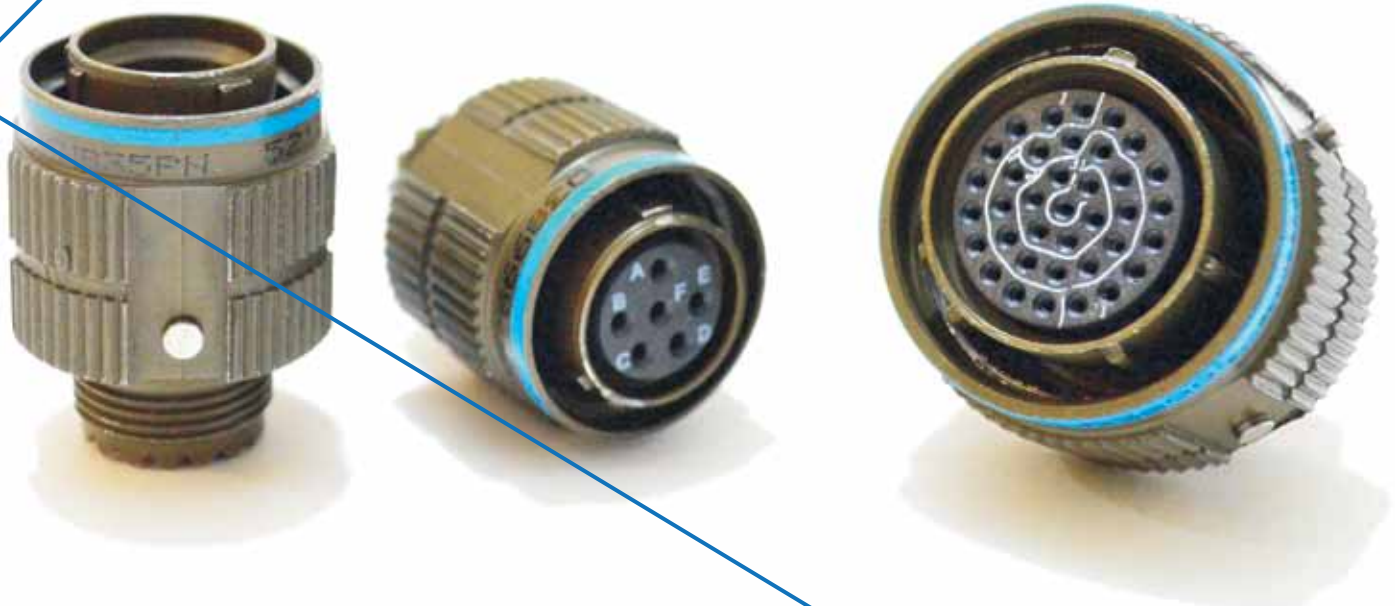
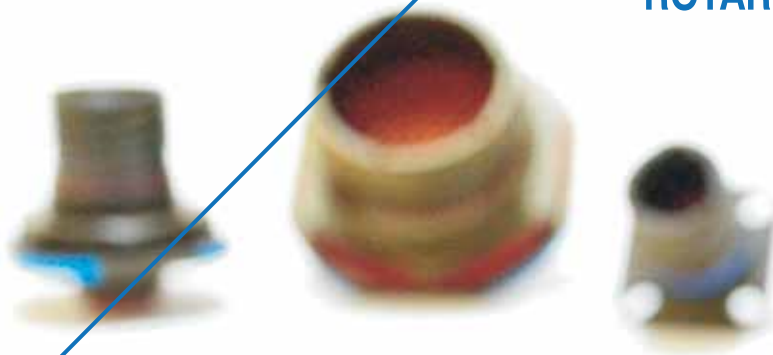




ROTARY ELECTRONICS (P) LTD.



