

Amphenol

Composite Connectors, Protective
Cover & Backshells
MIL-DTL-38999, Series III
Jan - 2024

Amphenol SERIES III COMPOSITE



Amphenol

Content	Page
Introduction	2
The Highest Performance MIL - DTL - 38999 Connector	3
The Ultimate Sub Miniature Cylindrical	4
Specifications	5
Test Data	6-7
Alternate Positioning	8
Insert Arrangements	9-12
Wall Mounting Receptacle (D38999/20)	13
Straight Plug (D38899/26)	14
Jam Nut Receptacle (D38999/24)	15
Ordering Information (Military Part No.)	16
Ordering Information (Commercial)	17
Contacts, Sealing Plugs	18
Tools Crimp, Insertion and Removal Tools	19
Assembly Instructions	20
Installation Instructions	21
Weight Comparison in Ounces	22
Weight Comparison in Gms.	23-24
Introduction Composite Protection Cap	25
Plug Protection Cap With Commercial Part nos.	26
Plug Protection Cap With MIL Part nos.	27
Receptacle Protection Cap With Commercial Part nos.	28
Receptacle Protection Cap With MIL Part nos.	29
Introduction On Composite Backshell	30
Composite EMI/RFI Strain Relief Straight, for MIL-DTL-38999 Series III & IV Connectors	32
Composite EMI/RFI Strain Relief 45°, for MIL-DTL-38999 Series III & IV Connectors	33
Composite EMI/RFI Strain Relief 90°, for MIL-DTL-38999 Series III & IV Connectors	34
Composite Band lock Adapter, for MIL-DTL-38999 Series III & IV Connectors	35
Composite Strain Relief, Straight 90° For MIL-DTL 38999 Series III & IV Connectors	36
Composite, Split Ring	37
Composite Strain Relief, Adjustable Arm, for MIL-DTL-38999 Series III & IV Connectors	38-40
Composite EMI/RFI Strain Relief, Adjustable Arm, for MIL-DTL-38999 Series III & IV Connectors	41-48
Composite Strain Relief, Adjustable Arm, for MIL-DTL-83723 Connectors	49-52
Composite EMI/RFI Strain Relief, Adjustable Arm, for MIL-DTL-83723 Connectors	53-59

About Composite

Amphenol composite connectors and accessories are manufactured from high-grade engineering thermoplastics for the toughest application environments. Specifically geared for high-performance air, sea, land and space applications, composite connectors are ideally suited for systems which require electromagnetic compatibility, reliable environmental protection and long-term durability.

Weight Reduction: Composites offer increased strength at lighter weights. Weight savings for composites over aluminium are approximately 40% (depending on component design). Savings versus other materials are even more pronounced; up to 80% for stainless steel and 50% for Titanium Composite materials directly reduce aircraft empty weights and increase fuel fractions resulting in smaller, lower-cost aircraft that use less fuel to perform a given mission.

Corrosion Resistance: One of the most appealing attributes of composites is their unlimited corrosion resistance as compared to conventional metal materials. Aluminium interconnect components, for example, are subject to galvanic coupling which causes the material to be “sacrificed” to its cadmium/nickel plating. Since high temperature composite plastic is not sacrificial to plating, finished products last longer, require less maintenance and so directly reduce the overall cost of ownership of the interconnect system.

Durability: Composite thermoplastic interconnect connectors and accessories are cleverly designed to avoid many of the durability problems associated with conductive plated parts. Through the use of selective plating, which limits easy to scratch plated surfaces to the protected portions of the part, effectively eliminates superficial damage to coupling nuts. The parts are free from visible wear and tear problems that forces premature replacement of connectors, box assemblies and other EMC interconnect components.

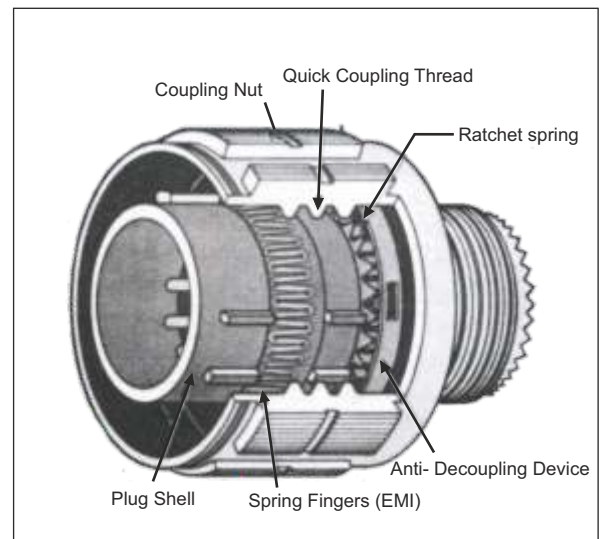
Vibration Dampening: Unlike metals, polymer plastics are less subject to harmonic resonance due to their lighter weight and inherent attenuating properties. Which means threaded components made from these materials are far less likely to vibrate loose when subjected to prolonged periods of vibration and shock. Again, reduced maintenance and reduced cost of ownership are the major benefits realized by systems built from vibration dampening composite thermoplastics.

MIL - DTL - 38999 Series III

Performance

Amphenol Tri-Start MIL-DTL -38999 Series III Connectors offer the highest performance capabilities for both general duty and severe environment applications. Meeting or exceeding MIL-DTL-38999 Series III requirements, the Tri-Start connector with standard composite shell, with Cadmium & Electroless Nickel several finish options offers these features:

- **EMI Shielding** - Solid metal to metal coupling, grounding fingers, electroless nickel plating and thicker wall sections provide superior EMI shielding capability of 65dB minimum at 10 GHz
- **Contact Protection** - Recessed pins in this 100% scoop-proof connector minimize potential contact damage
- **Moisture Resistance** - Improved interfacial seal design helps prevent electrolytic erosion of contacts
- **Corrosion Resistance** - Withstand a 2000 hours salt spray exposure of Cadmium & Electroless Nickel
- **Vibration /Shock** - Operates under severe high temperature vibration, through 200°C
- **Lockwiring Eliminated** - Unique, self - locking, quick coupling connector eliminates lockwiring
- **Quick Coupling** - Completely mates and self-locks in a 360° turn of the coupling nut
- **Inventory Support Commonality**- Uses standard MIL-DTL-38999 contacts, application tools and insert arrangements
- **Electrostatic Discharge Protection (ESD)** - Protection for sensitive circuitry without diodes, varistors, etc., with the use of the Faraday Cage principal which shunts high voltage, high current discharge events



- **Lightweight** - 17% - 70% weight savings (17-40% weight savings vs. aluminum) (60-70% weight savings vs. stainless steel) (50% weight saving v/s Titanium)
See Composite weight comparison chart, pg. no.22-23
- **Corrosion Resistance** - Available in standard MIL-DTL-38999 olive drab cadmium (175°C) and electroless nickel plating (200°C), both withstanding 2000 hours of salt spray exposure. The base material is able to withstand an indefinite exposure to salt spray
- **Durability** - 1500 couplings minimum (in reference to connector couplings, not contacts)
- **Extended Life Contact** - MIL - approved plating process which provides 1500 couplings minimum

Performance



Wall Mount Receptacle



Straight Plug



Jam Nut Receptacle

Designed For Performance

Numerous advantages in performance capability are designed into the Amphenol Tri-Start Connector. A positive coupling design, grounding fingers and electroless nickel plating provide EMI shielding capability of 65 dB minimum at 10 GHz.

Acme threads provide coupling durability. Thicker wall sections and a greater coupling surface area improves strength and shock resistance. Blunting of the thread on both the coupling nut and receptacle eliminates cross coupling. The connector quickly mates and self locks in a 360° turn of the coupling nut.

Elongated mounting holes permit the Tri-Start Connector to intermount with various existing MIL-spec box or wall mount receptacles, giving it a design replacement advantage.

Composite versions provide protection from salt spray exposure for 2000 hours. Other finish options are available.

Recessed pins minimize potential contact damage in this 100% scoop-proof connector. In a blind mating application, mating shells cannot “scoop” the pins and cause a shorting or bending of contacts.

The design of the Amphenol Tri-Start interfacial seal meets the MIL-DTL-38999 Series III requirements for electrolytic erosion resistance.

A rigid dielectric insert with excellent electrical characteristics provides durable protection to the contacts. The socket contacts are probe proof and all contacts are rear removable.

Available in sizes 10 power, 12, 16, 20 and 22D contacts are plated in the standard 50 micro inches minimum gold, with 100 micro inches as an option. Fiber optics, extended life and shielded coaxial contacts are also available in a wide selection of standard MIL-DTL-38999 insert patterns.

Specifications

CONTACT RATING

Contact	Test Current	Maximum Millivolt Drop Crimp*	Contact	Test Current	
	Crimp			Well Diameter	Nominal Well Dept.
22D	5	73	22D	.0345 ±.0010	.141
20	7.5	55	20	.047 ±.001	.209
16	13	49	16	.067 ±.001	.209
12	23	42	12	.100 ±.002	.209
10(Power)	33	33	10(Power)	.137 ±.002	.355
8(Power)	46	26	8(Power)	.181±.002	.490

* When using silver plated wire.

SERVICE RATING

Service Rating	Suggested Operating Voltage (Sea Level)		Test Voltage (Sea Level)	Test Voltage 50,000 Ft.	Test Voltage 70,000 Ft.	Test Voltage 110,000 Ft.
	AC (RMS)	DC				
M	400	550	1300 VRMS	550 VRMS	350 VRMS	200 VRMS
N	300	450	1000 VRMS	400 VRMS	260 VRMS	200 VRMS
I	600	850	1800 VRMS	600 VRMS	400 VRMS	200 VRMS
II	900	1250	2300 VRMS	800 VRMS	500 VRMS	200 VRMS

** Please note that the establishment of electrical safety factors is left entirely in the designers hands, since he is in the best position to know what peak voltage, switching surges, transients, etc. can be expected in a particular circuit.

TABLE I: MATERIALS

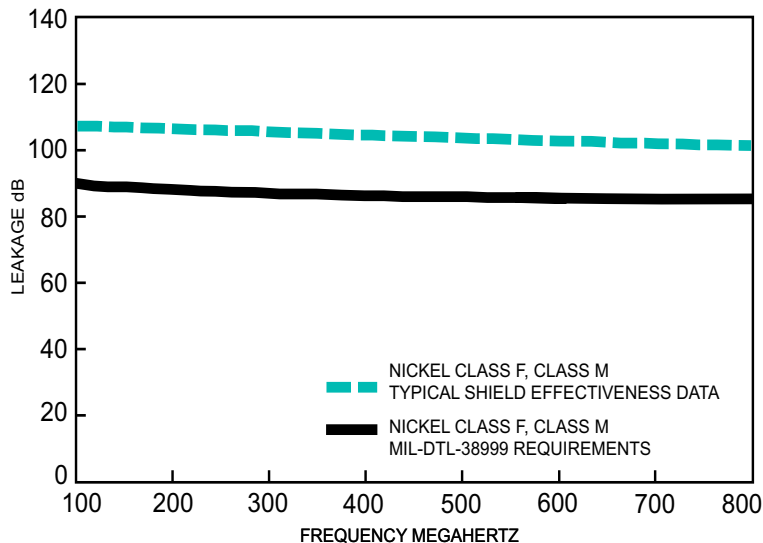
Shell, Coupling Nut	Composite Thermoplastic
Front and Rear Insulators	High Grade Engineering Plastic
Contact Retention Clip	Beryllium Copper, Heat-Treated, Unplated
Grommet, Peripheral Seal and Interfacial Seal	Blended elastomer
Pin / Socket Contacts (Environmental)	Copper Alloy/Gold Plate - M39029/AS39029

TABLE II: ENVIRONMENTAL COMPOSITE CONNECTOR AND ACCESSORIES FINISHES

Material	Finish	Specification
Composite	Electroless Nickel	AMS-C-26074
Composite	Cadmium Olive Drab over Electroless Nickel	AMS-QQ-P-416, over AMS-C-26074

Test Data

TRI-START, SERIES III TYPICAL SHIELDING EFFECTIVENESS TEST DATA EMI/EMP/ SHIELDING EFFECTIVENESS dB TESTING BY TRIAXIAL METHOD



AMPHENOL TRI -START CONNECTORS PROVIDE EMI/EMP SHIELDING CAPABILITY WHICH EXCEEDS MIL-DTL-38999 SERIES III REQUIREMENTS.

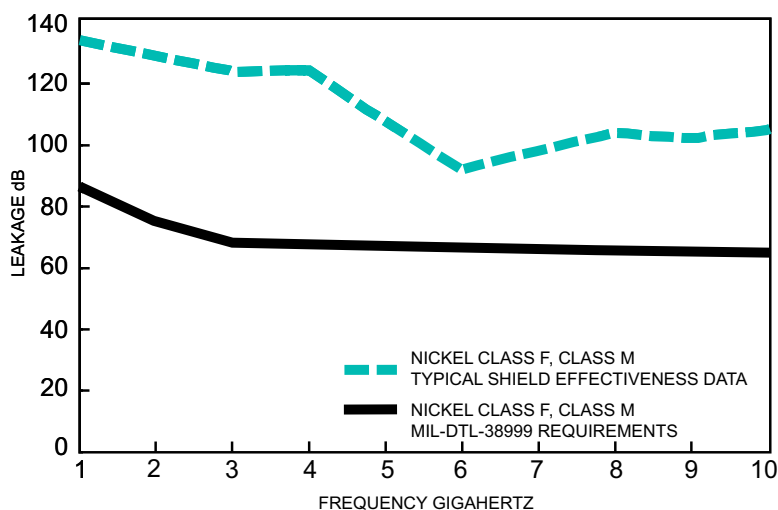
The Composite Series III connector with standard solid coupling, EMI grounding fingers and conductive finishes has proven to be the ultimate in EMI/EMP shielding effectiveness.

The charts illustrate shielding effectiveness data which is typical of Tri-Start connectors tested with the nickel finish (Class F-metal, Class M composite) over a wide frequency range.

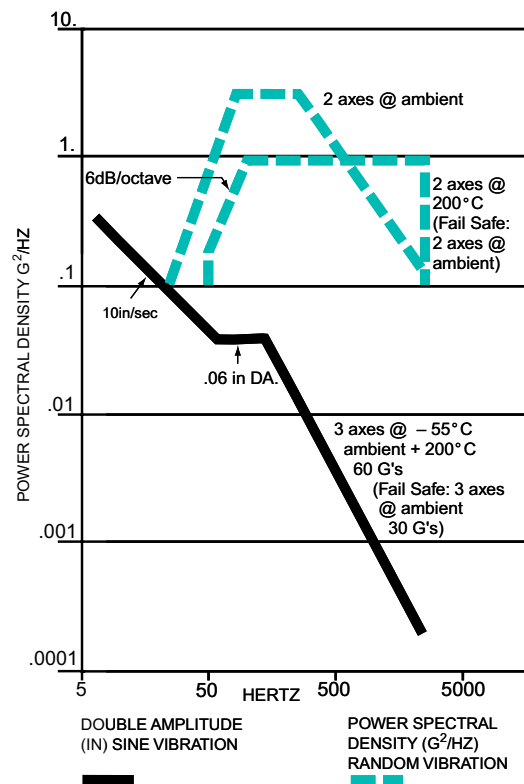
The vibration capability of the Tri-Start Series is shown in the chart below. This illustrates the most severe vibration envelope of any qualified connectors available today.

These capabilities along with a 200°C temperature rating and superior moisture sealing protection provide the user with a connector that can with stand the most rigorous application.

TRI-START, SERIES III TYPICAL SHIELDING EFFECTIVENESS TEST DATA EMI/EMP SHIELDING EFFECTIVENESS dB TESTING BY MODE STIRRING METHOD



TRI-START VIBRATION CRITERIA



Test data beyond 2GHz is subject to equipment variation.

* Dependant on shell finish

Test Data

Shell Size	Military Shell Size	Crimp	Service Rating	Total Contacts	Contact Size							
					22D	20	16	12	12 (Coax)	10 (Power)	8 (Coax)	8†† (Twinax)
9-5	A	◆	Grounded	1								1
9-35	A	X	M	6	6							
9-94	A	◆	M	2		2						
9-98	A	X	I	3		3						
11-2*	B	X	I	2			2					
11-5	B	X	I	5		5						
11-35	B	X	M	13	13							
11-98	B	X	I	6		6						
11-99	B	X	I	7		7						
13-4*	C	X	I	4			4					
13-8	C	X	I	8		8						
13-35	C	X	M	22	22							
13-98	C	X	I	10		10						
15-5*	D	X	II	5			5					
15-15	D	X	I	15		14	1					
15-18	D	X	I	18		18						
15-19	D	X	I	19		19						
15-35	D	X	M	37	37							
15-97	D	X	I	12		8	4					
17-2	E	X	M	39	38							1
17-6	E	X	I	6				6				
17-8*	E	X	II	8			8					
17-22*	E	◆	Coax	4					2		2	
17-26	E	X	I	26		26						
17-35	E	X	M	55	55							
17-99	E	X	I	23		21	2					
19-11*	F	X	II	11			11					
19-31	F	◆	M	15	12			1			2	
19-32	F	X	I	32		32						
19-35	F	X	M	66	66							
21-11*	G	X	II	11				11				
21-16*	G	X	II	16			16					
21-35	G	X	M	79	79							
21-39	G	X	I	39		37	2					
21-41	G	X	I	41		41						
21-75*	G	X	M	4								(See Note)
23-6*	H	X	M	6								6
23-21*	H	X	II	21			21					
23-35	H	X	M	100	100							
23-53	H	X	I	53		53						
23-54	H	X	M	53	40		9	4				
23-55	H	X	I	55		55						
25-4	J	X	I	56		48	8					2
25-7	J	X	Twinax	99	97							8
25-8*	J	◆	Twinax	8								
25-11***	J	◆	N	11		2				9		6
25-17	J	◆	M	42	36							
25-19*	J	X	I	19				19				3
25-20***	J	X	N	30		10	13**		4			
25-24*	J	X	I	24			12	12				
25-26	J	◆	I	25		16		5			4	
25-2	J	X	I	29			29					
25-35	J	X	M	128	128							
25-37	J	X	I	37			37					
25-43	J	X	I	43		23	20					
25-46	J	X	I	46		40	4				2 †	
25-61	J	X	I	61		61						

X Completely tooled.

◆ Majority of tooling is completed (contact Amphenol).

◆ Not tooled for 02-R.

* Ground plane proprietary option available. Arrg. 9-5 is exclusively ground plane type.

** Two size 16 contacts dedicated to fiber optics. Consult Amphenol.

*** For use in MIL-STD-1760 applications.

For RG180/U and RG195/U cables only.

(Contact Amphenol, for other cable application).

Size 8 Coax and Twinax are interchangeable.

Note: MS Connector 21-75 is supplied with size 8 twinax.

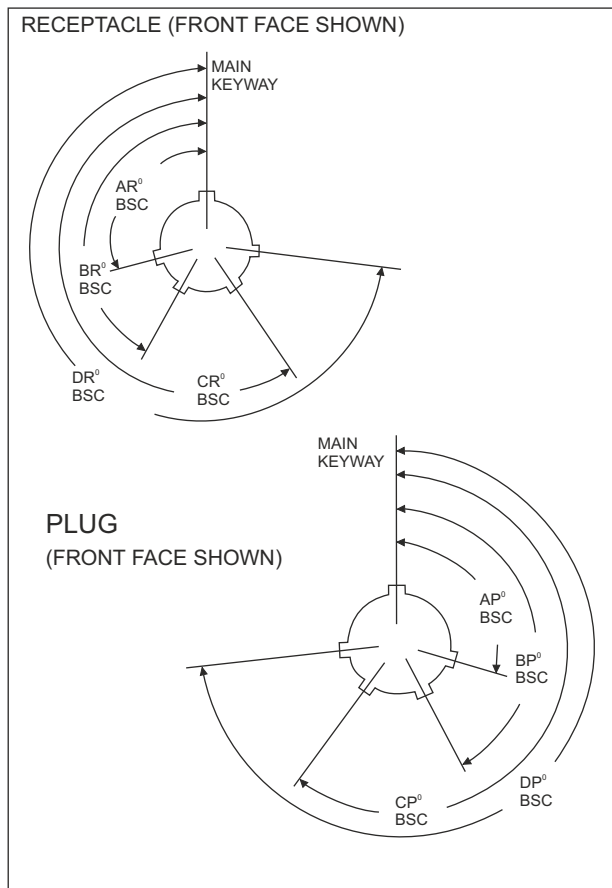
Proprietary connector 21-75 is supplied with size 8 coax.

Alternate Positioning

Master Key/Keyway Position

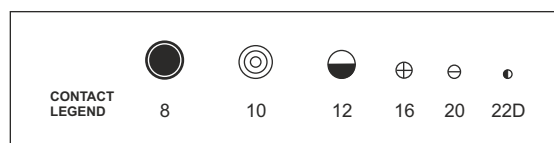
Shell Size	Key & keyway arrangement identification letter	AR° or AP° BSC	BR° or BP° BSC	CR° or CP° BSC	DR° or DP° BSC
9(A)	N	105	140	215	265
	A	102	132	248	320
	B	80	118	230	312
	C	35	140	205	275
	D	64	155	234	304
	E	91	131	197	240
11(B) 13(C) and 15(D)	N	95	141	208	236
	A	113	156	182	292
	B	90	145	195	252
	C	53	156	220	255
	D	119	146	176	298
	E	51	141	184	242
17(E) and 19(F)	N	80	142	196	293
	A	135	170	200	310
	B	49	169	200	244
	C	66	140	200	257
	D	62	145	180	280
	E	79	153	197	272
21(G) 23(H) and 25(J)	N	80	142	196	293
	A	135	170	200	310
	B	49	169	200	244
	C	66	140	200	257
	D	62	145	180	280
	E	79	153	197	272

A plug with a given rotation letter will mate with a receptacle with the same rotation letter. The angles for a given connector are the same whether it contains pins or sockets. Inserts are not rotated in conjunction with the master key/keyway.



Insert Arrangements

Front face of pin insert illustrated



Insert Arrangement	9-5	9-35	9-94	9-98	11-2	11-5	11-35	11-98
Service Rating	Grounded	M	M	I	I	I	I	I
Number of Contacts	1	6	2	3	2	5	13	6
Contact Size	8 Twinax	22D	20	20	16	20	22D	20

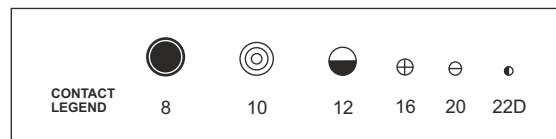
Insert Arrangement	11-99	13-4	13-8	13-35	13-98	15-5	15-15	
Service Rating	I	I	I	M	I	II	I	
Number of Contacts	7	4	8	22	10	5	14 1	
Contact Size	20	16	20	22D	20	16	20 16	

Insert Arrangement	15-18	15-19	15-35	15-97	17-2	176	
Service Rating	I	I	M	I	M	I	
Number of Contacts	18	19	37	8 4	38 1	6	
Contact Size	20	20	22D	20 16	22D 8 Twinax	12	

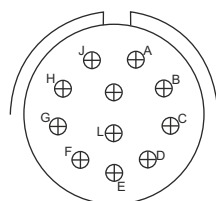
Insert Arrangement	17-8	17-22	17-26	17-35	17-99		
Service Rating	II	Coax	I	M	I		
Number of Contacts	8	2 2	26	55	21 2		
Contact Size	16	12Coax 8Coax	20	22D	20 16		

Insert Arrangements

Front face of pin inserts illustrated



Insert Arrangement
Service Rating
Number of Contacts
Contact Size

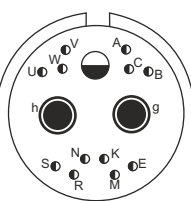


19-11

II

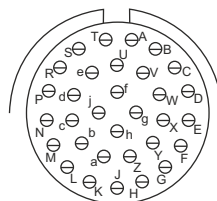
11

16



19-31

M

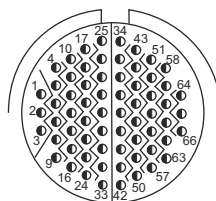
2 1 12
8Coax 12 22D

19-32

I

32

20

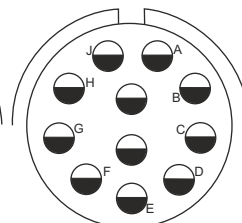


19-35

M

66

22D



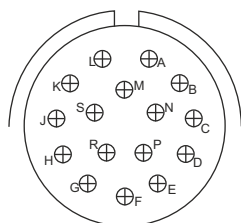
21-11

I

11

12

Insert Arrangement
Service Rating
Number of Contacts
Contact Size

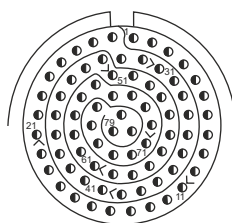


21-16

II

16

16

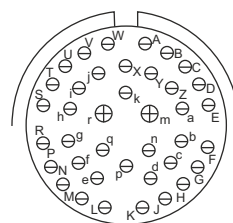


21-35

M

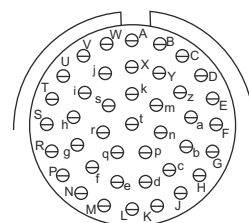
79

22D



21-39

I

37 2
20 16

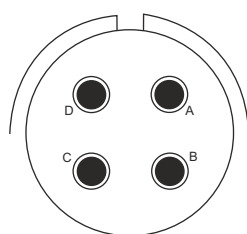
21-41

I

41

20

Insert Arrangement
Service Rating
Number of Contacts
Contact Size

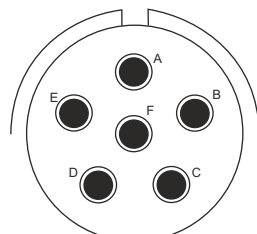


21-75

M

4

(See Note)

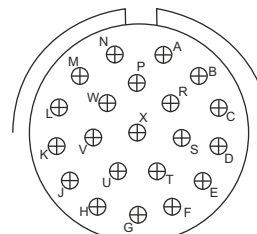


23-6

M

6

8 Twinax

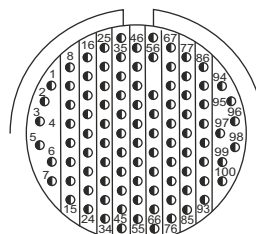


23-21

II

21

16



23-35

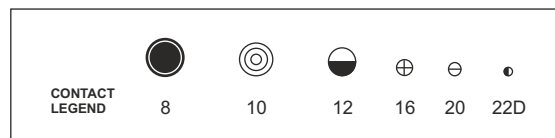
M

100

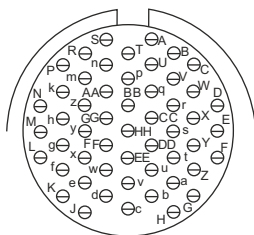
22D

Note: MS connector 21-75 is supplied with size 8 twinax.
 Proprietary connector 21-75 is supplied with size 8 coax.

