

# Series 39 EMI+Environmental Backshells

for MIL-DTL-38999 Ser. I/II Connectors

## 390F\*053 EMI+Environmental Backshell, Spin Coupling



**Shielded. Environmental. Spin coupling.** 390F\*053 backshell fits MIL-DTL-38999 Series I and II connectors. Spin coupling. Two ground rings for terminating individual and overall braid shields. Environmentally protected with O-rings and cable grommet. For use with shielded jacketed cable. Cone and ring shield termination. Two strain relief options: saddle clamp or low profile nut. When the strain relief is tightened onto the adapter, the grommet compresses onto cable jacket to create a watertight seal. Type H heavy duty saddle clamp has stainless steel telescoping fillister head screws and lockwashers. Available in aluminum or stainless steel. Silicone O-rings and grommet.

**Adapter Code F**

This accessory fits these connectors:  
MIL-DTL-38999 Series I and Series II

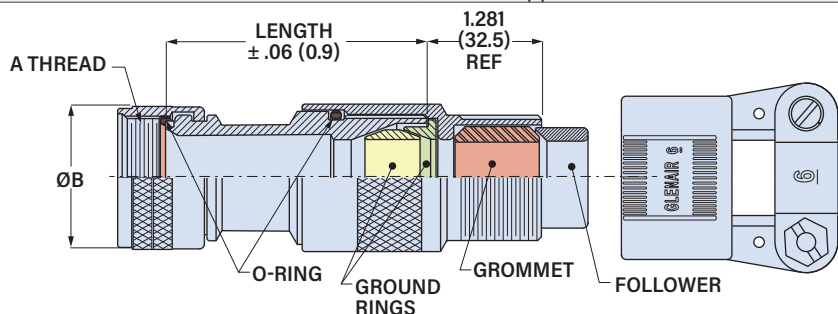
### PROFILE SELECTION GUIDE

<p><b>S</b> Straight</p>	<p><b>A</b> 90°</p>
<p><b>H</b> 45°</p>	<p><b>M</b> 45°</p>
<p><b>J</b> 90°</p>	<p><b>N</b> 90°</p>

### PART NUMBER

	<b>390FS053</b>	<b>NF</b>	<b>18</b>	<b>10</b>	<b>H</b>	<b>3</b>				
<b>Base P/N</b>	<b>Base Part No.</b>	<b>Profile</b>								
	<b>390FS053</b>	<b>S</b>	<b>Straight</b>							
	<b>390FA053</b>	<b>A</b>	<b>90° Low Profile</b>							
	<b>390FH053</b>	<b>H</b>	<b>45° Cut/Weld</b>							
	<b>390FJ053</b>	<b>J</b>	<b>90° Cut/Weld</b>							
	<b>390FM053</b>	<b>M</b>	<b>45° Full Radius</b>							
<b>390FN053</b>	<b>N</b>	<b>90° Full Radius</b>								
<b>Material/Finish</b>	<b>M</b>	Alum/ Electroless Nickel								
	<b>MT</b>	Alum/ Nickel-PTFE								
	<b>NF</b>	Alum/ Olive Drab Cadmium								
	<b>ZR</b>	Alum/ Black Zinc-Nickel								
	<b>TZ</b>	Alum/ Tin-Zinc								
	<b>ZI</b>	SST/ Passivated (Profiles H, J, M, N, S only)								
<b>Shell Size</b>	<b>Shell Size</b>									
	38999 Series I	9	11	13	15	17	19	21	23	25
	38999 Series II	8	10	12	14	16	18	20	22	24
	<b>Size Code</b>	<b>08</b>	<b>10</b>	<b>12</b>	<b>14</b>	<b>16</b>	<b>18</b>	<b>20</b>	<b>22</b>	<b>24</b>
<b>Entry Size</b>	<b>Entry Size</b>	<b>Max. Cable Dia.</b>	<b>Shell Size*</b>	<b>Entry Size</b>	<b>Max. Cable Dia.</b>	<b>Shell Size*</b>				
	<b>03</b>	.250 (7.9)	08-24	<b>16</b>	.937 (23.8)	20-24				
	<b>04</b>	.312 (7.9)	10-24	<b>20</b>	1.250 (31.8)	24				
	<b>06</b>	.437 (11.1)	12-24	<b>24</b>	1.375 (34.9)	-				
	<b>08</b>	.562 (14.3)	14-24	<b>28</b>	1.625 (41.3)	-				
	<b>10</b>	.625 (15.9)	14-24	<b>32</b>	1.875 (47.6)	-				
	.750 (19.1)	16-24								
	* If selected entry size exceeds shell size range, a Style 2 transition adapter will be included. See <i>Maximum Entry Size</i> for details.									
<b>Strain Relief</b>	<b>H</b>	<b>Saddle Clamp</b>								
	<b>D</b>	<b>Nut</b>								
				<b>Saddle Clamp</b>						
				<b>Nut</b>						
<b>Length</b>	<b>3</b>	1.5 inches	Applies to Profile <b>S</b> only.							
	<b>4</b>	2.0 inches	If Entry Size is greater than "Maximum Entry Size" (see next page), then 2 inch minimum applies.							
	<b>6</b>	3.0 inches								
	<b>8</b>	4.0 inches								

