MIL-C-26482 Series II

MIL-C-26482 Series II connectors feature rear-release contacts. This connector is identical to the inactivated MIL-C-83723 Series I, which is used for existing applications. Connectors are marked with both military part numbers as applicable.

Contacts are qualified to MIL-C-39029 requirements and are BIN coded (three color bands) for identification. These contacts are crimped with a standard crimp tool per MIL-C-22520.

The contact retention system of this connector permits insertion and removal of contacts from the rear of the connector utilizing the same plastic tool specified for use with most qualified rear-release type connectors. Should an assembler ever misuse the tool when inserting or removing a contact, the tool is designed to break before causing damage to the connector.

Servicing the connector only from the rear helps prevent damage to the front that might affect the sealing characteristics.

Sealing grommets are constructed of tear-resistant elastomer and experience no degradation when exposed to a broad range of fluids. Sealing over a range of wire diameters is provided by a triple wire seal at the rear of the connector.

The closed entry socket side of the insert is designed with a lead-in chamfer and a hard face that will accept a pin contact bent within pre-established limits. The elastomer interfacial seal on the pin side has raised barriers around each pin which displace into the socket chamfer when mated, providing a positive moisture seal.

Square flange, jam nut single-hole mount and cable connecting receptacles are available as well as standard and RFI plugs. All are available in a range of shell sizes and insert arrangements.

MIL-C-26482
Series II (Continued)

Performance Specifications

Voltage Rating

Altitude		Mated Service Rating	
ft.	m	I	II
Sea Level	-	1500	2300
50,000	15 240	500	750
70,000	21 336	375	500
100,000	30 480	200	200

Note: When the voltage as indicated above is applied between shell and closest contact to the shell or between the two closest contacts for a period of 5 seconds, there shall be no evidence of flashover or breakdown.

Contact Current Rating and Retention

Contact Size*	DC Test Amperage	Contact Retention Axial Load	
		lb	N
20	7.5	15	66.7
16	13.0	25	111.2
12	23.0	30	133.4

*Organize individual circuits to maintain heat rise within operating temperature requirements.

Operating Temperature Range
-65° C to +200° C (-85°F to +392°F)

Environmental Seal
Wired, mated connectors with the specified accessory attached, shall meet the altitude-immersion test specified in MIL-C-26482.

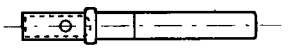
Durability
Minimum of 500 mating cycles.

Shock and Vibration Requirements
When tested as follows the connector shall sustain no physical damage, or electrical discontinuity exceeding one microsecond.

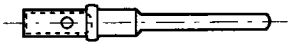
Shock
Pulse of an approximate half sine wave of 300 g magnitude with duration of 3 milliseconds applied in three axes.

Vibration
Sixteen hours of random vibration having a range of 50 to 2,000 Hz with a 41.7 G peak level.

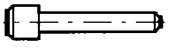
Contacts, Sealing Plugs and Assembly Tools



Socket Contact



Pin Contact



Sealing Plug

Contact Size	Wire Range		Socket Contacts		Pin Contacts		Sealing Plugs	
	AWG	mm²	Military Part No.	MATRIX Part No.	Military Part No.	MATRIX Part No.	Military Part No.	MATRIX Part No.
20	24-20	0.2-0.6	M39029/5-115	5100-001-0020	M39029/4-110	5000-054-0020	MS27488-20	3400-043-0020
16	20-16	0.5-1.4	M39029/5-116	5100-001-0016	M39029/4-111	5000-054-0016	MS27488-16	3400-043-0016
12	14-12	2-3	M39029/5-118	5100-001-0012	M39029/4-113	5000-054-0012	MS27488-12	3400-043-0012