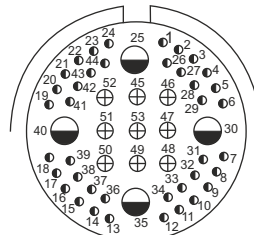
Insert Arrangements



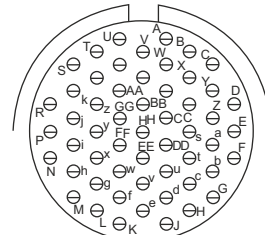
Front face of pin insert illustrated



23-53



23-54



23-55

Insert Arrangement
Service Rating
Number of Contacts
Contact Size

I

53

20

M

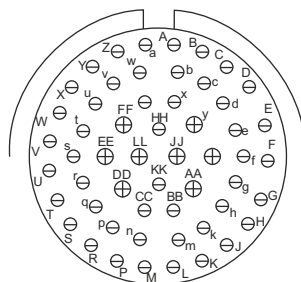
40 9 4

22D 16 12

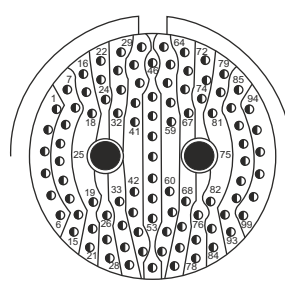
I

55

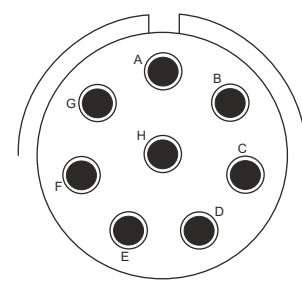
20



25-4



25-7



25-8

Insert Arrangement
Service Rating
Number of Contacts
Contact Size

I

48 8

20 16

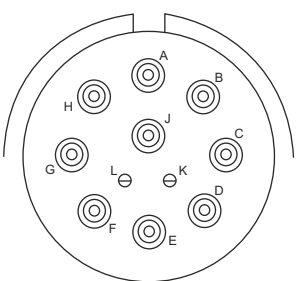
Twinax

97 2

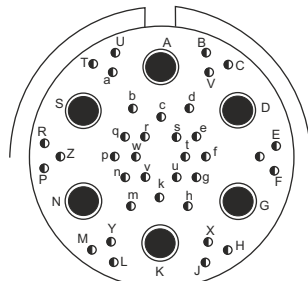
22D 8 Twinax

Twinax

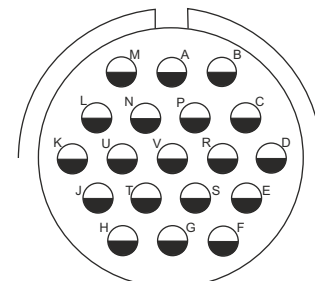
8

8
Twinax

25-11***



25-17



25-19

Insert Arrangement
Service Rating
Number of Contacts
Contact Size

N

2 9
20 10 Power

M

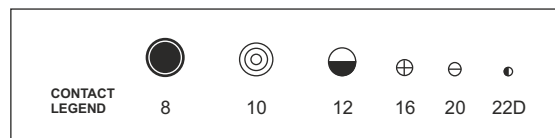
36 6
22D 8 Twinax

I

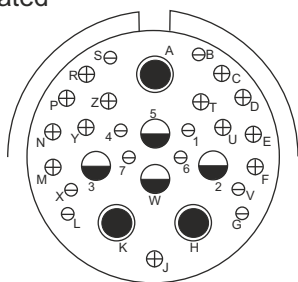
19
12

***For use in MIL-STD-1760 applications

Insert Arrangements



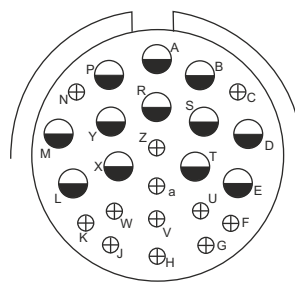
Front face of pin insert illustrated



25-20***

N

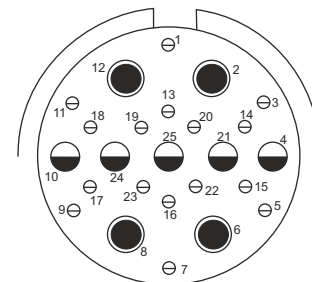
10 13 3 4
20 16 8 Twinax 12 Coax
(Locations U and Y - Dedicated to
Fiber Optics)



25-24

I

12 12
16 12

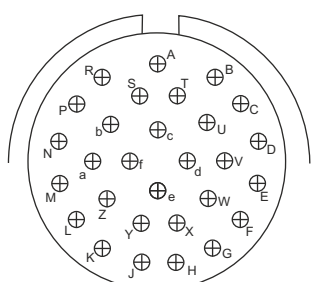


25-26

I

16 5 4
20 12 8 Coax

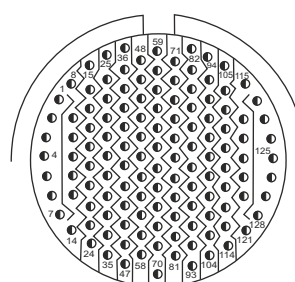
Insert Arrangement
Service Rating
Number of Contacts
Contact Size



25-29

I

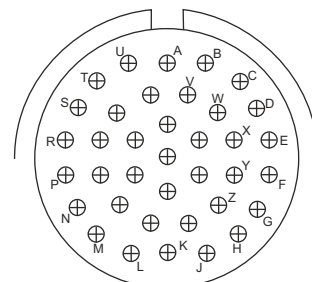
29
16



25-35

M

128
22D

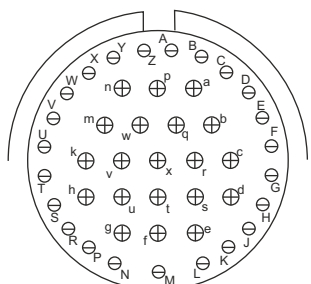


25-37

I

37
16

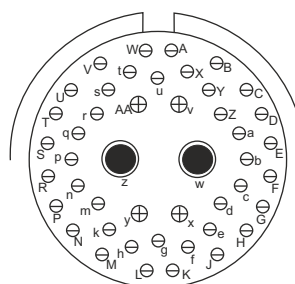
Insert Arrangement
Service Rating
Number of Contacts
Contact Size



25-43

I

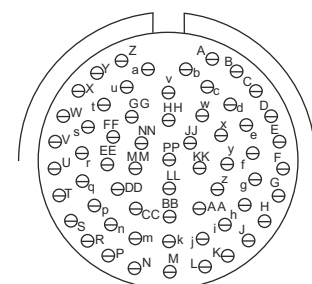
23 20
20 16



25-46

I

40 4 2
20 16 8 Coax†



25-61

I

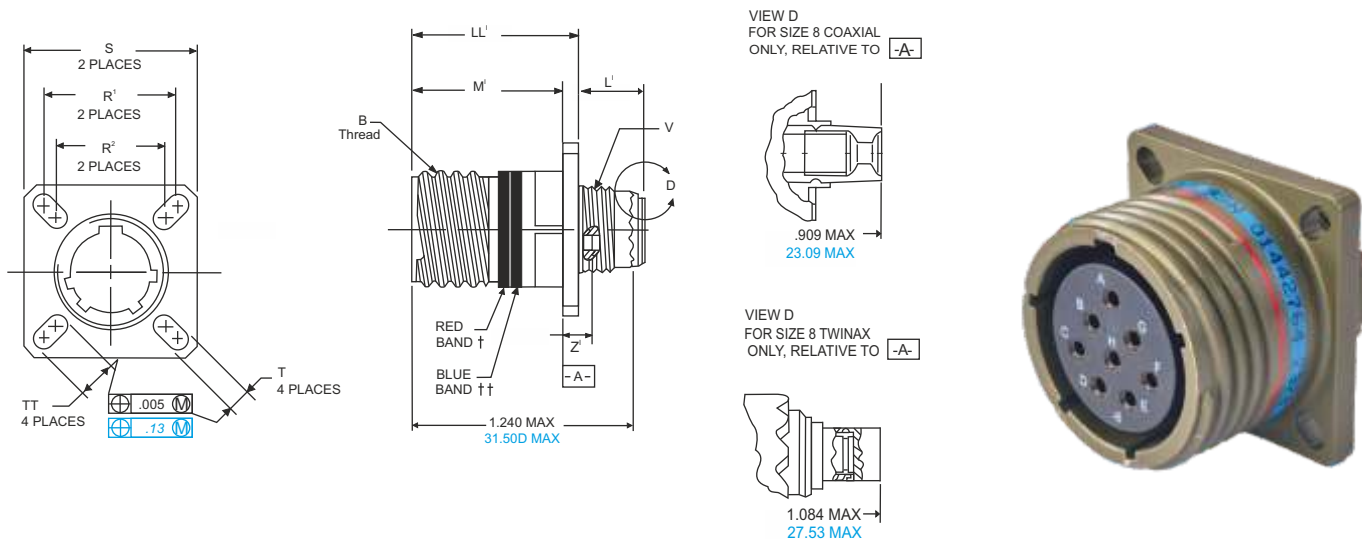
61
20

Insert Arrangement
Service Rating
Number of Contacts
Contact Size

***For use in MIL-STD-1760 applications

†Coax contacts for RG 180 or RG 195 cable

Wall Mount Receptacle D38999/20



† Red band indicates fully mated.
 †† Blue band indicates rear release contact retention system.

Inches

Shell Size	MS Shell Size Code	B Thread Class 2A 0.1P=0.3L-TS (Plated)	L ¹ Max.	M ¹ +0.000 -0.005	R ¹	R ²	S Max.	T ±0.008	Z ¹ Max.	AA Max. Panel Thickness	LL ¹ ±0.05	TT ±0.008
9	A	.6250	.514	.773	.719	.594	.948	.128	.198	.234	.908	.216
11	B	.7500	.514	.773	.812	.719	1.043	.128	.198	.234	.908	.194
13	C	.8750	.514	.773	.906	.812	1.137	.128	.198	.234	.908	.194
15	D	1.0000	.514	.773	.969	.906	1.232	.128	.198	.234	.908	.173
17	E	1.1875	.514	.773	1.062	.969	1.323	.128	.198	.234	.908	.194
19	F	1.2500	.514	.773	1.156	1.062	1.449	.128	.198	.234	.908	.194
21	G	1.3750	.545	.741	1.250	1.156	1.575	.128	.228	.204	.904	.194
23	H	1.5000	.545	.741	1.375	1.250	1.701	.154	.228	.204	.904	.242
25	J	1.6250	.545	.741	1.500	1.375	1.823	.154	.228	.204	.904	.242

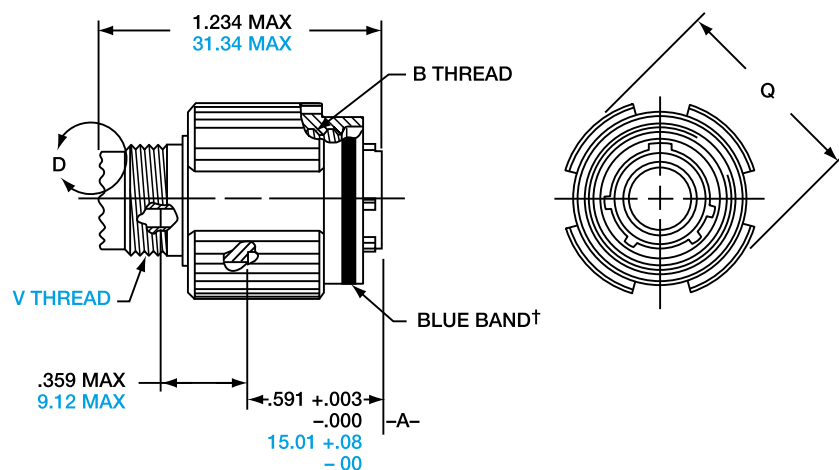
Millimeters

Shell Size	MS Shell Size Code	L ¹ Max.	M ¹ +0.00 -0.13	R ¹	R ²	S Max	T ±0.20	V Thread Metric	Z ¹ Max.	AA Max.	LL ¹ ±0.05	TT ±0.20
9	A	13.06	19.63	18.26	15.09	24.1	3.25	M12X1-6g	5.03	5.94	23.06	5.49
11	B	13.06	19.63	20.62	18.26	26.5	3.25	M15X1-6g	5.03	5.94	23.06	4.93
13	C	13.06	19.63	23.01	20.62	28.9	3.25	M18X1-6g	5.03	5.94	23.06	4.93
15	D	13.06	19.63	24.61	23.01	31.3	3.25	M22X1-6g	5.03	5.94	23.06	4.93
17	E	13.06	19.63	26.97	24.61	33.7	3.25	M25X1-6g	5.03	5.94	23.06	4.93
19	F	13.06	19.63	29.36	26.97	36.9	3.25	M28X1-6g	5.03	5.94	23.06	4.93
21	G	13.84	18.82	31.75	29.36	40.1	3.25	M31X1-6g	5.79	5.18	22.96	4.93
23	H	13.84	18.82	34.93	31.75	43.3	3.91	M34X1-6g	5.79	5.18	22.96	6.15
25	J	13.84	18.82	38.10	34.93	46.4	3.91	M37X1-6g	5.79	5.18	22.96	6.15

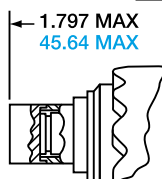
All dimensions for reference only.

□ Designates true position dimensioning.

Straight Plug D38999/26



VIEW D
FOR SIZE 8 TWINAX ONLY,
RELATIVE TO $\boxed{-A-}$



† Blue band indicates rear release contact retention system

Inches

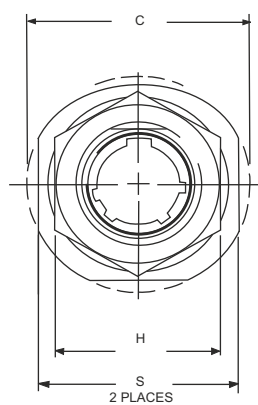
Shell Size	MS Shell Size Code	B Thread 0.1P-0.3L-TS (Plated)	Q Dai Max.
9	A	.6250	.858
11	B	.7500	.984
13	C	.8750	1.157
15	D	1.0000	1.280
17	E	1.1875	1.406
19	F	1.2500	1.516
21	G	1.3750	1.642
23	H	1.5000	1.768
25	J	1.6250	1.890

Millimeters

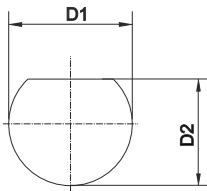
Shell Size	MS Shell Size Code	Q Max.	V Thread Metric
9	A	21.80	M12X1-6g
11	B	25.00	M15X1-6g
13	C	29.4	M18X1-6g
15	D	32.5	M22X1-6g
17	E	35.7	M25X1-6g
19	F	38.5	M28X1-6g
21	G	41.7	M31X1-6g
23	H	44.9	M34X1-6g
25	J	48.0	M37X1-6g

All dimensions for reference only

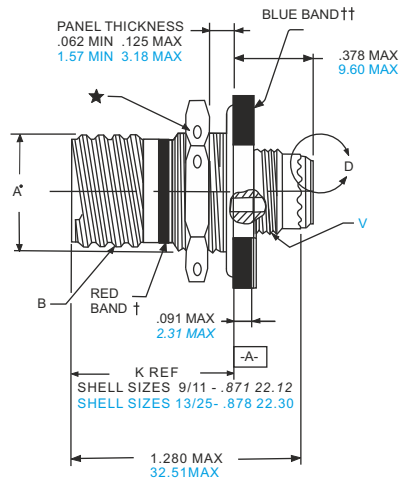
Jam Nut Receptacle D38999/24



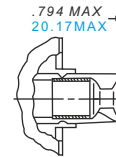
PANEL HOLE DIMENSION'S



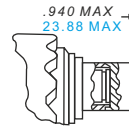
JAM NUT
D-HOLE MOUNTING



VIEW D
FOR SIZE 8 COAXIAL
ONLY, RELATIVE TO -A-



VIEW D
FOR SIZE 8 TWIANX
ONLY, RELATIVE TO -A-



† Red band indicates fully mated
 †† Blue band indicates rear release contact retention system
 ★ .059 dia.min.
 1.5 dia min. 3 lockwire holes.

Inches

Shell Size	MS Shell Size Code	B Thread Class 2A 0.1P-0.3L-TS (Plated)	C Max.	H Hex +.017 -.016	S ±.010	D ¹ + 0.010 - 0.00	D ² + 0 - 0.01	S ±0.010
9	A	.6250	1.199	.875	1.062	.700	.670	1.062
11	B	.7500	1.386	1.000	1.250	.825	.770	1.250
13	C	.8750	1.511	1.188	1.375	1.010	.955	1.375
15	D	1.0000	1.636	1.312	1.500	1.135	1.085	1.500
17	E	1.1875	1.761	1.438	1.625	1.260	1.210	1.625
19	F	1.2500	1.949	1.562	1.812	1.385	1.335	1.812
21	G	1.3750	2.073	1.688	1.938	1.510	1.46	1.938
23	H	1.5000	2.199	1.812	2.062	1.635	1.585	2.062
25	J	1.6250	2.323	2.000	2.188	1.760	1.780	2.188

Millimeters

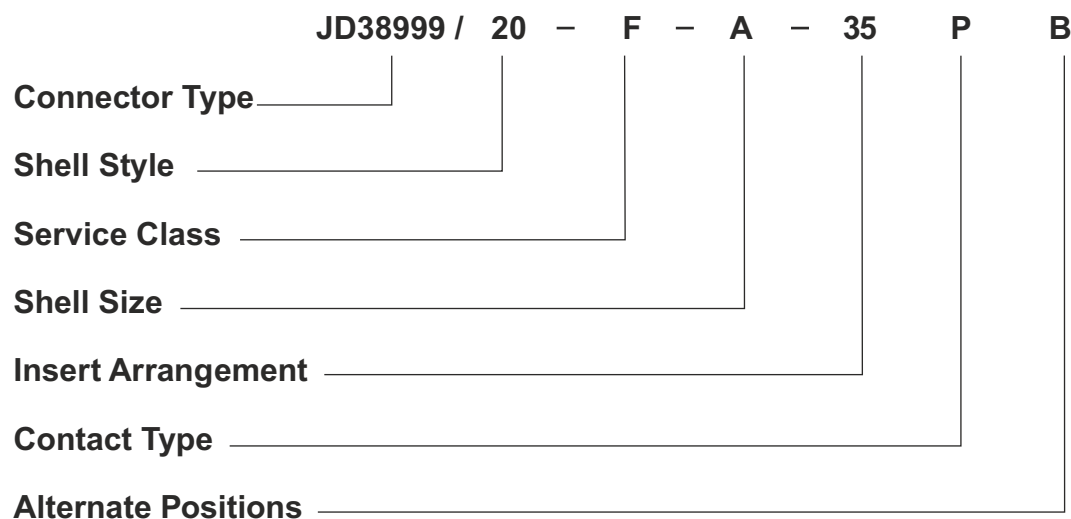
Shell Size	MS Shell Size Code	C Max.	H Hex +.43 -.41	S ±.25	V Thread Metric	D ¹ + 0.25 - 0.0	D ² + 0 - 0.25
9	A	30.45	22.23	26.97	M12X1-6g	17.78	17.02
11	B	35.20	25.40	31.75	M15X1-6g	20.96	19.59
13	C	38.38	30.18	34.93	M18X1-6g	25.65	24.26
15	D	41.55	33.32	38.10	M22X1-6g	28.83	27.56
17	E	44.73	36.53	41.28	M25X1-6g	32.01	30.73
19	F	49.50	39.67	46.02	M28X1-6g	35.18	33.91
21	G	52.65	42.80	49.23	M31X1-6g	38.35	37.08
23	H	55.85	46.02	52.37	M34X1-6g	41.53	40.26
25	J	59.00	50.80	55.58	M37X1-6g	44.70	43.43

All dimensions for reference only

How to order – (MIL-DTL 38999, Composite Connectors)

Military Part Number

To more easily illustrate ordering procedure of Tri- Start Connectors (Composite) by military designation, part number JD38999/20-F-A-35PB is shown as follows:



Connector Type

JD38999/designates MIL- DTL - 38999 Series III Connector

Shell Style

20 designates wall mount receptacle
24 designates jam nut receptacle
26 designates straight plug

Service Class

J Composite material Cadmium green finish
M Composite material electroless Nickel finish

Shell Size

MIL-DTL-38999, Sizes 9 – 25

A	B	C	D	E	F	G	H	J	MIL Shell size
---	---	---	---	---	---	---	---	---	----------------

Insert Arrangement

MIL-DTL-38999, see insert arrangement chart, page 9

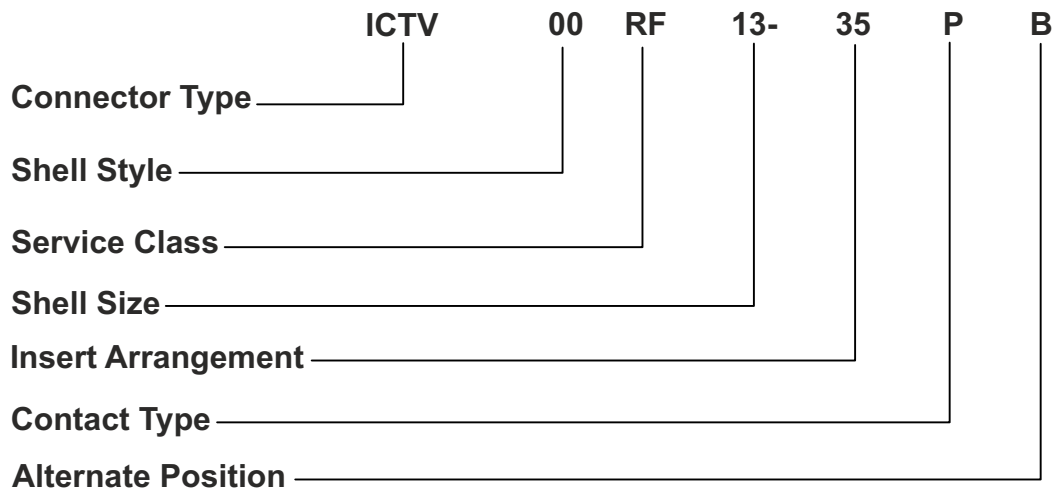
Contact Type

P designates pin contacts
S designates socket contacts
H 1500 cycle pin contacts
J 1500 cycle socket contacts
A designates same as “P” except supplied less pin contacts
B designates same as “S” except supplied less socket contacts
(A & B designates non -standard contacts applications)

Alternate Positions

Locksmith keying - rotation of minor keys. See page 8.
(Use N for normal)

How to order MIL-DTL-38999 III Composite Connector (Commercial)



Connector Type

ICTV/Designates MIL-DTL-38999 Series III Connector

Shell Style

00 Designates wall mount receptacle
 07 Designates jam nut receptacle
 06 Designates straight nut

Service Class

RW Composite Material Cadmium Green Finish
 RF Composite Material Electroless Nickel Finish

Shell Size

MIL-DTL-38999, Sizes 9-5

9	11	13	15	17	19	21	23	25	Amphenol shell size
---	----	----	----	----	----	----	----	----	---------------------

Insert Arrangement

MIL-DTL-38999 see insert arrangement chart, page no 9

Contact Type

P Designates pin socket
 S Designates socket contact
 H 1500 cycle pin contacts
 J 1500 cycle socket contacts
 A Designates same as "S" except supplied less pin contacts
 B Designates same as "S" except supplies less socket contacts
 (A & B designates non-std. applications)

Alternate Positions

Locksmith keying-rotation of minor keys see page 8
 (Use N for normal)

MIL-DTL-38999 Series III Standard 500 Cycle Contacts Classes P & S

PINS			SOCKETS	
Contact Size	Military No.	Supersedes	Military No.	Supersedes
8 (Coax)	M39029/60-367	MS27536	M39029/59-366	MS27535
8 (Power)	Contact Factory	"	"	"
8 (Twinax)	M39029/90-529**	N/A	M39029/91-530	N/A
10 (Power)	M39029/58-528	N/A	M39029/56-527	N/A
12	M39029/58-365	MS27493-12	M39029/56-353	MS27490-12
16	M39029/58-364	MS27493-60	M39029/56-352	MS27490-16
20	M39029/58-363	MS27493-20	M39029/56-351	MS27490-20
22D	M39029/58-360	MS27493-22D	M39029/56-348	MS27493-22D
4	N/A	N/A	N/A	N/A
0	N/A	N/A	N/A	N/A

Notes :

Above part no. include 500 cycle finish designation - gold

Plating over suitable under plate in accordance with SAE39029.

