

# MIL-DTL-26482

## Series 1 Mil-Spec Circular Connectors Catalog





## Metabee (Chengdu) Technology Co., Ltd.

**180+**  
Countries

**300+**  
Workers

**20,000 M<sup>2</sup>**  
Production Workshop

**16M**  
Group Assets

Metabee (Chengdu) Technology Co., Ltd. established in 2022 located in Sichuan Province with convenient transportation. Our associated factory Jiangmen Dosin specialize in producing RF connectors, M series connectors, and cables.

We are committed to being the world's leading Manufacturer of electronic connectors and industrial cables. We have developed more than 20 product series and more than 5,000 varieties. These products have been widely sold to many countries and regions around the world. They are mainly used for outdoor lighting automation machinery, new energy vehicles, charging equipment, electricity generation facilities, and other industries.

We can also support OEM ODM and customized related products. All products have owned American UL, German TUV, and Europe CE ROHS certifications and have several design patents. Our associated factory has production workshop with an area of 20,000 square meters, more than 300 employees, 30 international advanced production lines, and tens of precision testing equipment. Moreover, we have constructed a specialized laboratory for product research and development. Our reliable product quality, good service, and rapid technical have helped us win many customers in China and overseas markets.

Metabee (Chengdu) Technology Co., Ltd. has become the leading technology and scale Enterprise in the connector field. We have a reliable reputation among our customers because of our professional services, quality products, and competitive prices. We welcome customers from home and abroad to cooperate with us for Common success.





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# MIL-DTL-26482 Series I Circular Connector

## 1. Introduction

### Metabee MIL-DTL-26482 Series I Connectors: Your Reliable Choice for High-Density Connections

The MIL-DTL-26482 SERIES I Connector provides high-density contact arrangements within a miniature circular metal shell. Fully compliant with MIL-DTL-26482, this series ensures intermateability and interchangeability with all MIL-DTL-26482 Connectors. A quick disconnect bayonet coupling system and 5 keyways facilitate rapid, positive mating and unmating. This design is ideal for applications demanding robust, reliable connections in harsh environments.

### 1.1 Applications:

Military and industrial environments requiring a miniature, high density, environmental connector.

- Power generators
- Engines
- Sensors
- Motion Control
- Off-road vehicles
- Earth moving equipment
- Ships
- Mobile equipment
- Industrial machinery
- Telecommunications

### 1.2 Features:

#### MIL-DTL-26482 Connectors: Rugged, Reliable, and Environmentally Sealed

Our MIL-DTL-26482 connectors are designed to withstand the most demanding environments. Crafted with lightweight aluminum alloy shells and hardware, these connectors offer exceptional durability and reliability. They have been extensively used in commercial, military, and aerospace applications.

Key features include:

- **Rugged Construction:** The rugged shell design, combined with robust materials, ensures optimal performance in harsh conditions.
- **Environmental Sealing:** Advanced sealing technology, including multiple seals and a resilient insulator, provides superior protection against moisture, dust, and other contaminants.
- **Extreme Temperature Tolerance:** These connectors can operate flawlessly in temperatures ranging from -55°C to +125°C, making them ideal for a wide range of applications.
- **Versatile Wire Gauge and Current Capacity:** Accommodating wire gauges from 24 to 16 AWG, these connectors can handle currents up to 22 amps, providing flexibility for various power and signal requirements.
- **Reliable Performance:** The permanent bonding of solder contacts to the insulator ensures consistent and dependable electrical connections.

## 2. Technical Data

### 2.1 Electrical Characteristics

#### 2.1.1 Contact Current Rating:

Contact size AWG	(Current max.A)
20	7.5
16	22
12	35

#### 2.1.2 Insulation Resistance :

To ensure optimal performance and reliability, our MIL-DTL-26482 connectors undergo rigorous insulation resistance testing under conditions specified in **EIA364.21** and **MIL-DTL-26842 3.6.6 test condition B**. This involves applying a DC voltage of 500V and measuring a minimum resistance of 5000M $\Omega$ , guaranteeing superior electrical isolation.

#### 2.1.3 Operating & Test Voltage:

Our MIL-DTL-26482 connectors undergo rigorous testing to ensure superior dielectric withstanding voltage, exceeding industry standards set by **EIA364.20** and **MIL-DTL-26842 3.6.8**. This guarantees exceptional electrical performance and reliability, even in the harshest environments.

Service Rating	Operating voltage	
	DC	AC(rms)
I	850V	600V
II	1275V	1000V

Service rating	Test voitage AC(rms)		
	Sea level	50000 ft	70000 ft
I	1500V	500V	375V
II	2300V	750V	500V

#### 2.1.4 Contact Resistance:

Contact Size AWG	Test Current A	Millivolt max.mv
20	20	20
16	16	16
12	12	12

## 2.2 Mechanical Characteristics

### 2.2.1 General Information:

<b>Ambient temperature:</b>	-55°C to +125°C
<b>Water pressure:</b>	48 hours in 6 feet per MIL-DTL-26482 3.6.14
<b>Humidity:</b>	20-day 50 to 90% humidity testing per MIL-DTL-26482 3.6.25
<b>Mating cycles:</b>	500 cycles
<b>Salt spray:</b>	Unmated connectors and protective covers meet 48 hour exposure per EIA364.26 and MIL-DTL-26482 3.6.19
<b>Vibration:</b>	10µs max at 10 to 2000Hz(15g) discontinuity per EIA364.28 and MIL-DTL-26482 3.6.21
<b>Shock:</b>	50g's/11ms duration. three major axes 10µs max discontinuity per EIA364.27 and MIL-DTL-26482 3.6.2

### 2.2.2 Contact Retention:

The contact retention to be tested per EIA364.29 and EIL-DTL-26482 3.6.32

Contact size AWG	Test force N (LB)
20	66.7(15)
16	111.2(25)
12	111.2(25)

### 2.2.3 Wire Sealing Range:

Contact size AWG	Wire size AWG	Insulation O.D Limits	
		min.mm	max.mm
20	24, 22, 20	1.19	2.11
16	20, 18, 16	1.68	2.77
12	14, 12	2.46	3.61

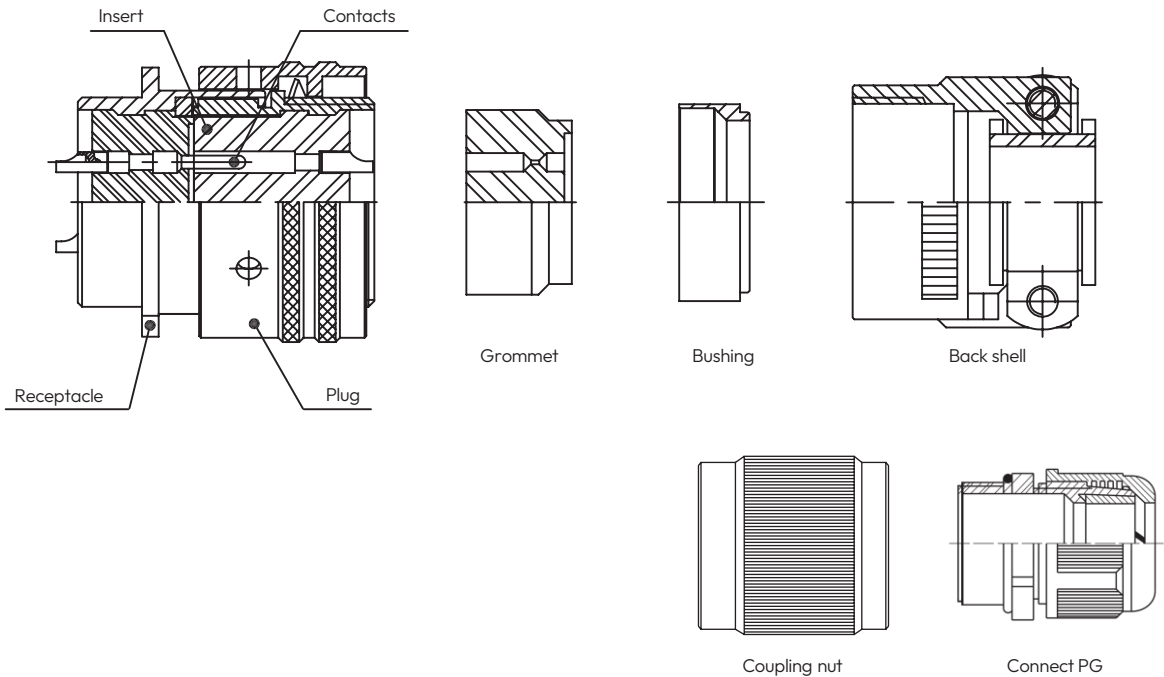
Contact size AWG	Wire size AWG	Strip length mm
20	20	20
16	16	16
12	12	12

## 2.3 Materials

<b>Shell Material:</b>	Aluminum alloy
<b>Shell Finish:</b>	Olive drab chromate coating over
<b>Alternative Shell Finish:</b>	Black over zinc plating (RoHs)
<b>Insulator Material:</b>	Synthetic rubber
<b>Grommets and Seals Material:</b>	Synthetic rubber
<b>Contact Material:</b>	Copper alloy
<b>Contact Finish:</b>	Gold Plating