Crimping Tools

Contact Size	Wire Range		Finished Wire Dia. Range		Military Part No.	
	AWG	mm²	inch	mm	Crimping Tool	Turret or Positioner
20	24-20	0.2-0.6	.040-.083	1.02-2.11	M22520/1-01 or /2-01	M22520/1-02 or /2-02
16	20-16	0.5-1.4	.053-.103	1.34-2.62	M22520/1-01	M22520/1-02
12	14-12	2-3	.097-.158	2.46-4.01	M22520/1-01	M22520/1-02

Insertion/Extraction Tools

Contact Size	Color Code	Military Part No.	MATRIX Part No.
20	Rd./Wh.	M81969/14-11	6500-001-0020
16	Bl./Wh.	M81969/14-03	6500-001-0016
12	Yel./Wh..	M81969/14-04	6500-001-0012

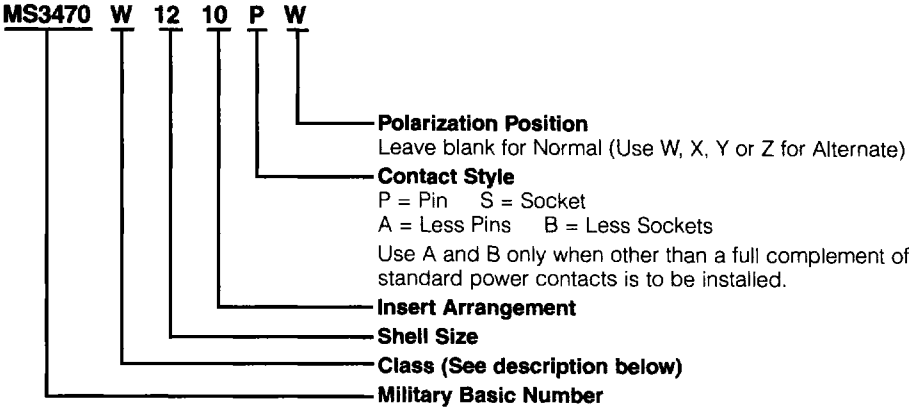
Note: Each connector is furnished with contacts. One spare for inserts requiring 1 to 26 of each contact and two spares for inserts with more than 26 contacts and a minimum of one sealing plug up to 15% of the number of contacts.

SOURCE: Catalog 82647

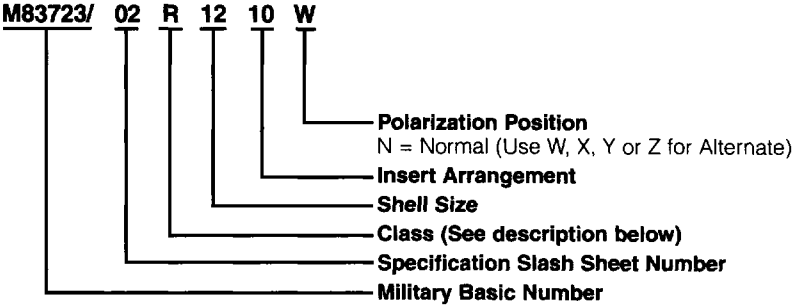
MIL-C-26482
Series II (Continued)