For other finish variation contact Amphenol factory

For use with RG180B/U & RG195 A cable for other size 8 coax

or optional sizes 12 & 16 coax contact available for use in Tri - start

Connectors see high speed catalog

MIL - DTL - 38999 III 1500 Cycle Contacts Class H & J

Contact Size	Pins			Sockets		
	Commercial No.	Military No.	Supersedes	Commercial No.	Military No.	Supersedes
12	10-597072-2X	M39029/107-623	-	10-597073-2X	M39029/106-617	-
16	10-597068-2X	M39029/107-622	-	10-597069-2X	M39029/106-616	-
20	10-597064-2X	M39029/107-621	-	10-597065-2X	M39029/106-615	-
22D	10-597058-3X	M39029/107-620	-	10-597061-2X	M39029/106-614	-

MIL-DTL-38999 Series III Sealing Plugs

Contact Size	Commercial No.	Military No.
8 (Coax)	10-482099-8	N/A
8 (Twinax)	T3-4008-59P	N/A
8 (Power)	10-405996-83	MS27488-8-3
10 (Power)	T3-4010-59P	M85049/81-10
12	10-405996-122	MS27488-12-2
16	10-405996-162	MS27488-16-2
20	10-405996-202	MS27488-20-2
22D	10-405996-222	MS27488-22-2
4	10-405996-43	MS27488-4-3
0	10-405996-03	MS27488-0-3

† Optional design - see slash sheet MS39029.

For other contact options available for use in Tri-Start connectors (wire wrap, thermocouple, fiber optic), consult Amphenol.

Application Tools

The following data includes information pertaining to the application tools which have been established for crimping, inserting and removing contacts incorporated in the TV, CTV and MIL-DTL-38999 Series III connectors. For additional information on coax, twinax and triax contact tools, see High Speed Contact section of this catalog.

All crimping tools included are the "full cycling" type and when used as specified in the installation instructions L-624 covering the TV, CTV and MS series connectors, will provide reliable crimped wire to contact terminations. There is a possibility of additional crimping tools other than those included being available at present or in the future for this specific application.

Crimping Tools

Contact Size/Type	Crimping Tool	Turret Die or Positioner
12 Pin and Socket	M22520/1-01	M22520/1-04
16 Pin and Socket	M22520/1-01 M22520/7-01	M22520/1-04 M22520/7-04
20 Pin and Socket	M22520/1-01 M22520/2-01 M22520/7-01	M22520/1-04 M22520/2-10 M22520/7-08
22, 22D, 22M Pin	M22520/2-01 M22520/7-01	M22520/2-09 M22520/7-07
22, 22D, 22M Socket Series I, III	M22520/2-01 M22520/7-01	M22520/2-07 M22520/7-05
22D Socket Series II	M22520/2-01 M22520/7-01	M22520/2-06 M22520/7-06
8 Twinax centre Pin & Socket	M22520/2-01	M22520/2-37
8 Twinax intermediate Outer Pin & Socket	M22520/5-01	M22520/5-200

Contact Size/Type	Crimping Tool	Turret Die or Positioner
8 Coaxial Inner Pin & Socket	M22520/2-01	M22520/2-31
	M2250/5-01	M22520/5-05 Die Closure B
8 Coaxial Outer Pin & Socket	M22520/5-01	M22520/5-41 Die Closure B
	M22520/10-01	M2250/10-07 Die Closure B
16 Coaxial Inner Pin & Socket	M22520/2-01	M22520/2-35
16 Coaxial Outer Pin & Socket	M22520/4-01	M22520/4-02
12 Coaxial Inner Pin & Socket	M22520/2-01	M22520/2-34
12 Coaxial Outer Pin & Socket	M22520/31-01	M22520/31-02
10 (Power)	TP-201423	

Where 2 or 3 tools are listed for a contact size, only one tool and its die or positioner are required to crimp the contact. The above crimping tools and positioners are available from the approved tool manufacturer.

Insertion Tools

Use with Contact Size	Plastic Tools		Metal Tools			
	MS Part No.	Color	Angle Type		Straight Type Commercial Part No.	Color
			MS Part No.	Commercial Part No.		
10 (Power)	M81969/14-05*	Grey/(White)	M81969/8-11	†	†	Green
12	M81969/14-04*	Yellow/(White)	M81969/8-09	11-8674-12††	11-8794-12††	Yellow
16	M81969/14-03*	Blue/(White)	M81969/8-07	11-8674-16††	11-8794-16††	Blue
20	M81969/14-10*	Red/(White)	M81969/8-05	11-8674-20††	11-8794-20††	Red
22	M81969/14-09*	Brown/(White)	M81969/8-03	11-8674-22††	11-8794-22††	Brown
22D, 22M	M81969/14-01*	Green/(White)	M81969/8-01	11-8674-24††	11-8794-24††	Black
8 Coaxial	None Required					
8 Twinax	None		None	None		Red

Removal Tools

Use with Contact Size	Plastic Tools		For Unwired Contacts Commercial Part No.	Metal Tools			
	MS Part No.	Color				Straight Type Commercial Part No.	Color
				MS Part No.	Commercial Part No.		
10 (Power)	M81969/14-05*	(Grey)/White	†	M81969/8-12	†	†	Green/White
12	M81969/14-04*	(Yellow)/White	11-10050-11††	M81969/8-10	11-8675-12 ††	11-8795-12 ††	Yellow/White
16	M81969/14-03*	(Blue)/White	11-10050-10††	M81969/8-08	11-8675-16 ††	11-8795-16 ††	Blue/White
20	M81969/14-10*	(Orange)/White	11-10050-9 ††	M81969/8-06	11-8675-20 ††	11-8795-20 ††	Red/Orange
22	M81969/14-09*	(Brown)/White	11-10050-8 ††	M81969/8-04	11-8675-22 ††	11-8795-22 ††	Brown/White
22D, 22M	M81969/14-01*	(Green)/White	11-10050-7 ††	M81969/8-02	11-8675-24 ††	11-8795-24 ††	Green/White
8 Coaxial	M81969/14-12	Green	None	None	11-9170	DRK26-8	N/A
8 Twinax	M81969/14-12	Green	None	None	11-9170	N/A	N/A

For information about contacts see page 29. The M81969/8, 11-8674, 11-8675, and 11-8794 metal contact insertion and removal tools will accommodate wires having the maximum outside diameter as follows: Contact size 12: dia. is .155, size 16: dia. is .109, size 20: dia. is .077, size 22D: dia. is .050. When wire diameters exceed those specified, the plastic tools must be used. † To be determined. *Double end insertion/removal tool. **Twinax insertion tools are available only in a straight type, metal version.

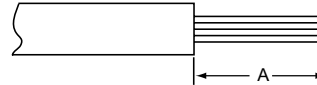
Assembly Instructions

Wire Stripping

1. Strip wire to required length. (See Figure at right). When using hot wire stripping, do not wipe melted insulation material on wire strands; with mechanical strippers do not cut or nick strands.
2. See Table 1 for proper finished outside wire dimensions.
3. Twist strands together to form a firm bundle.
4. Insert stripped wire into contact applying slight pressure until wire insulation butts against wire well. Check inspection hole to see that wire strands are visible. If there are strayed wire strands, entire wire end should be re-twisted.

When wire is stripped and properly installed into contact, the next step is to crimp the wire inside the contact by using the proper crimping tool.

Stripping Dimensions



Wire Size	A
22, 22M, 22D	.125 (3.18)
20	.188 (4.77)
16	.188 (4.77)
12	.188 (4.77)

Table 1

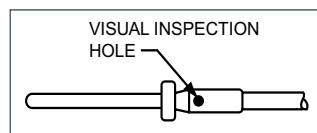
Contact Size	Wire Dimension (inches)**	
	Min.	Max.
10	.135	.162
12	.097	.142
16	.065	.109
20	.040	.077
22	.034	.060
22M, 22D	.030	.050

Min. diameters to insure moisture proof assembly;
max. diameters to permit use of metal removal tools.

Crimping

See table on preceding page for recommended M22520 series crimping tools, turret head or positioner selection settings according to contact size, part number and wire gauge size.

1. Insert stripped wire into contact crimp pot. Wire must be visible through inspection hole.
2. Using correct crimp tool and locator, cycle the tool once to be sure the indentors are open, insert contact and wire into locator. Squeeze tool handles firmly and completely to insure a proper crimp. The tool will not release unless the crimp indentors in the tool head have been fully actuated.
3. Release crimped contact and wire from tool. Be certain the wire is visible through inspection hole in contact.



Examples of M22520 Series Crimping Tools:
Shown top: tool used for small size 22, 22D and 22M contacts.

Shown bottom: tool used for size 20, 16 or 12 contacts and has a positioner that can be dialed for each contact size.

Contact Insertion

1. First remove hardware from the plug and receptacle and slide the hardware over wires in proper sequence.



Note: Note: All plastic tools are double-ended. The coloured side is the insertion tool and white side is the removal tool

2. Use proper plastic or metal insertion tool for corresponding contact. (Consult Insertion Tool table on preceding page). Slide correct tool (with plastic tool use colored end) over wire insulation and slide forward until tool bottoms against rear contact shoulder.



Plastic tool with contact in proper position.



Metal tool with contact.

3. Next align the tool and contact up to the properly identified cavity at rear of connector plug. Use firm, even pressure; do not use excessive pressure. It is recommended to start at the center cavity. Contact must be aligned with grommet hole and not inserted at an angle. Push forward until contact is felt to snap into position within insert.



Installation Instructions

Contact Insertion

4. Remove tool and pull back lightly on wire, making sure contact stays properly seated and isn't dragged back with the tool. Repeat operation with remainder of contacts to be inserted, beginning with the center cavity and working outward in alternating rows.



5. After all contacts are inserted, fill any empty cavities with wire sealing plugs. (Refer to sealing plug charts for Series III on page no.19.)



6. Reassemble plug or receptacle hardware - slide forward and tighten using connector pliers. Connector holding tools are recommended while tightening back accessories. When using strain relief, center wires at bar clamp. Slide clamp grommet into position and tighten clamp bar screws. When tightening screws, pressure should be applied in the same direction that clamp is threaded to rear threads of connector. When not using clamp grommet, build up wire bundle with vinyl tape so clamp bar will maintain pressure on wires.



CAUTION, when inserting or removing contacts, do not spread or rotate tool tips.

Contact Removal

1. Remove hardware from plug or receptacle and slide hardware back along wire bundle.



2. Use proper plastic or metal removal tool for corresponding contact. (Consult Removal Tool table on page 19). Slide correct size tool over wire insulation.



Use white end of plastic tool for removal of contacts.

3. Insert plastic or metal removal tool into contact cavity until tool tips enter rear grommet and come to a positive stop. Hold tool tip firmly against positive stop on contact shoulder. Grip wire and simultaneously remove tool and contact. (On occasion, it may be necessary to remove tool, rotate 90° and reinsert.)



Removal of contacts with metal tool.

Weight Comparisons

Depending on the shell style, shell size and contact count, weight saving can range from 17% to 40% compared to standard aluminum product.

Tri-Start Weight in ounces (includes contacts)

Size/ Arrange- ment	Wall Mount Receptacle (00)						Jam Nut Receptacle (07)						Plug (06)					
	Stainless Steel		Aluminum		Composite		Stainless Steel		Aluminum		Composite		Stainless Steel		Aluminum		Composite	
	Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket
9-35	.7216	.7840	.3248	.3777	.2588	.3121	1.1472	1.2096	.4416	.5040	.3489	.4413	1.0736	1.1360	.4236	.4625	.2606	.2994
9-98	.7216	.7776	.2496	.3056	.1664	.2224	1.1472	1.2032	.4416	.4976	.3744	.4640	1.0736	1.1296	.3968	.4624	.2991	.2327
11-35	.9488	1.0800	.3632	.4960	.2753	.4081	1.4304	1.5632	.5936	.7264	.4679	.6007	1.2480	1.3808	.5312	.6389	.3450	.4582
11-98	.9488	1.0620	.3632	.4768	.2753	.3889	1.4304	1.5440	.5936	.7072	.4679	.5815	1.2480	1.3616	.5330	.6283	.3468	.4457
13-8	1.2096	1.3888	.4800	.6592	.3696	.5488	1.9104	2.0896	.7664	.9456	.6560	.8352	1.8048	1.9840	.7936	.9728	.5237	.5952
13-35	1.2160	1.4320	.4864	.7024	.3762	.5922	1.9168	2.1328	.7728	.9888	.6136	.8296	1.8112	2.0272	.8000	.8472	.5301	.6531
13-98	1.2160	1.4016	.4864	.6720	.3762	.5618	1.9168	2.1024	.7728	.9584	.6136	.7992	1.8112	1.9968	.7978	.9856	.5244	.7157
15-5	1.5312	1.7904	.6352	.8944	.5027	.7619	2.3792	2.6384	.9728	1.2320	.7749	1.0341	2.2704	2.5456	.9632	1.1719	.6450	.8467
15-18	1.5456	1.8416	.7760	.9456	.6432	.8128	2.3936	2.6896	.9872	1.2832	.8544	1.1504	2.2848	2.5808	.9776	1.2736	.6594	.8208
15-35	1.5424	1.8768	.6464	.9808	.5139	.8483	2.3904	2.7344	.9840	1.3280	.7861	1.1301	2.2816	2.6256	1.2179	1.3184	.8961	1.0002
17-6	2.1488	2.5904	.9360	1.3776	.7812	1.2228	2.9152	3.3568	1.2336	1.6752	.9940	1.4356	2.5008	3.1024	1.1408	1.7424	.8160	1.4176
17-26	2.1344	2.5600	.9216	1.3472	.7668	1.1924	2.9008	3.3264	1.2192	1.6448	.9796	1.4052	2.4864	2.9720	1.1264	1.3334	.8017	.8062
17-35	2.1360	2.6640	.9232	1.4512	.7684	1.2964	2.9024	3.4304	1.2208	1.7488	.9812	1.5092	2.4880	3.0160	1.1280	1.5497	.8033	1.2144
19-11	2.2592	2.6656	.9696	1.4528	.7925	1.2757	3.4352	3.9184	1.4720	1.9552	1.2033	1.6865	2.9808	3.4640	1.3472	1.8304	.9632	1.4464
19-32	2.1888	2.7264	.9760	1.5136	.7989	1.3365	3.4416	3.9792	1.4784	2.0160	1.2097	1.7473	2.9872	3.5248	1.3536	1.8912	.9696	1.5072
19-35	2.1920	2.8432	.9792	1.6304	.8021	1.4533	3.4448	3.9792	1.4816	2.1328	1.2129	1.8641	2.9904	3.6416	1.3568	2.0080	.9728	1.6240
21-11	2.7456	3.4640	1.3088	2.0272	1.1088	1.8272	3.9712	4.0960	1.8128	2.5312	1.6128	2.3312	3.4448	4.1632	1.7344	2.5312	1.3039	1.8710
21-16	2.6784	3.3168	1.2416	1.8800	1.0422	1.6806	3.9040	4.6896	1.7456	2.3840	1.4504	2.0889	3.3776	4.0160	1.6672	2.3168	1.2352	1.8736
21-35	2.6672	3.4992	1.2304	2.0624	1.0310	1.8630	3.8928	4.5424	1.7344	2.5664	1.4393	2.2713	3.3664	4.1984	1.6560	2.2309	1.2255	1.8003
21-41	2.6768	3.3600	1.2400	1.9232	1.0406	1.7238	3.9024	4.7248	1.7440	2.4272	1.4489	2.1321	3.3760	3.5792	1.6656	1.8688	1.2336	1.4368
23-21	3.0352	3.8624	1.4496	2.2768	1.2279	2.0551	4.2368	4.5856	1.9440	2.7712	1.6368	2.4640	3.7920	4.6192	1.9216	2.7488	1.4637	2.2896
23-35	3.0240	4.0448	1.4384	2.4592	1.2167	2.2375	4.2256	5.2464	1.9328	2.9536	1.6256	2.6464	3.7808	4.8016	1.9104	2.6087	1.4525	2.1507
23-53	2.8992	3.9072	1.4560	2.4816	1.2343	2.2599	4.2432	5.1088	1.9504	2.8160	1.6432	2.5088	3.7984	4.6640	1.9280	2.7936	1.4672	2.2384
25-4	3.4512	4.4800	1.7312	2.8816	1.4864	2.1904	4.8048	5.8272	2.2016	3.2480	1.9568	2.8720	4.2224	5.2496	2.2128	3.2560	1.7133	2.4163
25-19	3.5312	4.7264	1.8112	3.0064	1.5664	2.7616	4.8848	6.0816	2.2816	3.4784	2.0368	3.2336	4.3024	5.4992	2.2928	3.4896	1.7933	2.7058
25-20	3.8190	4.7150	2.0173	3.1125	1.7733	2.8512	5.1430	6.0380	2.4877	3.5421	2.1872	3.2416	4.4350	5.3300	2.2580	3.0182	1.8288	2.8928
25-35	3.4416	4.6656	1.7216	2.9456	1.4776	2.7016	4.7952	6.0192	2.1920	3.4160	1.8915	3.1155	4.2128	5.4368	2.2032	3.4272	1.7037	2.9277
25-61	3.4304	4.4848	1.7282	2.7648	1.4841	2.5208	4.7840	5.8384	2.1808	3.2352	1.8803	2.9347	4.2016	5.2560	2.1920	3.2464	1.6912	2.7456

All weight measurements are for reference only.

Weight Comparisons

Depending shell size, shell style & contacts count weight.

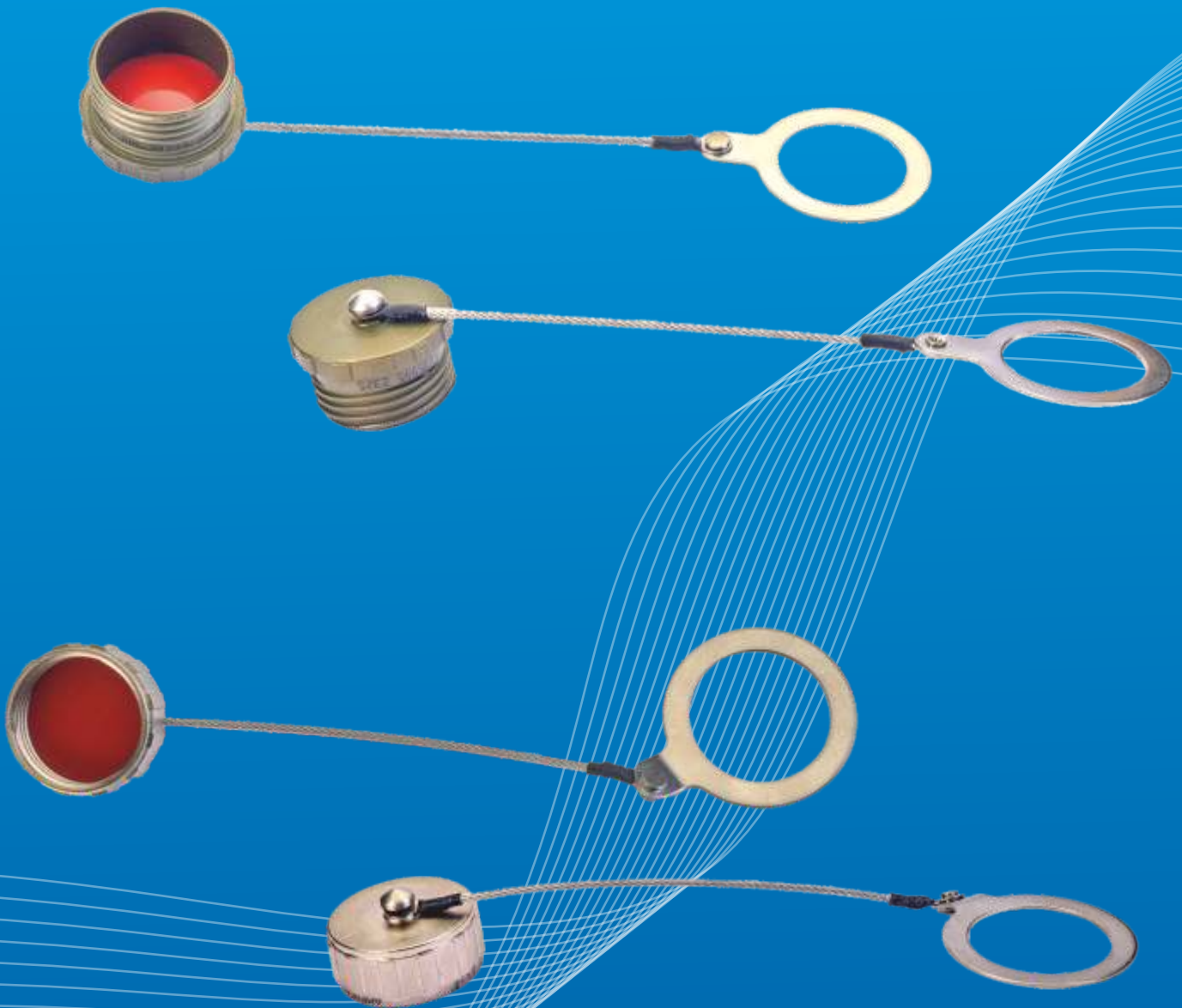
Saving can range from 17% to 40% compared to standard aluminium product.