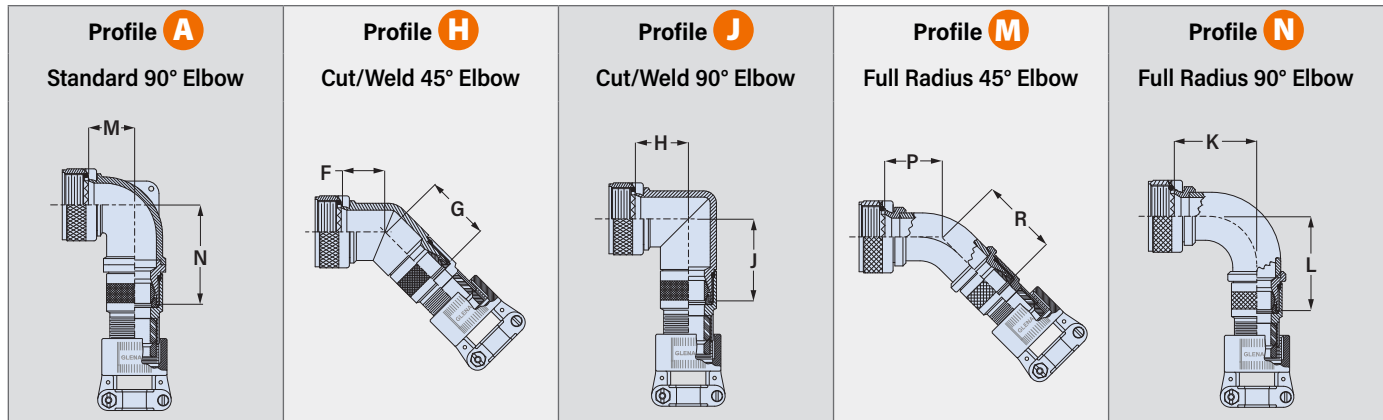
Shell Size	A Thread UNEF-2B	øB Max in	øB Max mm
8/9	0.4375-28	.650	16.5
10/11	0.5625-24	.770	19.6
12/13	0.6875-24	.890	22.6
14/15	0.8125-20	1.020	25.9
16/17	0.9375-20	1.150	29.2
18/19	1.0625-18	1.230	31.2
20/21	1.1875-18	1.360	34.5
22/23	1.3125-18	1.480	37.6
24/25	1.4375-18	1.730	43.9