## 2.4 Cross Sections

The diagram shows a typical cross-section of a mated pair of connectors

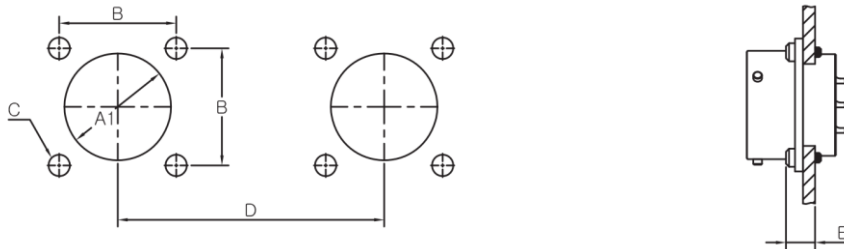




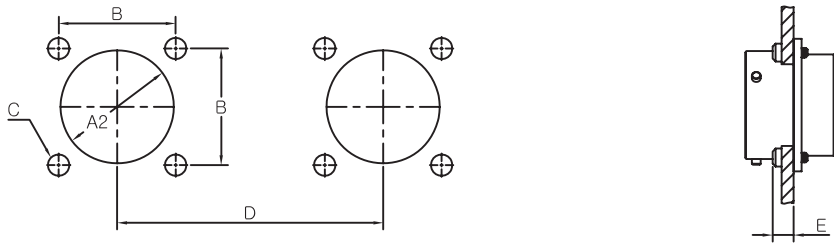
# 3. Mounting Dimensions

## 3.1 Mounting Holes

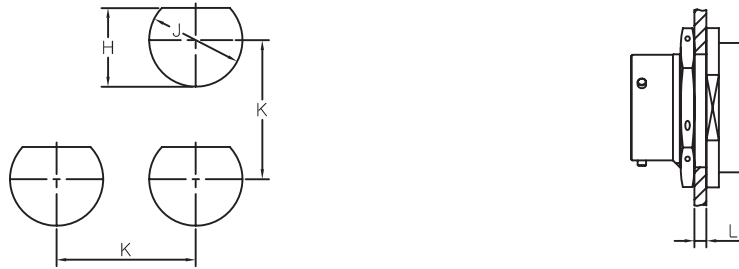
### Front Mount



### Rear Mount



### Jam Nut Mount

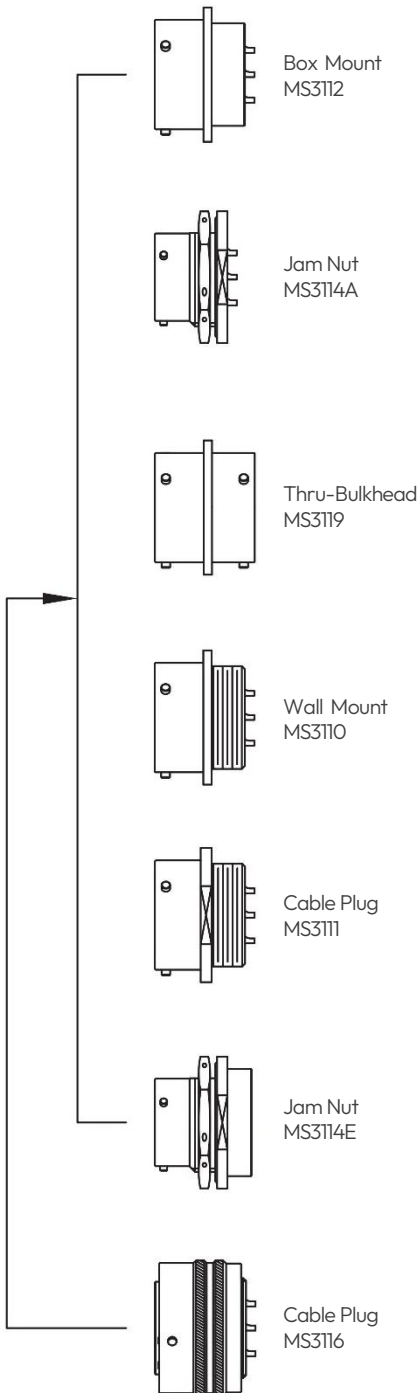


Dimensions in mm

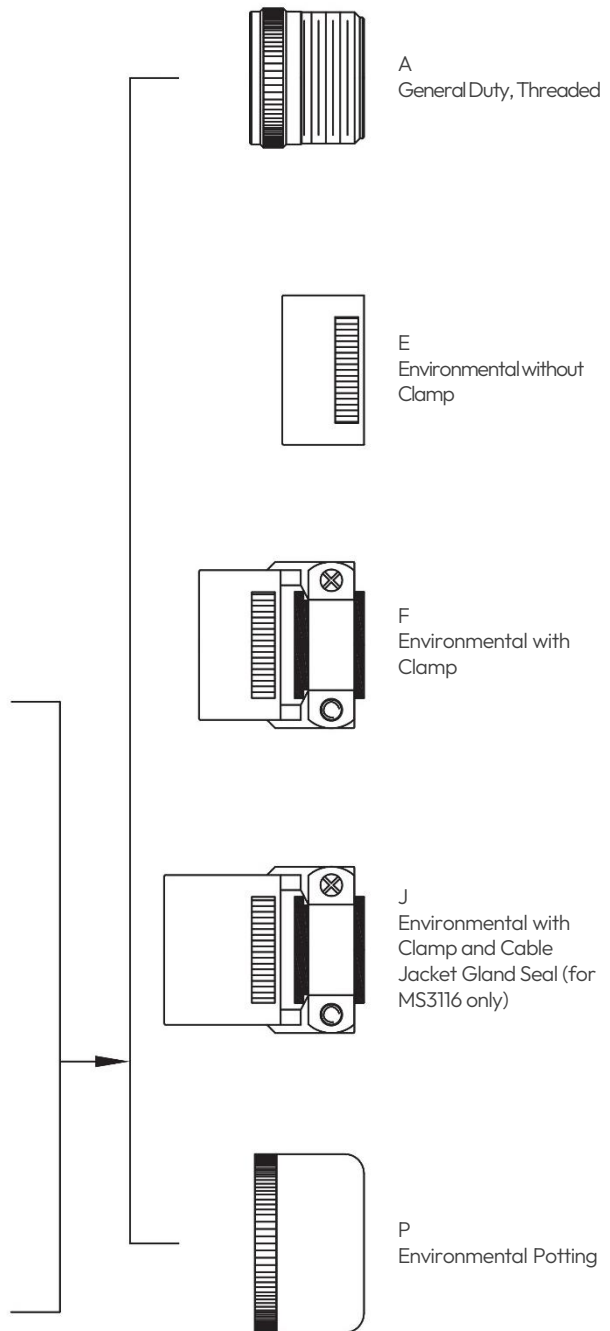
Shell Size	$\varphi$ A1 -0.25	$\varphi$ A2 -0.25	B $\pm 0.15$	C $\pm 0.10$	D min	E max	H -0.2	J +0.2	K min	L	
										min	max
8	11.63	14.73	15.09	3.10	21.4	2.21	13.7	14.5	24.6	1.57	3.18
10	14.81	17.78	18.26	3.10	24.6	2.21	16.9	17.7	27.8	1.57	3.18
12	17.98	21.82	20.62	3.10	27.0	2.21	21.0	22.5	32.6	1.57	3.18
14	21.16	24.79	23.01	3.10	29.4	2.21	24.2	25.7	35.7	1.57	3.18
16	24.33	28.14	24.61	3.10	31.7	2.21	27.3	28.8	38.9	1.57	3.18
18	27.51	31.32	26.97	3.10	34.1	2.21	30.5	32.0	42.1	1.57	3.18
20	30.68	34.52	29.36	3.10	37.3	5.38	33.7	35.2	46.8	1.57	6.35
22	33.86	37.92	31.75	3.10	40.5	5.38	36.9	38.4	50.0	1.57	6.35
24	37.03	41.00	34.93	3.80	43.6	5.38	40.0	41.5	53.2	1.57	6.35

## 4. Shell Styles

### Plug or Receptacle



### Choose Endbell

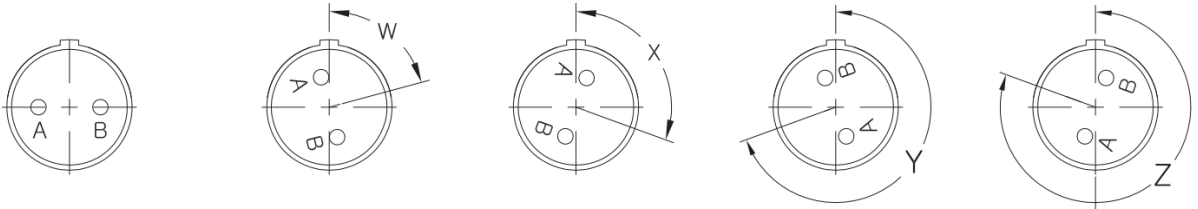


## 5. Order Reference

	<b>MS</b>	<b>3112</b>	<b>E</b>	<b>12-</b>	<b>10</b>	<b>P</b>	<b>W</b>	<b>**</b>
Series:	<b>MS</b>							
Shell Style:	<p><b>3110</b> – Wall Mounting Receptacle  <b>3111</b> – Cable Connecting Plug  <b>3112</b> – Box Mounting Receptacle  <b>3114</b> – Jam Nut Mounting Receptacle  <b>3115</b> – Dummy Receptacle  <b>3116</b> – Straight Plug  <b>3119</b> – Thru-Bulkhead Receptacle</p>							
Class:	<p><b>A</b> – General duty, threaded back shell;  <b>E</b> – Grommet seal expert on MS3112;  <b>F</b> – Grommet seal with strain relief;  <b>J</b> – Cable seal with clamp (MS3116 only)  <b>P</b> – Potting seal</p>							
Shell Size:	<b>8, 10, 12, 14, 16, 18, 20, 22, 24</b>							
Contact Arrangement:	See page 13-17.							
Contact Type:	<p><b>P</b> – Pin Contact  <b>S</b> – Socket Contact  <b>C</b> – Feedthrough Contact</p>							
Position:	See Page 12.							
Finish:	<p><b>No Code</b> – Olive drab cadmium plate finish as standard;  <b>F</b> – Electroless Nickel  <b>Z3</b> – Black over Zinc plating(RoHS)  <b>A4</b> – Black over Anodize  <b>N</b> – Nickel plating</p>							

