

PERFORMANCE AND MATERIAL SPECIFICATIONS

MIL-DTL-38999

Series III - Threaded Coupling

PERFORMANCE SPECIFICATIONS:

All performance characteristics in accordance with the requirements specified for the applicable class contained in Paragraph 3 of MIL-DTL-38999 for metal connectors. The following performance characteristics are derived directly from that specification, unless otherwise noted.

. Test Dielectric Withstanding Voltage

Altitude		Service Rating		
ft.	m	M	1	11
Sea Level	0	1300	1800	2300
50,000	15,240	800	1000	1000
70,000	21,336	800	1000	1000
100,000	30,480	800	1000	1000

· Contact Information and Specifications

Contact Size	Test Current	Contact Retention Axial Load		Available Wire Size
	DC Test Amperage			
		lb	N	for Contact
22D	1.5	10	44.5	28
22D	2.0	10	44.5	26
22D	3.0	10	44.5	24
22D	5.0 (3.0)	10	44.5	22
20	3.0	15	66.7	24
20	5.0	15	66.7	22
20	7.5 (5.0)	15	66.7	20
16	13.0 (10.0)	25	111.2	20
16	13.0 (10.0)	25	111.2	18
16	13.0 (10.0)	25	111.2	16
12	23.0 (17.0)	25	111.2	14
12	23.0 (17.0)	25	111.2	12

(*.*) = Hermetic Classes H, N, and Y

Note: Current ratings can vary greatly dependant on system requirements and thermal heat-rise.

Test description & Parameters

- Durability

Minimum of 500 mating cycles. (Except for H & J Pins and Sockets that are a minimum of 1500 mating cycles.)

- Operating Temperature Range

-65°C to +200°C (-85°F to +392°F)

- Vibration

Mated connectors are vibrated harnessed to the following levels:

Sine Vibration:

Random Vibration:

Up to 60 G's at rated temperature 43.7 Grms at rated temperature

49.5 Grms at ambient temperature

- EMI Shielding Effectiveness

Class F:

EMI leakage attenuation, greater than 90dB at 100 MHz, greater than 65dB at 10 Ghz. (Shell to shell conductivity, 1.0 milliohms max. resistance)

Class W:

EMI leakage attenuation, greater than 90dB at 100 MHz, greater than 50 dB at 10 GHz. (Shell to shell conductivity, 2.5 milliohms max. resistance)

- Corrosion Resistance

Classes C, K, W, and Y will withstand 500 hours salt spray.

- Fluid Immersion

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

- Hermetic Leak Rate

Less than 1E-7 cm 3/s

- High Impact Shock

Wired and mated connectors with environmentally sealed backshells will withstand high impact shock per Mil-S-901.

- Other Environments

Mated connectors will withstand sand and dust per method 110 of Mil-Std-202 and be ice resistant.

Note: For specific Hermetic or other test data, please consult HIRELCO in Claremont CA.

MATERIAL SPECIFICATIONS:

All material in accordance with requirements specified for the applicable class in Paragraph 3.3.1 & 3.3.2 of MIL-DTL-38999 for metal connectors.

Finishes shall be in accordance with requirements specified for the applicable class in Paragraph 3.3.6.2 of MIL-DTL-38999.

For specifics, see different available connector Classes in "ORDERING INFORMATION" section.