

2M803 1/4 Turn Bayonet Coupling

Introduction and Specifications

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Amphenol's 2M Micro38999 Connector Series... The New Aerospace Standard

Averaging less than half the size and weight of their 38999 ancestors, Amphenol's 2M Micro38999 series are an easy and inexpensive way to take weight out of your system. 2M meet or exceed most environmental and performance requirements listed in MIL-DTL-38999, so modernizing your equipment doesn't mean sacrificing ruggedness. With almost 2,000,000 configurations in every termination style and a full complement of accessories available right out of the catalog, customization has never been easier. Smarter, faster and smaller: Amphenol's 2M... the only connector you'll ever need.

2M803 Features

- Bayonet Coupling
- Quickest turn-mating of the 2M series
- 1,000 mating cycles
- Lightest of the 2M series



Why 2M803?

2M803 connectors are very light; and their fast, sure-mate bayonet coupling make them the perfect choice for light duty applications that require frequent disconnect. Their small size and easy decoupling also make them the connector of choice for customers who have hard-to-reach panels. Unlike their other 2M counterparts, 2M803 connectors are not rated for immersion, and are recommended for general purpose connections that will not be exposed to the elements for very long.

2M803 VS 38999

SPECIFICATION	2M803	MIL-DTL-38999 SERIES II
Signal Count	1 to 55	1 to 187
Insulation Resistance	5,000 megaohms min	5,000 megaohms min
Operating Temperature	-65°C to +150°C	-65°C to +175°C
Shock	300 G ± 15	300 G ± 15
Vibration	"37.0 G Random 30.0 G Sine"	N/A
Shielding Effectiveness	"40 dB min. from 100 MHz to 1000 MHz"	"45 dB min. from 100 MHz to 1000 MHz"
Durability	2,000 mating cycles min.	500 mating cycles
Shell to Shell Conductivity	100 mV drop max	200 mV drop max
Contacts	Per AS39029	Per AS39029

2M803 MATERIALS AND FINISHES

Shells	Aluminum Alloy or Stainless Steel
Contacts	Copper Alloy, gold plated
Insulators	Polyphenylene Sulfide (PPS)
Contact Retention	Beryllium Copper Alloy
Grommet, Interfacial Seal, O-Ring	Fluorosilicone Rubber



2M803 1/4 Turn Bayonet Coupling

Ordering Guide for 2M803 Crimp Receptacles & Plugs



1. SERIES	2. SHELL STYLE	3. SERVICE CLASS	4. SHELL SIZE-INSERT AGGMT	5. CONTACTS	6. KEYING
2M803-00X	-06	NF	6-7	P	N

1. SERIES		2. SHELL STYLE		3. SERVICE CLASS				
Type	Part/PCB	Description	Part #	Description	Material	Part #	Description	RoHS
CRIMP	PLUGS		PLUGS		ALUMINUM	C	Anodized (Non-conductive)	
	2M803-001	Plug with Integral Backshell	-06	Anti-Decoupling		M	Electroless Nickel	
	2M803-002	Plug with Accessory Threads				NF	Olive Drab Cadmium	
	RECEPTACLE		RECEPTACLES			MT	Duralon (Ni PTFE)	
	2M803-003	Receptacle with Integral Backshell	-07	Jam Nut*		ZN	Olive Drab Zinc Nickel	
	2M803-004	Receptacle with Accessory Threads	-01	In-Line		ZNU	Black Zinc Nickel	
PCB/SOLDER	PCB/SOLDER RECEPTACLES		PCB/SOLDER RECEPTACLES		STAINLESS STEEL	Z1	Passivated	
	2M803-005	Receptacle for Solder Cup or PCB Termination, with Standard Epoxy Potting	-02	Flange Mount		ZM	Electroless Nickel	
	2M803-015	Receptacle with Solder Cup or PCB Termination with Special Sealing for Open Face (unmated) Water Immersion Requirements. 100% Leak Tested. To maintain a helium leak rate of 1x10 ⁻⁴ cc/sec. pressure differential from -65°C to 150°C.	-07	Jam Nut*				
			*add "-501" as a suffix to the Jam Nut Part number to include a Hex Nut instead of a Spanner Nut.					