Tri-Start Weight in Grams (includes contacts)

Size Insert Arrangement	Wall Mount						Jam Nut Receptacle						Plug					
	Aluminium		Stainless Steel		Composite		Aluminium		Stainless Steel		Composite		Aluminium		Stainless Steel		Composite	
	Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket
9-35	9.21	10.71	20.46	22.23	7.34	8.85	12.52	14.29	32.52	34.29	9.89	12.51	12.01	13.11	30.44	32.21	7.39	8.49
9-98	7.08	8.66	20.46	22.04	4.72	6.30	12.52	14.11	32.52	34.11	10.61	13.15	11.25	13.11	30.44	32.02	8.48	6.60
11-35	10.30	14.06	26.90	30.62	7.80	11.57	16.83	20.59	40.55	44.32	13.26	17.03	15.06	18.11	35.38	39.14	9.78	12.99
11-98	10.30	13.52	26.90	30.11	7.80	11.03	16.83	20.05	40.55	43.77	13.26	16.49	15.11	17.81	35.38	38.60	9.83	12.64
13-8	13.61	18.69	34.29	39.37	10.48	15.56	21.73	26.81	54.16	59.24	18.60	23.68	22.50	27.58	51.17	56.25	14.85	16.87
13-35	13.79	19.91	34.47	40.60	10.67	16.79	21.91	28.03	54.34	60.46	17.40	23.52	22.68	24.02	51.35	57.47	15.03	18.52
13-98	13.79	19.05	34.47	39.73	10.67	15.93	21.91	27.17	54.34	59.60	17.40	22.66	22.62	27.94	51.35	56.61	14.81	20.29
15-5	18.01	25.36	43.41	50.76	14.25	21.60	27.58	34.93	67.45	74.80	21.97	29.32	27.31	33.22	64.36	72.17	18.29	24.00
15-18	22.00	26.81	43.82	52.21	18.23	23.04	27.99	36.38	67.86	76.25	24.22	32.61	27.71	36.11	64.77	73.16	18.69	23.27
15-35	18.33	27.81	43.73	53.21	14.57	24.05	27.90	37.65	67.77	77.52	22.29	32.04	34.53	37.38	64.68	74.43	25.40	28.36
17-6	26.54	39.05	60.92	73.44	22.15	34.67	34.97	47.49	82.64	95.16	28.18	40.70	32.34	49.40	70.90	87.95	23.13	40.19
17-26	26.13	38.19	60.51	72.57	21.74	33.80	34.56	46.63	82.24	94.30	27.77	39.84	31.93	37.80	70.49	84.25	22.73	22.86
17-35	26.17	41.14	60.55	75.52	21.78	36.75	34.61	49.58	82.28	97.25	27.82	42.79	31.98	43.93	70.53	85.50	22.77	34.43
19-11	27.49	41.19	64.05	75.57	22.47	36.17	41.73	55.43	97.39	111.08	34.11	47.81	38.19	51.89	84.50	98.20	27.31	41.00
19-32	27.67	42.91	62.05	77.29	22.65	37.89	41.91	57.15	97.57	112.81	34.29	49.54	38.37	53.61	84.69	99.93	27.49	42.73
19-35	27.76	46.22	62.14	80.60	22.74	41.20	42.00	60.46	97.66	112.81	34.39	52.85	38.37	56.93	84.78	103.24	27.58	46.04
21-11	37.10	57.47	77.84	98.20	31.43	51.80	51.39	71.76	112.58	116.12	45.72	66.09	49.17	71.76	97.66	118.02	36.96	53.04
21-16	35.20	53.30	75.93	94.03	29.55	47.64	49.49	67.59	110.68	132.95	41.12	59.22	47.26	65.68	95.75	113.85	35.02	53.12
21-35	34.88	58.47	75.61	99.20	29.23	52.82	49.17	72.76	110.36	128.77	40.80	64.39	46.95	63.24	95.44	119.02	34.74	51.04
21-41	35.15	54.52	75.89	95.25	29.50	48.87	49.44	68.81	110.63	133.95	41.08	60.44	47.22	52.98	95.71	101.47	34.97	40.73
23-21	41.10	64.55	86.05	109.50	34.81	58.26	55.11	78.56	120.11	130.00	46.40	69.85	54.48	77.93	107.50	130.95	41.50	64.91
23-35	40.78	69.72	85.73	114.67	34.49	63.43	54.79	83.73	119.79	148.73	46.08	75.02	54.16	73.96	107.18	136.12	41.18	60.97
23-53	41.28	70.35	82.19	110.77	34.99	64.07	55.29	79.83	120.29	144.83	46.58	71.12	54.66	79.20	107.68	132.29	41.59	63.46
25-4	49.08	81.69	97.84	127.01	42.14	62.10	62.41	92.08	136.21	165.20	55.47	81.42	62.73	92.31	119.70	148.82	48.57	68.50
25-19	51.35	85.23	100.11	133.99	44.41	78.29	64.68	98.61	138.48	172.41	57.74	91.67	65.00	98.93	121.97	155.90	50.84	76.71
25-20	57.19	88.24	108.27	133.67	50.27	80.83	70.53	100.42	145.80	171.17	62.01	91.90	64.01	85.56	125.73	151.10	51.85	82.01
25-35	48.81	83.51	97.57	132.27	41.89	76.59	62.14	96.84	135.94	170.64	53.62	88.32	62.46	97.16	119.43	154.13	48.30	83.00
25-61	48.99	78.38	97.25	127.14	42.07	71.46	61.82	91.72	135.62	165.52	53.31	83.20	62.14	92.03	119.11	149.00	47.94	77.84

All Weight measurements are for references only

COMPOSITE PROTECTIVE COVER



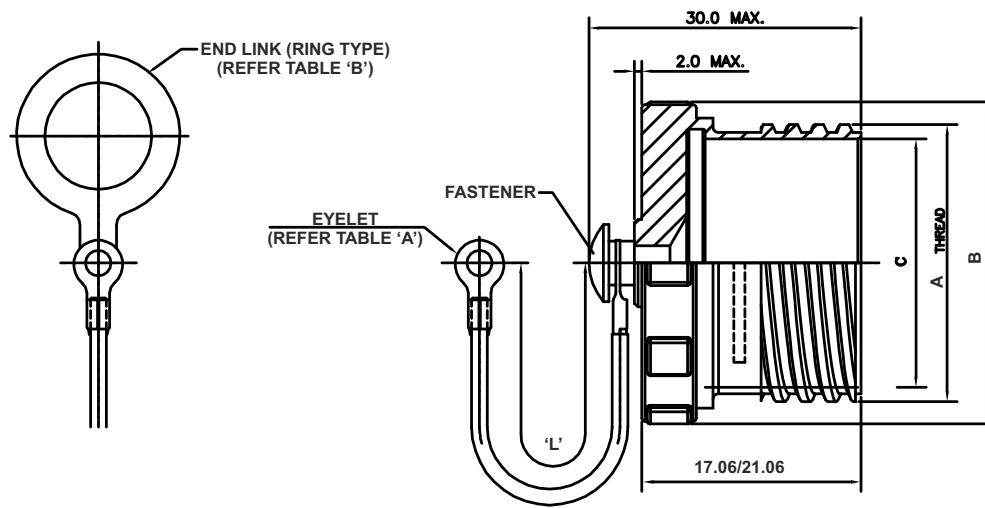
A full range of composite plug and receptacle covers for 38999 Series III connectors. Protective covers are a critical component in interconnect systems where maintenance and test cycles can lead to damage of exposed connectors. Customers may select from solid ring designs equipped with rope and sash chain made from either nylon or stainless steel.

Conductive and non conductive plating options are available to match the conductivity and impedance requirements of the application and the connector.

- Non-conductive versions available
- Lower weight than comparable metal components
- 100% corrosion free materials
- Complete range of ring styles and attachment options



38999 Series III Composite Plug Dust Cap, Commercial Part Number



How to order commercial

ITV32-09-XM-F-01-4

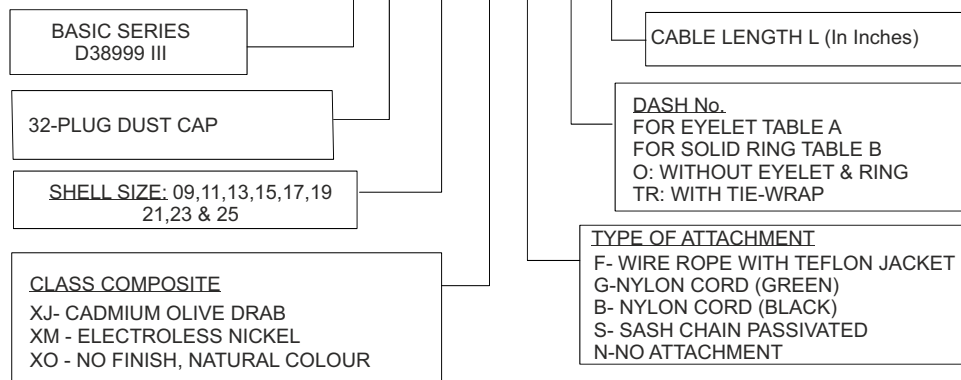


TABLE A

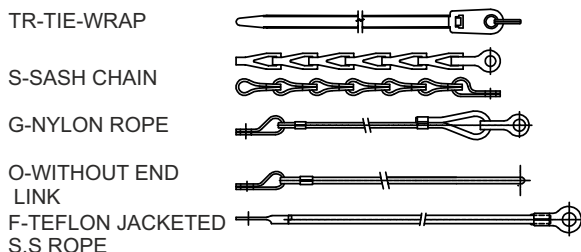
Dash NO	INNER DIA ±0.30
0	NO EYELET
01	3.60
02	4.60
03	4.90
04	5.00
05	4.20
06	3.20
07	5.50
09	4.00

TABLE B

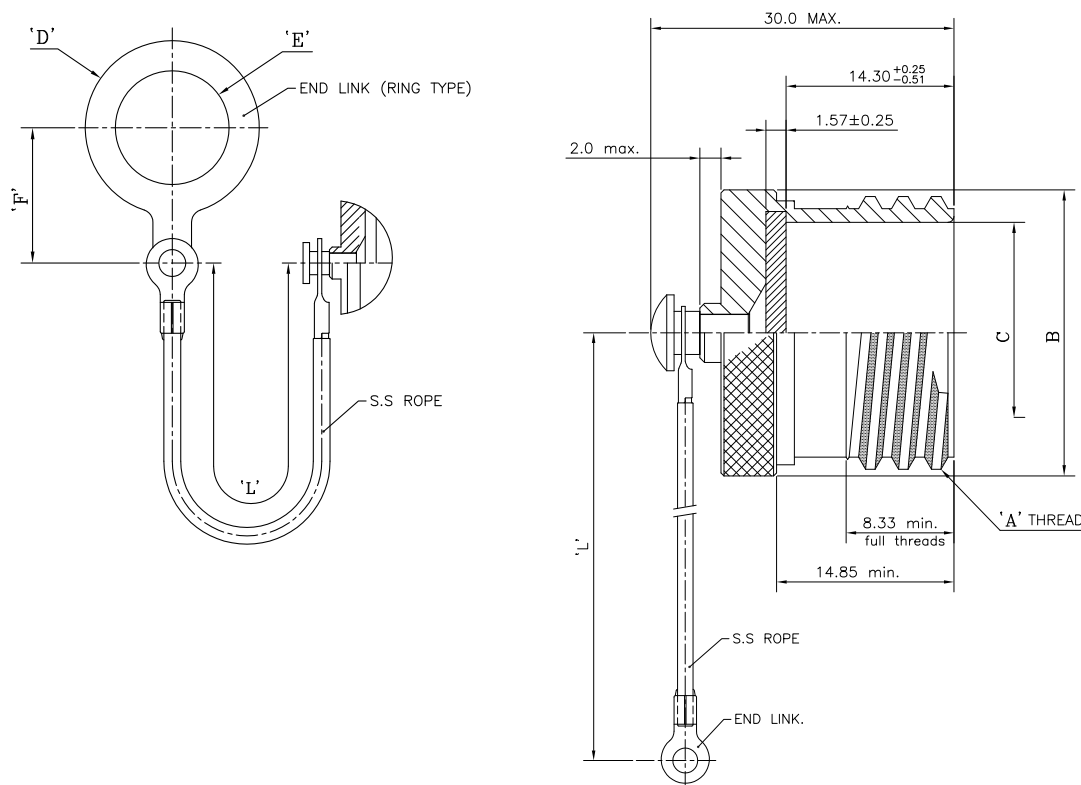
Dash NO	Ø'Z' ±0.40
095	7.90
100	9.90
101	13.10
102	14.80
103	16.30
104	18.00
105	19.50
106	22.20
107	25.80
108	29.00
109	32.20
110	35.30
111	38.60
112	41.70
113	44.90
114	48.00
115	52.80
116	61.10
117	63.80
205	20.00
206	23.00
207	26.00
208	30.60
209	33.30
210	36.50
211	39.00
213	46.00
214	49.20
308	30.20
309	34.20
310	42.90

SHELL SIZE	'A' THREAD-2A -0.1P-0.3L-TS	ØB max	'C' +0.00 -0.15
09	0.625"	23.0	12.50
11	0.750"	26.0	15.75
13	0.875"	31.0	19.53
15	1.000"	33.0	22.71
17	1.1875"	37.0	25.88
19	1.250"	40.0	28.55
21	1.375"	44.0	31.72
23	1.500"	46.0	34.90
25	1.625"	50.0	38.07

Type Of Attachment



38999 Series III Composite Plug Dust Cap, Military Part Number



How to order

JAND38999/32 W 15 R

Designates Plug Cover

J- Composite, Cadmium Olive Drab
M- Composite, Electroless Nickel

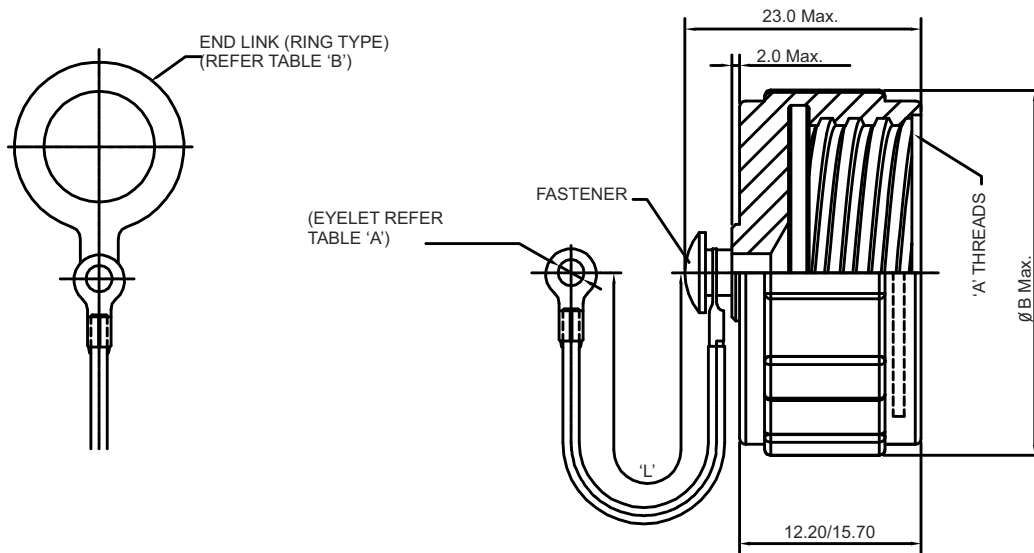
Shell Size : 9, 11, 13, 15, 17, 19, 21, 23 & 25

Style
N - With S.S. Rope & Ring
R - With S.S. Rope

SHELL SIZE	'A' THREAD-2A -0.1P-0.3L-TS	ØB +0.0 -0.30	'C' +0.0 -0.15	ØD MAX	ØE MIN	'F'	'L' +13.0 -7.0
09	0.625"	17.20	12.50	24.0	13.0	24.0\14.5	127.0
11	0.750"	20.50	15.75	27.0	18.0	20.5\18.0	
13	0.875"	24.30	19.53	30.0	20.0	27.0\20.0	
15	1.000"	27.40	22.71	31.0	23.0	22.5\18.0	
17	1.1875"	30.60	25.88	37.0	26.0	30.5\23.5	
19	1.250"	33.25	28.55	40.0	29.0	31.5\25.0	
21	1.375"	36.40	31.72	44.0	32.0	33.0\26.5	
23	1.500"	39.70	34.90	46.0	34.0	34.0\27.5	
25	1.625"	42.80	38.07	49.0	39.0	38.0\30.0	

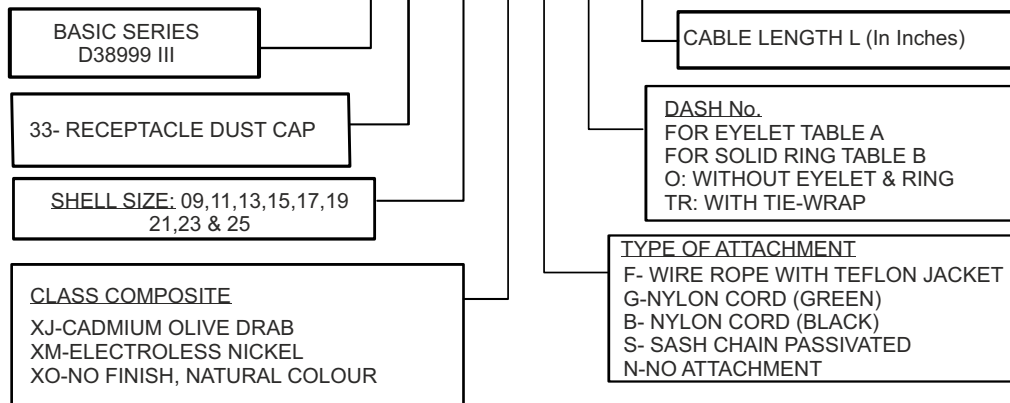
Note: 1) Dimension are in mm. except "A threads" which are in inches.
2) Method of attachment to cover and or ring is optional.

38999 Series III Composite Receptacle Dust Cap, Commercial Part Number



How to order commercial

ITV 33- 09-XM F- 01 - 4



Type Of Attachment	
TR-TIE-WRAP	
S-SASH CHAIN	
G-NYLON ROPE	
O-WITHOUT END LINK	
F-TEFLON JACKETED S.S ROPE	

TABLE A

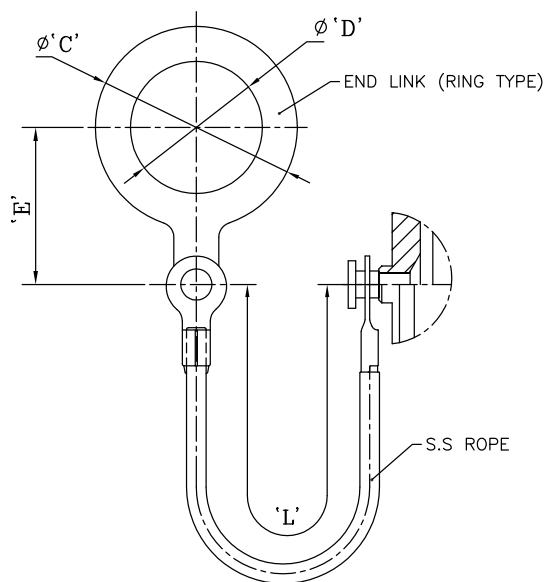
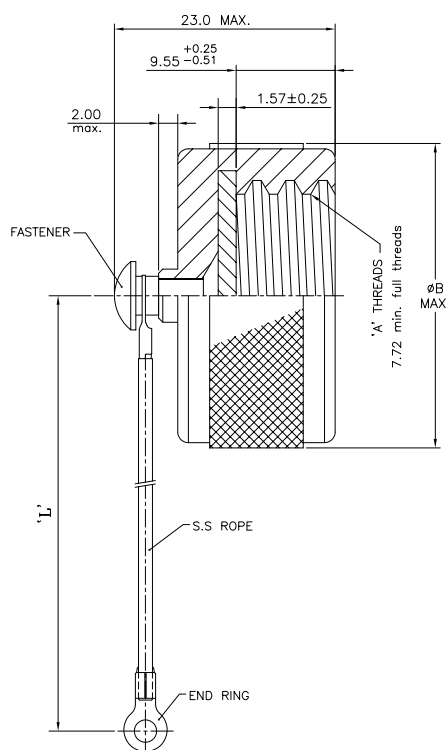
Dash NO	INNER DIA ±0.30
0	NO EYELET
01	3.60
02	4.60
03	4.90
04	5.00
05	4.20
06	3.20
07	5.50
09	4.00

SHELL SIZE	'A' -0.1P-0.3L T.S THREAD-2B	'B' max dia
09	0.625"	23.0
11	0.750"	28.0
13	0.875"	31.0
15	1.000"	32.0
17	1.1875"	37.0
19	1.250"	39.0
21	1.375"	42.0
23	1.500"	45.0
25	1.625"	49.0

TABLE B

DASH NO.	φ 'Z' ±0.40
095	7.90
100	9.90
101	13.10
102	14.80
103	16.30
104	18.00
105	19.50
106	22.20
107	25.80
108	29.00
109	32.20
110	35.30
111	38.60
112	41.70
113	44.90
114	48.00
115	52.80
116	61.10
117	63.80
205	20.00
206	23.00
207	26.00
208	30.60
209	33.30
210	36.50
211	39.00
213	46.00
214	49.20
308	30.20
309	34.20
310	42.90

38999 Series III Composite Receptacle Dust Cap, Military Part Number



How to order

JAND38999/33 W 15 R

Designates Receptacle Cover

J- Composite, Cadmium Olive Drab
M- Composite, Electroless Nickel

Shell Size : 9, 11, 13, 15, 17, 19, 21, 23 & 25

Style
N - With S.S. Rope & Ring
R - With S.S. Rope

SHELL SIZE	'A' -0.1P-0.3L-TS THREAD-2B	'B' +0.50 -0.0	'C' max dai	'D' min dai	'E' max min.	'L' +13.0 -7.0
09	0.625"	19.40	27.0	17.64	21.0\18.0	127.0
11	0.750"	22.60	32.0	21.97	22.5\18.5	
13	0.875"	25.75	37.0	25.15	25.0\23.5	
15	1.000"	28.90	40.0	29.92	31.0\25.0	
17	1.1875"	33.80	44.0	32.00	32.5\26.5	
19	1.250"	35.40	46.0	36.27	34.0\28.0	
21	1.375"	38.60	49.0	38.25	35.5\30.0	
23	1.500"	41.70	54.0	42.62	37.5\31.5	
25	1.625"	44.90	56.0	44.45	39.0\33.0	

Note: 1) Dimension are in mm. except "A threads" which are in inches.
2) Method of attachment to cover and or ring is optional.

COMPOSITE BACKSHELL



Introduction

Reduced weight & zero corrosion for harsh environment

Composite Backshell offers a wide range of benefits to the interconnect engineer, including corrosion resistance, vibration dampening, weight reduction & the reduction of magnetic signatures a critical requirement in stealth applications.

Composite Backshell are ideally suited for use in harsh environments where resistance to high temperatures, corrosive fluids, fire, shock & vibration is required. Materials include Ultem 2300 & other glass filled composite thermoplastics. These materials also meet stringent EMI/RFI & indirect lightning strike specifications.

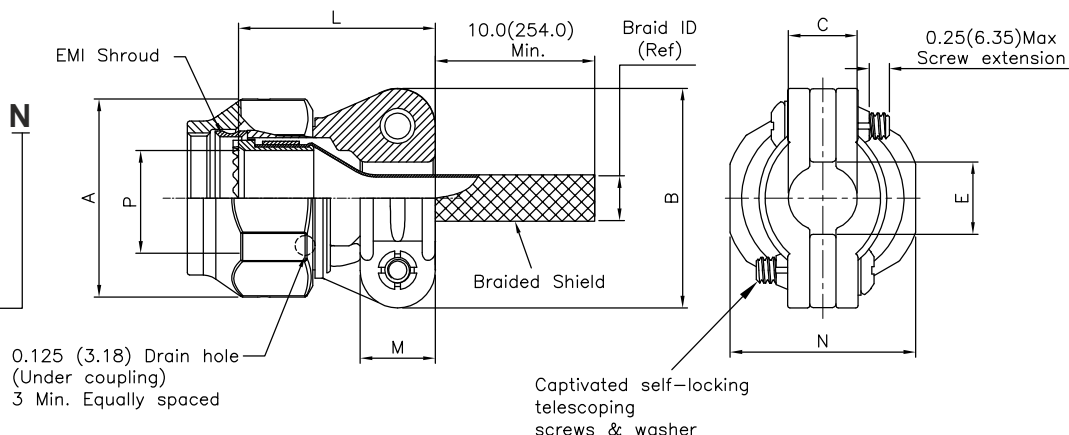
- Light weight Components Withstand Shock, Temperature Cycling & Vibration
- Conductive EMC Surface Finishes Including Selectively Plated & RoHS Complaint Styles
- EMI/RFI Shield Termination, Environmental Sealing & Strain-Relief Backshells for All Popular Connector Types & Styles

PART NUMBER**M85049/ 103- 11 N**

Basic part number

Specification sheet

Shell size (Table A)

N-Non-detent self locking
(Omit for detented self locking)**TABLE A**

SHELL SIZE	ØA MAX		B MAX		ØC ±0.031 (±0.78)		E MIN		L			
									MIN		MAX	
	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM
09	0.858	21.79	0.98	24.89	0.265	6.73	0.229	5.82	0.780	19.81	0.939	23.85
11	0.984	24.99	1.05	26.67	0.310	7.87	0.274	6.96	0.860	21.84	1.059	26.90
13	1.157	29.39	1.20	30.48	0.390	9.91	0.354	8.99	0.950	24.13	1.199	30.45
15	1.280	32.51	1.30	33.02	0.506	12.85	0.470	11.94	0.950	24.13	1.199	30.45
17	1.406	35.71	1.44	36.58	0.591	15.01	0.555	14.10	1.080	27.43	1.329	33.76
19	1.516	38.51	1.56	39.62	0.661	16.79	0.625	15.88	1.140	28.96	1.509	38.33
21	1.642	41.71	1.69	42.93	0.744	18.90	0.708	17.98	1.200	30.48	1.609	40.87
23	1.768	44.91	1.77	44.96	0.826	20.98	0.790	20.07	1.330	33.78	1.759	44.68
25	1.890	48.01	1.89	48.01	0.896	22.76	0.860	21.84	1.450	36.83	1.859	47.22

Table continued..