MIL- DTL- 38999 SERIES III

Connectors, Circular, Crimp Contact, Environmental Resistance

Conforming to
MIL-DTL- 38999 Series III

Qualified to
JSS 50825

APPLICATION
Aero Space
Military
Ship Board
Industrial
Power Electronics

FEATURES

- ▶ High Density circular Connector
- ▶ Ruggedized Design offers Maximum Vibration Shock & EMI Resistance
- ▶ Superior Anti De- Coupling System
- ▶ Positive Metal to Metal coupling provides superior EMI Resistance
- ▶ Quick Mating Triple lead Thread
- ▶ 100 % Scoop Proof design for contact protection
- ▶ Operates at wide temp range : -65° C to 200° C

CONSTRUCTION	MATERIAL	FINISH
Shell	Aluminium Alloy	Cadmium Olive Drab over Electroless Nickle Electroless Nickle
Insert	Engineering Plastic	Natural
O-ring	Silicone Rubber	Natural
Contact Retainer	Beryllium Copper	Natural
Contact	Copper Alloy	1.27 μ Gold Plated
Retainer	Alloy Steel	Passivated
Grounding Ring	Beryllium Copper	Natural

SPECIFICATIONS

MECHANICAL

Endurance : 500 Cycles

Size:	22D	20	16	12	8
Contact Retention Force (N)	44	67	111	111	111

Vibration : Sine: 60g, 140-2000 Hz at -65° to 200° C

Shock : 300g, 3ms

Wire Sealing Range :

Contact size	Minimum	Maximum
22D	0.76	1.37
20	1.02	2.11
16	1.65	2.77
12	2.46	3.61

ELECTRICAL

Test Voltate (Vrms) Mated

Service Rating	At Sea Level	At 70,000 Ft
M	1300	800
N	1000	600
I	1800	1000
II	2200	1000

Insulation Resistance : $\geq 5000 \text{ M}\Omega$ at 500vdc

Contact Size	Current Rating (A)
22D	5A
20	7.5A
16	13A
8	23A

Shell to Shell Conductivity :

Cadmium Olive Drab : 2.5m Ω

Nickle : 1m Ω

EMI Shielding Effectiveness : 100 MHZ at 10 GHZ attenuation 50db

CLIMATIC

Working Temperature:

Class W: -65° to 200° C

Class F: -65° to 200° C

Resistance to Salt Spray:

Class W: 500 hrs at 35° C

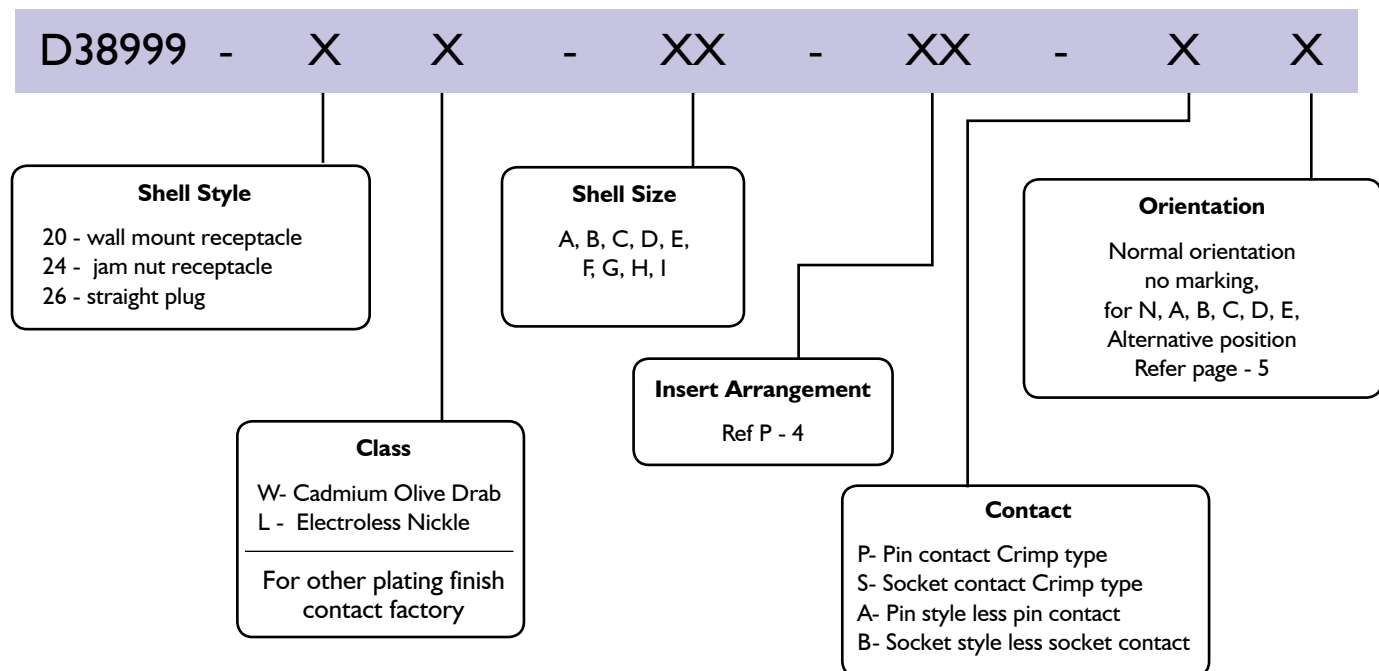
Class F: 48 hrs at 35° C

Resistive to Fluid:

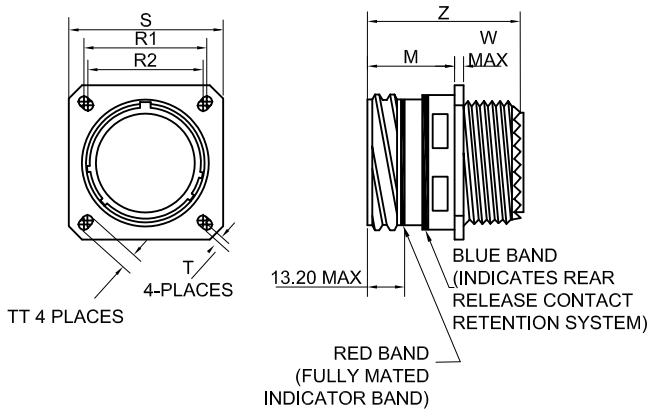
Gasoline

Connectors are fluid resistant to many fuels, solvents, coolants and oils.

CONFIGURATION

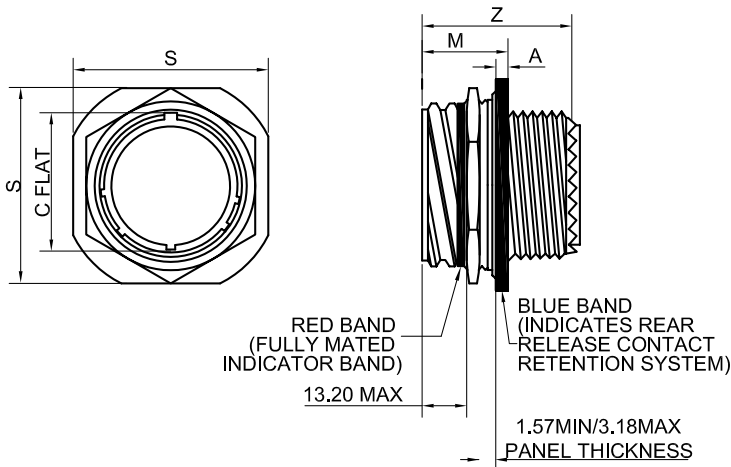


WALL MOUNTING RECEPTACLE



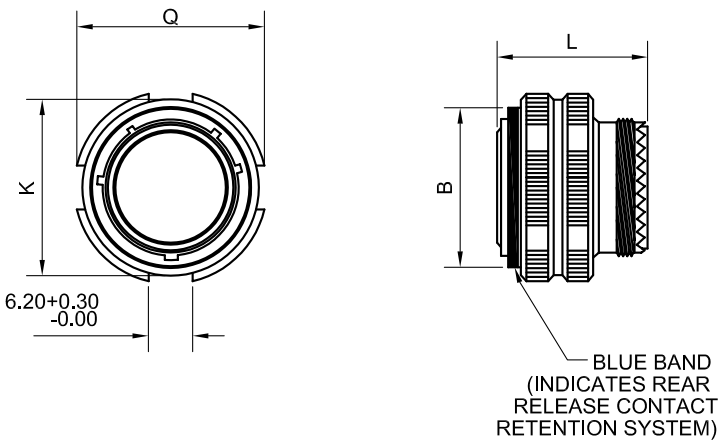
SHELL SIZE	SHELL SIZE CODE	M +0.00 -0.13	RI	R2	S ±0.30	T +0.1 -0.05	TT +0.1 -0.05	W MAX	Z +0.13 -0.25
9	A	20.83	18.26	15.09	23.83	3.25	5.49	2.5	31.36
11	B	20.83	20.06	18.26	26.19	3.25	4.93	2.5	31.36
13	C	20.83	23.01	20.62	28.58	3.25	4.93	2.5	31.36
15	D	20.83	24.61	23.01	30.96	3.25	4.93	2.5	31.36
17	E	20.83	26.97	24.61	33.32	3.25	4.93	2.5	31.36
19	F	20.83	29.36	26.97	36.53	3.25	4.93	2.5	31.36
21	G	20.07	31.75	29.36	39.67	3.25	4.93	3.2	31.36
23	H	20.07	34.92	31.75	42.88	3.91	6.15	3.2	31.36
25	J	20.07	38.1	34.92	46.07	3.91	6.15	3.2	31.36