2M803

4. SHELL SIZE-INSERT ARRANGEMENT		5. CONTACTS			6. KEYING		
See Table on pages 7-20		Style	Part #	Description	Part #	A°	B°
CRIMP		P	P	Pin	N	150°	210°
		S	S	Socket	X	75°	210°
		A	A	Pin-Less Contacts	Y	95°	230°
		B	B	Socket-Less Contacts	Z	140°	275°
PCB/SOLDER RECEPTACLES		PCB/SOLDER RECEPTACLES					
PCB/SOLDER		P	P	Pin-PCB			
		S	S	Socket-PCB			
		E	E	Pin-Solder Cup			
		F	F	Socket-Solder Cup			

Receptacle View

Plug View

For additional assistance building a part number and for 3D models, please visit www.amphenol-aerospace.com to access our 2M configurator.

2M803 1/4 Turn Bayonet Coupling

Weights

SERIES 2M803 MAXIMUM CONNECTOR WEIGHT IN GRAMS

Insert Arrangements	Cable Plug	Jam Nut Receptacle Crimp	Jam Nut Receptacle PCB	Flange Receptacle Crimp	Flange Receptacle PCB
5-3P	3.6	3.6	3.9	2.9	3.3
5-3S	3.7	3.7	4.0	3.1	3.4
6-1P	4.4	4.4	4.6	3.1	3.5
6-1S	4.5	4.5	4.7	3.2	3.6
6-4P	4.7	3.7	4.1	3.1	3.6
6-4S	4.7	4.0	4.2	3.2	3.7
6-7P	5.1	4.8	5.3	3.3	4.4
6-7S	5.1	5.1	5.5	3.6	4.4
7-1P	5.7	5.9	5.8	4.4	4.7
7-1S	5.9	6.2	5.9	4.7	5.1
7-10P	6.9	7.4	8.1	5.0	6.5
7-10S	7.4	7.8	8.4	5.4	6.6
8-2P	8.6	8.9	9.9	6.6	8.6
8-2S	9.4	9.7	10.7	7.4	9.4
8-13P	7.9	8.3	9.2	5.9	7.9
8-13S	8.7	8.9	9.7	6.6	8.1
8-200P	8.9	9.2	10.2	6.9	8.9
8-200S	9.6	9.9	10.9	6.9	9.6
9-4P	9.2	9.6	10.6	6.6	9.2
9-4S	9.6	9.9	10.9	6.9	9.6
9-19P	9.2	9.1	10.6	7.0	9.9
9-19S	10.2	10.1	11.2	8.1	10.2
9-200P	9.1	9.5	10.5	7.2	9.1
9-200S	10.2	10.6	11.6	8.3	10.2
9-201P	9.2	9.6	10.6	7.3	10.3
9-201S	9.8	10.1	11.7	8.4	10.3
10-5P	13.4	14.1	15.0	10.6	13.9
10-5S	14.9	15.5	17.5	12.0	15.3
10-26P	11.7	12.3	14.3	8.8	12.8
10-26S	13.4	13.6	15.1	10.1	13.1
10-200P	12.5	13.2	15.2	9.7	13.0
10-200S	14.0	14.6	16.6	11.1	14.4
10-201P	12.9	13.5	15.5	10.0	13.3
10-201S	14.4	15.1	17.1	11.6	14.9
10-202P	12.4	13.1	15.1	9.6	11.8
10-202S	14.0	14.6	16.6	11.1	14.4
12-2P	15.5	16.4	19.1	11.4	16.9
12-2S	17.2	18.0	20.8	13.1	18.6
12-3P	16.5	17.4	20.1	12.4	17.9
12-3S	18.3	19.1	21.9	14.2	19.7
12-7P	16.7	17.6	20.4	12.7	18.2
12-7S	19.4	20.2	23.0	15.3	20.8
12-37P	15.0	15.8	18.6	10.9	16.4
12-37S	16.6	17.5	19.6	12.4	16.7
12-200P	15.6	16.5	19.3	11.6	17.1
12-200S	17.9	18.8	21.6	13.9	19.4
12-201P	15.7	16.6	19.4	11.7	17.2
12-201S	18.2	19.0	21.8	14.1	19.6
14-5P	22.2	23.5	27.7	17.3	25.5
14-5S	24.8	26.1	29.3	19.8	25.1
14-55P	19.6	20.9	25.1	14.6	22.9
14-55S	22.6	23.9	27.1	14.6	23.9