Military Part Number System

MIL-C-26482 Series II



MIL-C-83723 Series I



Equivalent Connector Classes — Cross Reference

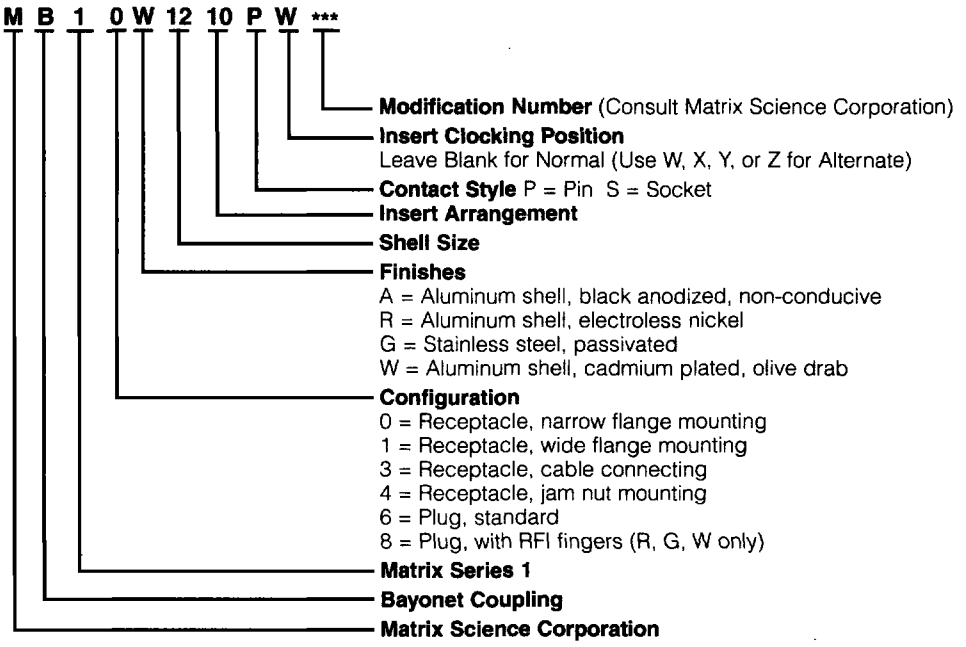
MATRIX MB1 Series	MIL-C-26482 Series II	MIL-C-83723 Series I	Description
R	L	R	Aluminum shell, electroless nickel finish
—	E*	—	Superseded, (see notes below)
—	R*	F**	Superseded, (see notes below)
A	A	A	Aluminum shell, anodized finish, black
G	S	G	Stainless steel, passivated †
W	W	—	Aluminum shell, olive drab cadmium plated

* Class E & R Inactive in favor of Class L (Ref. MIL-C-26482)
** Class F Inactive in favor of Class R (Ref. MIL-C-26482)
† Not on QPL, can be supplied to MATRIX Part Number only.

SOURCE: Catalog 82647

MIL-C-26482
Series II (Continued)

MATRIX Part Number System



SOURCE: Catalog 82647

MIL-C-26482
Series II (Continued)

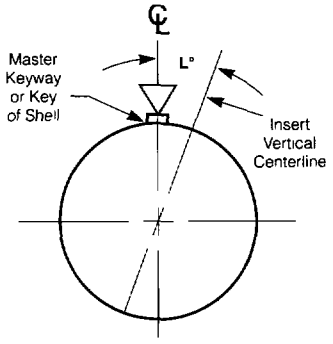
Polarization

Clocking Positions

1. In the Normal insert clocking position (position N) the insert centerline coincides with the centerline of the master key/keyway of the shell.

2. In the Alternate insert clocking position (W, X, Y, Z) the pin insert is rotated clockwise relative to the centerline of the master key/keyway as indicated in the figure and chart. The socket insert is rotated counter-clockwise.

3. Plugs have keys, receptacles have keyways.



Pin Insert
Mating Face Shown
(Socket Insert is Opposite)

▽ = Centerline of Shell Master Key or Keyway

Insert Arrangement and Clocking Positions (Per MIL-STD-1669)