# Series 39 EMI+Environmental Backshells

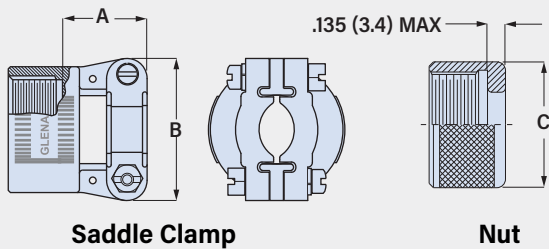
for MIL-DTL-38999 Ser. I/II Connectors

## 390F\*053 EMI+Environmental Backshell, Spin Coupling



Shell Size	F Max		G Max		H Max		J Max		K Max		L Max		M Max		N Max		P Max		R Max	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
8/9	.639	16.2	1.031	26.2	.750	19.1	1.157	29.4	1.125	28.6	1.287	32.7	.500	12.7	1.420	36.1	.812	20.6	1.095	27.8
10/11	.664	16.9	1.063	27.0	.810	20.6	1.217	30.9	1.250	31.8	1.411	35.8	.595	15.1	1.540	39.1	.875	22.2	1.145	29.1
12/13	.688	17.5	1.094	27.8	.870	22.1	1.277	32.4	1.375	34.9	1.537	39.0	.610	15.5	1.560	39.6	.938	23.8	1.195	30.4
14/15	.705	17.9	1.119	28.4	.920	23.4	1.347	34.2	1.500	38.1	1.761	44.7	.700	17.8	2.154	54.7	1.000	25.4	1.245	31.6
16/17	.732	18.6	1.147	29.1	.980	24.9	1.407	35.7	1.625	41.3	1.787	45.4	.885	22.5	2.244	57.0	1.062	27.0	1.300	33.0
18/19	.748	19.0	1.157	29.4	1.020	25.9	1.427	36.2	1.750	44.5	1.911	48.5	.975	24.8	2.414	61.3	1.094	27.8	1.350	34.3
20/21	.773	19.6	1.177	29.9	1.080	27.4	1.487	37.8	1.875	47.6	2.037	51.7	.975	24.8	2.414	61.3	1.156	29.4	1.400	35.6
22/23	.800	20.3	1.217	30.9	1.140	29.0	1.567	39.8	2.000	50.8	2.161	54.9	1.125	28.6	2.587	65.7	1.188	30.2	1.455	37.0
24/25	.823	20.9	1.247	31.7	1.200	30.5	1.637	41.6	2.125	54.0	2.287	58.1	1.125	28.6	2.587	65.7	1.250	31.8	1.505	38.1

### STRAIN RELIEF DIMENSIONS



Entry Size	A Max		B Max		øC Max		Cable Range			
	in	mm	in	mm	in	mm	Min*	Max	in	mm
03	.780	19.8	.957	24.3	.630	16.0	.125	3.2	.250	6.4
04	.780	19.8	.957	24.3	.755	19.2	.125	3.2	.312	7.9
06	.780	19.8	1.145	29.1	.942	23.9	.250	6.4	.437	11.1
08	.780	19.8	1.332	33.8	1.067	27.1	.312	7.9	.562	14.3
10	.780	19.8	1.332	33.8	1.192	30.3	.350	8.9	.625	15.9
12	.811	20.6	1.551	39.4	1.380	35.1	.500	12.7	.750	19.1
16	.905	23.0	1.770	45.0	1.535	39.0	.625	15.9	.937	23.8
20	1.092	27.7	2.113	53.7	1.848	46.9	.875	22.2	1.250	31.8
24	1.124	28.5	2.363	60.0	2.255	57.3	1.000	25.4	1.375	34.9
28	1.399	35.5	2.770	70.4	2.505	63.6	1.250	31.8	1.625	41.3
32	1.399	35.5	3.020	76.7	2.755	70.0	1.437	36.5	1.875	47.6

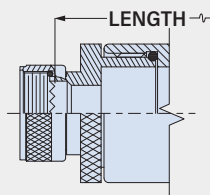
\* Not applicable to Style D Nut.

### MAXIMUM ENTRY SIZE

If the selected entry size exceeds the maximum size in this table, the backshell will have a front adapter. This is called a **Style 2** backshell.

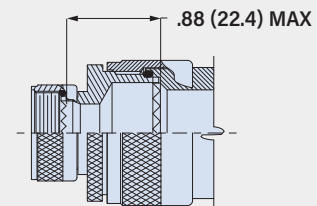
Shell Size	Maximum Entry Size
8/9	03
10/11	04
12/13	06
14/15	10
16/17	12
18/19	12
20/21	16
22/23	16
24/25	20

#### Style 2 Straight Backshell



The minimum length code increases from 3 (1 1/2 inches) to 4 (2 inches).

#### Style 2 45° and 90° Backshells



For 45° and 90° backshells, the length increases by .88 inches.