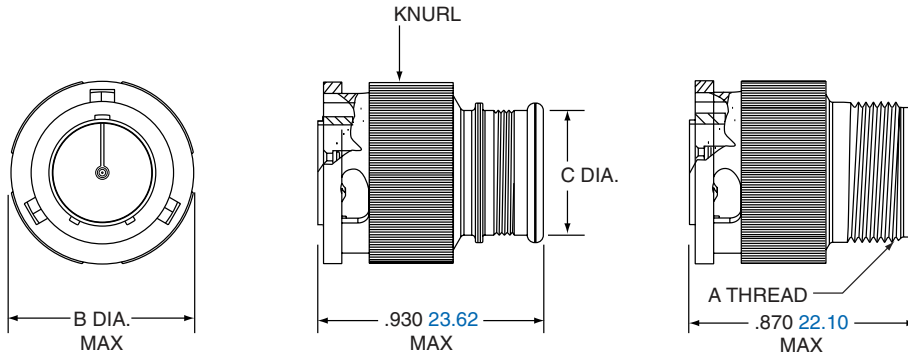
2M803 1/4 Turn Bayonet Coupling Plug

2M803-001-06 and 2M803-002-06



2M803-001-06

2M803-002-06



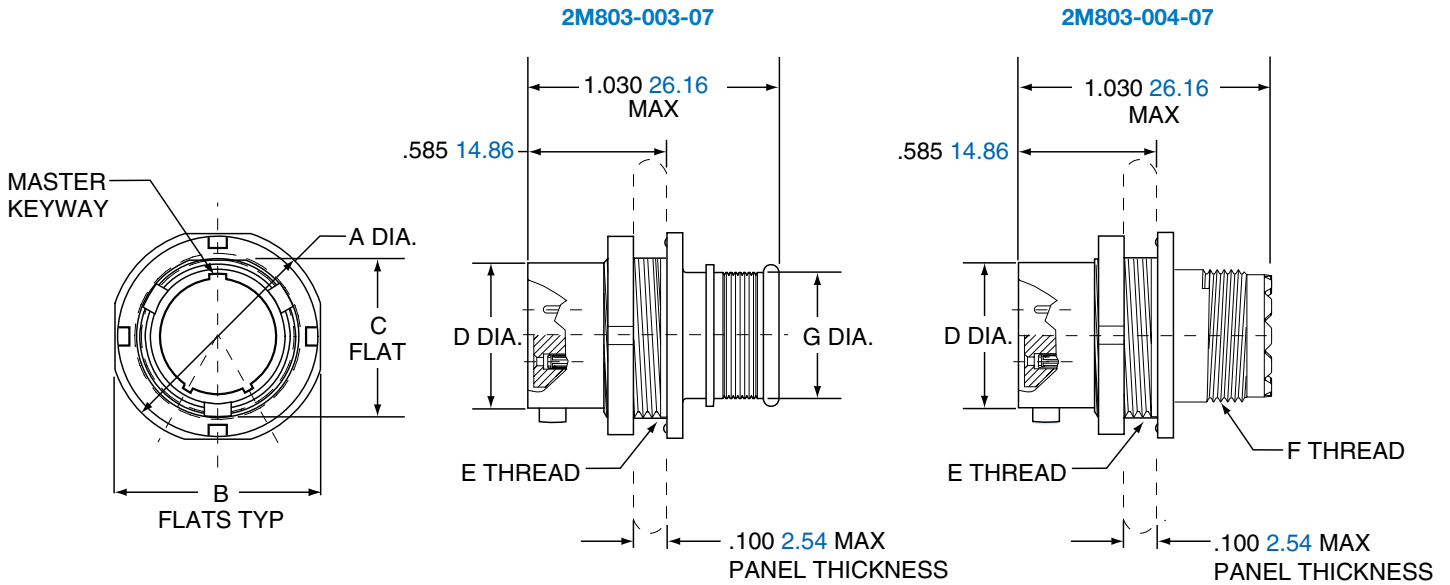
Shell Size	A Thread UNEF-2A	B Dia. Max		C Dia.	
		in.	mm.	in.	mm.
5	.2500-32	.475	12.07	.245	6.22
6	.3125-32	.540	13.72	.290	7.37
7	.4375-28	.620	15.75	.390	9.91
8	.5000-28	.675	17.15	.450	11.43
9	.5625-24	.745	18.92	.500	12.70
10	.6250-24	.812	20.63	.562	14.28
12	.6875-24	.894	22.71	.650	16.51
14	.9375-20	1.060	26.92	.800	20.32
15	.9375-20	1.120	28.45	1.035	26.29