Shell Size & Insert Arrangement	L Degrees					Service Rating
	N	W	X	Y	Z	
8-3	0	60	210	–	–	I
8-4	0	45	–	–	–	I
8-33	0	90	–	–	–	I
8-98	0	–	–	–	–	I
10-6	0	90	–	–	–	I
10-98	0	90	180	240	270	I
12-3	0	–	–	180	–	II
12-8	0	90	112	203	292	I
12-10	0	60	155	270	295	I
14-4	0	45	–	–	–	I
14-5	0	40	92	184	273	I
14-9	0	15	90	180	270	I
14-12	0	43	90	–	–	I
14-15	0	17	110	155	234	I
14-18	0	15	90	180	270	I
14-19	0	30	165	315	–	I
14-22	0	45	–	–	–	I
16-8	0	54	152	180	331	II
16-14	0	25	78	180	240	I
16-23	0	158	270	–	–	I
16-26	0	60	–	275	338	I
16-95	0	25	90	153	–	I
16-99	0	66	156	223	340	I
18-8	0	180	–	–	–	I
18-11	0	62	119	241	340	II
18-30	0	18	193	285	350	I
18-32	0	85	138	222	265	I
18-85	0	45	90	180	240	I
18-88	0	12	45	168	202	I
20-16	0	238	318	333	347	II
20-24	0	70	145	215	290	I
20-27	0	72	14	216	288	I
20-39	0	63	144	252	333	I
20-41	0	45	126	225	–	I
20-90	0	18	60	240	270	I
22-12	0	–	–	–	–	I
22-19	0	15	90	225	308	I
22-21	0	16	135	175	349	II
22-32	0	72	145	215	288	I
22-34	0	62	142	218	298	I
22-41	0	39	135	264	–	I
22-55	0	30	142	226	314	I
22-95	0	26	180	266	–	I
22-96	0	19	41	–	–	I
24-19	0	30	165	315	–	II
24-27	0	45	110	140	225	I
24-31	0	90	225	255	–	I
24-61	0	90	180	270	324	I

SOURCE: Catalog 82647

MIL-C-26482
Series II (Continued)

Insert Arrangements (Per MIL-STD-1669)

Number identification example: **0833** (Insert Arrangement No.)
3 #20 (Contact quantity and size)

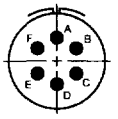
Note: For service rating see table on page 2094.

0803*
3 #20
(MIL-C-83723 Series I only Solder Contacts)