TABLE A

SHELL SIZE	M ±0.03 (±0.76)		N				P MIN		BRAID ID REF		SCREW SIZE
			MIN		MAX						
	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	
09	0.375	9.53	0.736	18.69	0.750	19.05	0.264	6.71	0.375	9.53	4-40
11	0.375	9.53	0.860	21.84	0.875	22.23	0.390	9.91	0.375	9.53	4-40
13	0.406	10.31	0.980	24.89	1.000	25.40	0.504	12.80	0.500	12.7	6.32
15	0.406	10.31	1.100	27.94	1.125	28.58	0.630	16.00	0.500	12.7	6.32
17	0.406	10.31	1.224	31.09	1.250	31.75	0.756	19.20	0.781	19.8	6.32
19	0.406	10.31	1.348	34.24	1.375	34.93	0.843	21.41	0.781	19.8	6.32
21	0.406	10.31	1.469	37.31	1.500	38.10	0.969	24.61	1.000	25.4	6.32
23	0.406	10.31	1.581	40.16	1.625	41.28	1.091	27.71	1.000	25.4	6.32
25	0.406	10.31	1.690	42.93	1.750	44.45	1.217	30.91	1.250	31.7	6.32

MATERIAL & FINISH :

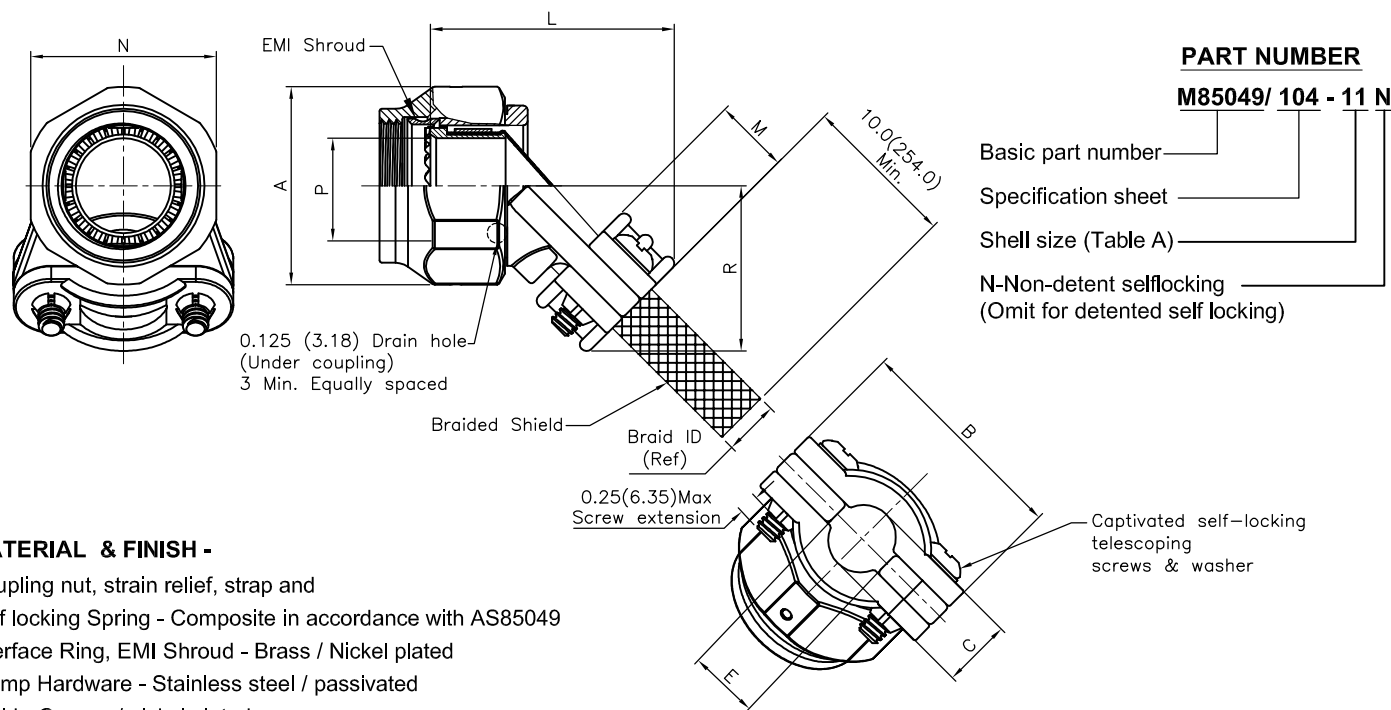
Coupling nut, strain relief, strap and Self locking Spring - Composite in accordance with AS85049

Interface Ring, EMI Shroud - Brass / Nickel plated

Clamp Hardware - stainless Steel / passivated

Braid - Copper / nickel plated

Braid Retension device - Copper / Tin plated

**MATERIAL & FINISH -**

Coupling nut, strain relief, strap and

Self locking Spring - Composite in accordance with AS85049

Interface Ring, EMI Shroud - Brass / Nickel plated

Clamp Hardware - Stainless steel / passivated

Braid - Copper / nickel plated

Braid Retention device - Copper / Tin plated

TABLE A												
SHELL SIZE	ØA MAX		B MAX		ØC ±0.031 (±0.78)		E MIN		L MAX		M ±0.03 (±0.76)	
	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM
09	0.858	21.79	0.98	24.89	0.265	6.73	0.229	5.82	1.388	35.26	0.375	9.53
11	0.984	24.99	1.05	26.67	0.310	7.87	0.274	6.96	1.428	36.27	0.375	9.53
13	1.157	29.39	1.20	30.48	0.390	9.91	0.354	8.99	1.498	38.05	0.406	10.31
15	1.280	32.51	1.30	33.02	0.506	12.85	0.470	11.94	1.548	39.32	0.406	10.31
17	1.406	35.71	1.44	36.58	0.591	15.01	0.555	14.10	1.648	41.86	0.406	10.31
19	1.516	38.51	1.56	39.62	0.661	16.79	0.625	15.88	1.768	44.91	0.406	10.31
21	1.642	41.71	1.69	42.93	0.744	18.90	0.708	17.98	1.808	45.92	0.406	10.31
23	1.768	44.91	1.77	44.96	0.826	20.98	0.790	20.07	1.858	47.19	0.406	10.31
25	1.890	48.01	1.89	48.01	0.896	22.76	0.860	21.84	1.898	48.21	0.406	10.31

Table continued..

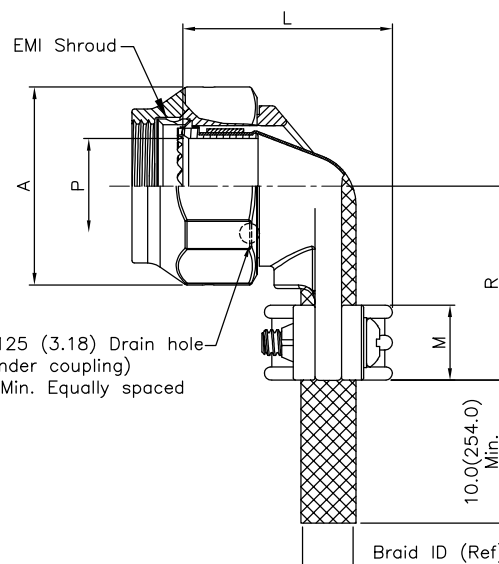
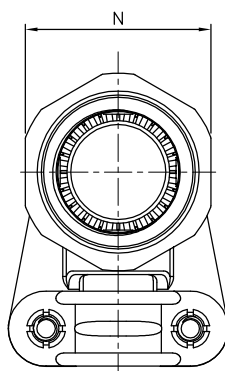
TABLE A											
SHELL SIZE	N				P MIN		R MAX		BRAID ID REF		SCREW SIZE
	MIN		MAX								
	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	
09	0.736	18.69	0.750	19.05	0.264	6.71	0.901	22.89	0.375	9.53	4-40
11	0.860	21.84	0.875	22.23	0.390	9.91	0.964	24.49	0.375	9.53	4-40
13	0.980	24.89	1.000	25.40	0.504	12.80	1.050	26.67	0.500	12.7	6-32
15	1.100	27.94	1.125	28.58	0.630	16.00	1.112	28.24	0.500	12.7	6-32
17	1.224	31.09	1.250	31.75	0.756	19.20	1.175	29.85	0.781	19.8	6-32
19	1.348	34.24	1.375	34.93	0.843	21.41	1.230	31.24	0.781	19.8	6-32
21	1.469	37.31	1.500	38.10	0.969	24.61	1.293	32.84	1.000	25.4	6-32
23	1.581	40.16	1.625	41.28	1.091	27.71	1.365	34.67	1.000	25.4	6-32
25	1.690	42.93	1.750	44.45	1.217	30.91	1.417	35.99	1.250	31.7	6-32



PART NUMBER

M85049/ 105- 11 N

Basic part number
Specification sheet
Shell size (Table A)
N-Non-detent self locking
(Omit for detented self locking)



MATERIAL & FINISH :

Coupling nut, strain relief, strap and
Self locking Spring - Composite in accordance with AS85049
Interface Ring, EMI Shroud - Brass / Nickel plated
Clamp Hardware - Stainless steel / passivated
Braid - Copper / nickel plated
Braid Retention device - Copper / Tin plated

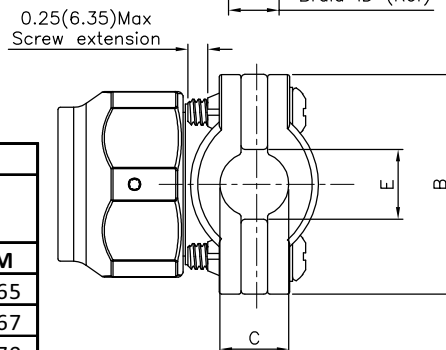


TABLE A										
SHELL SIZE	ØA MAX		B MAX		ØC ±0.031 (±0.78)		E MIN		L MAX	
	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM
09	0.858	21.79	0.98	24.89	0.265	6.73	0.229	5.82	1.128	28.65
11	0.984	24.99	1.05	26.67	0.310	7.87	0.274	6.96	1.168	29.67
13	1.157	29.39	1.20	30.48	0.390	9.91	0.354	8.99	1.248	31.70
15	1.280	32.51	1.30	33.02	0.506	12.85	0.470	11.94	1.368	34.75
17	1.406	35.71	1.44	36.58	0.591	15.01	0.555	14.10	1.448	36.78
19	1.516	38.51	1.56	39.62	0.661	16.79	0.625	15.88	1.528	38.81
21	1.642	41.71	1.69	42.93	0.744	18.90	0.708	17.98	1.648	41.86
23	1.768	44.91	1.77	44.96	0.826	20.98	0.790	20.07	1.688	42.88
25	1.890	48.01	1.89	48.01	0.896	22.76	0.860	21.84	1.758	44.65

Table continued..

TABLE A													
SHELL SIZE	M ±0.03 (±0.76)		N				P MIN		R MAX		BRAID ID REF		SCREW SIZE
			MIN		MAX								
	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	
09	0.375	9.53	0.736	18.69	0.750	19.05	0.264	6.71	0.94	23.88	0.375	9.53	4-40
11	0.375	9.53	0.860	21.84	0.875	22.23	0.390	9.91	1.00	25.40	0.375	9.53	4-40
13	0.406	10.31	0.980	24.89	1.000	25.40	0.504	12.80	1.12	28.45	0.500	12.70	6-32
15	0.406	10.31	1.100	27.94	1.125	28.58	0.630	16.00	1.19	30.23	0.500	12.70	6-32
17	0.406	10.31	1.224	31.09	1.250	31.75	0.756	19.20	1.37	34.80	0.781	19.84	6-32
19	0.406	10.31	1.348	34.24	1.375	34.93	0.843	21.41	1.44	36.58	0.781	19.84	6-32
21	0.406	10.31	1.469	37.31	1.500	38.10	0.969	24.61	1.56	39.62	1.000	25.40	6-32
23	0.406	10.31	1.581	40.16	1.625	41.28	1.091	27.71	1.69	42.93	1.000	25.40	6-32
25	0.406	10.31	1.690	42.93	1.750	44.45	1.217	30.91	1.81	45.97	1.250	31.75	6-32

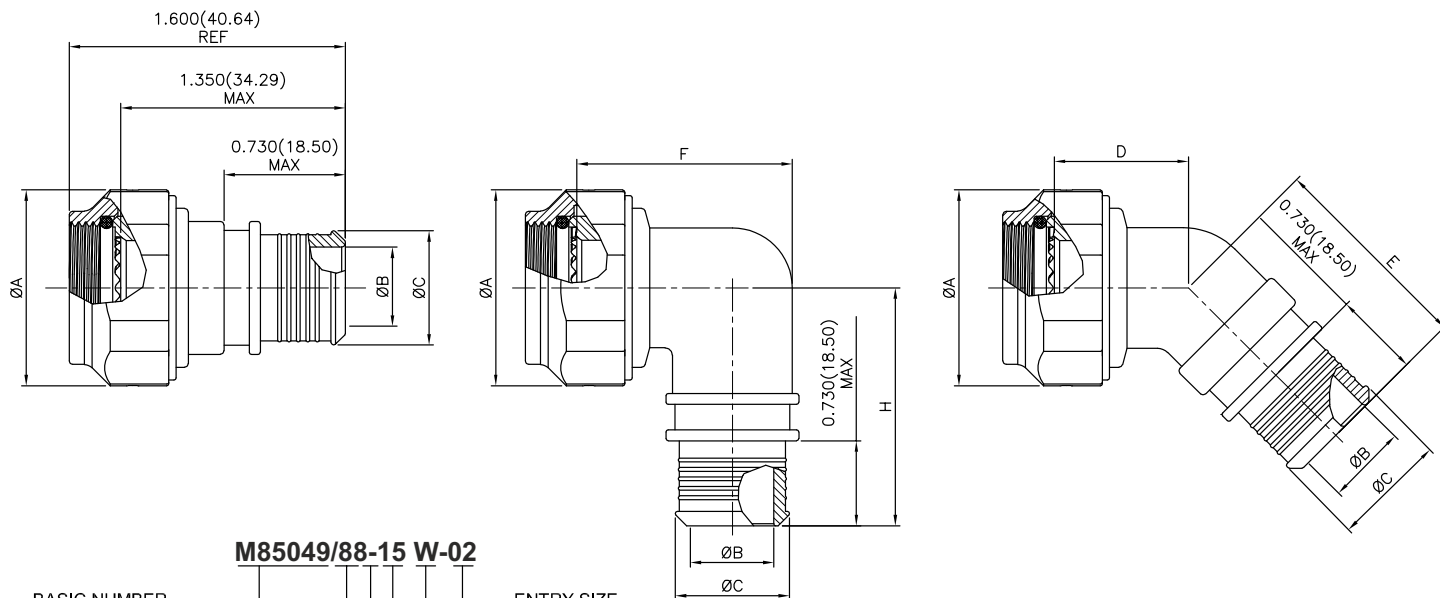
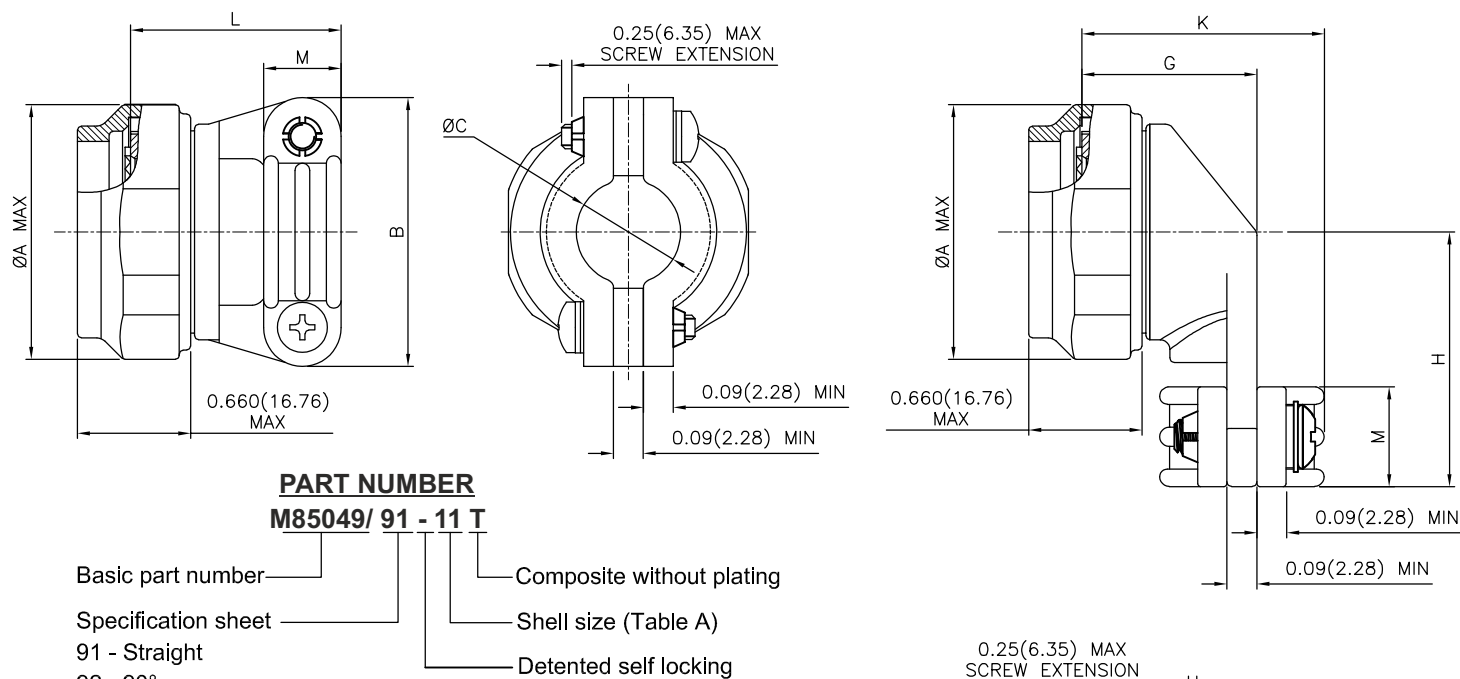


TABLE B		
FINISH CODE	FINISH	MATERIAL
J	CADMIUM OLIVE DRAB	COMPOSITE IN ACCORDANCE WITH AS85049 (COUPLING NUT NON CONDUCTIVE. NO FINISH)
M	ELECTROLESS NICKEL	
L	CADMIUM, SELECTIVE	

TABLE A																
SHELL SIZE	CONNECTOR SHELL SIZE	ENTRY SIZE	ØA MAX		ØB +0.025(0.64) -0.010(0.25)		ØC REF		ØD MAX		ØE MAX		ØF MAX		ØH MAX	
			INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM
9	9/A	2	0.86	21.79	NA	NA	NA	NA	1.01	25.65	1.16	29.46	1.375	34.93	1.417	35.99
		3			0.25	6.35	0.395	10.03								
11	11/8	2	0.98	24.99	NA	NA	NA	NA	1.03	26.16	1.19	30.23	1.437	36.50	1.480	37.59
		3			0.312	7.92	0.457	11.61								
13	13/C	2	1.16	29.39	0.312	7.92	0.457	11.61	1.06	26.92	1.21	30.73	1.562	39.67	1.553	39.45
		3			0.438	11.13	0.583	14.81								
15	15/0	2	1.28	32.49	0.438	11.13	0.583	14.81	1.08	27.43	1.24	31.50	1.687	42.85	1.614	41.00
		3			0.562	14.27	0.707	17.76								
17	17/E	2	1.41	35.71	0.5	12.70	0.645	16.38	1.11	28.19	1.26	32.00	1.750	44.45	1.678	42.62
		3			0.625	15.88	0.770	19.56								
19	19/1	2	1.52	38.51	0.625	15.88	0.770	19.56	1.12	28.45	1.27	32.26	1.875	47.63	1.773	45.03
		3			0.750	19.05	0.895	22.73								
21	21/G	2	1.64	41.71	0.625	15.88	0.770	19.56	1.15	29.21	1.30	33.02	1.938	49.23	1.796	45.62
		3			0.812	20.62	0.957	24.31								
23	23/H	2	1.77	44.91	0.688	17.48	0.829	21.06	1.17	29.72	1.33	33.78	2.062	52.37	1.859	47.22
		3			0.938	23.83	01.08	27.51								
25	25/J	2	1.89	47.98	0.750	19.05	0.895	22.73	1.20	30.48	1.35	34.29	2.125	53.98	1.919	48.74
		3			1.000	25.40	01.15	29.08								

NOTE :

1. INTERFACE DIMENSIONS AS PER AS85049 FIGURS 3 OR 3A.

**TABLE A**

SHELL SIZE	A DIA MAX		B MAX		C DIA ±0.031(0.78)	
	INCH	MM	INCH	MM	INCH	MM
09	0.858	21.79	0.980	24.89	0.219	5.56
11	0.984	24.99	1.050	26.67	0.264	6.71
13	1.157	29.39	1.200	30.48	0.344	8.74
15	1.280	32.51	1.300	33.02	0.460	11.68
17	1.406	35.71	1.420	36.07	0.545	13.84
19	1.516	38.51	1.520	38.61	0.615	15.62
21	1.642	41.71	1.640	41.66	0.698	17.73
23	1.768	44.91	1.770	44.96	0.780	19.81
25	1.890	48.01	1.890	48.01	0.850	21.59

Table continued..

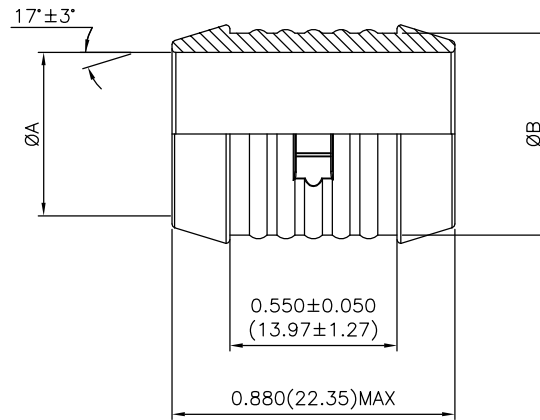
TABLE A

L MAX		H ±0.062(1.57)		K MAX		M ±0.03(0.76)		G MAX		SCREW SIZE
INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	
0.840	21.34	0.875	22.23	1.060	26.92	0.375	9.53	0.769	19.53	4-40
0.960	24.38	0.937	23.80	1.100	27.94	0.375	9.53	0.792	20.12	4-40
1.100	27.94	1.031	26.19	1.180	29.97	0.406	10.31	0.847	21.51	6-32
1.100	27.94	1.125	28.58	1.300	33.02	0.406	10.31	0.890	22.61	6-32
1.230	31.24	1.312	33.32	1.380	35.05	0.406	10.31	0.941	23.90	6-32
1.410	35.81	1.375	34.93	1.450	36.83	0.406	10.31	0.972	24.69	6-32
1.510	38.35	1.500	38.10	1.540	39.12	0.406	10.31	1.009	25.63	6-32
1.660	42.16	1.625	41.28	1.620	41.15	0.406	10.31	1.050	26.67	6-32
1.760	44.70	1.750	44.45	1.690	42.93	0.406	10.31	1.085	27.56	6-32

MATERIAL :

Coupling nut, strain relief and strap - Composite in accordance with AS85049

Captivated self-locking telescoping screw and washers - 300 Series corrosion resistant steel / passivated, silver plate optional.