JAMNUT RECEPTACLE



SHELL SIZE	SHELL SIZE CODE	A +0.25 -0.13	C +0.10 -0.25	Z +0.13 -0.1	M +0.13 -0.1	S MAX -0.05
9	A	2.64	16.53	31.57	22.12	26.97
11	B	2.64	19.07	31.57	22.12	31.75
13	C	2.64	23.82	31.57	22.30	34.92
15	D	2.64	26.97	31.57	22.30	38.10
17	E	2.64	30.15	31.57	22.30	41.28
19	F	3.43	33.32	31.57	22.30	46.02
21	G	3.43	36.5	31.57	22.30	49.23
23	H	3.43	39.67	31.57	22.30	52.37
25	J	3.43	42.85	31.57	22.30	55.38

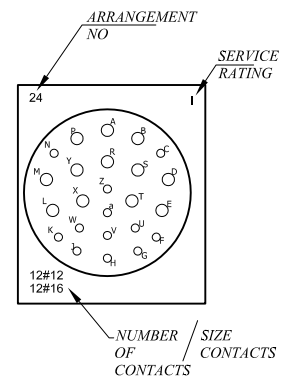
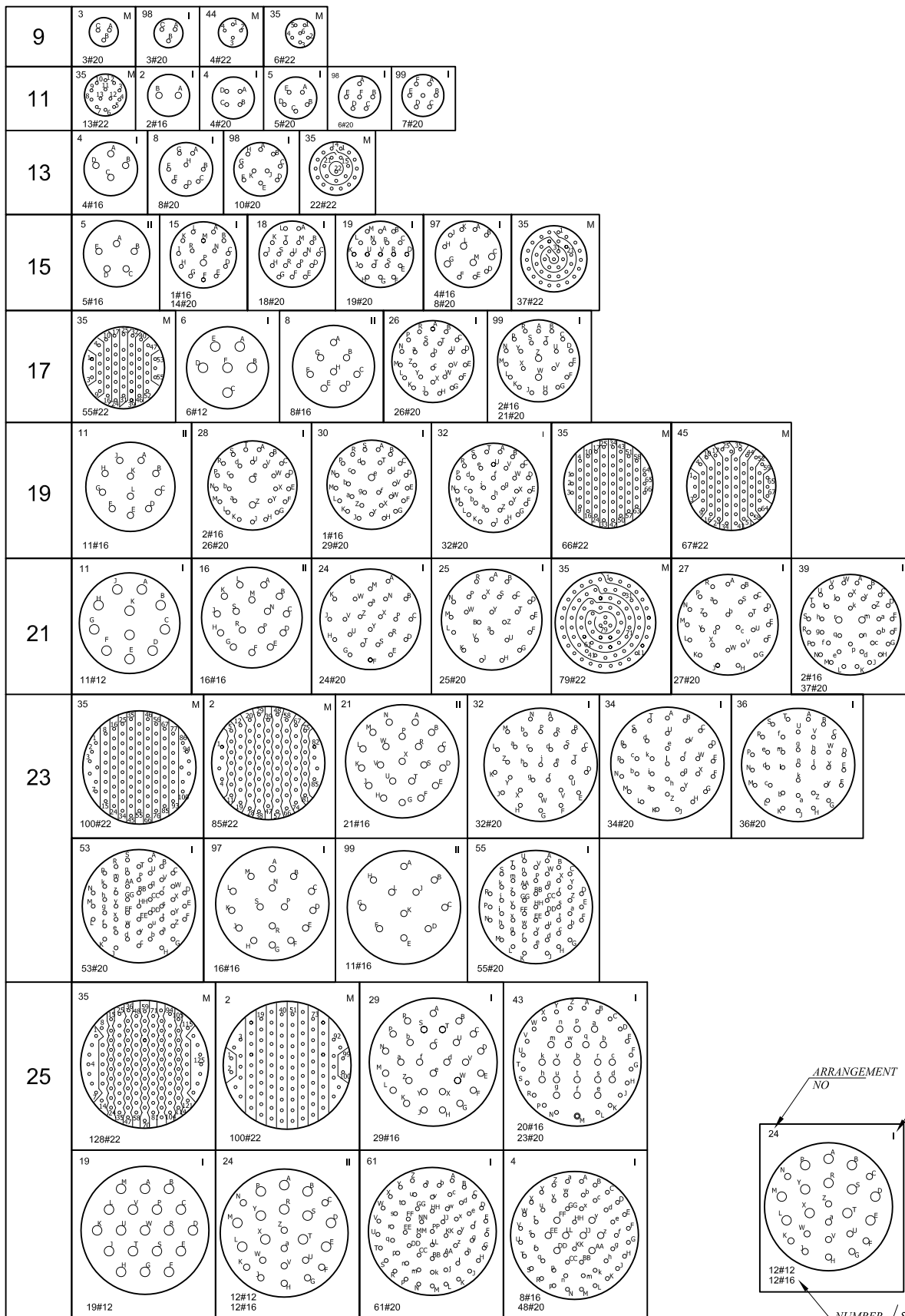
STRAIGHT PLUG