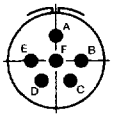
0804*
4 #20

0833
3 #20

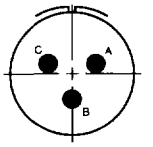
0898
3 #20



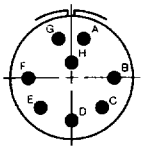
1006
6 #20



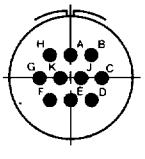
1098*
6 #20



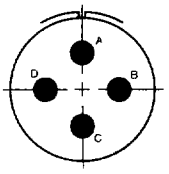
1203
3 #16



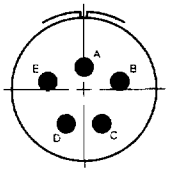
1208
8 #20



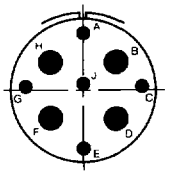
1210
10 #20



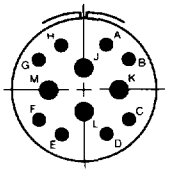
1404
4 #12



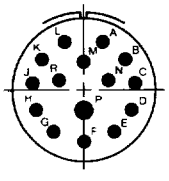
1405
5 #16



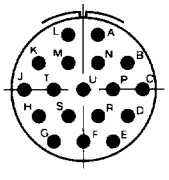
1409
5 #20, 4 #12



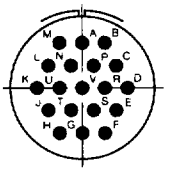
1412
4 #16, 8 #20



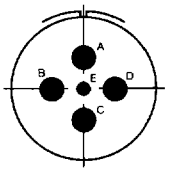
1415
1 #16, 14 #20



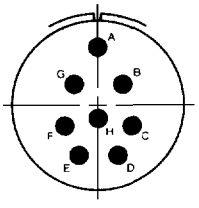
1418
18 #20



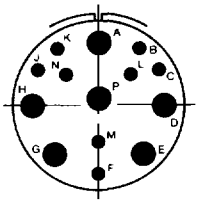
1419
19 #20



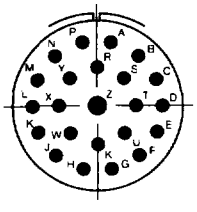
1422*
4 #12, 1 #20



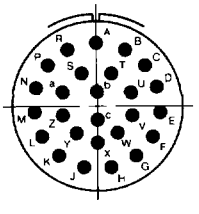
1608
8 #16



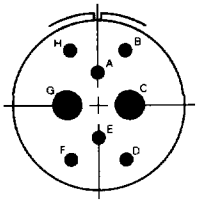
1614*
8 #20, 6 #12



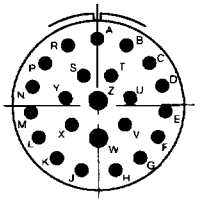
1623
1 #16, 22 #20



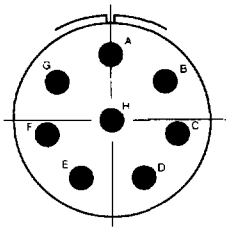
1626
26 #20



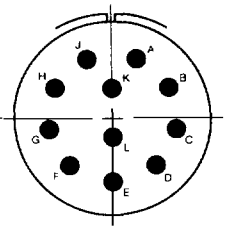
1695*
6 # 20, 2 #8
Shielded



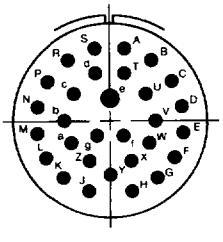
1699*
2 #16, 21 #20



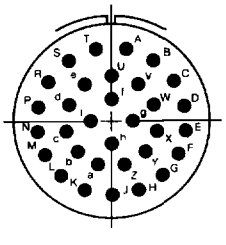
1808
8 #12



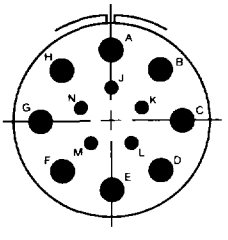
1811
11 #16



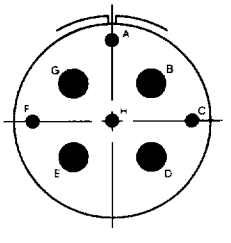
1830
1 #16, 29 #20



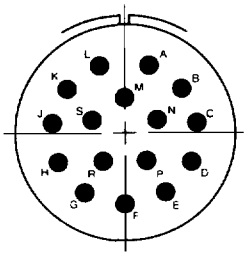
1832
32 #20



1885*
5 #20, 8 #12



1888*
4 #20, 4 #8
Shielded

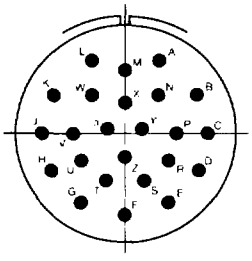


2016
16 #16

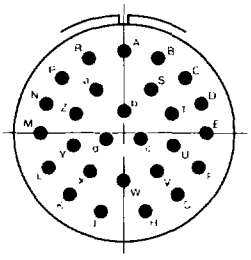
* Consult AMP for availability.
Note: Mating face of pin insert is shown, socket is opposite.

MIL-C-26482
Series II (Continued)

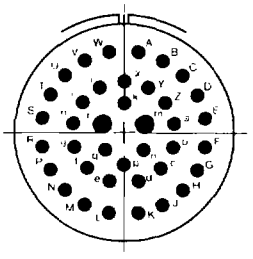
Insert Arrangements (Continued)