2M803

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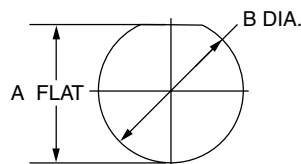
2M803 1/4 Turn Bayonet Coupling Jam Nut

2M803-003-07 and 2M803-004-07



Shell Size	A Dia.		B Flat		C Flat		D Dia.		E Thread	F Thread	G Dia.	
	in.	mm.	in.	mm.	in.	mm.	in.	mm.			in.	mm.
5	.575	14.61	.545	13.84	.350	8.89	.300	7.62	.3750-32 UNEF-2A	.2500-32 UNEF-2A	.245	6.30
6	.635	16.13	.595	15.11	.410	10.41	.362	9.19	.4375-28 UNEF-2A	.3125-32 UNEF-2A	.290	7.44
7	.755	19.18	.723	18.36	.536	13.61	.436	11.07	.5625-32 UN-2A	.4375-28 UNEF-2A	.390	9.86
8	.830	21.08	.790	20.11	.593	15.10	.498	12.65	.6250-28 UN-2A	.5000-28 UNEF-2A	.450	11.38
9	.830	21.08	.790	20.07	.596	15.14	.561	14.25	.6250-28 UN-2A	.5625-24 UNEF-2A	.500	12.78
10	.955	24.26	.925	23.51	.721	18.31	.635	16.13	.7500-28 UN-2A	.6250-24 UNEF-2A	.562	14.30
12	1.078	27.38	1.044	26.52	.845	21.46	.714	18.14	.8750-28 UN-2A	.6875-24 UNEF-2A	.650	16.71
14	1.264	32.11	1.230	31.24	1.022	25.96	.865	21.97	1.0625-20 UN-2A	.9375-20 UNEF-2A	.805	20.40
15	1.322	33.58	1.287	32.69	1.093	27.76	.924	23.47	1.1250-28 UN-2A	.9375-20 UNEF-2A	.850	21.67