SHELL SIZE	SHELL SIZE CODE	B +0.2 -0.13	K MAX	L MAX	Q DIA MAX
9	A	18.40	19.00	31.34	21.82
11	B	21.10	21.90	31.34	24.62
13	C	25.40	26.10	31.34	28.98
15	D	28.70	29.30	31.34	32.10
17	E	32.20	32.80	31.34	35.53
19	F	34.90	35.50	31.34	38.10
21	G	38.10	38.70	31.34	41.28
23	H	41.40	41.70	31.34	44.45
25	J	44.30	44.90	31.34	47.62

CONTACT LAYOUT

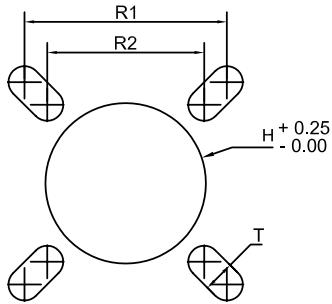
VIEWED FROM THE FRONT FACE OF INSULATOR



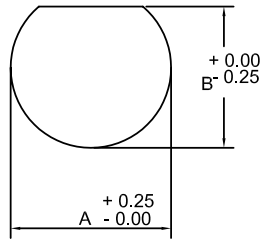
Note : * Insert arrangement available.

PANEL CUTOUTS

WALL MOUNTING RECEPTACLE



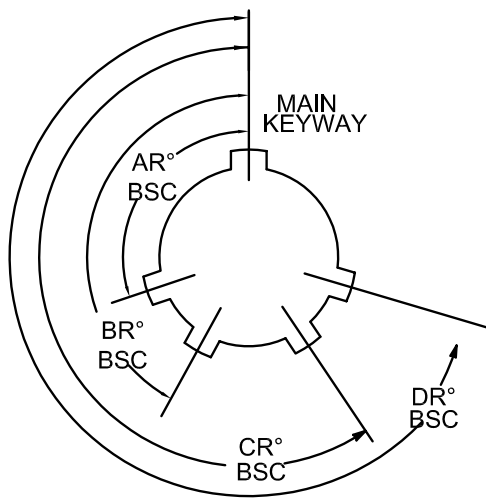
JAM NUT RECEPTACLE



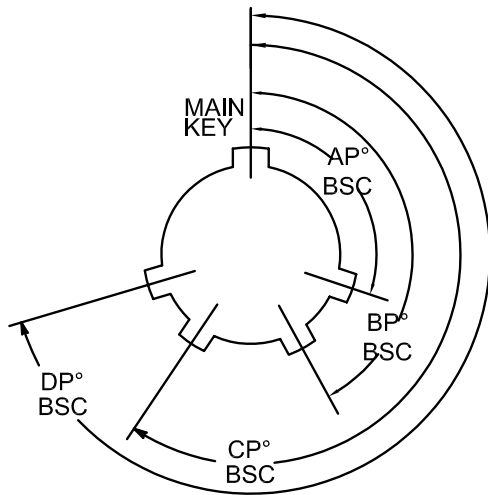
SHELL SIZE	A	B	H	RI TP	R2 TP	T
9	17.78	17.02	15.90	18.26	15.09	3.40
11	20.96	19.58	19.08	20.62	18.26	3.40
13	25.65	24.26	22.25	23.01	20.62	3.40
15	28.83	27.56	25.43	24.61	23.01	3.40
17	32.00	30.73	30.18	26.97	24.61	3.40
19	35.18	33.91	31.78	29.36	26.97	3.40
21	38.45	37.08	34.95	31.75	29.36	3.40
23	41.53	40.26	38.38	34.92	31.75	4.06
25	44.70	43.43	41.30	38.10	34.92	4.06

ORIENTATION

VIEWED FROM THE FACE OF RECEPTACLE



VIEWED FROM THE FACE OF PLUG



SHELL SIZE	Key & Keyway Arrangement Identification Letter	KEY LOCATION			
		AR° or AR° BSC	BR° or BR° BSC	CR° or CR° BSC	DP° or DP° BSC
9	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
11 & 13 & 15	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
17 & 19	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
21 & 23 & 25	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
25	E	79	153	197	272

- NOTE :
- 1) The position of the insert is rotated clock wise from the normal position (N) to the required angle "W" or "X" or "Y" or "Z".
 - 2) The different orientation is used when more than one connector with same contact layout is used. It avoids coupling of the connectors with its neighbour.

Accessories: Protective Metallic Dust Cover

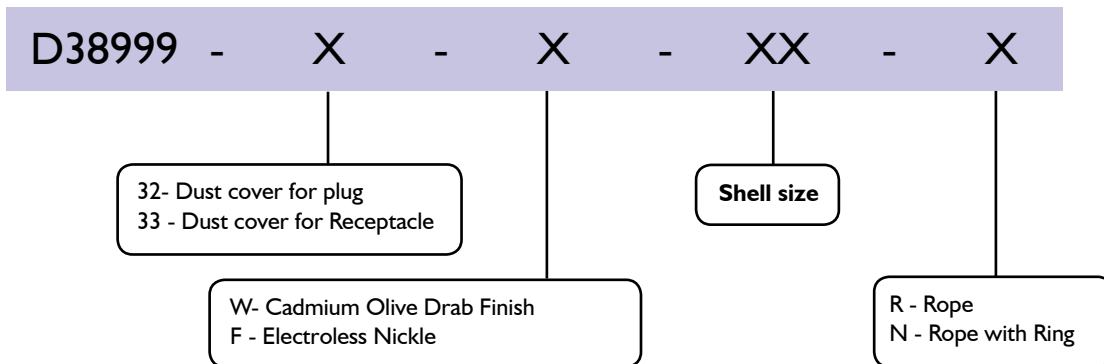
SPECIFICATION

MATERIAL :

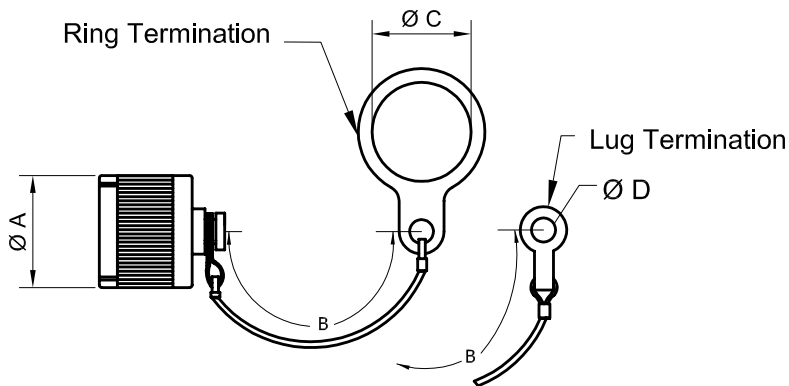
- Cover : Class "F", "W" Impact extruded or machined Aluminium Alloy
- Gasket : Silicon elastomer
- Ring : Corrosion resistance Steel, Passivated
- Rope : Stainless Steel Rope
- Fastener : Stainless steel Passivated