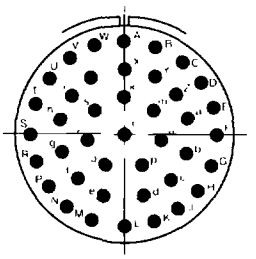
2024
24 #20



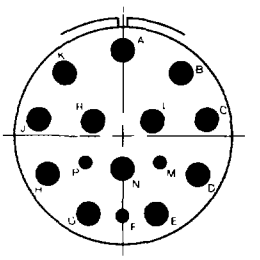
2027*
27 #20



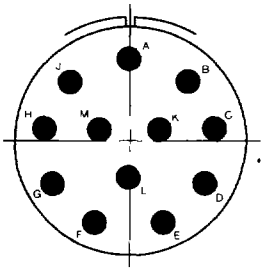
2039
2 #16, 37 #20



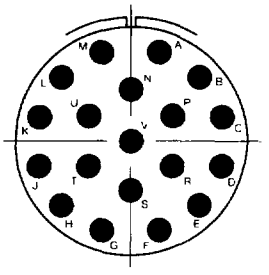
2041
41 #20



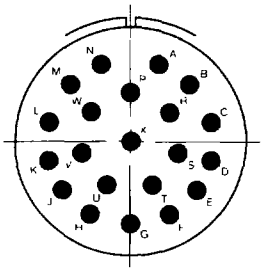
2090*
3 #20, 12 #12



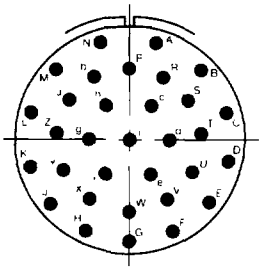
2212
12 #12



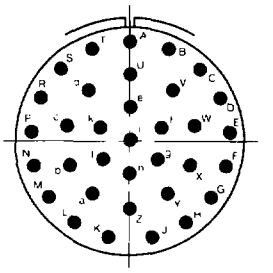
2219*
19 #12



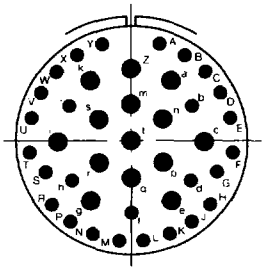
2221
21 #16



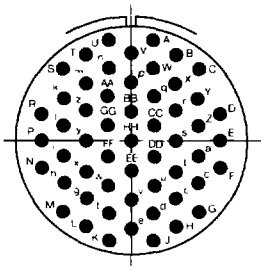
2232
32 #20



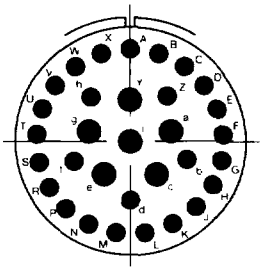
2234*
34 #20



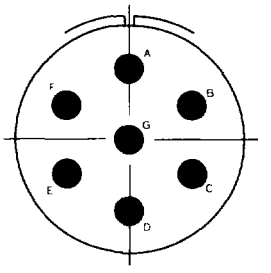
2241
14 #16, 27 #20



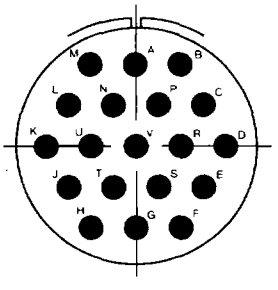
2255
55 #20



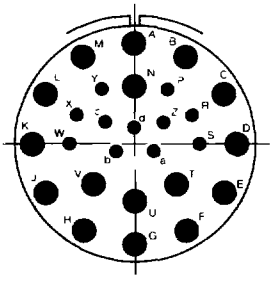
2295
6 #12, 26 #20



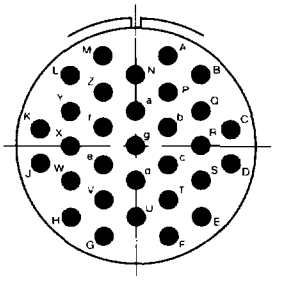
2296*
7 #8 Shielded



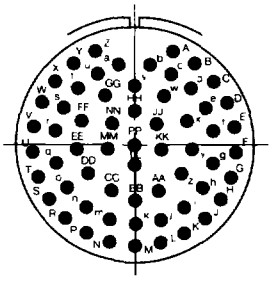
2419
19 #12



2427*
11 #20, 16 #12



2431
31 #16



2461
61 #20

* Consult AMP for availability
Note: Mating face of pin insert is shown, socket is opposite.