PART NUMBER

M85049/ 93 - 14

Basic part number

Specification sheet

Dash Number (Table A)

TABLE A

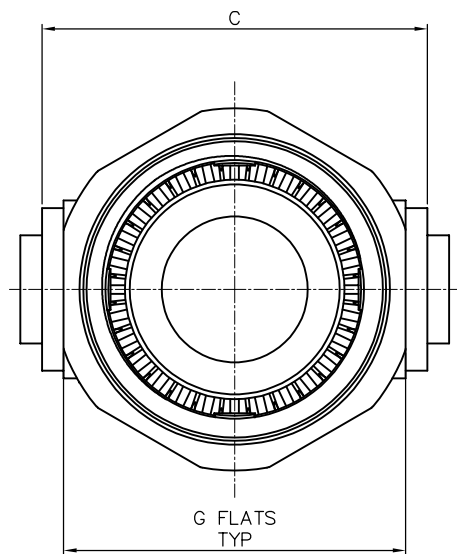
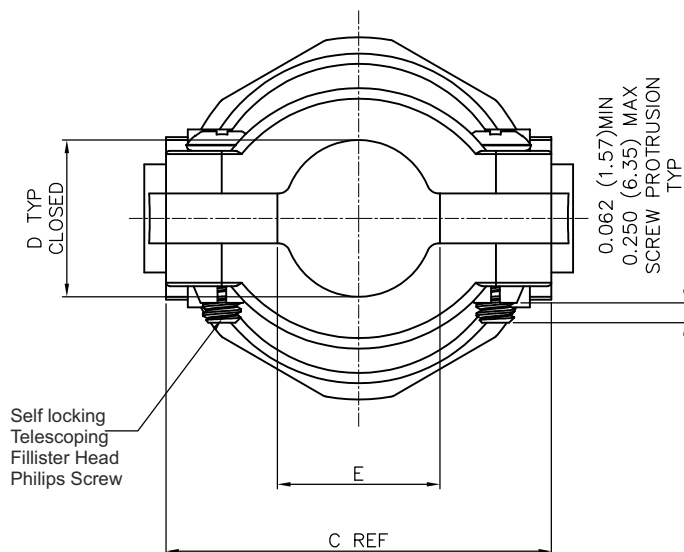
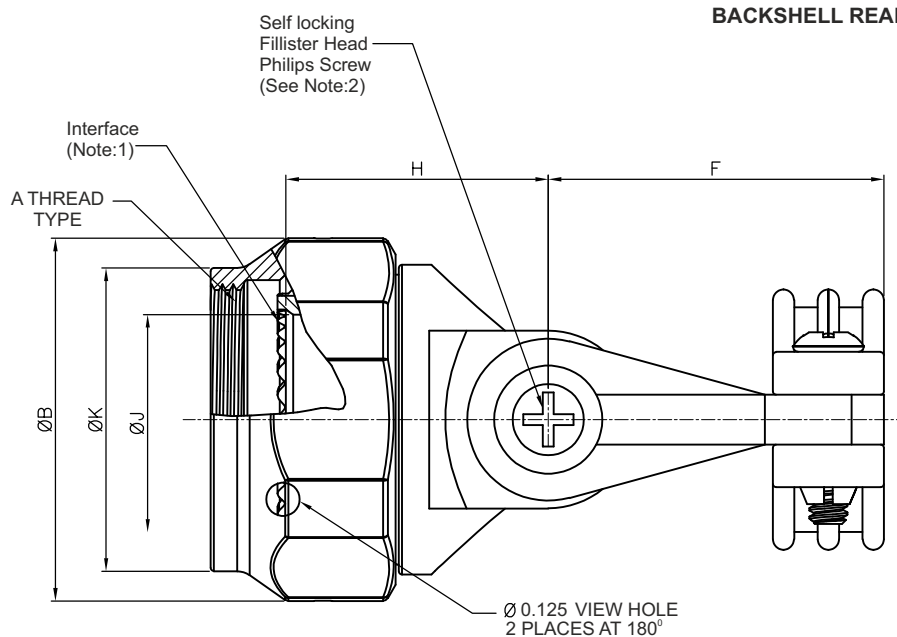
DASH NUMBER	A DIA ±0.010(0.254)		B DIA MAX	
	INCH	MM	INCH	MM
04	0.250	6.35	0.390	9.9
06	0.375	9.53	0.515	13.1
08	0.500	12.70	0.640	16.3
10	0.625	15.88	0.770	19.6
12	0.750	19.05	0.903	22.9
14	0.875	22.23	1.094	27.8
16	1.000	25.40	1.173	29.8
18	1.125	28.58	1.310	33.3
20	1.250	31.75	1.447	36.8
22	1.375	34.93	1.578	40.1
24	1.500	38.10	1.703	43.3
26	1.625	41.28	1.828	46.4
28	1.750	44.45	1.953	49.6

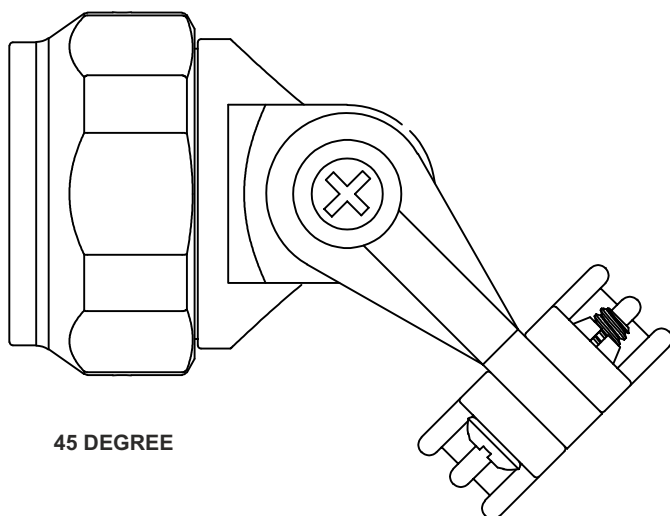
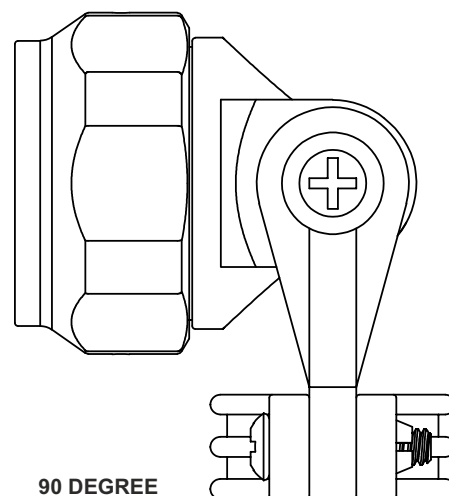
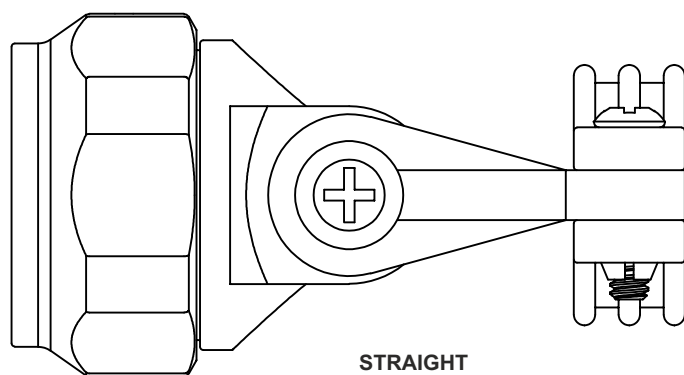
MATERIAL -

Composite in accordance with AS85049

NOTE-

For complete dimensions, see the applicable Military Specification

**BACKSHELL FRONT VIEW****BACKSHELL REAR VIEW****BACKSHELL SIDE VIEW**

**TOLERANCES**

.XXX +0.015 (0.38)

.XX +0.03 (0.76)

ANGULAR + 1° UNLESS OTHERWISE SPECIFIED

DIMENSIONS IN INCHES & MM UNLESS OTHERWISE NOTED.

TABLE 1 BACKSHELL DIMENSIONS

Shell Size	A Coupling Ring Thread Isometric	ØB Max.		C Max.		D Ref. Closed		E Min.		F Max.	
		INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM
9	M12X1-6H	0.812	20.62	0.98	24.89	0.265	6.73	0.22	5.59	1.08	27.43
11	M15X1-6H	0.938	23.83	1.05	26.67	0.310	7.87	0.27	6.86	1.09	27.69
13	M18X1-6H	1.125	28.58	1.20	30.48	0.390	9.91	0.35	8.89	1.20	30.48
15	M22X1-6H	1.250	31.75	1.30	33.02	0.506	12.85	0.47	11.94	1.24	31.50
17	M25X1-6H	1.375	34.93	1.44	36.58	0.591	15.01	0.55	13.97	1.32	33.53
19	M28X1-6H	1.500	38.10	1.56	39.62	0.661	16.79	0.62	15.75	1.39	35.31
21	M31X1-6H	1.625	41.28	1.69	42.93	0.744	18.90	0.70	17.78	1.49	37.85
23	M34X1-6H	1.750	44.45	1.77	44.96	0.826	20.98	0.78	19.81	1.55	39.37
25	M37X1-6H	1.875	47.63	1.89	48.01	0.896	22.76	0.85	21.59	1.61	40.89

TABLE 1 BACKSHELL DIMENSIONS (Contd.)

Shell Size	G Distance Across Flats				H ± 0.06		J Min.		Ø K Max.	
	Min.		Max.							
	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM
9	0.736	18.69	0.750	19.05	0.88	22.35	0.264	6.71	0.600	15.24
11	0.860	21.84	0.875	22.23	0.91	23.11	0.390	9.91	0.717	18.21
13	0.980	24.89	1.000	25.4	0.95	24.13	0.504	12.80	0.834	21.18
15	1.100	27.94	1.125	28.58	1.01	25.65	0.630	16.00	0.990	25.15
17	1.224	31.09	1.250	31.75	1.05	26.67	0.756	19.20	1.107	28.12
19	1.348	34.24	1.375	34.93	1.08	27.43	0.843	21.41	1.224	31.09
21	1.469	37.31	1.500	38.1	1.12	28.45	0.969	24.61	1.341	34.06
23	1.581	40.16	1.625	41.28	1.16	29.46	1.091	27.71	1.453	36.91
25	1.690	42.93	1.750	44.45	1.20	30.48	1.217	30.91	1.570	39.88

Note:

1. Interface ring dimensions to be accordance with AS 85049. For MIL-DTL-38999 Series III & IV Connectors
2. Interface end of the screw shall not protrude into inside of Backshell when tightened.

Material Finish:

CLAMP BODY - PEI, POLYETHERIMIDE, ULTEM, PER ASTM D 5205, NON- CONDUCTIVE, NO FINISH
COUPLING NUT

SADDLES

SCREWS & 300 SERIES SS/PASSIVATED, THREADS MAY BE SILVER PLATED
FASTENING TO REDUCE GALLING
HARDWARE

How to order**BS035 L 10 T**

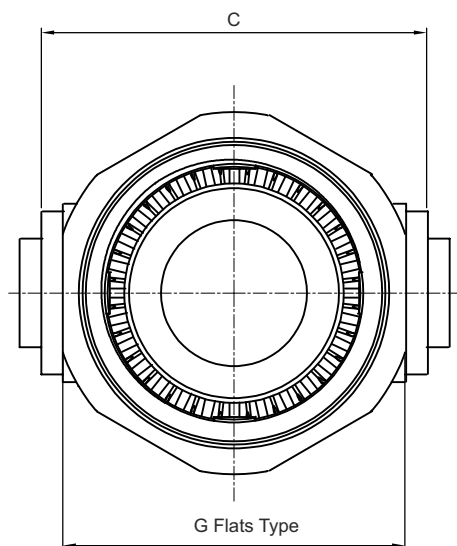
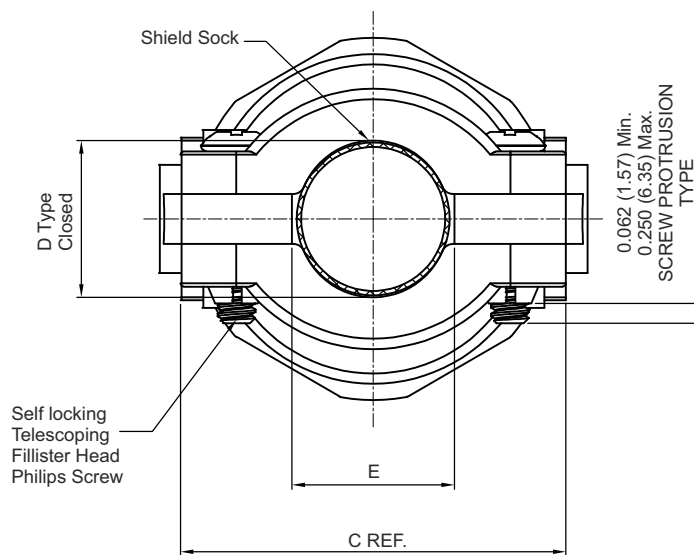
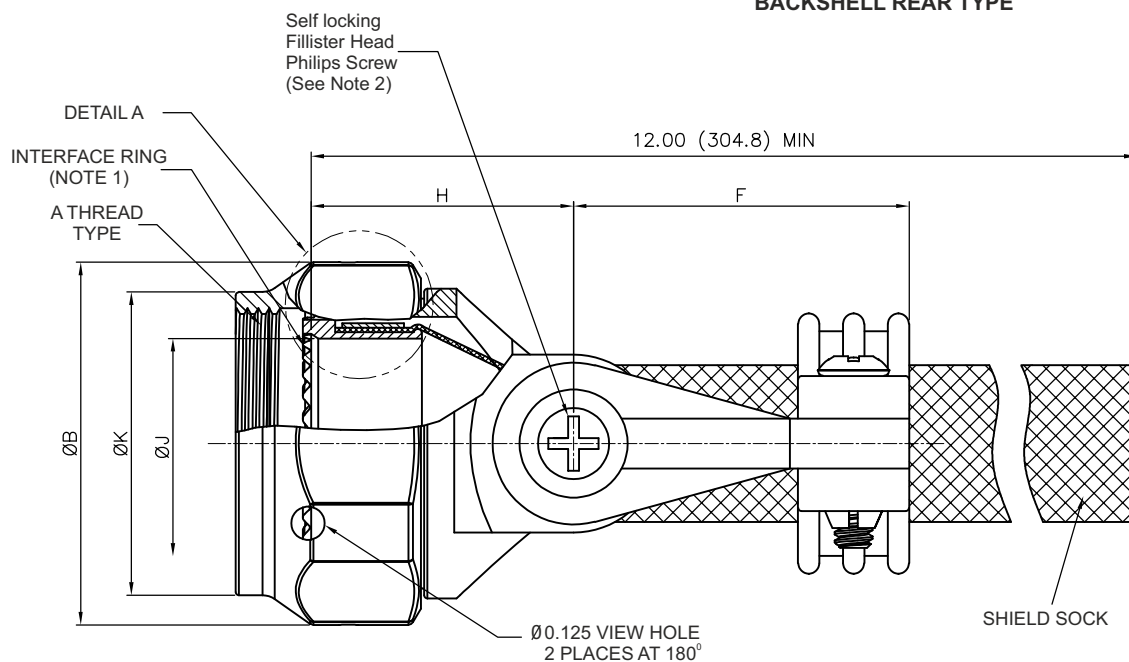
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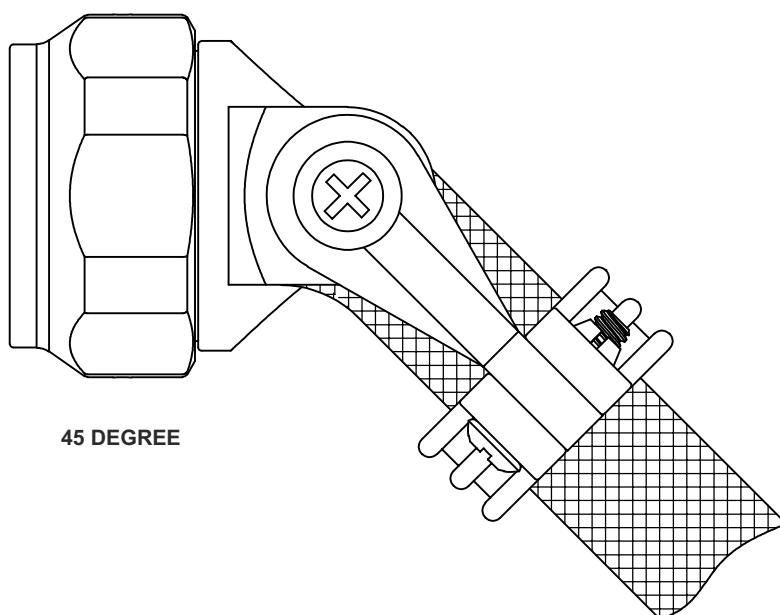
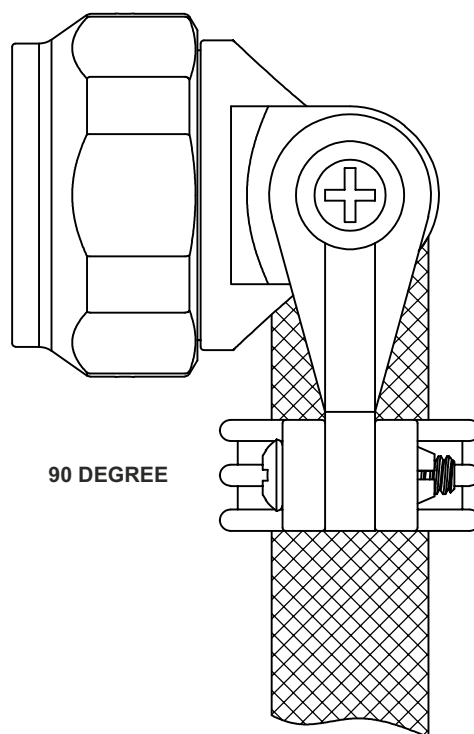
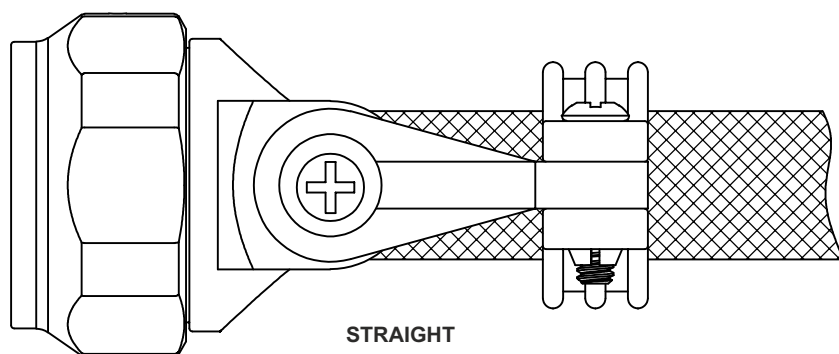
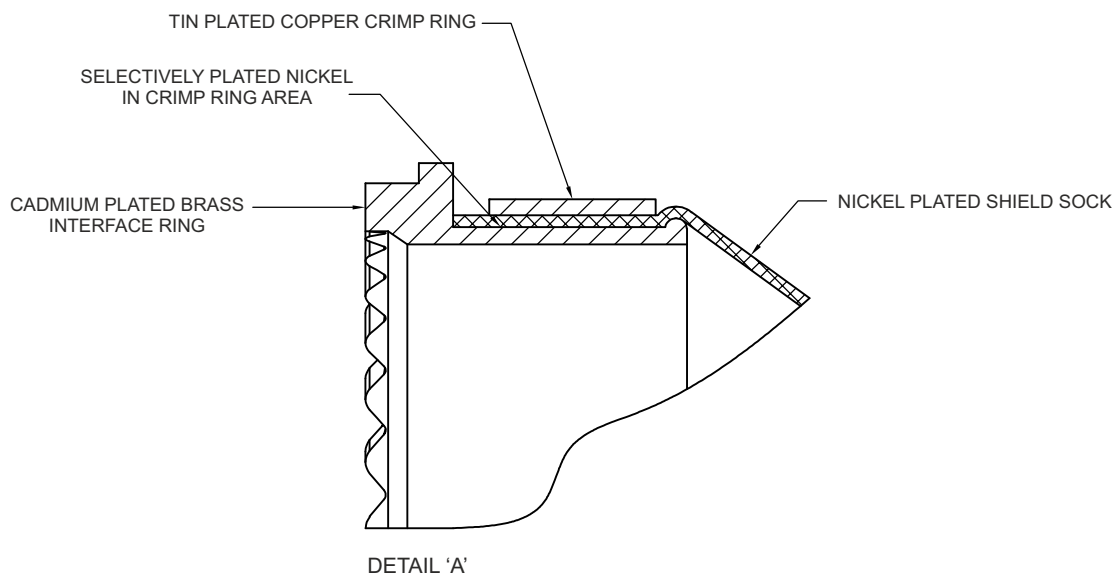
NO FINISH

CONNECTOR CODE

SHELL SIZE (Table 1)

L-MIL-DTL-38999 SERIES
III & IV

**BACKSHELL FRONT TYPE****BACKSHELL REAR TYPE****BACKSHELL SIDE TYPE**

**TOLERANCES**

.XXX +0.015 (0.38)

.XX +0.03 (0.76)

ANGULAR + 1° UNLESS OTHERWISE SPECIFIED

DIMENSIONS IN INCHES & MM UNLESS OTHERWISE NOTED.

TABLE 1 BACKSHELL DIMENSIONS

Shell Size	A Coupling Ring Thread ISO Metric	ØB Max.		ØC Max.		D Ref. Closed		E Min.		F Max.	
		INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM
9	M12X1-6H	0.812	20.62	0.98	24.89	0.219	5.56	0.22	5.59	1.08	27.43
11	M15X1-6H	0.938	23.83	1.05	26.67	0.264	6.71	0.27	6.86	1.09	27.69
13	M18X1-6H	1.125	28.58	1.20	30.48	0.344	8.74	0.35	8.89	1.20	30.48
15	M22X1-6H	1.250	31.75	1.30	33.02	0.460	11.68	0.47	11.94	1.24	31.50
17	M25X1-6H	1.375	34.93	1.44	36.58	0.545	13.84	0.55	13.97	1.32	33.53
19	M28X1-6H	1.500	38.10	1.56	39.62	0.615	15.62	0.62	15.75	1.39	35.31
21	M31X1-6H	1.625	41.28	1.69	42.93	0.698	17.73	0.70	17.78	1.49	37.85
23	M34X1-6H	1.750	44.45	1.77	44.96	0.780	19.81	0.78	19.81	1.55	39.37
25	M37X1-6H	1.875	47.63	1.89	48.01	0.850	21.59	0.85	21.59	1.61	40.89

TABLE 1 BACKSHELL DIMENSIONS (CONT.)

Shell Size	G Distance Across Flats				H ±0.06 (±1.52)		ØJ MIN.		ØK Max.	
	MIN		MAX							
	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM
9	0.736	18.69	0.750	19.05	0.94	23.88	0.264	6.71	0.600	15.24
11	0.860	21.84	0.875	22.23	0.97	24.64	0.390	9.91	0.717	18.21
13	0.980	24.89	1.000	25.40	1.03	26.16	0.504	12.80	0.834	21.18
15	1.100	27.94	1.125	28.58	1.09	27.69	0.630	16.00	0.990	25.15
17	1.224	31.09	1.250	31.75	1.12	28.45	0.756	19.20	1.107	28.12
19	1.348	34.24	1.375	34.93	1.15	29.21	0.843	21.41	1.224	31.09
21	1.469	37.31	1.500	38.10	1.18	29.97	0.969	24.61	1.341	34.06
23	1.581	40.16	1.625	41.28	1.25	31.75	1.091	27.71	1.453	36.91
25	1.690	42.93	1.750	44.45	1.28	32.51	1.217	30.91	1.570	39.88

Note:

1. Interface ring dimensions to be accordance with AS 85049. For MIL-DTL-38999 Series III & IV Connectors
2. Interface end of the screw shall not protrude into inside of Backshell when tightened.