Mating Connectors : MIL - DTL - 38999, Series III

Ordering information for Protective Metallic Dust Cover Assembly

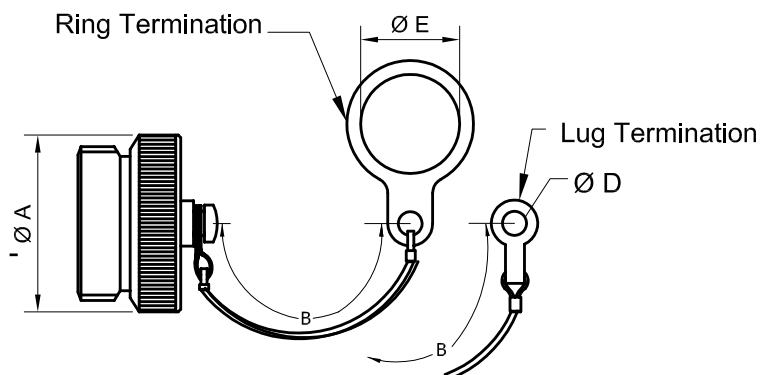


DUST COVER FOR RECEPTACLE



SHELL SIZE	φ A MAX	φ A' MAX	B +13.0 -7.00	C MIN	φ E MIN	D +0.25 -0.13
9	23.00	23.00	127.00	17.4	13.00	4.24
11	26.00	28.00	127.00	21.97	18.00	4.24
13	31.00	31.00	127.00	25.12	20.00	4.24
15	32.00	32.00	127.00	29.92	23.00	4.24
17	37.00	37.00	127.00	32.00	26.00	4.24
19	40.00	39.00	127.00	36.27	29.00	4.24
21	44.00	42.00	127.00	38.25	32.00	4.24
23	46.00	45.00	127.00	42.62	34.00	4.24
25	50.00	49.00	127.00	44.45	39.00	4.24

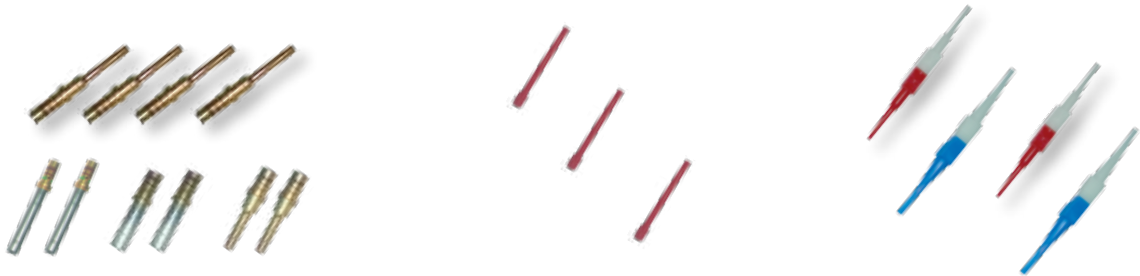
DUST COVER FOR PLUG



NOTE : Dust Cover is also available with Stainless Steel Chain Links of Bead Chain

CONTACTS

Contacts			Filler Plugs		Insertion & Extraction Tool		
Contacts size	Contact Type	Part Number	Specs	Color	Mil Spec	Insert Color	Extract
22d	Male	M39029/58-360	MS 27488-22-2	Black	M81969/14-01	Green	White
	Female	M39029/56-348					
20	Male	M39029/58-363	MS 27488-20-2	Red	M81969/14-02	Red	White
	Female	M39029/56-351					
16	Male	M39029/58-364	MS 27488-16-2	Blue	M81969/14-03	Blue	White
	Female	M39029/56-352					
12	Male	M39029/58-365	MS 27488-12-2	Yellow	M81969/14-04	Yellow	White
	Female	M39029/56-353					