SOURCE: Catalog 82647

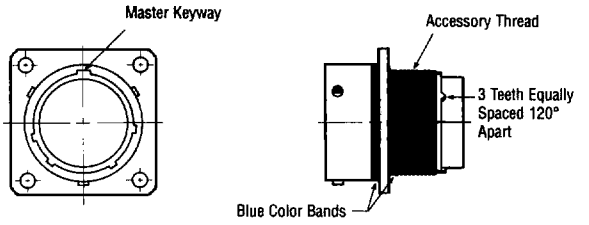
MIL-C-26482
Series II (Continued)

Shell Size:

8
10
12
14
16
18
20
22
24

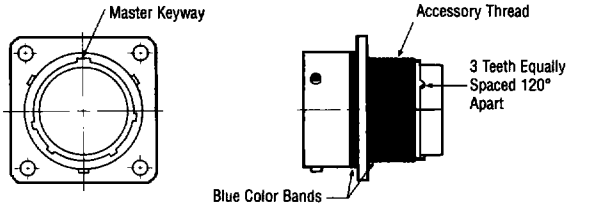
Receptacle Shell, Wall Mount, Narrow Flange, Bayonet Coupling

Military No. MS3470, M83723/01 & /02
MATRIX No. MB10



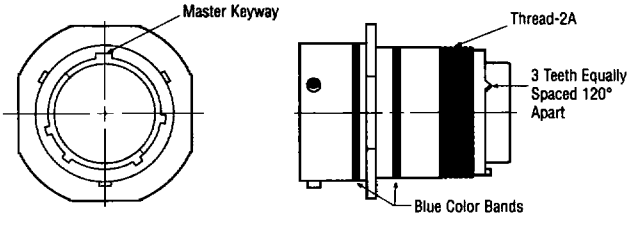
Receptacle Shell, Wall Mount, Wide Flange, Bayonet Coupling

Military No. MS3472, M83723/03 & /04
MATRIX No. MB11



Receptacle Shell, Cable Connecting, Bayonet Coupling

Military No. MS3471, M83723/07 & /08
MATRIX No. MB13



SOURCE: Catalog 82647

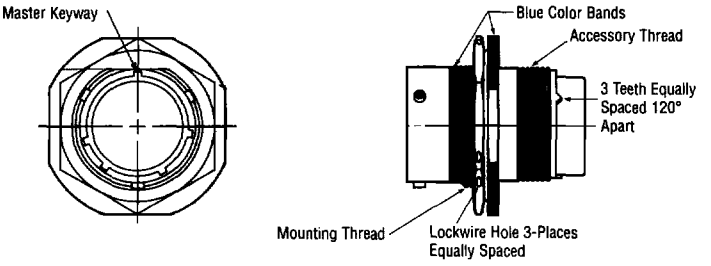
MIL-C-26482
Series II (Continued)

Shell Size:

8
10
12
14
16
18
20
22
24

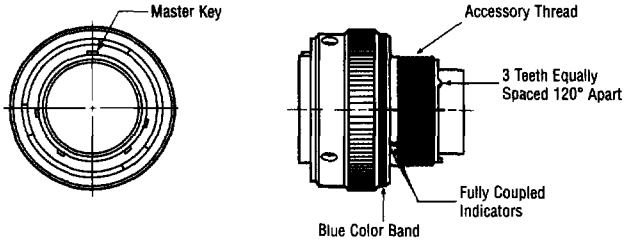
Receptacle Shell, Jam Nut Mount, Bayonet Coupling

Military No. MS3474, M83723/05 & /06
MATRIX No. MB14



Plug Shell, Bayonet Coupling

Military No. MS3476, M83723/13 & /14
MATRIX No. MB16



Plug Shell, RFI Grounding, Bayonet Coupling

Military No. MS3475, M83723/42 & /43
Matrix No. MB18