# 6. Contact Arrangements

## 6.1 Angular Positions



View Shows Pin Front Side Or Socket Rear Side

Shell Size	Insert Number	Contacts					Alternate Positions				Service Rating
		Tot	20	16	12	8	W	X	Y	Z	
8	8-2	2	2				58	122			I
	8-3	3	3				60	210			I
	8-4	4	4				45				I
	8-33	3	3				90				I
	8-98	3	3				60				I
10	10-5	5	5				45	151	180	270	I
	10-6	6	6				90				I
	10-7	7	7								I
	10-98	6	6				90	180	240	270	I
12	12-3	3		3					180		II
	12-4	4		4			38				I
	12-8	8	8				90	112	203	292	I
	12-10	10	10				60	155	270	295	I
	12-12	12	12								I
	12-14	14	14								I
14	14-4	4			4		45				I
	14-5	5		5			40	92	184	273	II
	14-9	9	5		4		15	90	180	240	I
	14-12	12	8	4			43	90			I
	14-15	15	14	1			17	110	155	234	I
	14-18	18	18				15	90	180	270	I
	14-19	19	19				30	165	315		I
16	16-8	8		8			54	152	180	331	II
	16-14	14	8		6		25	78	180	240	I
	16-23	23	22	1			158	270			I
	16-26	26	26				60		275	238	I
	16-99	23	21	2			66	156	223	340	I
18	18-5	5			5		55	97	263	315	I
	18-8	8			8		180				I
	18-11	11		11			62	119	241	340	II
	18-28	28	26	2			49	158	207	329	I
	18-30	30	29	1			180	193	285	350	I
	18-32	32	32				85	138	222	265	I
	18-85	13	5		8		45	90	180	240	I
20	20-16	16		16			238	318	333	347	II
	20-24	24	24				70	145	215	290	I
	20-27	27	27				72	144	216	288	I
	20-39	39	37	2			63	144	252	333	I
	20-41	41	41				45	126	225		I
	20-90	15	3		12		18	60	240	270	I
	22-12	12			12						I
22	22-19	19			19		15	90	225	308	I
	22-21	21		21			16	135	175	349	II
	22-32	32	32				72	145	215	288	I
	22-34	34	34				62	142	218	298	I
	22-41	41	27	14			39	135	264		I
	22-55	55	55				30	142	226	314	I
	22-95	32	26		6		26	180	266		I
	24-19	19			19		30	165	315		I
24	24-27	27	11		16		45	110	140	225	I
	24-31	31		31			90	225	225		I
	24-61	61	61				90	180	270	324	I

## 6.2 Contact Arrangements

### Shell Size 8



<b>Insert Number:</b>	8-2	8-3	8-4	8-33
<b>Number of Contacts:</b>	2	3	4	3
<b>Contact Size:</b>	20	20	20	20
<b>Service Rating:</b>	I	I	I	I

### Shell Size 10

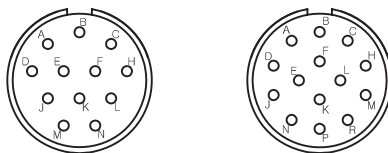


<b>Insert Number:</b>	10-5	10-6	10-7	10-98
<b>Number of Contacts:</b>	5	6	7	6
<b>Contact Size:</b>	20	20	20	20
<b>Service Rating:</b>	I	I	I	I

### Shell Size 12



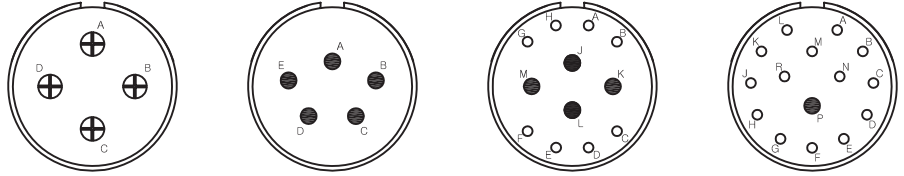
<b>Insert Number:</b>	12-3	12-4	12-8	12-10
<b>Number of Contacts:</b>	3	4	8	10
<b>Contact Size:</b>	16	16	20	20
<b>Service Rating:</b>	II	I	I	I



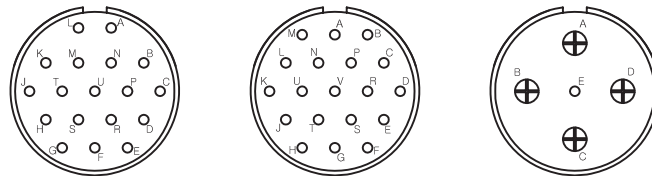
<b>Insert Number:</b>	12-12	12-14
<b>Number of Contacts:</b>	12	14
<b>Contact Size:</b>	20	20
<b>Service Rating:</b>	I	I



Shell Size 14

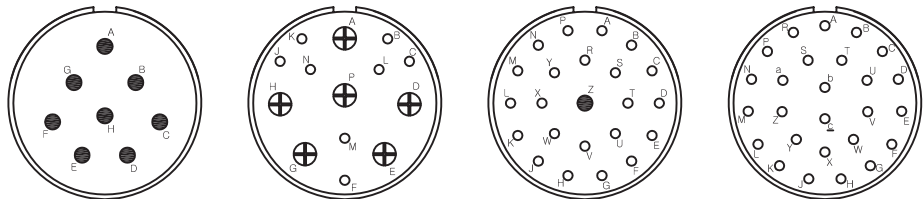


<b>Insert Number:</b>	14-4	14-5	14-12	14-15
<b>Number of Contacts:</b>	4	5	12	15
<b>Contact Size:</b>	12	16	8-20, 4-16	14-20, 1-16
<b>Service Rating:</b>	I	II	I	I

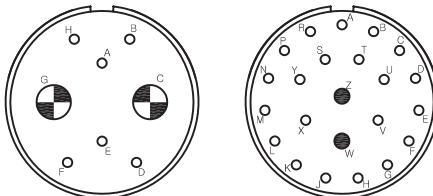


<b>Insert Number:</b>	14-18	14-19	14-22
<b>Number of Contacts:</b>	18	19	5
<b>Contact Size:</b>	20	20	1-20, 4-12
<b>Service Rating:</b>	I	I	I

Shell Size 16

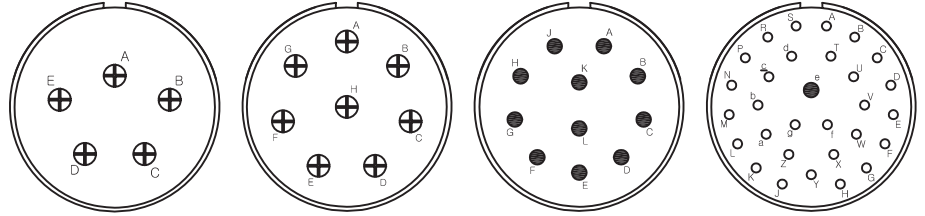


<b>Insert Number:</b>	16-8	16-14	16-23	16-26
<b>Number of Contacts:</b>	8	14	23	26
<b>Contact Size:</b>	16	8-20, 6-12	22-20, 1-16	20
<b>Service Rating:</b>	II	II	I	I

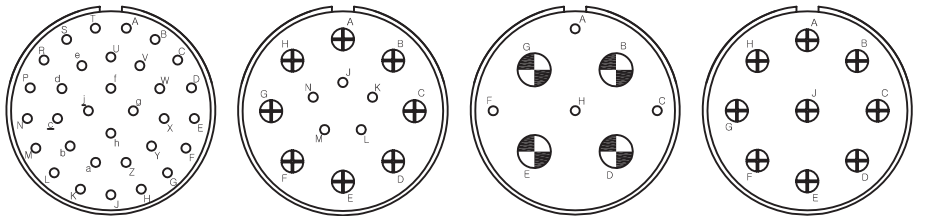


<b>Insert Number:</b>	16-95	16-99
<b>Number of Contacts:</b>	8	23
<b>Contact Size:</b>	2-8, 6-20	21-20, 2-16
<b>Service Rating:</b>	II	I

