

Swing-Arm® Clamps

for MIL-DTL-38999 Series I and II Connectors

870F002 Swing-Arm Saddle Clamp, Braid Sock, Composite

Self-Locking



Shielded, self-locking, adjustable arms. 870F002 composite Swing-Arm saddle clamp fits MIL-DTL-38999 Series I and II connectors. Adjustable arms pivot to 0°, 45° or 90° positions. Supplied with 12 inches (305 mm) of shield braid attached to metal interface ring. Braid choices include 34 AWG nickel/copper, 34 AWG tin/copper, ultralightweight AmberStrand® or microfilament nickel/SST Armorlite®. Corrosion-resistant glass-reinforced thermoplastic meets AS85049 requirements. Full radius saddles have self-locking clinch nuts. Available in two clamp sizes: standard clamp fits most wire bundles, large clamp has increased clearance for oversize wire bundles. Coupling nut has anti-decoupling mechanism for audible detented coupling and prevents backoff under high vibration.

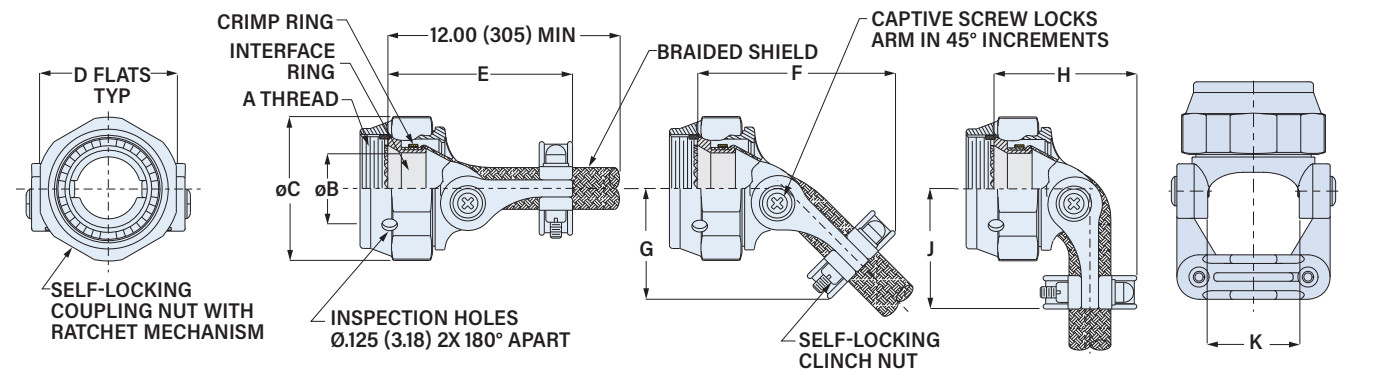
Adapter Code F
This accessory fits these connectors:
MIL-DTL-38999 Series I and Series II

TABLE 1
INTERFACE RING MATERIAL / FINISH

Aluminum	
M	Electroless Nickel
NF	Olive Drab Cadmium and Electroless Nickel (Figure 1)
MT	Nickel-PTFE
TZ	Tin-Zinc
ZR	Black Zinc-Nickel
Brass	
BM	Electroless Nickel
BN	Olive Drab Cadmium and Electroless Nickel (Figure 1)
BMT	Nickel-PTFE