Material Finish:

CLAMP BODY - PEI, POLYETHERIMIDE, ULTEM, PER ASTM D 5205, NON- CONDUCTIVE
 COUPLING NUT
 SADDLES

SCREWS & - 300 SERIES SS, ULTEM, PER ASTM D 5205/A582M OR ASTM A276
 FASTENING
 HARDWARE

INTERFACE RING - BRASS PER ASTM B16

SHIELD SHOCK - 34 AWG COPPER PER A-A-59569

Finish:

CLAMP BODY - NONE
 COUPLING NUT
 SADDLES

SCREWS & -PASSIVATED PER ASTM A967, THREADS MAY BE SILVER
 FASTENING
 HARDWARE

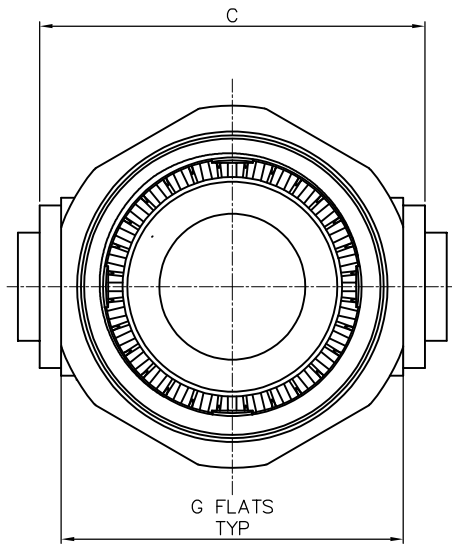
INTERFACE RING -BRITE CADMIUM PLATE PER AMS-QQ-P-416 TYPE II, 0.0003-D.0005 THICK OVER
 ELECTROLESS NICKEL PER AMS-C-26074 0.0005-0.0008 THICK FOLLOWED
 BY AN OLIVE DRAB CONVERSION. INTERFACE WITH SHIELD SOCK SHALL BE SELECTIVELY
 NICKEL PLATED (SEE VIEW A)

SHIELD SOCK- NICKEL PLATED PER AMS-QQ-N-290, 50 MICRO INCHES MIN. CONSTRUCTION TO PROVIDE
 90 PERCENT MIN. COVERAGE

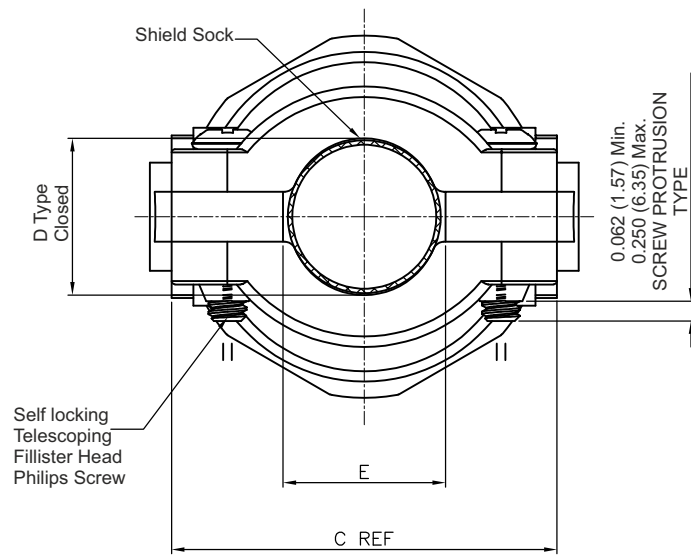
How to order**BM070 L 10 W**

BASIC NUMBER ————
 CONNECTOR CODE ————
 L-MIL-DTL-38999 SERIES
 III & IV

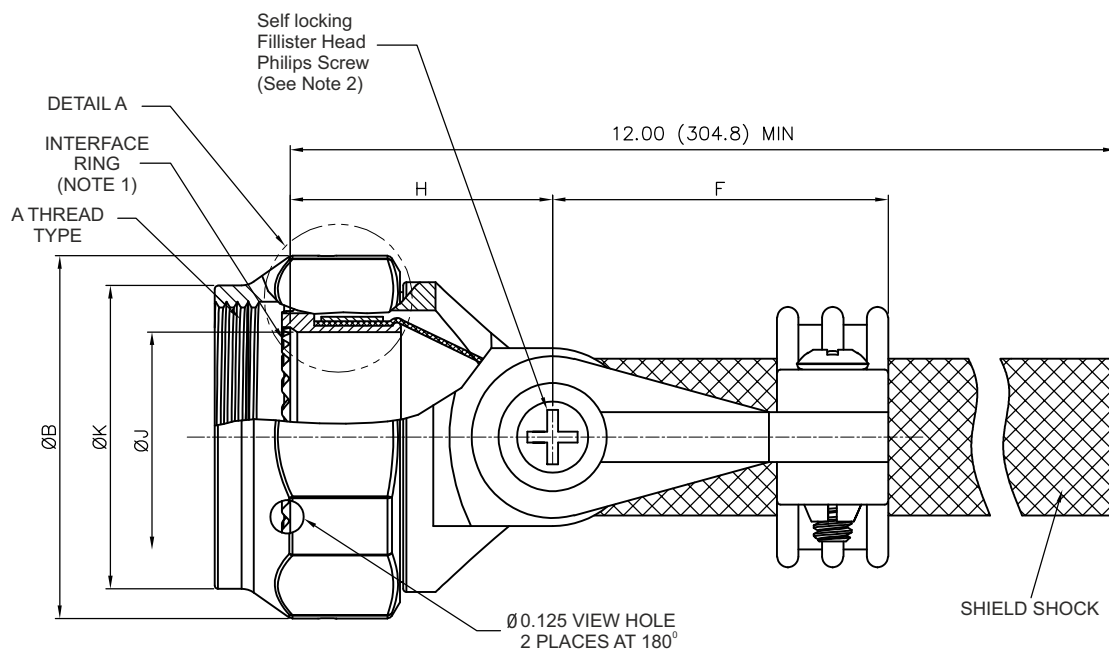
INTERFACE RING FINISH
 (SEE FINISH DETAILS)
 SHELL SIZE (Table 1)



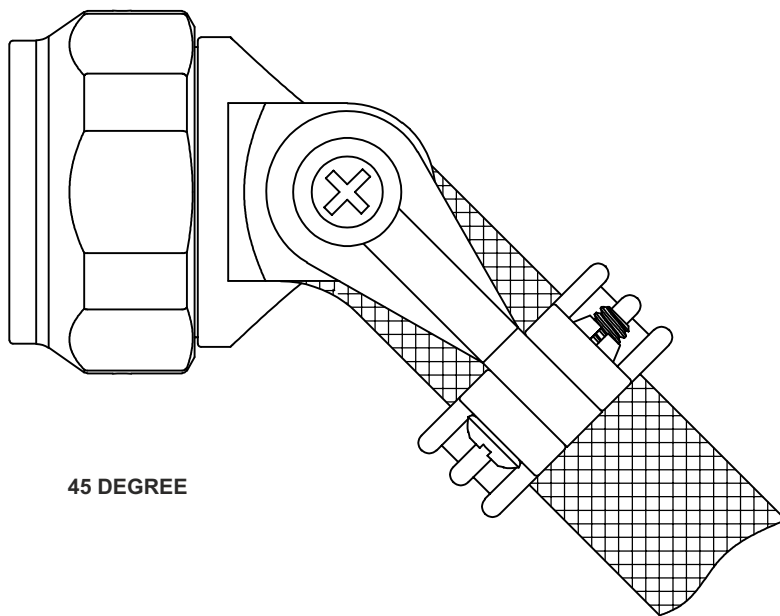
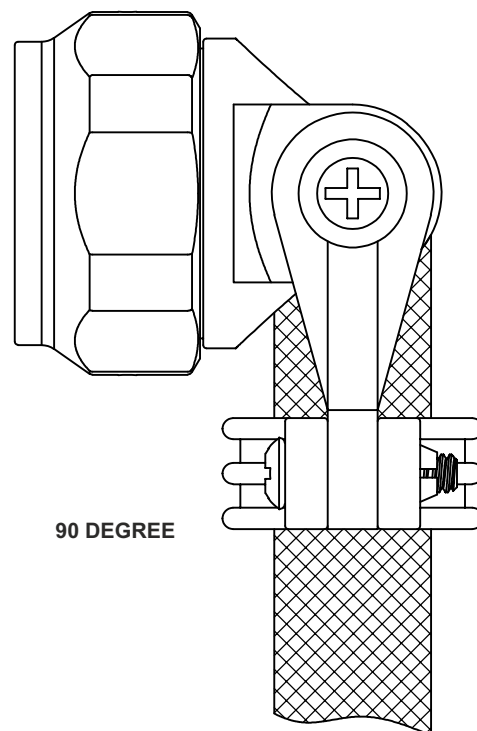
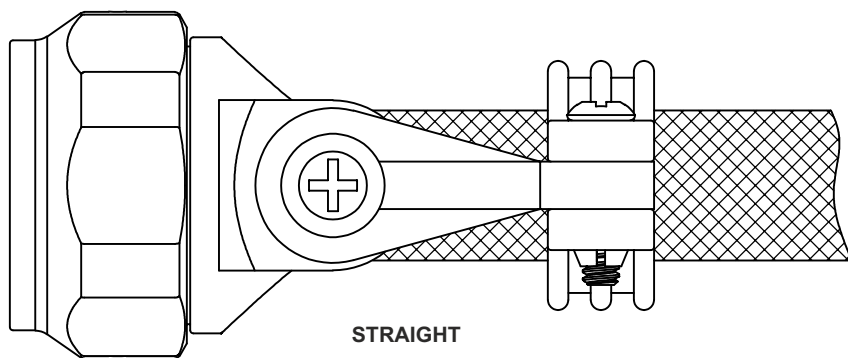
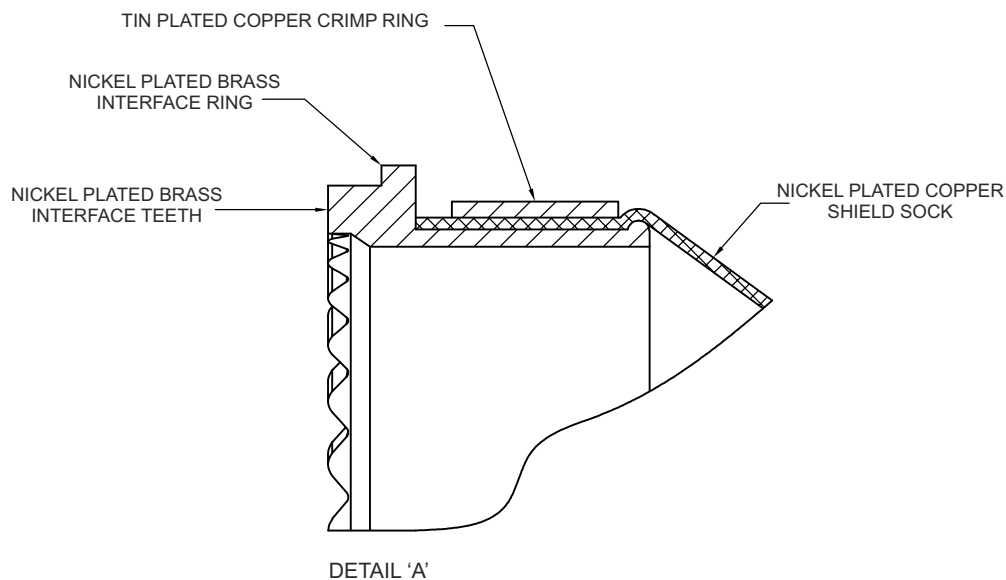
BACKSHELL FRONT VIEW



BACKSHELL REAR VIEW



BACKSHELL SIDE VIEW

**TOLERANCES**

.XXX +0.015 (0.38)

.XX +0.03 (0.76)

ANGULAR + 1° UNLESS OTHERWISE SPECIFIED

DIMENSIONS IN INCHES & MM UNLESS OTHERWISE NOTED.

TABLE 1 BACKSHELL DIMENSIONS

Shell Size	A Coupling Ring Thread ISO Metric	ØB Max.		ØC Max.		D Ref. Closed		E Min.		F Max.	
		INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM
9	M12X1-6H	0.812	20.62	0.98	24.89	0.219	5.56	0.22	5.59	1.08	27.43
11	M15X1-6H	0.938	23.83	1.05	26.67	0.264	6.71	0.27	6.86	1.09	27.69
13	M18X1-6H	1.125	28.58	1.20	30.48	0.344	8.74	0.35	8.89	1.20	30.48
15	M22X1-6H	1.250	31.75	1.30	33.02	0.460	11.68	0.47	11.94	1.24	31.50
17	M25X1-6H	1.375	34.93	1.44	36.58	0.545	13.84	0.55	13.97	1.32	33.53
19	M28X1-6H	1.500	38.10	1.56	39.62	0.615	15.62	0.62	15.75	1.39	35.31
21	M31X1-6H	1.625	41.28	1.69	42.93	0.698	17.73	0.70	17.78	1.49	37.85
23	M34X1-6H	1.750	44.45	1.77	44.96	0.780	19.81	0.78	19.81	1.55	39.37
25	M37X1-6H	1.875	47.63	1.89	48.01	0.850	21.59	0.85	21.59	1.61	40.89

TABLE 1 BACKSHELL DIMENSIONS CONTD.

Shell Size	G DISTANCE ACROSS FLATS				H ±0.06 (±1.52)		ØJ Min.		ØK Max.	
	MIN		MAX							
	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM
9	0.736	18.69	0.750	19.05	0.94	23.88	0.264	6.71	0.600	15.24
11	0.860	21.84	0.875	22.23	0.97	24.64	0.390	9.91	0.717	18.21
13	0.980	24.89	1.000	25.4	1.03	26.16	0.504	12.80	0.834	21.18
15	1.100	27.94	1.125	28.58	1.09	27.69	0.630	16.00	0.990	25.15
17	1.224	31.09	1.250	31.75	1.12	28.45	0.756	19.20	1.107	28.12
19	1.348	34.24	1.375	34.93	1.15	29.21	0.843	21.41	1.224	31.09
21	1.469	37.31	1.500	38.10	1.18	29.97	0.969	24.61	1.341	34.06
23	1.581	40.16	1.625	41.28	1.25	31.75	1.091	27.71	1.453	36.91
25	1.690	42.93	1.750	44.45	1.28	32.51	1.217	30.91	1.570	39.88

Note:

- Interface ring dimensions to be accordance with AS 85049. For MIL-DTL-38999 Series III & IV Connectors
- Interface end of the screw shall not protrude into inside of Backshell when tightened.

Material Finish:

CLAMP BODY - PEI, POLYETHERIMIDE, ULTEM, PER ASTM D 5205, NON- CONDUCTIVE
 COUPLING NUT
 SADDLES

SCREWS & FASTENING HARDWARE - 300 SERIES SS, PER ASTM A 582/A582M OR ASTM A276

INTERFACE RING - BRASS PER ASTM B16

SHIELD SHOCK - 34 AWG COPPER PER A-A-59569

Finish:

CLAMP BODY - NONE
 COUPLING NUT
 SADDLES

SCREWS & FASTENING HARDWARE -PASSIVATED PER ASTM A967, THREADS MAY BE SILVER PLATED PER AMS 2410 TO REDUCE GALLING

INTERFACE RING -NICKEL PLATED PER AMS-QQ-N-290

SHIELD SHOCK -NICKEL PLATED PER AMS-QQ-N-290, 50 MICROICHES MIN. CONSTRUCTION TO PROVIDE 90 PERCENT MIN. COVERAGE

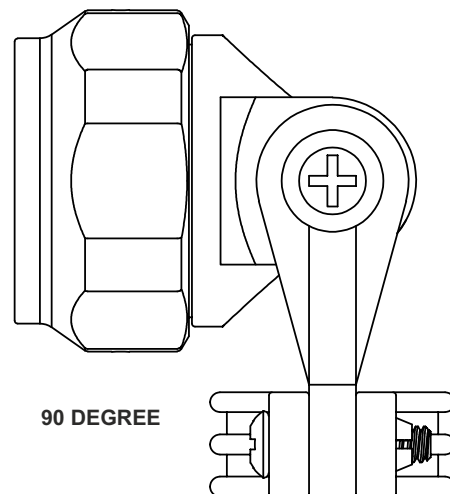
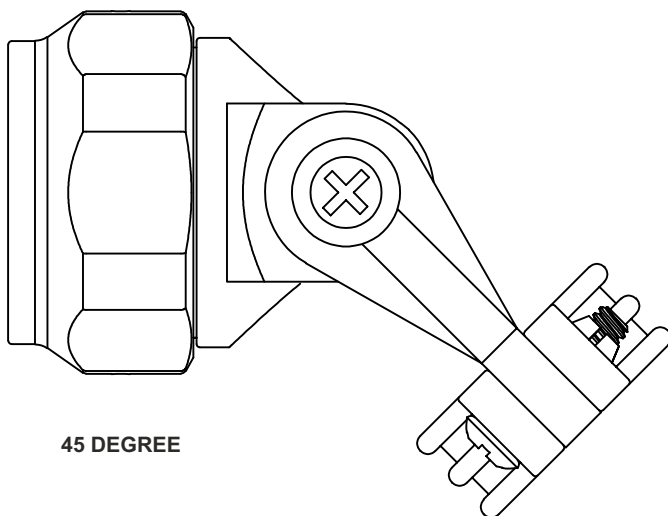
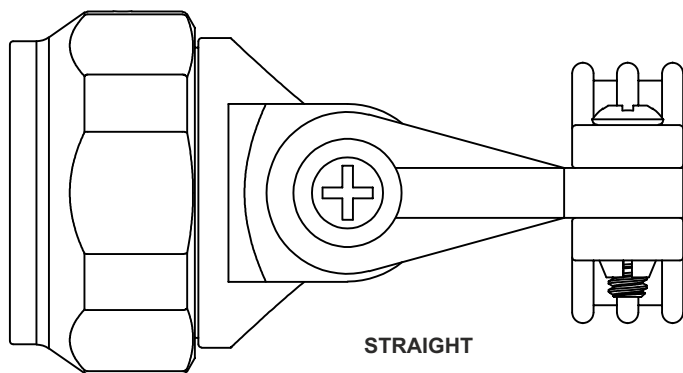
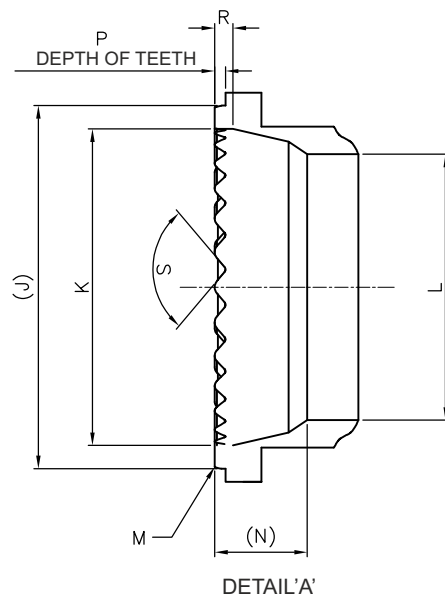
How to order**BM070 L 10 N**

BASIC NUMBER

CONNECTOR CODE

L-MIL-DTL-38999 SERIES
III & IVINTERFACE RING FINISH
(SEE FINISH DETAILS)
SHELL SIZE (Table 1)



**TOLERANCES**

.XXX +0.015 (0.38)

.XX +0.03 (0.76)

ANGULAR + 1° UNLESS OTHERWISE SPECIFIED

DIMENSIONS IN INCHES & MM

UNLESS OTHERWISE NOTED.


TABLE 1 BACKSHELL DIMENSIONS

Shell Size	A Coupling Ring Thread CLASS 2B	ØB Max.		C Max.		D Ref.		E Min.	
		INCH	MM	INCH	MM	INCH	MM	INCH	MM
8	0.500–20UNF	0.812	20.62	0.98	24.89	0.265	6.73	0.22	5.59
10	0.625–24UNEF	0.938	23.83	1.05	26.67	0.310	7.87	0.27	6.86
12	0.7500–20UNEF	1.125	28.58	1.20	30.48	0.390	9.91	0.35	8.89
14	0.8750–20UNEF	1.250	31.75	1.30	33.02	0.506	12.85	0.47	11.94
16	1.0000–20UNEF	1.375	34.93	1.44	36.58	0.591	15.01	0.55	13.97
18	1.0625–18UNEF	1.500	38.10	1.56	39.62	0.661	16.79	0.62	15.75
20	1.1875–18UNEF	1.625	41.28	1.69	42.93	0.744	18.90	0.70	17.78
22	1.3125–18UNEF	1.750	44.45	1.77	44.96	0.826	20.98	0.78	19.81
24	1.4375–18UNEF	1.875	47.63	1.89	48.01	0.896	22.76	0.85	21.59
28	1.750–18UNS	2.135	54.23	2.12	53.85	0.950	24.13	0.95	24.13

TABLE 1 BACKSHELL DIMENSIONS CONTD.

Shell Size	F Max.		G Max.		H Max.	
	INCH	MM	INCH	MM	INCH	MM
8	1.08	27.43	0.750	19.05	0.94	23.88
10	1.09	27.69	0.875	22.23	0.97	24.64
12	1.20	30.48	1.000	25.4	1.03	26.16
14	1.24	31.50	1.125	28.58	1.09	27.69
16	1.32	33.53	1.250	31.75	1.12	28.45
18	1.39	35.31	1.375	34.93	1.15	29.21
20	1.49	37.85	1.500	38.1	1.18	29.97
22	1.55	39.37	1.625	41.28	1.25	31.75
24	1.61	40.89	1.750	44.45	1.28	32.51
28	1.91	48.51	2.000	50.80	1.42	36.07

TABLE II INTERFACE RING DIMENSIONS

Shell Size	J Ref.		ØK ±0.005 (±0.127)		ØL +0.000/-0.010 (+0.00/-0.25)		M NUMBER OF TEETH	N REF	P DEPTH OF TEETH (REF)	R START OF TAPER	S DEG
	INCH	MM	INCH	MM	INCH	MM					
8	0.437	11.10	0.361	9.17	0.270	6.86	12	0.190(4.82)	0.043(1.09)	0.056 (1.42) 0.051 (1.29)	90.5 89.5
10	0.572	14.53	0.437	11.1	0.375	9.53	15				
12	0.687	17.45	0.584	14.83	0.504	12.8	21				
14	0.812	20.62	0.678	17.22	0.585	14.86	24				
16	0.937	23.80	0.809	20.55	0.706	17.93	30				
18	0.992	25.20	0.885	22.48	0.789	20.04	33				
20	1.117	28.37	1.005	25.53	0.914	23.22	36				
22	1.242	31.55	1.142	29.01	1.039	26.39	39				
24	1.367	34.72	1.278	32.46	1.154	29.31	42				
28	1.613	40.97	1.532	38.91	1.389	35.28	54				

NOTE:

The end of the screw shall not protrude into inside of Backshell when tightened.

Material Finish:

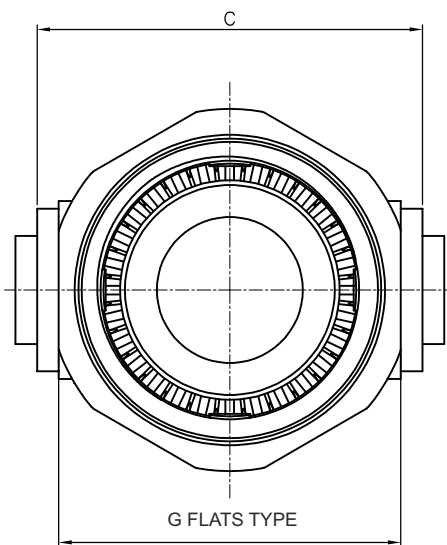
CLAMP BODY - PEI, POLYETHERIMIDE, ULTEM, PER ASTM D 5205, NON- CONDUCTIVE, NO FINISH
COUPLING NUT
SADDLES

SCREWS & - 300 SERIES SS/PASSIVATED, THREADS MAY BE SILVER PLATED TO REDUCE GALLING
FASTENING
HARDWARE

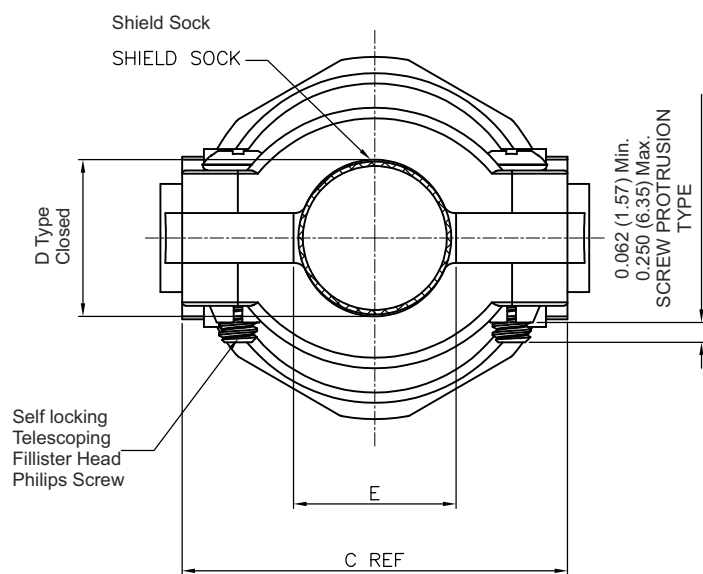
How to order**BS035 J 10 T**

BASIC NUMBER ———— NO FINISH
CONNECTOR CODE ———— SHELL SIZE (Table 1)

