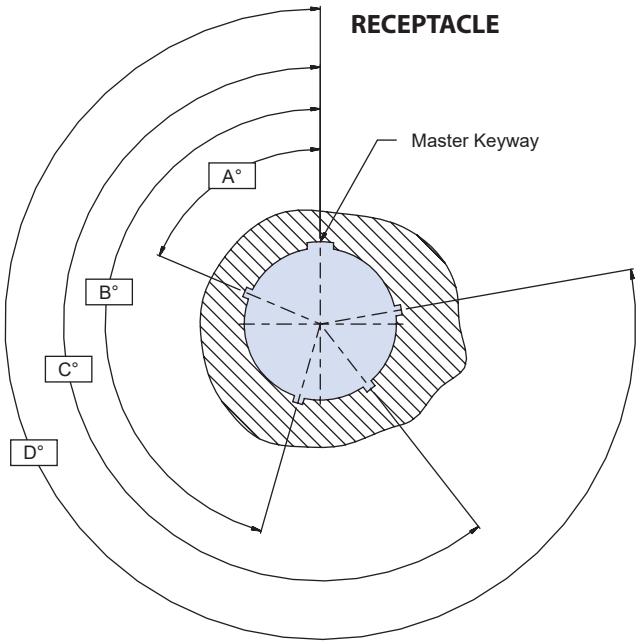
Shell size 13 backshell designator 3 connector supplied less boot

Consult factory for termination and assembly tools/procedures

Operating Temperature Range: -55° to +125°C.

Dimensions in Inches (millimeters) are subject to change without notice.

**Key Positions for MIL-PRF-28876 (180-040) fiber optic connectors**



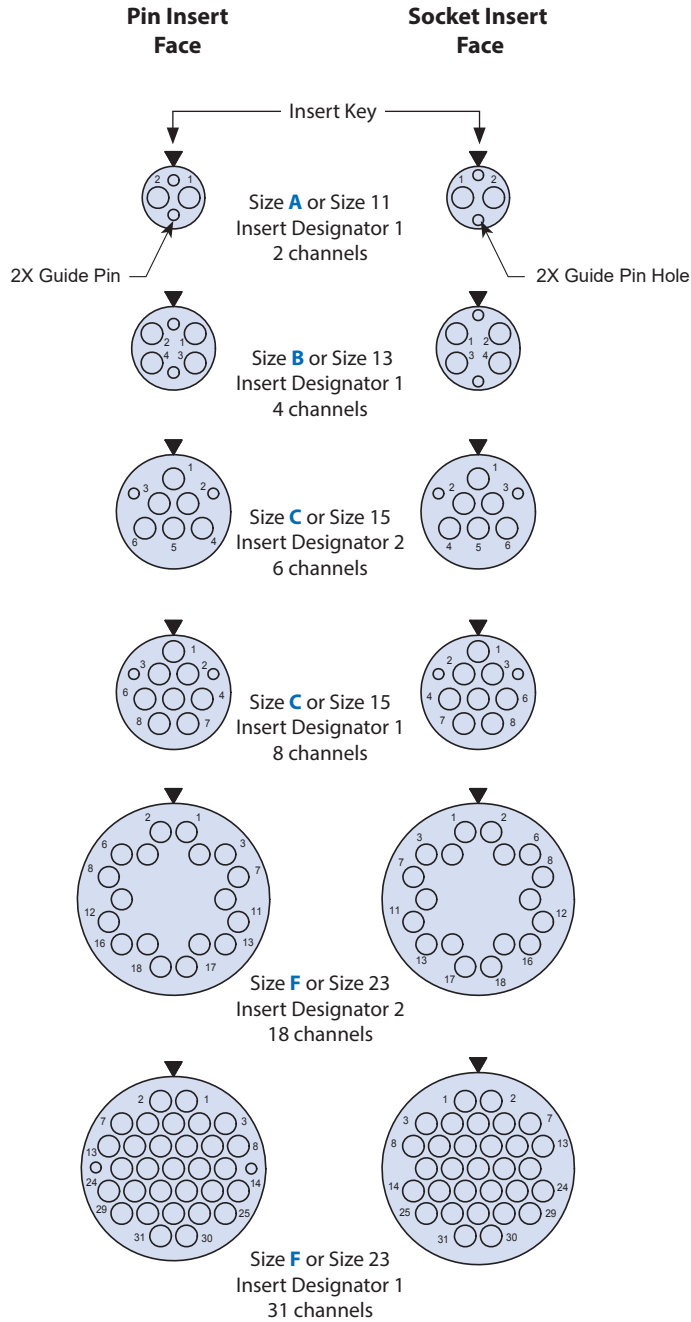
**Table III: Keying Position**

Shell Size	Key Position	A°	B°	C°	D°
11 and 13	0*	-	-	-	-
	1	95	141	208	236
	2	113	156	182	292
	3	90	145	195	252
	4	53	156	220	255
	5	119	146	176	298
	6	51	141	184	242
15 and 23	0*	-	-	-	-
	1	80	142	196	293
	2	135	170	200	310
	3	49	169	200	244
	4	66	140	200	257
	5	62	145	180	280
	6	79	153	197	272