PART NUMBER

Base P/N	870F002	BM	22	A	N	J	14																																																																	
Interface Ring Material/Finish	See Table 1																																																																							
Shell Size	<table border="1"> <thead> <tr> <th colspan="2"></th> <th colspan="10">Shell Size</th> </tr> <tr> <th>38999 Series I</th> <th></th> <th>9</th> <th>11</th> <th>13</th> <th>15</th> <th>17</th> <th>19</th> <th>21</th> <th>23</th> <th>25</th> <th colspan="2"></th> </tr> <tr> <th>38999 Series II</th> <th></th> <th>8</th> <th>10</th> <th>12</th> <th>14</th> <th>16</th> <th>18</th> <th>20</th> <th>22</th> <th>24</th> <th colspan="2"></th> </tr> <tr> <th colspan="2"></th> <th colspan="10">Size Code</th> <th colspan="2"></th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td>08</td> <td>10</td> <td>12</td> <td>14</td> <td>16</td> <td>18</td> <td>20</td> <td>22</td> <td>24</td> <td colspan="2"></td> </tr> </tbody> </table>									Shell Size										38999 Series I		9	11	13	15	17	19	21	23	25			38999 Series II		8	10	12	14	16	18	20	22	24					Size Code														08	10	12	14	16	18	20	22	24		
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Clamp Size	See Clamp Dimensions on next page																																																																							
	A	Standard Clamp																																																																						
	B	Large Clamp																																																																						
Braid Type	N	34 AWG Nickel/Copper Braid																																																																						
	T	34 AWG Tin/Copper Braid																																																																						
	A	AmberStrand® Nickel/Composite Braid																																																																						
	L	Microfilament ArmorLite® Nickel/SST Braid																																																																						
Splice Ring and Band	Omit if not required																																																																							
	K	Splice ring and standard band																																																																						
	J	Splice ring and slim standard band																																																																						
Braid Length	Omit for standard 12 inch length																																																																							
	14	Length in 1 inch increments, 6 inch min "14" = 14 inches.																																																																						



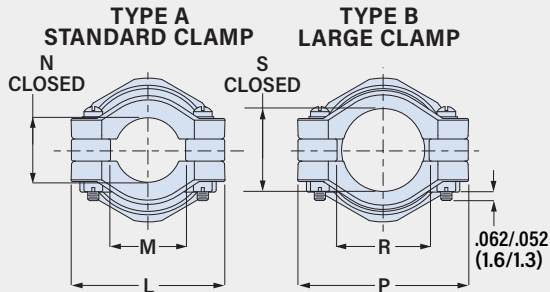
Shell Size	A Thread UNEF-2B	ø B Min in	mm	ø C Max in	mm	D Flats in	mm	E Max in	mm	F Max in	mm	G Max in	mm	H Max in	mm	J Max in	mm	K Ref. in	mm
8/9	0.4375-28	.264	6.7	.812	20.6	.750	19.1	1.50	38.1	1.43	36.3	.76	19.3	.95	24.1	.84	21.3	.393	10.0
10/11	0.5625-24	.392	10.0	.938	23.8	.875	22.2	1.54	39.1	1.49	37.8	.82	20.8	.99	25.1	.90	22.9	.455	11.6
12/13	0.6875-24	.506	12.9	1.125	28.6	1.000	25.4	1.62	41.1	1.64	41.7	.92	23.4	1.14	29.0	1.00	25.4	.598	15.2
14/15	0.8125-20	.631	16.0	1.250	31.8	1.125	28.6	1.63	41.4	1.73	43.9	.98	24.9	1.24	31.5	1.07	27.2	.710	18.0
16/17	0.9375-20	.756	19.2	1.375	34.9	1.250	31.8	1.73	43.9	1.86	47.2	1.08	27.4	1.36	34.5	1.13	28.7	.839	21.3
18/19	1.0625-18	.844	21.4	1.500	38.1	1.375	34.9	1.73	43.9	1.93	49.0	1.12	28.4	1.46	37.1	1.20	30.5	.934	23.7
20/21	1.1875-18	.970	24.6	1.625	41.3	1.500	38.1	1.88	47.8	2.08	52.8	1.21	30.7	1.55	39.4	1.26	32.0	1.068	27.1
22/23	1.3125-18	1.094	27.8	1.750	44.5	1.625	41.3	1.91	48.5	2.15	54.6	1.27	32.3	1.63	41.4	1.33	33.8	1.197	30.4
24/25	1.4375-18	1.219	31.0	1.875	47.6	1.750	44.5	1.94	49.3	2.23	56.6	1.33	33.8	1.70	43.2	1.40	35.6	1.323	33.6

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870F002 Swing-Arm Saddle Clamp, Braid Sock, Composite