BACK SHELL

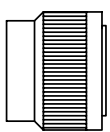
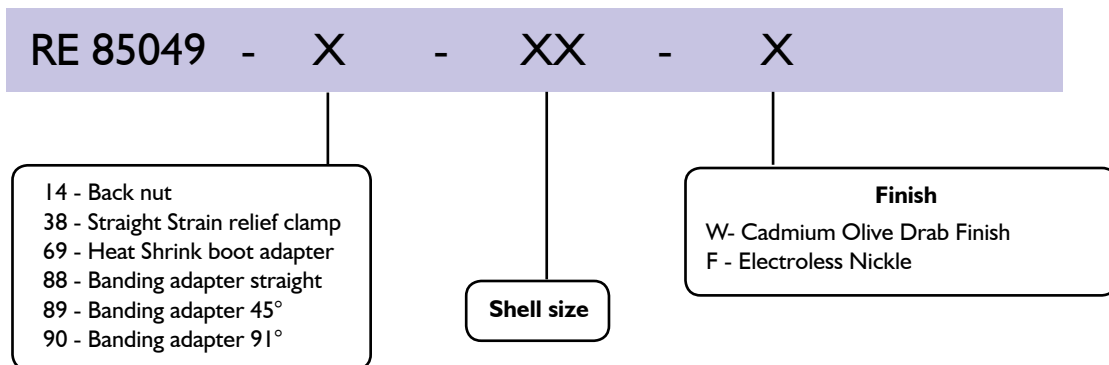
Back shells - Equivalent to M85049 for use with MIL-DTL - 38999 Series III Connectors.

The Back shell Ranges from Straight Cable Clamp, Heat Shrink Adaptor, Banding adaptor for Shield Termination and many more.

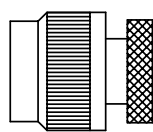
The back shell can also be developed for customized application.

NOTE : MIL-DTL-26482 Series II, MIL-DTL-38999 II and III Back Shells are available. For more information refer Catalogue RE 85049

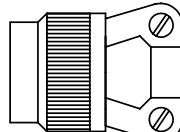
Ordering information for Back Shell



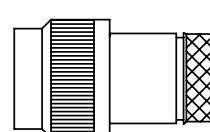
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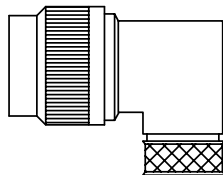
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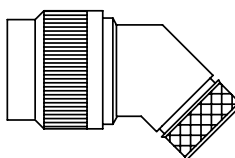
[38]



[88]



[90]



[89]

NOTE : Banding adapter is available with different cable entry sizes, for more information contact factory



MIL - DTL-26482 SI



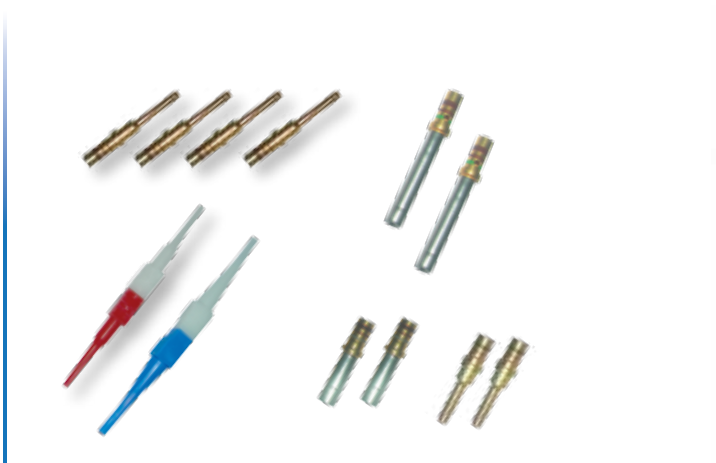
MIL - DTL-26482 SII



MIL - DTL-38999 SIII



BACK SHELLS



**CONTACTS &
INSERTS**



METALIC DUSTCAPS



ROTARY ELECTRONICS (P) LTD.

No. 18, 5th Cross, 4th Main,
West of Chord Road, Bangalore 560 044.
Ph: 080-23358250/23353662,
Fax: 08023380183
Email: sales@rotaryelectronics.com
www.rotaryconnectors.com