\*0 indicates universal keying arrangement and is available on commercial equivalent plug connector only.



**Insert arrangements for MIL-PRF-28876 (180-040) fiber optic connectors**





**M28876 ( /1, /2, /3, /4 )**  
**180-040 (-03, -13, -23, -33)**  
**MIL-PRF-28876 Wall Mount Receptacle Connector**  
 for use with MIL-PRF-29504/14 and /15 Termini



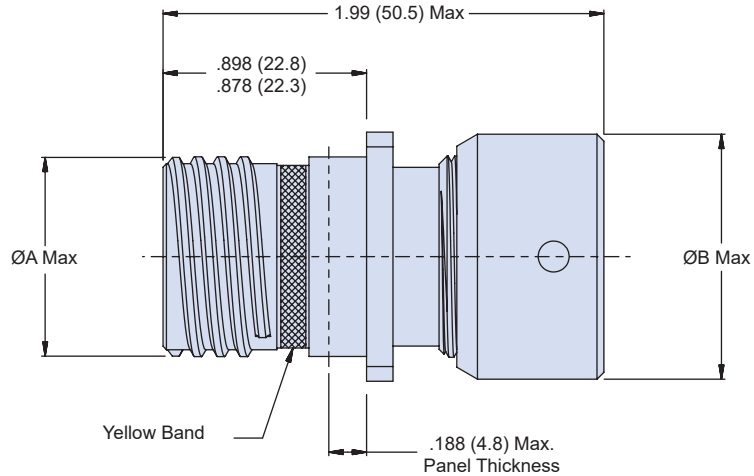
**MIL-PRF-28876 QPL wall mount receptacle connector**



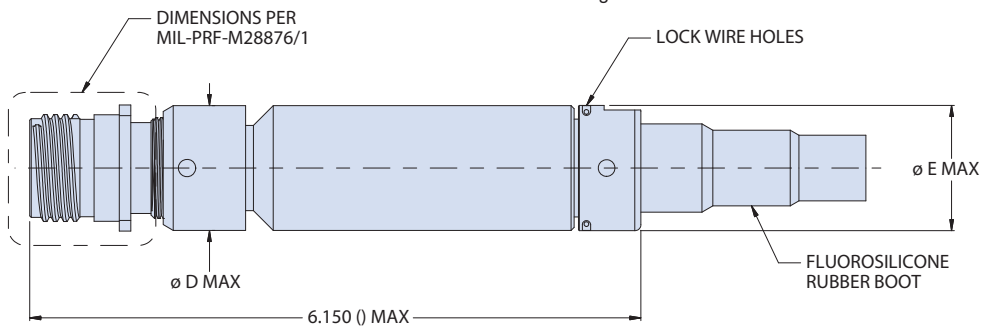
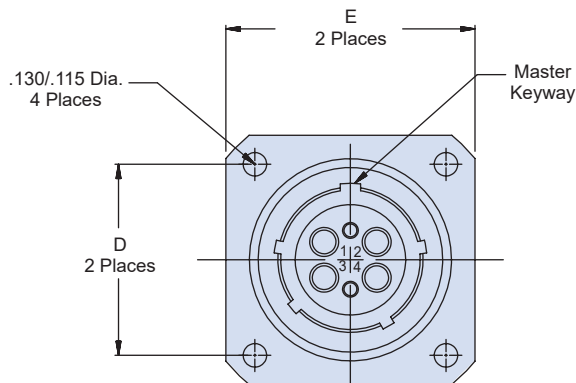
Receptacle without backshell