CLAMP DIMENSIONS

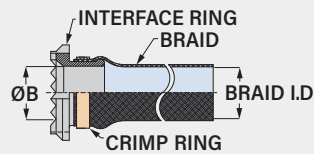


Standard Clamp								Large Clamp							
Shell Size	L Max in	L Max mm	M Min in	M Min mm	N Ref. in	N Ref. mm		Shell Size	P Max in	P Max mm	R Min in	R Min mm	S Ref. in	S Ref. mm	
08	.98	24.9	.22	5.6	.265	6.7		08	.98	24.9	.33	8.4	.356	9.0	
10	1.05	26.7	.27	6.9	.310	7.9		10	1.20	30.5	.45	11.4	.422	10.7	
12	1.20	30.5	.35	8.9	.422	10.7		12	1.45	36.8	.62	15.7	.637	16.2	
14	1.30	33.0	.47	11.9	.538	13.7		14	1.54	39.1	.68	17.3	.707	18.0	
16	1.44	36.6	.55	14.0	.590	15.0		16	1.60	40.6	.80	20.3	.759	19.3	
18	1.56	39.6	.62	15.7	.660	16.8		18	1.73	43.9	.90	22.9	.841	21.4	
20	1.69	42.9	.70	17.8	.744	18.9		20	1.95	49.5	1.05	26.7	.996	25.3	
22	1.77	45.0	.78	19.8	.826	21.0		22	2.08	52.8	1.18	30.0	1.060	26.9	
24	1.89	48.0	.85	21.6	.896	22.8		24	2.32	58.9	1.30	33.0	1.124	28.5	

MATERIAL/FINISH

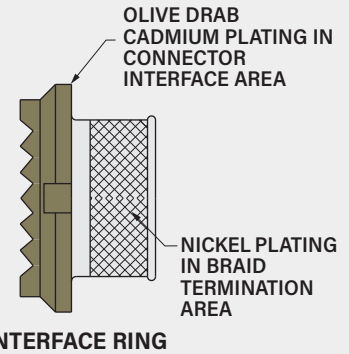
- Coupling nut, body, arms, saddles: polyetherimide (PEI)/unplated
- Screws, washers, inserts: stainless steel/passivated
- Anti-decoupling spring: thermoplastic
- interface Ring: brass or aluminum
- Crimp ring: copper alloy/tin
- Splice ring (optional): thermoplastic
- Clinch Nuts: stainless steel/silver
- Band (optional): stainless steel/passivated
- Braid:
 - Code N: 34 AWG nickel-coated copper
 - Code T: 34 AWG tin-coated copper,
 - Code A: *AmberStrand*® ultralightweight nickel-coated polymer
 - Code L: *ArmorLite*® lightweight microfilament nickel-coated 316L stainless steel

INTERFACE RING AND BRAID



Shell Size	Ø B Min in	Ø B Min mm	Braid I.D. in	Braid I.D. mm
08	.264	6.7	.375	9.5
10	.392	10.0	.375	9.5
12	.506	12.9	.500	12.7
14	.631	16.0	.500	12.7
16	.756	19.2	.781	19.8
18	.844	21.4	.781	19.8
20	.970	24.6	1.000	25.4
22	1.094	27.8	1.000	25.4
24	1.219	31.0	1.250	31.8

FIGURE 1 NF AND BN SELECTIVE FINISH



SPLICE RING AND PRE-COILED BAND (K AND J OPTIONS)



Optional splice ring provides a reliable, low resistance method of splicing Swing-Arm braid to wire bundle braid. Snap splice ring over wire bundle, then overlap braid sock, pigtails and cable braid. install band around splice ring and braid using Band-Master ATS banding tool.

Slim Standard Band is 50% lighter weight than standard band with no reduction in strength.

Shell Size	Band Part Number		Splice Ring Part Number	øA		øB	
	Standard	Slim Standard		±.03 (0.8) in	±.03 (0.8) mm	±.03 (0.8) in	±.03 (0.8) mm
08	601-006	601-571	687-207XB04	.25	6.4	.40	10.2
10	601-006	601-571	687-207XB06	.38	9.7	.53	13.5
12	601-006	601-571	687-207XB08	.50	12.7	.65	16.5
14	601-006	601-571	687-207XB10	.63	16.0	.78	19.8
16	601-006	601-571	687-207XB12	.75	19.1	.90	22.9
18	601-041	601-571	687-207XB14	.88	22.4	1.03	26.2
20	601-041	601-573	687-207XB16	1.00	25.4	1.15	29.2
22	601-041	601-573	687-207XB18	1.13	28.7	1.28	32.5
24	601-041	601-573	687-207XB20	1.25	31.8	1.40	35.6