Shell Size 18

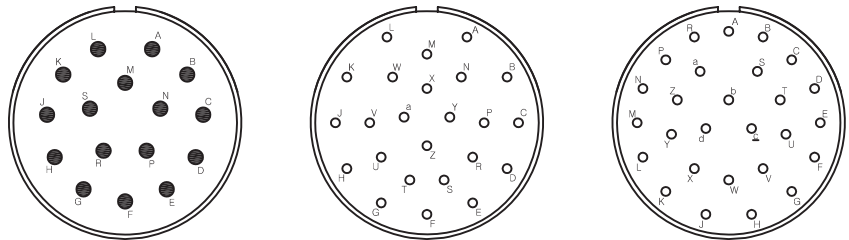


<b>Insert Number:</b>	18-5	18-8	18-11	18-30
<b>Number of Contacts:</b>	5	8	11	30
<b>Contact Size:</b>	12	12	16	29-20, 1-16
<b>Service Rating:</b>	I	I	II	I

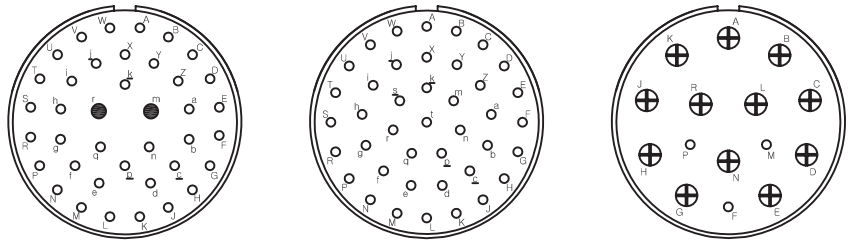


<b>Insert Number:</b>	18-32	18-85	18-88	18-96
<b>Number of Contacts:</b>	32	13	8	9
<b>Contact Size:</b>	20	5-20, 8-12	4-20, 4-8	12
<b>Service Rating:</b>	I	I	I	I

Shell Size 20

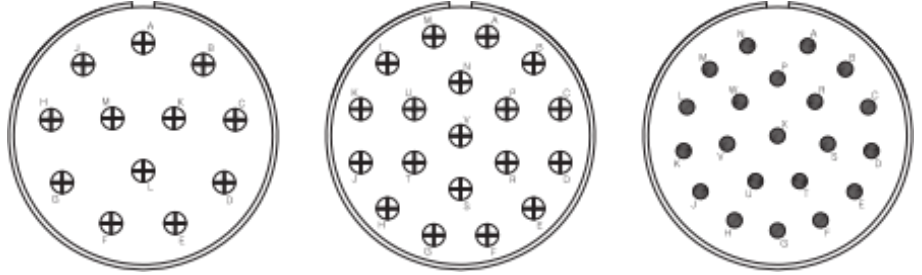


<b>Insert Number:</b>	20-16	20-24	20-27
<b>Number of Contacts:</b>	16	20	27
<b>Contact Size:</b>	16	24	20
<b>Service Rating:</b>	II	I	I

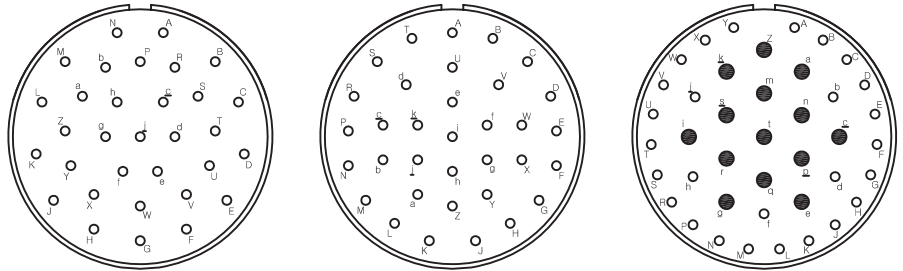


<b>Insert Number:</b>	20-39	20-41	20-90
<b>Number of Contacts:</b>	39	41	15
<b>Contact Size:</b>	37-20, 2-16	20	3-20, 12-12
<b>Service Rating:</b>	II	I	I

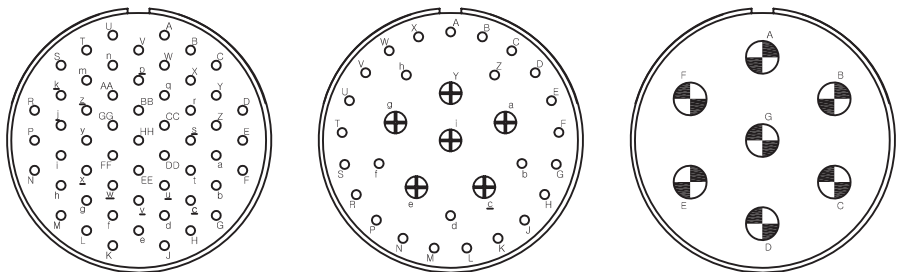
Shell Size 22



<b>Insert Number:</b>	22-12	22-19	22-21
<b>Number of Contacts:</b>	12	19	21
<b>Contact Size:</b>	12	12	16
<b>Service Rating:</b>	I	I	II

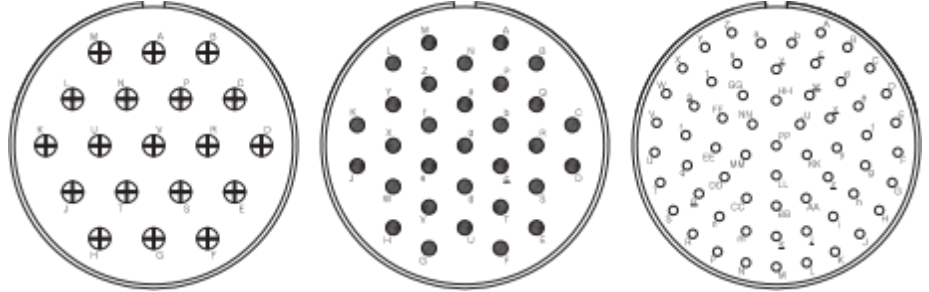


<b>Insert Number:</b>	22-32	22-34	22-41
<b>Number of Contacts:</b>	32	34	41
<b>Contact Size:</b>	20	20	27-20, 14-16
<b>Service Rating:</b>	I	I	I



<b>Insert Number:</b>	22-55	22-95	22-96
<b>Number of Contacts:</b>	55	32	7
<b>Contact Size:</b>	20	26-20, 6-12	20
<b>Service Rating:</b>	I	I	I

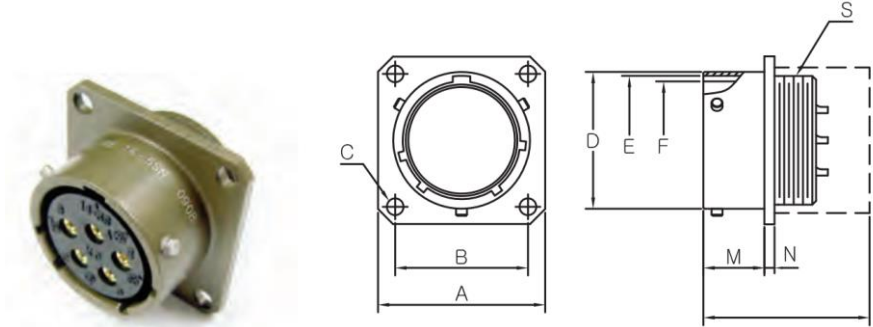
Shell Size 24



<b>Insert Number:</b>	24-19	24-31	24-61
<b>Number of Contacts:</b>	19	31	61
<b>Contact Size:</b>	12	16	20
<b>Service Rating:</b>	I	I	I

# 7. Connector Dimensions

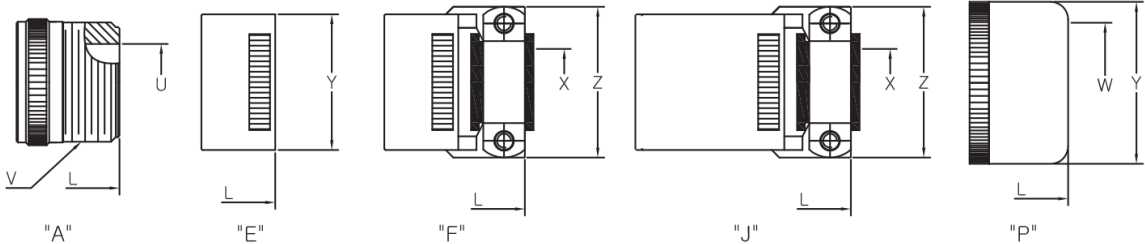
MS3110 Class A, E, F, J, P  
 Wall Mounting Receptacle



Dimensions in mm

Shell Size	$\phi A$ max	$\phi B$ $\pm 0.13$	$\phi C$ $\pm 0.13$	$\phi D$ $+0.03 \sim -0.13$	$\phi E$ $+0.13 \sim -0.15$	$\phi F$ $+0.13 \sim -0.03$	M $+0.79$	N $\pm 0.41$	S THD-2A
8	21.03	15.09	3.05	12.01	10.46	9.19	10.95	1.57	7/16-28UNEF
10	24.23	18.26	3.05	14.99	13.72	12.45	10.95	1.57	9/16-24UNEF
12	26.59	20.62	3.05	19.05	17.50	15.42	10.95	1.57	11/16-24UNEF
14	28.98	23.01	3.05	22.22	20.68	18.59	10.95	1.57	13/16-20UNEF
16	31.34	24.61	3.05	25.40	23.85	21.77	10.95	1.57	15/16-20UNEF
18	33.73	26.97	3.05	28.58	26.39	24.43	10.95	1.57	1 1/16-18UNEF
20	36.91	29.36	3.05	31.75	29.57	27.61	14.12	2.39	1 3/16-18UNEF
22	40.08	31.75	3.05	34.92	32.74	30.78	14.12	2.39	1 5/16-18UNEF
24	43.18	34.93	3.73	38.10	35.92	33.96	14.96	2.39	1 7/16-18UNEF