Receptacle with straight backshell



**M28876/1 • 180-040(-03)**  
**WALL MOUNT RECEPTACLE WITHOUT BACKSHELL**

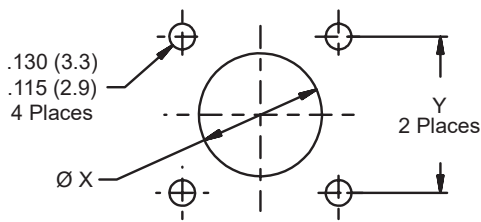
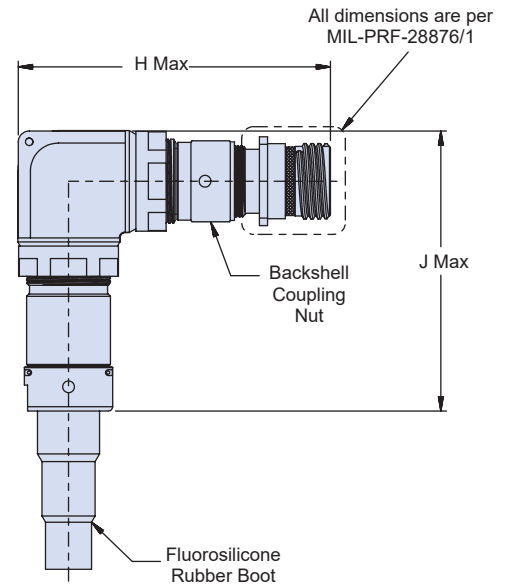
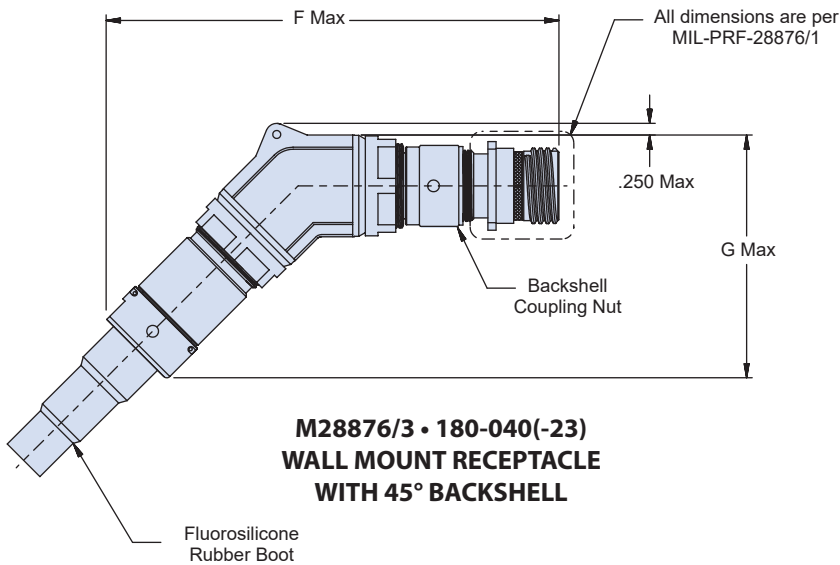


**M28876/2 • 180-040(-13)**  
**WALL MOUNT RECEPTACLE WITH STRAIGHT BACKSHELL**

M28876 (/1, /2, /3, /4)  
 180-040 (-03, -13, -23, -33)  
 MIL-PRF-28876 Wall Mount Receptacle Connector  
 for use with MIL-PRF-29504/14 and /15 Termini



Shell Size	ØA Max	ØB Max	ØC Max	D	E ±.020	F Max.	G Max.	H Max.	J Max.
11	0.750 (19.1)	0.960 (24.4)	0.960 (24.4)	0.750 (19.1)	1.022 (26.0)	6.150 (156.2)	3.540 (89.9)	4.250 (108.0)	4.250 (108.0)
13	0.875 (22.2)	1.085 (27.6)	1.085 (27.6)	0.843 (21.4)	1.137 (28.9)	6.220 (158.0)	3.580 (90.9)	4.250 (108.0)	4.250 (108.0)
15	1.062 (27.0)	1.255 (31.9)	1.257 (31.9)	0.968 (24.6)	1.257 (31.9)	6.500 (165.1)	3.850 (97.8)	4.500 (114.3)	4.500 (114.3)
23	1.500 (38.1)	1.695 (43.1)	1.763 (44.8)	1.281 (32.5)	1.718 (43.6)	7.500 (190.5)	5.000 (127.0)	5.000 (127.0)	5.000 (127.0)



Recommended Panel Cutout  
(Wall Mounting)

Shell Size	Ø X ± .005 (0.13)	Y ± .005 (0.13)
11	.812 (20.6)	.750 (19.1)
13	.937 (23.8)	.843 (21.4)
15	1.124 (28.6)	.968 (24.6)
23	1.562 (39.7)	1.281 (32.5)