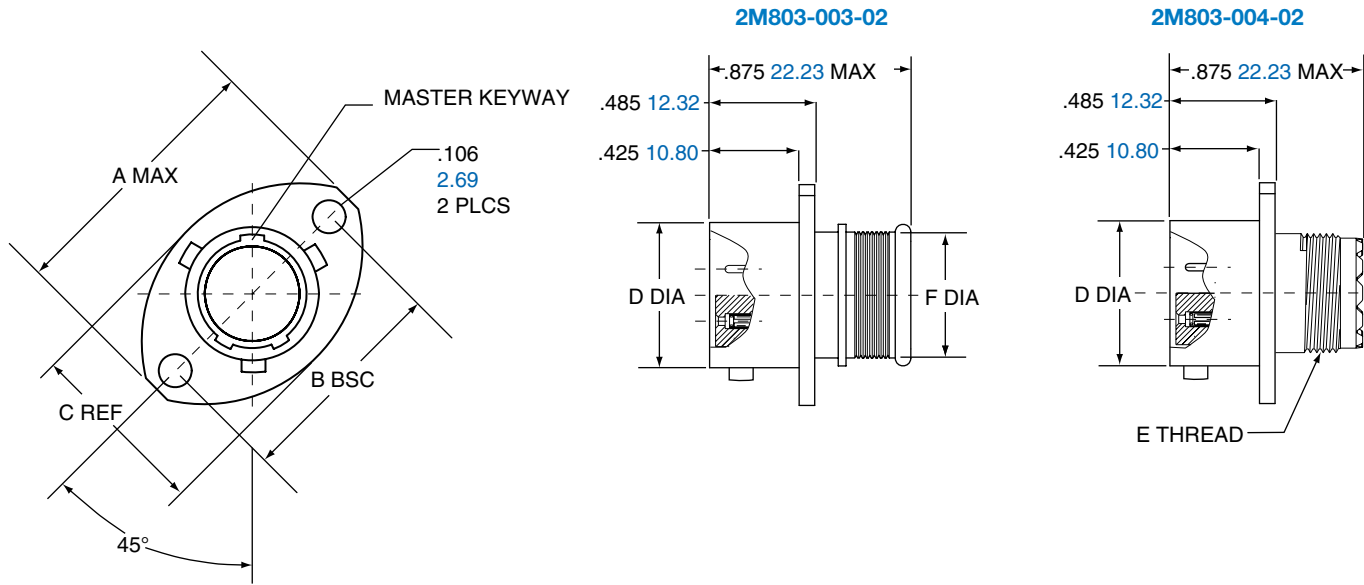
PANEL CUTOUT FOR JAM NUT RECEPTACLE



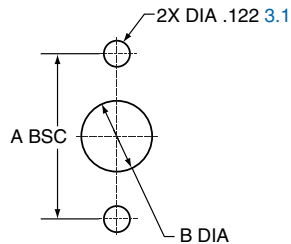
Shell Size	A Flat		B Dia	
	in. ±.002	mm. ± 0.05	in.	mm.
5	.355	9.02	.382	9.70
6	.415	10.54	.445	11.30
7	.541	13.74	.572	14.53
8	.601	15.27	.635	16.13
9	.601	15.27	.643	16.33
10	.729	18.52	.760	18.29
12	.850	21.59	.885	22.48
14	1.031	23.19	1.072	27.23

2M803 Bayonet Coupling Flange Mount

2M803-003-02 and 2M803-004-02



Shell Size	A Max.		B BSC.		C Ref.		D Dia.		E Thread UNEF-2A	F Dia.	
	in.	mm	in.	mm.	in.	mm	in.	mm.		in.	mm.
5	.710	18.03	.513	13.03	.460	11.68	.300	7.62	.2500-32	.245	6.30
6	.788	20.02	.598	15.19	.522	13.26	.362	9.19	.3125-32	.290	7.44
7	.895	22.73	.708	17.98	.590	14.99	.436	11.07	.4375-28	.390	9.86
8	1.154	29.31	.964	24.49	.668	16.97	.500	12.70	.5000-28	.450	11.38
9	1.210	30.73	1.017	25.83	.721	18.31	.561	14.25	.5625-24	.500	12.78
10	1.291	32.79	1.101	27.97	.795	20.19	.635	16.13	.6250-24	.562	14.30
12	1.395	35.43	1.204	30.58	.874	22.20	.714	18.14	.6875-24	.650	16.71
14	1.550	39.37	1.280	32.51	1.050	26.67	.865	21.97	.9375-20	.805	20.40