Termination Assembly  
 MS3110 Class A, E, F, J, P

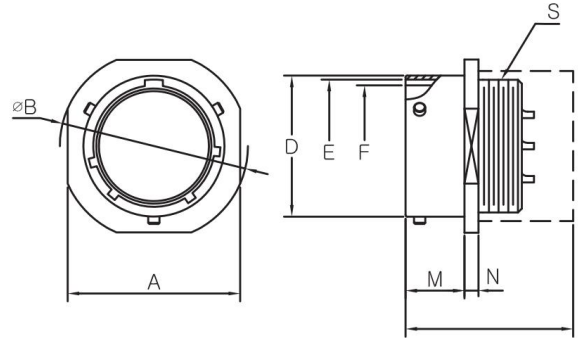


Dimensions in mm

Class	E, F, J, P			A			E	F	J	P	
	X	Y	Z	L	U	V	L	L	L	L	W
	$\pm 0.25$	max	max	max	min	THD-2A	max	max	max	max	min
8	3.18	15.44	21.03	36.11	7.54	1/2-28UNEF	33.73	48.82	57.68	36.91	8.05
10	4.78	18.64	22.63	36.11	10.69	5/8-24UNEF	33.73	48.82	57.68	36.91	11.02
12	7.92	21.79	25.81	36.11	13.87	3/4-20UNEF	33.73	48.82	61.24	36.91	13.92
14	9.53	24.99	28.98	36.11	16.84	7/8-20UNEF	33.73	48.82	66.01	36.91	17.09
16	12.70	28.19	30.56	36.11	19.99	1 -20UNEF	33.73	51.99	74.75	36.91	20.27
18	15.88	31.34	37.31	36.11	22.33	1 3/16-18UNEF	33.73	52.78	80.57	36.91	22.83
20	15.88	34.54	37.31	43.26	25.76	1 3/16-18UNEF	38.89	59.54	91.69	42.47	26.01
22	19.05	37.69	42.06	44.83	28.83	1 7/16-18UNEF	38.89	59.54	95.66	42.47	29.18
24	20.32	40.89	44.45	44.83	31.98	1 7/16-18UNEF	40.49	61.11	101.22	44.04	32.36



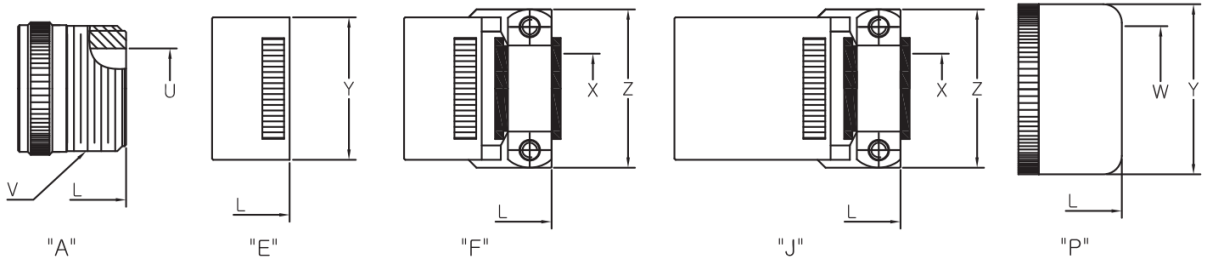
MS3111 Class A, E, F, J, P  
 Cable Connecting Plug



Dimensions in mm

Shell Size	$\varphi A$ max	$\varphi B$ $\pm 0.51$	$\varphi D$ $+0.03 - -0.13$	$\varphi E$ $+0.13 - -0.15$	$\varphi F$ $+0.13 - -0.03$	M $+0.79$	N $\pm 0.41$	S THD-2A
8	21.03	15.44	12.01	10.46	9.19	10.95	2.39	7/16-28UNEF
10	24.23	18.64	14.99	13.72	12.45	10.95	2.39	9/16-24UNEF
12	26.59	21.79	19.05	17.50	15.42	10.95	2.39	11/16-24UNEF
14	28.98	24.99	22.22	20.68	18.59	10.95	2.39	13/16-20UNEF
16	31.34	28.19	25.40	23.85	21.77	10.95	2.39	15/16-20UNEF
18	33.73	31.34	28.58	26.39	24.43	10.95	2.39	1 1/16-18UNEF
20	36.91	34.54	31.75	29.57	27.61	14.12	2.92	1 3/16-18UNEF
22	40.08	37.69	34.92	32.74	30.78	14.12	2.92	1 5/16-18UNEF
24	43.18	40.89	38.10	35.92	33.96	14.96	2.92	1 7/16-18UNEF

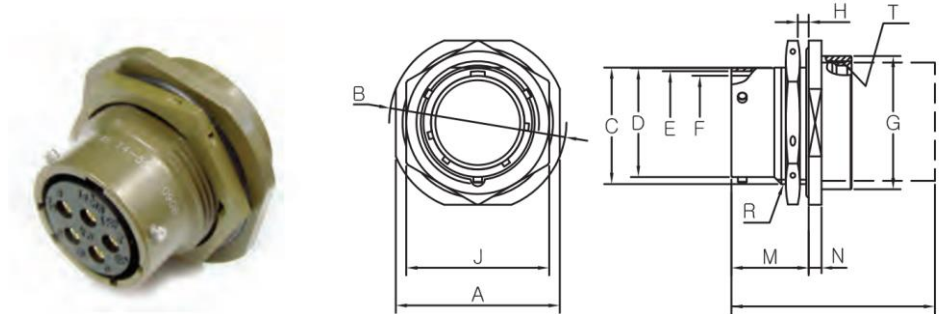
Termination Assembly  
 MS3111 Class A, E, F, J, P



Dimensions in mm

Class	E, F, J, P			A			E	F	J	P	
	X	Y	Z	L	U	V	L	L	L	L	W
Shell Size	$\pm 0.25$	max	max	max	min	THD-2A	max	max	max	max	min
8	3.18	15.44	21.03	36.11	7.54	1/2-28UNEF	33.73	48.82	57.68	36.91	8.05
10	4.78	18.64	22.63	36.11	10.69	5/8-24UNEF	33.73	48.82	57.68	36.91	11.02
12	7.92	21.79	25.81	36.11	13.87	3/4-20UNEF	33.73	48.82	61.24	36.91	13.92
14	9.53	24.99	28.98	36.11	16.84	7/8-20UNEF	33.73	48.82	66.01	36.91	17.09
16	12.70	28.19	30.56	36.11	19.99	1 -20UNEF	33.73	51.99	74.75	36.91	20.27
18	15.88	31.34	37.31	36.11	22.33	1 3/16-18UNEF	33.73	52.78	80.57	36.91	22.83
20	15.88	34.54	37.31	43.26	25.76	1 3/16-18UNEF	38.89	59.54	91.69	42.47	26.01
22	19.05	37.69	42.06	44.83	28.83	1 7/16-18UNEF	38.89	59.54	95.66	42.47	29.18
24	20.32	40.89	44.45	44.83	31.98	1 7/16-18UNEF	40.49	61.11	101.22	44.04	32.36

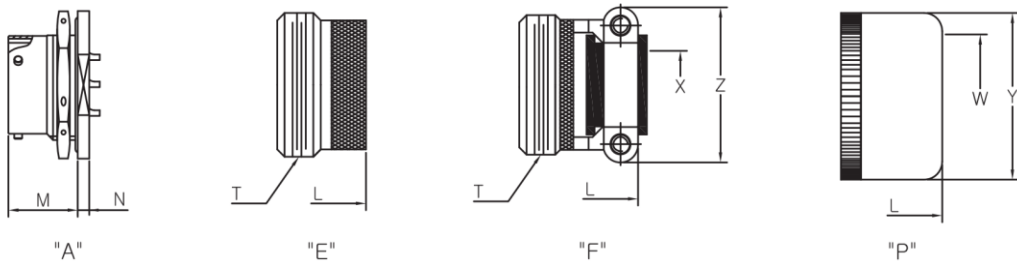
MS3114 Class E, F  
 Jam Nut Receptacle



Dimensions in mm

Shell Size	φ A max	φ B - 0.81	φ C - 0.25	φ D +0.03 -0.13	φ E +0.13 0.15	φ F -0.13 0.03	φ G max	H		J ±0.43	M +0.79	N ±0.51	R THD-2A	T THD-2B
								min	max					
8	24.23	27.38	13.46	12.01	10.46	9.19	19.05	1.57	3.18	19.05	17.55	2.97	9/16-24UNEF	5/8-24UNEF
10	27.39	30.56	16.64	14.99	13.72	12.45	22.23	1.57	3.18	22.23	17.55	2.97	11/16-24UNEF	3/4-20UNEF
12	32.16	35.33	20.78	19.05	17.50	15.42	25.40	1.57	3.18	26.97	17.55	2.97	7/8-20UNEF	7/8-20UNEF
14	35.33	38.51	23.93	22.22	20.68	18.59	28.58	1.57	3.18	30.18	17.55	2.97	1 -20UNEF	1 -20UNEF
16	38.51	41.68	27.08	25.40	23.85	21.77	31.75	1.57	3.18	33.32	17.55	2.97	1 1/8-20UNEF	1 1/8-18UNEF
18	41.68	44.86	30.23	28.58	26.39	24.43	34.93	1.57	3.18	36.53	17.55	2.97	1 1/4-18UNEF	1 1/4-18UNEF
20	46.43	49.63	33.43	31.75	29.57	27.61	38.89	1.57	6.35	39.67	22.33	3.76	1 3/8-18UNEF	1 3/8-18UNEF
22	49.63	52.78	36.60	34.92	32.74	30.78	42.06	1.57	6.35	42.88	22.33	3.76	1 1/2-18UNEF	1 1/2-18UNEF
24	52.78	55.96	39.78	38.10	35.92	33.96	45.24	1.57	6.35	46.02	23.16	3.76	1 5/8-18UNEF	1 5/8-18UNEF