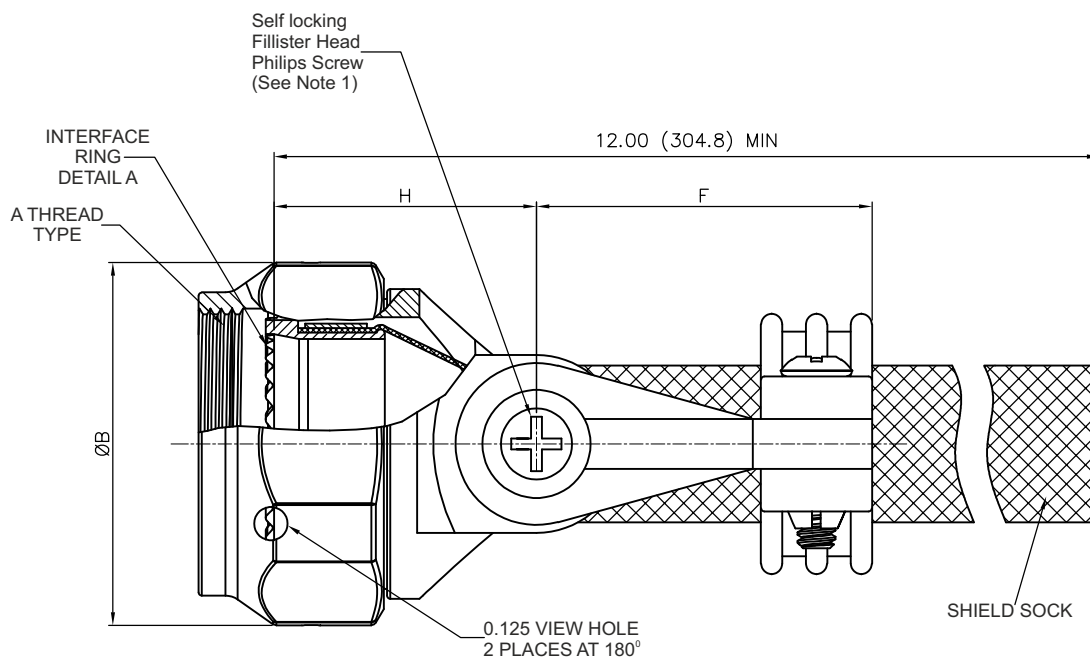
MIL-DTL-83723 Connector



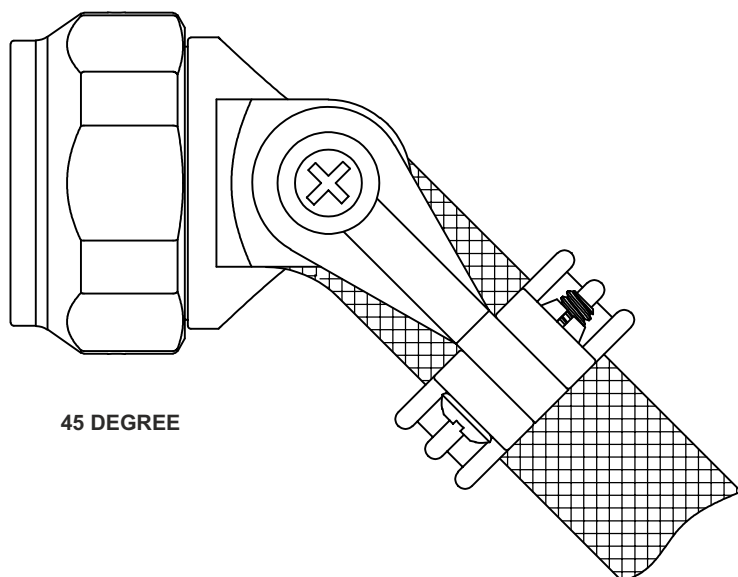
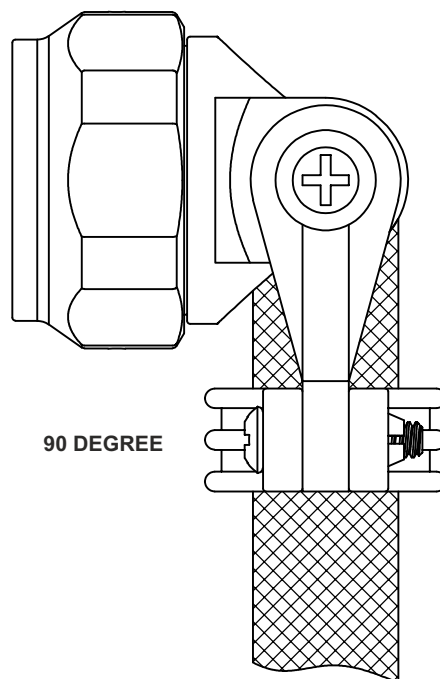
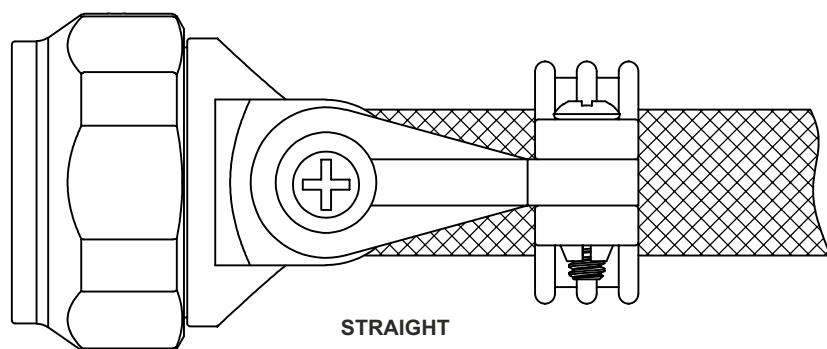
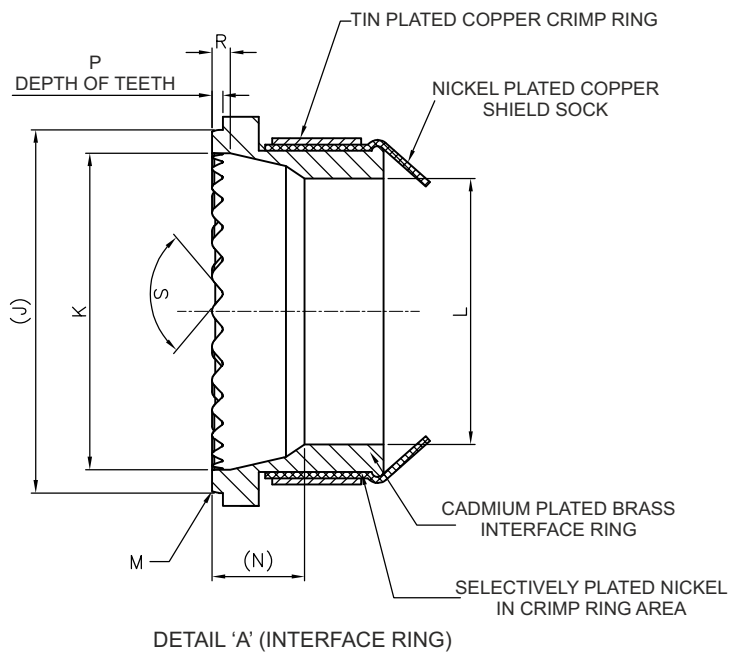
BACKSHELL FRONT VIEW



BACKSHELL REAR VIEW



BACKSHELL SIDE VIEW

**TOLERANCES**.XXX ± 0.015 (0.38).XX ± 0.03 (0.76)ANGULAR $+ 1^\circ$ UNLESS OTHERWISE SPECIFIED

DIMENSIONS IN INCHES & MM UNLESS OTHERWISE NOTED.



TABLE 1 BACKSHELL DIMENSIONS

Shell Size	A Coupling Ring Thread CLASS 2B	ØB Max.		C Max.		D Ref.		E Min.	
		INCH	MM	INCH	MM	INCH	MM	INCH	MM
8	0.500–20UNF	0.812	20.62	0.98	24.89	0.265	6.73	0.22	5.59
10	0.625–24UNEF	0.938	23.83	1.05	26.67	0.310	7.87	0.27	6.86
12	0.7500–20UNEF	1.125	28.58	1.2	30.48	0.390	9.91	0.35	8.89
14	0.8750–20UNEF	1.250	31.75	1.3	33.02	0.506	12.85	0.47	11.94
16	1.0000–20UNEF	1.375	34.93	1.44	36.58	0.591	15.01	0.55	13.97
18	1.0625–18UNEF	1.500	38.10	1.56	39.62	0.661	16.79	0.62	15.75
20	1.1875–18UNEF	1.625	41.28	1.69	42.93	0.744	18.90	0.7	17.78
22	1.3125–18UNEF	1.750	44.45	1.77	44.96	0.826	20.98	0.78	19.81
24	1.4375–18UNEF	1.875	47.63	1.89	48.01	0.896	22.76	0.85	21.59
28	1.750–18UNS	2.135	54.23	2.12	53.85	0.950	24.13	0.95	24.13

TABLE 1 BACKSHELL DIMENSIONS CONTD.

Shell Size	F Max.		G Max.		H ±0.06 (±1.52)	
	INCH	MM	INCH	MM	INCH	MM
8	1.08	27.43	0.750	19.05	0.94	23.88
10	1.09	27.69	0.875	22.23	0.97	24.64
12	1.20	30.48	1.000	25.4	1.03	26.16
14	1.24	31.50	1.125	28.58	1.09	27.69
16	1.32	33.53	1.250	31.75	1.12	28.45
18	1.39	35.31	1.375	34.93	1.15	29.21
20	1.49	37.85	1.500	38.1	1.18	29.97
22	1.55	39.37	1.625	41.28	1.25	31.75
24	1.61	40.89	1.750	44.45	1.28	32.51
28	1.91	48.51	2.000	50.80	1.42	36.07

TABLE II INTERFACE RING DIMENSIONS

Shell Size	J REF.		ØK ±0.005 (±0.127)		ØL +0.000/-0.010 (+.00/-0.25)		M NUMBER OF TEETH	N REF.	P DEPTH OF TEETH (REF)	R START OF TAPER	S DEG
	INCH	MM	INCH	MM	INCH	MM					
8	0.437	11.10	0.361	9.17	0.270	6.86	12	0.190(4.82)	0.043(1.09)	0.056 (1.42) 0.051 (1.29)	90.5 89.5
10	0.572	14.53	0.437	11.1	0.375	9.53	15				
12	0.687	17.45	0.584	14.83	0.504	12.8	21				
14	0.812	20.62	0.678	17.22	0.585	14.86	24				
16	0.937	23.80	0.809	20.55	0.706	17.93	30				
18	0.992	25.20	0.885	22.48	0.789	20.04	33				
20	1.117	28.37	1.005	25.53	0.914	23.22	36				
22	1.242	31.55	1.142	29.01	1.039	26.39	39				
24	1.367	34.72	1.278	32.46	1.154	29.31	42				
28	1.613	40.97	1.532	38.91	1.389	35.28	54				

NOTE:

The end of the screw shall not protrude into inside of Backshell when tightened.

Material Finish:

- CLAMP BODY - PEI, POLYETHERIMIDE, ULTEM, PER ASTM D 5205, NON- CONDUCTIVE, NO FINISH
COUPLING NUT
SADDLES
- SCREWS & - 300 SERIES SS/PASSIVATED, THREAD MAY BE SILVER PLATED TO REDUCE GALLING
FASTENING
HARDWARE
- INTERFACE RING - BRITE CADMIUM PLATE PER AMS-QQ-P-416 TYPE II, 0.0003-D.0005 THICK OVER
ELECTROLESS NICKEL PER AMS-C-26074 0.0005-0.0008 THICK FOLLOWED
BY AN OLIVE DRAB CONVERSION. INTERFACE WITH SHIELD SOCK SHALL BE SELECTIVELY
NICKEL PLATED (SEE VIEW A)
- SHIELD SHOCK - 34 AWG COPPER, NICKEL PLATED, 50 MICRO INCHES MIN.
CONSTRUCTION TO PROVIDE 90° MIN. COVERAGE

How to order**BM070 J 10 W**

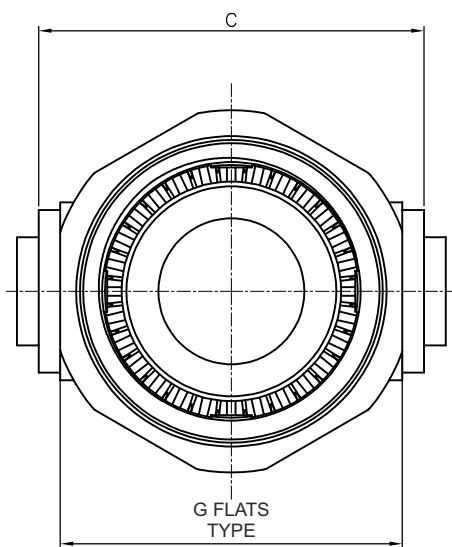
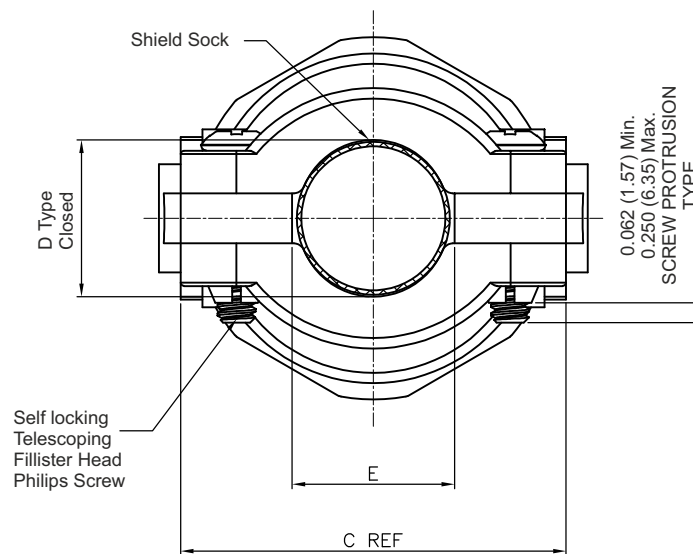
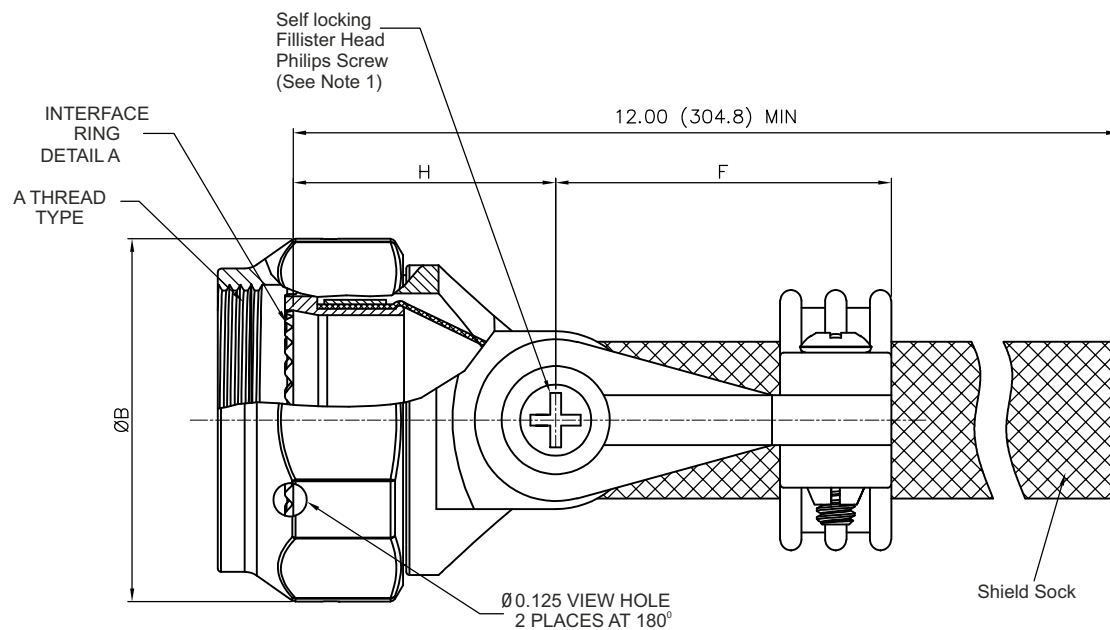
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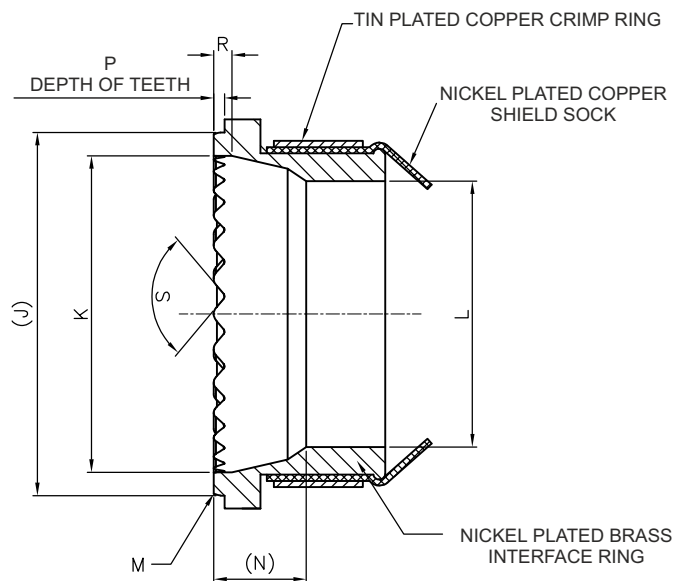
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J-MIL-DTL-83723 CONNECTOR

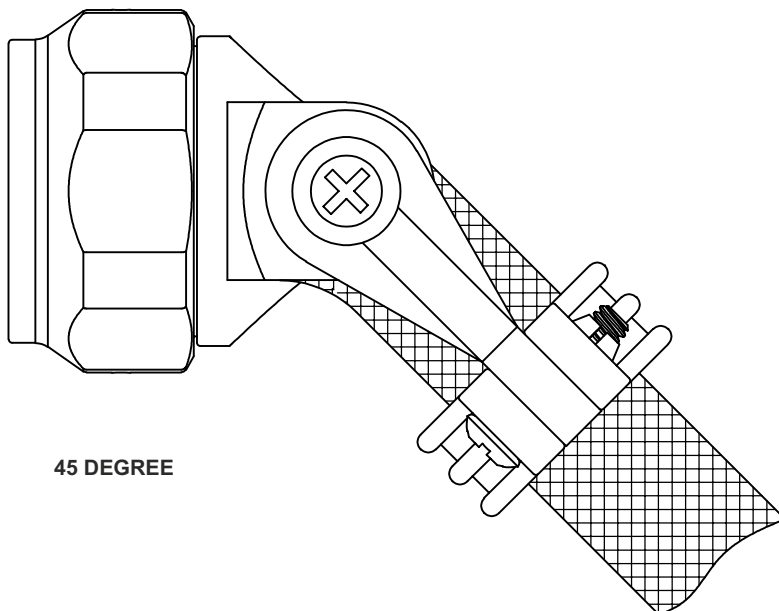
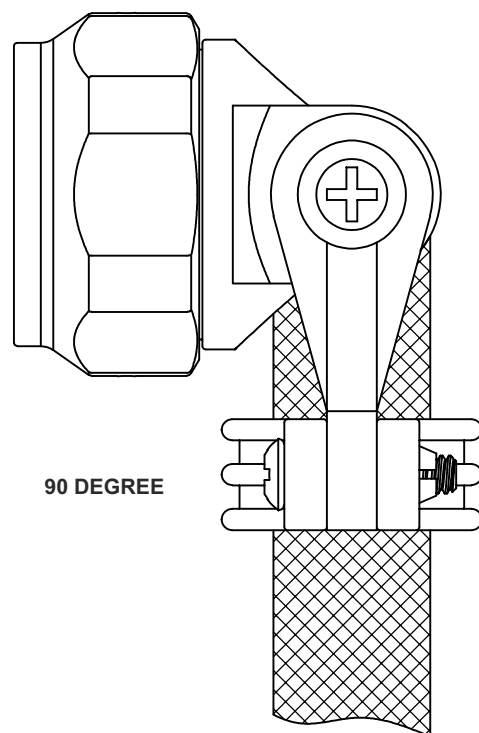
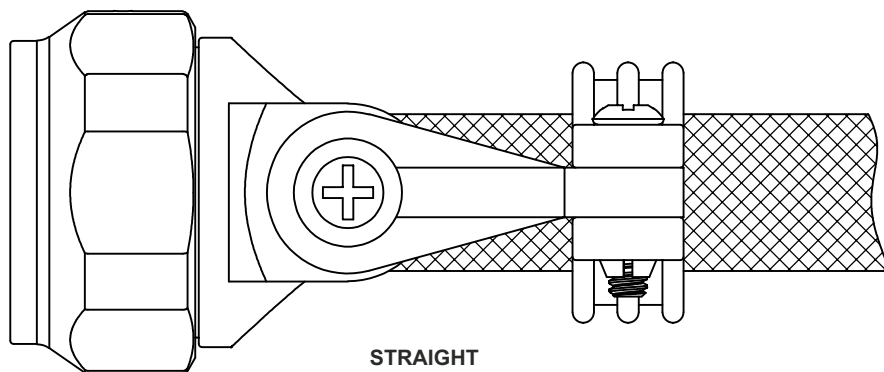
INTERFACE RING FINISH
(SEE FINISH DETAILS)

SHELL SIZE (Table 1)

**BACKSHELL FRONT VIEW****BACKSHELL REAR VIEW****BACKSHELL SIDE VIEW**



DETAIL 'A' (INTERFACE RING)

**TOLERANCES**.XXX ± 0.015 (0.38).XX ± 0.03 (0.76)ANGULAR $\pm 1^\circ$ UNLESS OTHERWISE SPECIFIED

DIMENSIONS IN INCHES & MM UNLESS OTHERWISE NOTED.

TABLE 1 BACKSHELL DIMENSIONS

Shell Size	A Coupling Ring Thread CLASS 2B	ØB Max.		C Max.		D Ref.		E Min.	
		INCH	MM	INCH	MM	INCH	MM	INCH	MM
8	0.500-20UNF	0.812	20.62	0.98	24.89	0.265	6.73	0.22	5.59
10	0.625-24UNEF	0.938	23.83	1.05	26.67	0.310	7.87	0.27	6.86
12	0.7500-20UNEF	1.125	28.58	1.20	30.48	0.390	9.91	0.35	8.89
14	0.8750-20UNEF	1.250	31.75	1.30	33.02	0.506	12.85	0.47	11.94
16	1.0000-20UNEF	1.375	34.93	1.44	36.58	0.591	15.01	0.55	13.97
18	1.0625-18UNEF	1.500	38.10	1.56	39.62	0.661	16.79	0.62	15.75
20	1.1875-18UNEF	1.625	41.28	1.69	42.93	0.744	18.90	0.70	17.78
22	1.3125-18UNEF	1.750	44.45	1.77	44.96	0.826	20.98	0.78	19.81
24	1.4375-18UNEF	1.875	47.63	1.89	48.01	0.896	22.76	0.85	21.59
28	1.750-18UNS	2.135	54.23	2.12	53.85	0.950	24.13	0.95	24.13

TABLE 1 BACKSHELL DIMENSIONS CONTINUED

Shell Size	F Max.		G Max.		H ±0.06 (±1.52)	
	INCH	MM	INCH	MM	INCH	MM
8	1.08	27.43	0.750	19.05	0.94	23.88
10	1.09	27.69	0.875	22.23	0.97	24.64
12	1.20	30.48	1.000	25.4	1.03	26.16
14	1.24	31.50	1.125	28.58	1.09	27.69
16	1.32	33.53	1.250	31.75	1.12	28.45
18	1.39	35.31	1.375	34.93	1.15	29.21
20	1.49	37.85	1.500	38.1	1.18	29.97
22	1.55	39.37	1.625	41.28	1.25	31.75
24	1.61	40.89	1.750	44.45	1.28	32.51
28	1.91	48.51	2.000	50.80	1.42	36.07

TABLE II INTERFACE RING DIMENSIONS

Shell Size	J REF.		ØK ±0.005 (±0.127)		ØL +0.000/-0.010 (+.00/-0.25)		M NUMBER OF TEETH	N REF.	P DEPTH OF TEETH (REF)	R START OF TAPER	S DEG
	INCH	MM	INCH	MM	INCH	MM					
8	0.437	11.10	0.361	9.17	0.270	6.86	12	0.190(4.82)	0.043(1.09)	0.056 (1.42) 0.051 (1.29)	90.5 89.5
10	0.572	14.53	0.437	11.1	0.375	9.53	15				
12	0.687	17.45	0.584	14.83	0.504	12.8	21				
14	0.812	20.62	0.678	17.22	0.585	14.86	24				
16	0.937	23.80	0.809	20.55	0.706	17.93	30				
18	0.992	25.20	0.885	22.48	0.789	20.04	33				
20	1.117	28.37	1.005	25.53	0.914	23.22	36				
22	1.242	31.55	1.142	29.01	1.039	26.39	39				
24	1.367	34.72	1.278	32.46	1.154	29.31	42				
28	1.613	40.97	1.532	38.91	1.389	35.28	54				

NOTE:

The end of the screw shall not protrude into inside of Backshell when tightened.

Material/Finish:

CLAMP BODY - PEI, POLYTHERIMIDE, ULTEM, PER ASTM D 5205, NON- CONDUCTIVE
COUPLING NUT
SADDLES

SCREWS & - 300 SERIES SS/PASSIVATED, THREADS MAY BE SILVER PLATED
FASTENING
HARDWARE

INTERFACE RING - BRASS/NICKEL PLATED PER AMS-QQ-N-290
SHIELD SHOCK - 34 AWG COPPER, NICKEL PLATED, 50 MICRO INCHES MIN.
CONSTRUCTION TO PROVIDE 90% MIN. COVERAGE

How to order**BM070 J 10 N**

BASIC NUMBER —————
CONNECTOR CODE —————
J-MIL-DTL-83723 CONN.

————— INTERFACE RING FINISH
(SEE FINISH DETAILS)
————— SHELL SIZE (Table 1)

Notice: All information including illustrations given herein is believed to be accurate at the time of printing. In lieu of design advances Amphenol reserves the right to change specifications without notice. This Publication Composite Connectors 01 Rev 01 2024 Series Connectors supercedes all existing Amphenol literature on Composite Connectors

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