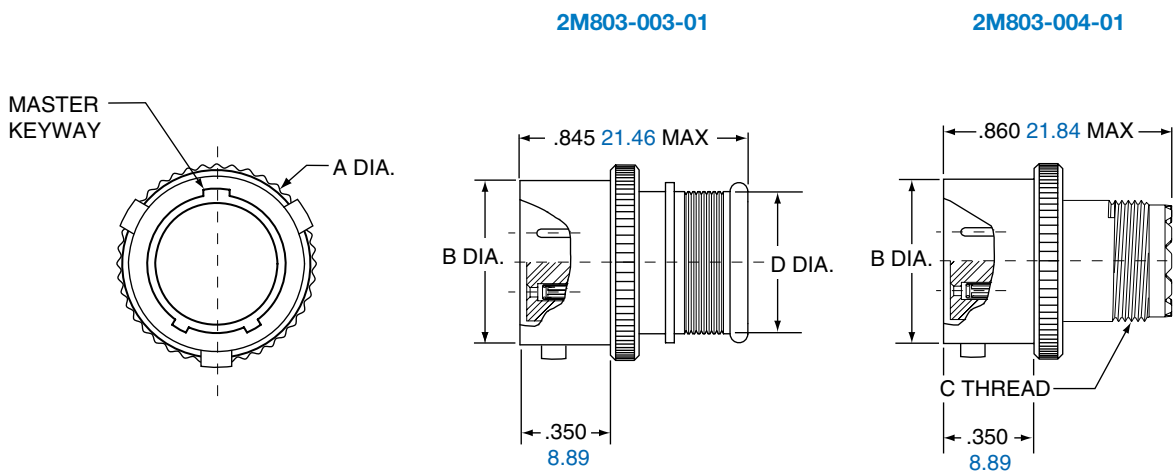
FLANGE MOUNT PANEL CUTOUTS

Shell Size	A BSC		B Dia	
	in.	mm.	in.	mm.
5	.513	13.03	.365	9.25
6	.598	15.19	.430	10.92
7	.708	17.98	.520	13.21
8	.964	17.98	.592	15.04
9	1.017	25.83	.645	16.38
10	1.101	27.97	.726	18.44
12	1.204	30.58	.832	21.13
14	1.280	32.51	.945	24.00

2M803 1/4 Turn Bayonet Coupling In-Line

2M803-003-01 and 2M803-004-01

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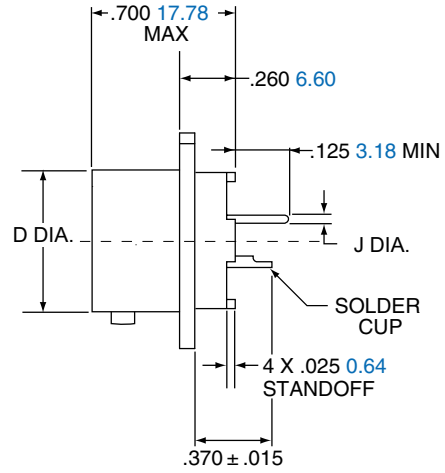
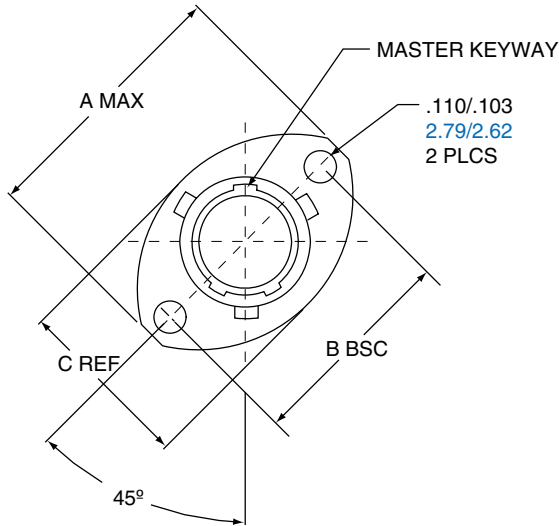
Shell Size	A Max.		B Dia.		C Thread UNEF-2A	D Dia.	
	in.	mm.	in.	mm.		in.	mm.
5	.385	9.78	.300	7.62	.2500-32	.245	6.30
6	.465	11.81	.362	9.19	.3125-32	.290	7.44
7	.485	12.32	.438	11.13	.4375-28	.390	9.86
8	.566	14.38	.498	12.65	.5000-28	.450	11.38
9	.658	16.71	.564	14.33	.5625-24	.500	12.78
10	.720	18.29	.636	16.15	.6250-24	.562	14.30
12	.810	20.57	.713	18.11	.6875-24	.650	16.71
14	1.027	26.09	.865	21.97	.9375-20	.805	20.40
15	1.027	26.09	.924	23.47	.9375-20	.850	21.67

2M803 1/4 Turn PCB Bayonet Coupling

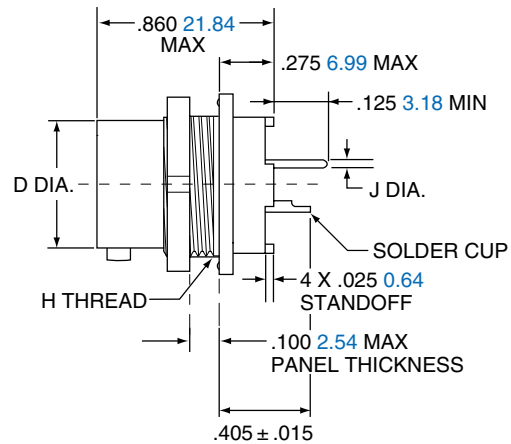
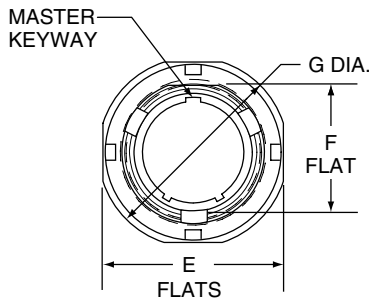
Flange Mount & Jam Nut Receptacle 2M803-005-02 and 07