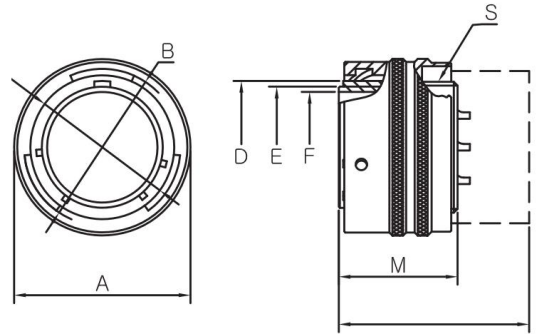
Termination Assembly  
 MS3114 Class E, F



Dimensions in mm

Class	A		F, P			E, F	E	F	P	
	M	N	X	Y	Z	T	L	L	L	W
Shell Size	±0.79	±0.51	±0.25	max	max	THD-2B	max	max	max	min
8	17.55	2.97	3.18	15.44	21.03	5/8-24UNEF	34.14	48.41	35.33	8.05
10	17.55	2.97	4.78	18.64	22.63	3/4-20UNEF	34.14	48.41	35.33	11.02
12	17.55	2.97	7.92	21.79	25.81	7/8-20UNEF	34.14	48.41	35.33	13.92
14	17.55	2.97	9.53	24.99	28.98	1 -20UNEF	34.14	48.41	35.33	17.09
16	17.55	2.97	12.70	28.19	30.56	1 1/8-18UNEF	34.14	51.99	35.33	20.27
18	17.55	2.97	15.88	31.34	37.31	1 1/4-18UNEF	34.14	52.78	35.33	22.83
20	22.33	3.96	15.88	34.54	37.31	1 3/8-18UNEF	40.49	59.13	41.68	26.01
22	22.33	3.96	19.05	37.68	42.06	1 1/2-18UNEF	40.49	59.13	41.68	29.18
24	23.16	3.96	20.32	40.89	44.45	1 5/8-18UNEF	41.68	62.31	43.26	32.36

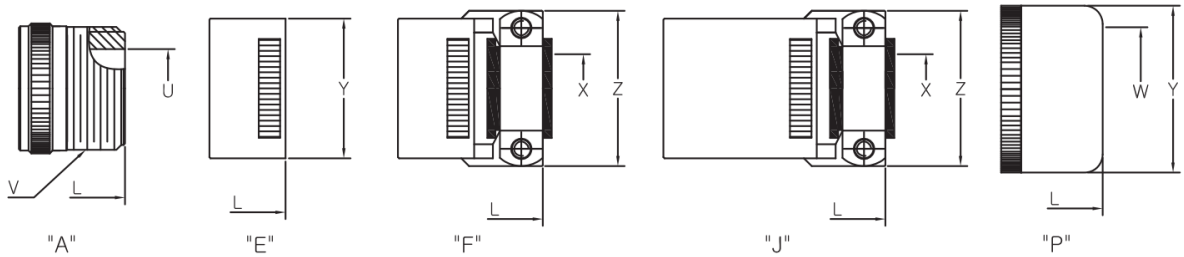
MS3116 Class A, E, F, J, P  
 Straight Plug



Dimensions in mm

Shell Size	$\varphi A$ max	$\varphi B$ +0.13 ~ -0.15	$\varphi C$ +0.13 ~ -0.03	$\varphi D$ +0.13 ~ -0.15	$\varphi E$ +0.03 ~ -0.13	$\varphi F$ min	M $\pm 0.13$	S THD-2A
8	19.86	14.63	12.22	10.11	9.07	7.42	21.10	7/16-28UNEF
10	23.52	17.70	15.23	13.36	12.32	10.39	21.10	9/16-24UNEF
12	26.49	22.12	19.33	17.14	15.17	13.28	21.10	11/16-24UNEF
14	30.05	25.27	22.48	20.32	18.34	16.46	21.10	13/16-20UNEF
16	33.15	28.45	25.65	23.49	21.52	19.61	21.10	15/16-20UNEF
18	35.33	31.62	28.85	26.03	24.06	21.89	21.10	1 1/16-18UNEF
20	38.89	34.80	32.00	29.21	27.23	25.07	24.90	1 3/16-18UNEF
22	42.06	37.97	35.18	32.39	30.41	28.22	24.90	1 5/16-18UNEF
24	45.13	41.25	38.35	35.56	33.58	31.42	26.40	1 7/16-18UNEF

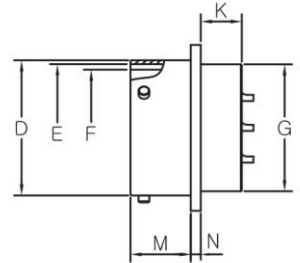
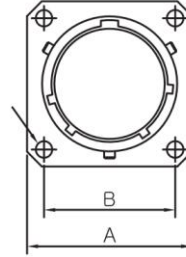
Termination Assembly  
 MS3116 Class A, E, F, J, P



Dimensions in mm

Class	E, F, J, P			A			E	F	J	P	
	X	Y	Z	L	U	V				L	L
Shell Size	$\pm 0.25$	max	max	max	min	THD-2A	max	max	max	max	min
8	3.18	15.44	21.03	36.68	7.54	1/2-28UNEF	33.73	48.41	57.68	38.10	8.05
10	4.78	18.64	22.63	36.68	10.69	5/8-24UNEF	33.73	48.41	57.68	38.10	11.02
12	7.92	21.79	25.81	36.68	13.87	3/4-20UNEF	33.73	48.41	61.24	38.10	13.92
14	9.53	24.99	28.98	36.68	16.84	7/8-20UNEF	33.73	48.41	66.01	38.10	17.09
16	12.70	28.19	30.56	36.68	19.99	1 -20UNEF	33.73	51.99	74.75	38.10	20.27
18	15.88	31.34	37.31	36.68	22.33	1 3/16-18UNEF	33.73	55.32	80.57	38.10	22.83
20	15.88	34.54	37.31	43.89	25.76	1 3/16-18UNEF	36.91	57.15	91.69	40.87	26.01
22	19.05	37.69	42.06	43.89	28.83	1 7/16-18UNEF	36.91	57.15	95.66	40.87	29.18
24	20.32	40.89	44.45	44.15	31.98	1 7/16-18UNEF	38.35	58.72	101.22	42.85	32.36

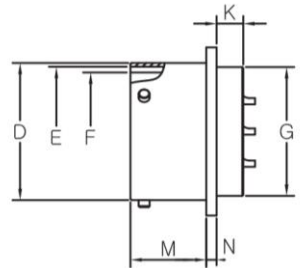
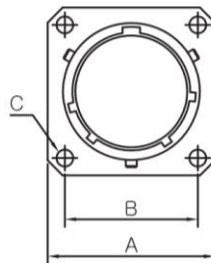
MS3112 Class E  
 Box Mounting Receptacle



Dimensions in mm

Shell Size	$\phi A$ max	$\phi B$ $\pm 0.13$	$\phi C$ $\pm 0.13$	$\phi D$ $+0.03 \sim -0.13$	$\phi E$ $+0.13 \sim -0.15$	$\phi F$ $+0.13 \sim -0.03$	$\phi G$ $+0.79 \sim -0.41$	K max	M $\pm 0.79$	N $\pm 0.41$
8	21.03	15.09	3.05	12.01	10.46	9.19	11.12	8.99	10.95	1.57
10	24.23	18.26	3.05	14.99	13.72	12.45	14.27	8.99	10.95	1.57
12	26.59	20.62	3.05	19.05	17.50	15.42	17.48	8.99	10.95	1.57
14	28.98	23.01	3.05	22.22	20.68	18.59	20.62	8.99	10.95	1.57
16	31.34	24.61	3.05	25.40	23.85	21.77	23.83	8.99	10.95	1.57
18	33.73	26.97	3.05	28.58	26.39	24.43	26.97	8.99	10.95	1.57
20	36.91	29.36	3.05	31.75	29.57	27.61	30.18	10.59	14.12	2.39
22	40.08	31.75	3.05	34.92	32.74	30.78	33.32	10.59	14.12	2.39
24	43.26	34.93	3.73	38.10	35.92	33.96	36.53	11.30	14.96	2.39

