

Military standard backshells and accessories selection guide

MIL-DTL-38999

Military Connector Specification	 36 Non-Environ. Strain Relief Backshells	 38 EMI/RFI Non-Environ. Backshells	 39 EMI/RFI Environmental Backshells	 44 Crimp Ring Backshells	 44 Banding Backshells
MIL-DTL-38999 Series III	M85049/21 Str.	M85049/19 Str.	M85049/18 Str. M85049/78 45° M85049/79 90°	M85049/20 Str.	M85049/88 Str. M85049/88N Str. M85049/89 45° M85049/89N 45° M85049/90 90° M85049/90N 90°

Military Connector Specification	 45 Qwik-Ty Strain Reliefs		 62 Strain Reliefs		 68 Mounting Flanges and Gaskets
	Non-Self-Locking	Self-Locking	Non-Self-Locking	Self-Locking	
MIL-DTL-38999 Series III	M85049/15- 45° M85049/16- 90°	No Ground Lug M85049/15S 45° M85049/16S 90° With Ground Lug M85049/15G 45° M85049/15H 45° M85049/16G 90° M85049/16H 90°	M85049/38 Str. M85049/124 Str. M85049/39 90° M85049/126 90°	M85049/38S Str. M85049/91 Str. M85049/124S Str. M85049/39S 90° M85049/92 90° M85049/126S 90°	M85049/94 Full M85049/95 3/4 M85049/96 1/4 (M85528/1) Full (M85528/2) 3/4 (M85528/3) 1/4

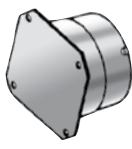
Military Connector Specification	 65 Dummy Stowage Receptacles	 66 Protective Plug Covers	 66 Protective Receptacle Covers	 68 Jam Nuts
MIL-DTL-38999 Series III	D38999/22	D38999/32 Threaded	D38999/33 Threaded	D38999/28

Torque Values for Cable Clamp Screws	
required value in In-Lbs for corrosion resistant or steel plated screws only	
Screw Size	In Aluminum or Corrosion Resistant Steel
2-56	1.5/2.5
4-40	3.5/4.5
6-32	5.0/7.0
8-32	7.0/9.0
10-32	9.0/11.0
.250-20	11.0/13.0

Cable Clamp with Grommet - Torque Values (See Note 3)			
Torque Requirements in In-Lbs		Torque Requirements in In-Lbs	
Clamp Size	Torque Min/Max Values	Clamp Size	Torque Min/Max Values
3	30/40	16	40/60
4	30/40	20	40/60
6	35/55	24	80/100
8	35/55	28	80/100
10	35/55	32	80/100
12	40/60	40	80/100

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Composite Thermoplastic Backshells and Accessories						
Military Connector Specification	 Three-Finger Strain Relief	 Banding Adapters	 Cable Clamp Strain Relief	Dust Caps		 Dummy Stowage Receptacles
				 Plug	 Receptacle	
MIL-DTL-38999 Series III	M85049/45 M85049/46	M85049/88 M85049/89 M85049/90	M85049/91 M85049/92	M38999/32 Series III Only	M38999/33 Series III Only	D38999/22

Military Connector Specification	31 Shrink Boot Adapters	319 Shield-Sock Backshells	
		Non-Self-Locking	Self-Locking
MIL-DTL-38999 Series III	M85049/69 Str.	M85049/115 Str. M85049/117 90°	M85049/103 Str.* M85049/104 45°* M85049/105 90°* M85049/115S Str. M85049/117S 90°

Military Connector Specification	 60 Connector Wrenches	 60 Connector Sockets	61 "E" Nuts	
			Non-Self-Locking	Self-Locking
MIL-DTL-38999 Series III	TG90*	600H005*	M80549/14-	M80549/14S

Installation Torque Values for Circular Connector Accessories		
Shell Sizes	MIL-DTL-38999 Series III	Composite Material Coupling Threads (See Note 1)
8, 9, A	51/61	35
3, 10, 10SL, 11, B	71/81	35
7, 12, 12S, 13, C	103/113	45
14, 14S, 15, D	111/121	45
16, 16S, 17, E	111/121	45
18, 19, 27, F	111/121	45
20, 21, 37, G	131/141	80
22, 23, H	131/141	80

Installation Torque Values for Circular Connector Accessories		
Shell Sizes	MIL-DTL-38999 Series III	Composite Material Coupling Threads (See Note 1)
24, 25, 61, J	131/141	80
28, 29	143/153	120
32, 33	143/153	120
36	142/153	120
40	159/169	N/A
44	159/169	N/A
48	159/169	N/A

- 1) Use Glenair 600-091 and 600-007 Torque Tools when tightening hexagonal composite accessory couplings.
- 2) For additional guidance or values/conditions not listed, refer to SAE AIR6151.
- 3) EMI/RFI shielding terminated with conical metal ferrule(s) should employ a minimum recommended torque of 35 in-lb.

Mouser Electronics

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Glenair:

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