2M803-005-02



2M803-005-07



Shell Size	A Max.		B BSC.		C Ref.		D Dia.		E Flats		F Flats		G Dia.		H Thread	J Dia. Tail Dia.
	in.	mm	in.	mm.	in.	mm	in.	mm.	in.	mm.	in.	mm.	in.	mm.		
5	.710	18.03	.513	13.03	.460	11.68	.300	7.62	.545	13.84	.350	8.89	.575	14.61	.3750-32 UNEF-2A	#23 .018/.022 0.46/0.56
6	.788	20.02	.598	15.19	.522	13.26	.362	9.19	.595	15.11	.410	10.42	.635	16.13	.4375-28 UNEF-2A	#20/20HD .025/.027 0.64/0.69
7	.895	22.73	.708	17.98	.590	14.99	.436	11.07	.723	18.36	.536	13.61	.755	19.18	.5625-32 UN-2A	#16 .060/.064 1.52/1.63
8	1.154	29.31	.964	24.49	.665	16.97	.500	12.70	.790	20.07	.593	15.10	.830	21.08	.6250-28 UN-2A	#12 .092/.096 2.34/2.44
9	1.210	30.73	1.017	25.83	.721	18.31	.561	14.25	.790	20.07	.596	15.14	.830	21.08	.6250-28 UN-2A	
10	1.291	32.79	1.101	27.97	.795	20.19	.635	16.13	.925	23.51	.721	23.49	.955	24.26	.7500-28 UN-2A	
12	1.395	35.43	1.204	30.58	.874	22.20	.714	18.14	1.044	26.52	.845	21.46	1.078	27.38	.8750-28 UN-2A	
14	1.550	39.37	1.280	32.51	1.050	26.67	.865	21.97	1.230	31.24	1.022	25.96	1.264	32.11	1.0625-20 UN-2A	
15	N/A	N/A	N/A	N/A	N/A	N/A	.924	23.47	1.287	32.69	1.093	27.76	1.322	33.58	1.1250-28 UN-2A	

2M803

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2M803 Protection Caps

Ordering Guide for Protection Caps 2M660-082 and 2M660-083

2M803 ¼ Turn Bayonet Protective Caps are available in plug and receptacle versions. Protective caps keep the connector interface dry and clean while not in use. Caps come in a variety of materials, lanyard styles and lengths to accommodate specific design requirements.

2M803 FEATURES INCLUDE:

- Aluminum or Stainless Steel Bodies
- Rubber Gaskets for Environmental Sealing
- Stainless Steel Fittings
- Variety of attachments



1. SERIES	2. SERVICE CLASS	3. ATTACHMENT TYPE	4. SHELL SIZE	5. ATTACHMENT CODE	6. ATTACHMENT LENGTH IN INCHES
2M660-08X	-M	-G	6	04	-5

1. SERIES	
Part #	Description
2M660-082	Protection Caps 2M803 Plugs
2M660-083	Protection Caps 2M803 Receptacles

2. SERVICE CLASS			
Material	Part #	Description	RoHS
ALUMINUM	-C	Black Anodized (Non-conductive)	
	-M	Electroless Nickel	
	-NF	Olive Drab Cadmium	
	-MT	Durmalon (Ni PTFE)	
	-ZN	Olive Drab Zinc Nickel	
	-ZNU	Black Zinc Nickel	
STAINLESS STEEL	-Z1	Passivated	
	-ZM	Electroless Nickel	

3. ATTACHMENT TYPE		
	Part #	Description
	-G	Nylon Rope
	-H	Stainless Steel Wire Rope, Teflon® Jacket
	-N	No Attachment
	-S	Stainless Steel Sash Chain
	-SK	Nylon Rope With Slip Knot
	-T	Stainless Steel Wire Rope, No Jacket
	-U	Stainless Steel Wire Rope, Polyurethane Jacket