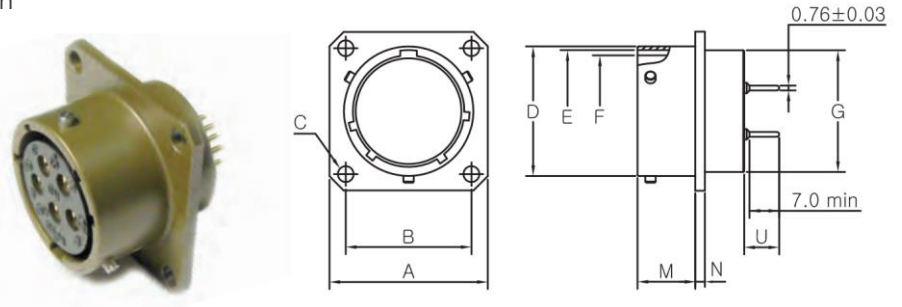
MS3112 Class E, P  
 Box Mounting Receptacle of  
 Rear Panel Mounting



Dimensions in mm

Shell Size	$\phi A$ max	$\phi B$ $\pm 0.13$	$\phi C$ $\pm 0.13$	$\phi D$ $+0.03 \sim -0.13$	$\phi E$ $+0.13 \sim -0.15$	$\phi F$ $+0.13 \sim -0.03$	$\phi G$ $+0.79 \sim -0.41$	K max	M $\pm 0.79$	N $\pm 0.41$
8	21.03	15.09	3.05	12.01	10.46	9.19	11.12	6.45	13.49	1.57
10	24.23	18.26	3.05	14.99	13.72	12.45	14.27	6.45	13.49	1.57
12	26.59	20.62	3.05	19.05	17.50	15.42	17.48	6.45	13.49	1.57
14	28.98	23.01	3.05	22.22	20.68	18.59	20.62	6.45	13.49	1.57
16	31.34	24.61	3.05	25.40	23.85	21.77	23.83	6.45	13.49	1.57
18	33.73	26.97	3.05	28.58	26.39	24.43	26.97	6.45	13.49	1.57
20	36.91	29.36	3.05	31.75	29.57	27.61	30.18	8.05	16.66	2.39
22	40.08	31.75	3.05	34.92	32.74	30.78	33.32	8.05	16.66	2.39
24	43.26	34.93	3.73	38.10	35.92	33.96	36.53	9.60	16.66	2.39

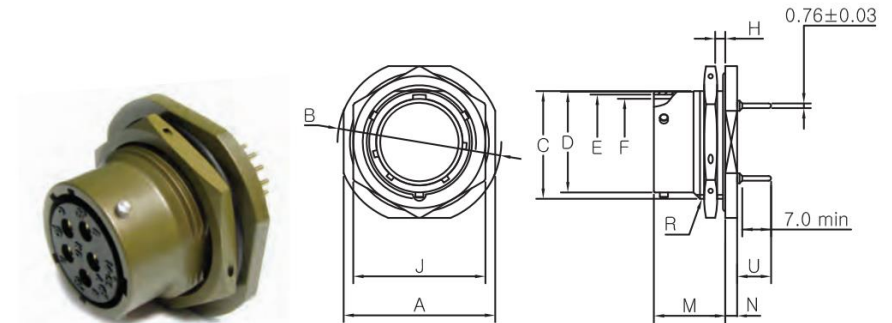
MS3112 Class PC  
 Box Mounting Receptacle with  
 PCB Contacts



Dimensions in mm

Shell Size	$\varphi A$ max	$\varphi B$ $\pm 0.13$	$\varphi C$ $\pm 0.13$	$\varphi D$ $+0.03 \sim -0.13$	$\varphi E$ $+0.13 \sim -0.15$	$\varphi F$ $+0.13 \sim -0.03$	$\varphi G$ $+0.79 \sim -0.41$	M $\pm 0.79$	N $\pm 0.41$	U $\pm 0.5$
8	21.03	15.09	3.05	12.01	10.46	9.19	11.12	10.95	1.57	9.5
10	24.23	18.26	3.05	14.99	13.72	12.45	14.27	10.95	1.57	9.5
12	26.59	20.62	3.05	19.05	17.50	15.42	17.48	10.95	1.57	9.5
14	28.98	23.01	3.05	22.22	20.68	18.59	20.62	10.95	1.57	9.5
16	31.34	24.61	3.05	25.40	23.85	21.77	23.83	10.95	1.57	9.5
18	33.73	26.97	3.05	28.58	26.39	24.43	26.97	10.95	1.57	9.5
20	36.91	29.36	3.05	31.75	29.57	27.61	30.18	14.12	2.39	8.5
22	40.08	31.75	3.05	34.92	32.74	30.78	33.32	14.12	2.39	8.5
24	43.26	34.93	3.73	38.10	35.92	33.96	36.53	14.96	2.39	8.0

MS3114 Class PC  
 Jam Nut Receptacle with  
 PCB Contacts

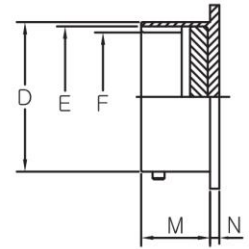
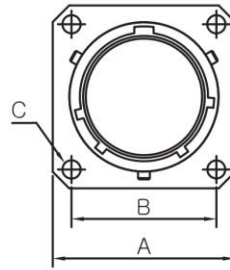


Dimensions in mm

Shell Size	$\varphi A$ max	$\varphi B$ -0.81	$\varphi C$ -0.25	$\varphi D$ $+0.03 \sim -0.13$	$\varphi E$ $+0.13 \sim -0.15$	$\varphi F$ $+0.13 \sim -0.03$	H		J $\pm 0.43$	M $+0.79$	N $\pm 0.51$	R THD-2A	U $\pm 0.5$
							min	max					
8	24.23	27.38	13.46	12.01	10.46	9.19	1.57	3.18	19.05	17.55	2.97	9/16-24UNEF	9.5
10	27.39	30.56	16.64	14.99	13.72	12.45	1.57	3.18	22.23	17.55	2.97	11/16-24UNEF	9.5
12	32.16	35.33	20.78	19.05	17.50	15.42	1.57	3.18	26.97	17.55	2.97	7/8-20UNEF	9.5
14	35.33	38.51	23.93	22.22	20.68	18.59	1.57	3.18	30.18	17.55	2.97	1 -20UNEF	9.5
16	38.51	41.68	27.08	25.40	23.85	21.77	1.57	3.18	33.32	17.55	2.97	1 1/8-20UNEF	9.5
18	41.68	44.86	30.23	28.58	26.39	24.43	1.57	3.18	36.53	17.55	2.97	1 1/4-18UNEF	9.5
20	46.43	19.63	33.43	31.75	29.57	27.61	1.57	6.35	39.67	22.33	3.76	1 3/8-18UNEF	8.5
22	49.63	52.78	36.60	34.92	32.74	30.78	1.57	6.35	42.88	22.33	3.76	1 1/2-18UNEF	8.5
24	52.78	55.96	39.78	38.10	35.92	33.96	1.57	6.35	46.02	23.16	3.76	1 5/8-18UNEF	8.0



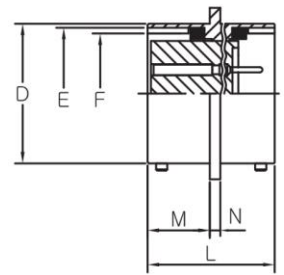
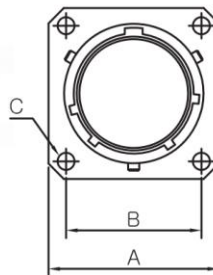
MS3115  
 Dummy Stowage Receptacle



Dimensions in mm

Shell Size	$\varphi A$ max	$\varphi B$ $\pm 0.13$	$\varphi C$ $\pm 0.13$	$\varphi D$ $+0.03 \sim -0.13$	$\varphi E$ $+0.13 \sim -0.15$	$\varphi F$ $+0.13 \sim -0.03$	M $+0.79$	N $\pm 0.41$
8	21.03	15.09	3.05	12.01	10.46	9.19	11.73	1.57
10	24.23	18.26	3.05	14.99	13.72	12.45	11.73	1.57
12	26.59	20.62	3.05	19.05	17.50	15.42	11.73	1.57
14	28.98	23.01	3.05	22.22	20.68	18.59	11.73	1.57
16	31.34	24.61	3.05	25.40	23.85	21.77	11.73	1.57
18	33.73	26.97	3.05	28.58	26.39	24.43	11.73	1.57
20	36.91	29.36	3.05	31.75	29.57	27.61	14.12	2.39
22	40.08	31.75	3.05	34.92	32.74	30.78	14.12	2.39
24	43.18	34.93	3.73	38.10	35.92	33.96	14.96	2.39

MS3119 Class E  
 Thru-Bulkhead Receptacle

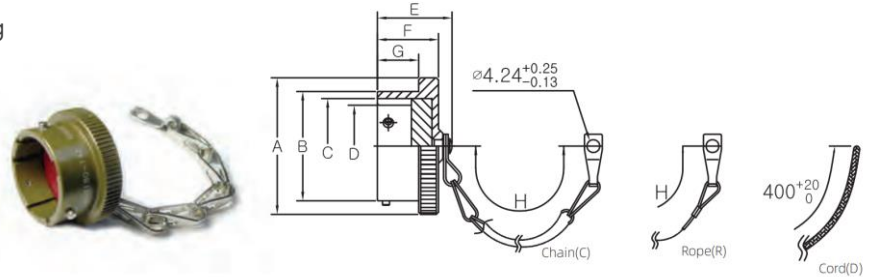


Dimensions in mm

Shell Size	$\varphi A$ max	$\varphi B$ $\pm 0.13$	$\varphi C$ $\pm 0.13$	$\varphi D$ $+0.03 \sim -0.13$	$\varphi E$ $+0.13 \sim -0.15$	$\varphi F$ $+0.13 \sim -0.03$	L max	M $+0.79$	N $\pm 0.41$
8	21.03	15.09	3.05	12.01	10.46	9.19	28.58	13.49	1.57
10	24.23	18.26	3.05	14.99	13.72	12.45	28.58	13.49	1.57
12	26.59	20.62	3.05	19.05	17.50	15.42	28.58	13.49	1.57
14	28.98	23.01	3.05	22.22	20.68	18.59	28.58	13.49	1.57
16	31.34	24.61	3.05	25.40	23.85	21.77	28.58	13.49	1.57
18	33.73	26.97	3.05	28.58	26.39	24.43	28.58	13.49	1.57
20	36.91	29.36	3.05	31.75	29.57	27.61	35.71	16.66	2.39
22	40.08	31.75	3.05	34.92	32.74	30.78	35.71	16.66	2.39
24	43.18	34.93	3.73	38.10	35.92	33.96	35.71	16.66	2.39

## 8. Accessories

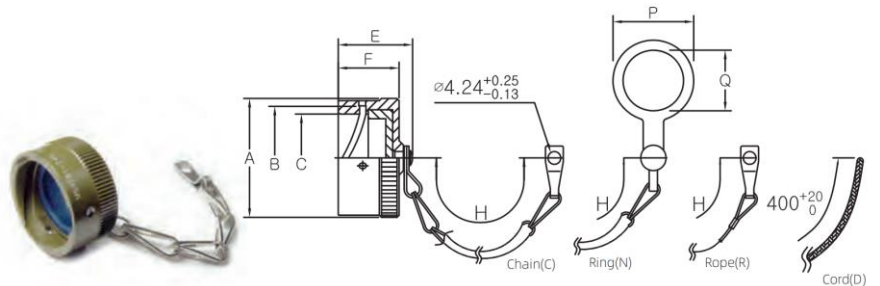
### MS3180 Cover Protecting Caps for Plug



Dimensions in mm

Order No.			Shell Size	$\varphi A$ max	$\varphi B$ +0.03 ~ - 0.13	$\varphi C$ +0.13 ~ - 0.15	$\varphi D$ +0.13 ~ - 0.03	E max	F max	G +0.25	H +12.7 ~ - 6.35
Chain	Rope	Nylon cord									
MS3180-8C	-8R	-8D	8	18.26	12.01	10.46	9.19	19.84	14.27	9.35	76.20
MS3180-10C	-10R	-10D	10	21.44	14.99	13.72	12.45	19.84	14.27	9.35	76.20
MS3180-12C	-12R	-12D	12	25.40	19.05	17.50	15.42	19.84	14.27	9.35	88.90
MS3180-14C	-14R	-14D	14	28.58	22.22	20.68	18.59	19.84	14.27	9.35	88.90
MS3180-16C	-16R	-16D	16	31.75	25.40	23.85	21.77	19.84	14.27	9.35	88.90
MS3180-18C	-18R	-18D	18	34.92	28.58	26.39	24.43	19.84	14.27	9.35	88.90
MS3180-20C	-20R	-20D	20	38.10	31.75	29.57	27.61	21.44	15.88	10.92	101.60
MS3180-22C	-22R	-22D	22	41.28	34.92	32.74	30.78	21.44	15.88	10.92	101.60
MS3180-24C	-24R	-24D	24	44.45	38.10	35.92	33.96	22.22	16.71	11.76	101.60

### MS3181 Cover Protecting Caps for Receptacle



Dimensions in mm

Order No.				Shell Size	$\varphi A$ max	$\varphi B$ +0.13 ~ - 0.15	$\varphi C$ +0.13 ~ - 0.03	E max	F max	H +12.7 ~ - 6.35	$\varphi P$ max	$\varphi Q$ min
Chain	Rope	Ring	Nylon cord									
MS3181-8C	-8R	-8N	-8D	8	18.64	14.63	12.22	21.44	14.27	76.20	20.62	14.68
MS3181-10C	-10R	-10N	-10D	10	21.82	17.70	15.29	21.44	14.27	76.20	25.40	17.86
MS3181-12C	-12R	-12N	-12D	12	25.40	22.12	19.38	21.44	14.27	88.90	30.18	22.63
MS3181-14C	-14R	-14N	-14D	14	28.58	25.27	22.48	21.44	14.27	88.90	36.53	25.81
MS3181-16C	-16R	-16N	-16D	16	31.75	28.45	25.65	21.44	14.27	88.90	39.67	28.98
MS3181-18C	-18R	-18N	-18D	18	34.92	31.62	28.85	21.44	14.27	88.90	42.88	32.16
MS3181-20C	-20R	-20N	-20D	20	38.10	34.80	32.00	21.44	14.27	101.60	46.02	35.33
MS3181-22C	-22R	-22N	-22D	22	41.28	37.97	35.18	21.44	14.27	101.60	49.23	38.51
MS3181-24C	-24R	-24N	-24D	24	44.45	41.25	38.35	22.22	15.29	101.60	52.37	41.68

## 8. Cross Reference List

Metabee	AMPHENOL BENDIX	S.E.C ARRAY	FCI BURNDY	FCI SOURIAU	ITT CANNON	SPACECRAFT	VEAM	WPI GENERAL
MS3110A	PTOOA	PWOOA	BTOOA	851-OOA*50	KPTOOA	SCPT3100A	VPTOOA	-
MS3110E	PTOOE	PWOOE	BTOOE	851-OOE*50	KPTOOE	SCPT3100E	VPTOOE	GCOOE
MS3110F	PTOOF(SR)	PWOOF	BTOOEC	851-OOEC*50	KPTOPEC	SCPT3100F	VPTOOE(SR)	GCOOF
MS3110J	-	PWOOJF	BTOOJF	851-OOJC*50	KPTOOJ	SCPT3100J	VPTOOW	-
MS3110P	PTOOP	PWoop	BTOOP	851-OOP*50	KPTOOP	SCPT3100P	VPTOOP	GCOOP
MS3111A	PTO1A	PWO1A	BTO1A	851-O1A*50	KPTO1A	SCPT3111A	VPTO1A	-
MS3111E	PTO1E	PWO1E	BTO1E	851-O1E*50	KPTO1E	SCPT3111E	VPTO1E	GCO1E
MS3111F	PTO1E(SR)	PWO1F	BTO1EC	851-O1EC*50	KPTO1F	SCPT3111F	VPTO1E(SR)	GCO1F
MS3111J	-	PWOJF	BTO1JF	851-O1JC*50	KPTO1J	SCPT3111J	VPTO1W	GCO1J
MS3111P	PTO1P	PWO1P	BTO1P	851-O1P*50	KPTO1P	SCPT3111P	VPTO1P	GCO1P
MS3112A	PTO2A	PWO2A	BTO2A	851-O2A*50	KPTO2A	SCPT3112A	VPTO2A	-
MS3112E	PTO2E	PWO2E	BTO2E	851-O2E*50	KPTO2E	SCPT3112E	VPTO2E	GCO2E
MS3112EP	-	-	-	-	-	-	-	-
MS3112PC	-	-	-	-	-	-	-	-
MS3114A	-	-	-	-	-	-	-	-
MS3114E	PTO7E	PWO7E	BTO7E	851-O7E*50	KPTO7E	SCPT3114E	VPTO7E	GCO7E
MS3114F	PTO7E(SR)	PWO7EC	BTO7EC	851-O7EC*50	KPTO7F	SCPT3114F	VPTO7E(SR)	-
MS3114P	PTO7P	PWO7P	BTO7P	851-O7P*50	KPTO7P	SCPT3114P	VPTO7p	-
MS3114PC	-	-	-	-	-	-	-	-
MS3116A	PTO6A	PWO6A	BTO6A	851-O6A*50	KPTO6A	SCPT3116A	VPTO6A	-
MS3116E	PTO6E	PWO6E	BTO6E	851-O6E*50	KPTO6E	SCPT3116E	VPTO6E	GCO6E
MS3116F	PTO6E(SR)	PWO6F	BTO6EC	851-O8EC*50	KPTO6F	SCPT3116F	VPTO6E(SR)	GCO6E
MS3116J	-	PWO6J	BTO6JF	851-O6JC*50	KPTO6J	SCPT3116J	VPTO6W	GCO6J
MS3116P	PTO6P	PWO6P	BTO6P	851-O6P*50	KPTO6P	SCPT3116P	VPTO6P	GCO6P
MS3119E	PTB	-	-	-	KPTB	-	VPTB	-

# Together, We Thrive

Our team of passionate experts brings a wealth of experience to the table, ready to collaborate with you and unlock your full potential. By joining forces, we can create innovative solutions and achieve remarkable things.



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