4. SHELL SIZE		5. ATTACHMENT CODE	
Part #		Omit for attachment Types N (No Attachment) and SK (Slip Knot)	For Shell Size
5		01 -.126 (3.20) I.D.	
6		02 -.145 (3.68) I.D.	
7		04 -.188 (4.78) I.D.	
8		06 -.197 (5.00) I.D.	
9		14 -.385 (9.78) I.D.	5
10		15 -.445 (11.30) I.D.	6
12		16 -.570 (14.48) I.D.	7
14		17 -.635 (16.13) I.D.	8, 9
15		19 -.885 (22.48) I.D.	10, 12
		20 -1.070 (27.17) I.D.	14
		22 -1.210 (32.38) I.D.	15
		50 -.420 (10.67) I.D.	
		52 -.480 (12.19) I.D.	
		54 -.635 (16.13) I.D.	
		56 -.745 (18.92) I.D.	
		58 -.885 (22.48) I.D.	
		60 -1.010 (25.65) I.D.	
		64 -1.125 (28.58) I.D.	
	68 -1.345 (34.16) I.D.		

6. ATTACHMENT LENGTH IN INCHES	
-5	Inch Length
Omit for attachment Type N (No Attachment) Example "-5" equals five inch length	

5. ADDITIONAL ATTACHMENT CODE	
Omit for attachment Types N (No Attachment) and SK (Slip Knot)	
	18 -.695 (17.65) I.D.
	21 -.885 (22.48) I.D.
	23 -1.275 (32.38) I.D.
	24 -1.375 (34.92) I.D.
	25 -1.530 (38.86) I.D.

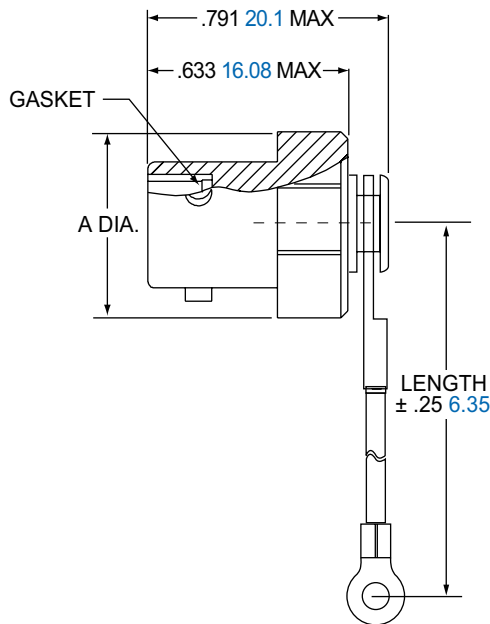
Assembly Instructions for Protection Cap, see page 100.

2M803 1/4 Turn Bayonet Coupling

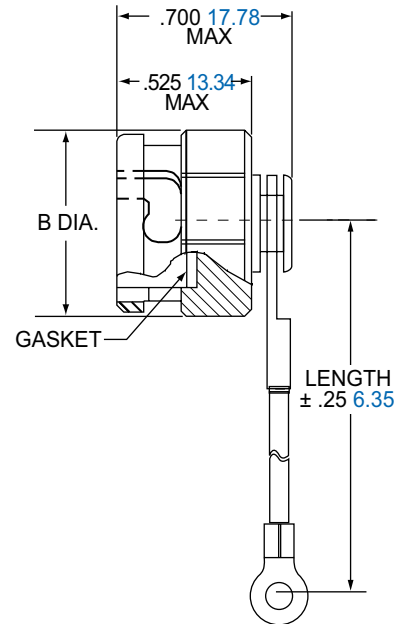
Protective Cap 2M660-082 and 2M660-083



2M660-082



2M660-083



Shell Size	A Max.	
	in.	mm.
5	.620	15.75
6	.620	15.75
7	.620	15.75
8	.690	17.53
9	.760	19.30
10	.850	21.59
12	.940	23.88
14	1.170	29.72
15	1.230	31.24

Shell Size	B Max.	
	in.	mm.
6	.541	13.74
7	.618	15.70
9	.743	18.87
12	.892	22.66

MATERIALS	
Cover	Aluminum alloy or stainless steel
Gasket	Fluorosilicone rubber
Wire, Hardware	Stainless steel, passivated

2M803

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