MIL-DTL-28840
Shipboard Electrical Connectors
Performance Specifications, Class and Finishes

Performance Specifications	
Current Rating (Maximum)	Size #20 Contact; 20AWG 7.5A, 22AWG 5.0A, 28AWG 1.5A, 30AWG 1.0A
Test Voltage (Dielectric Withstanding Voltage)	1000 VAC RMS at sea level. Test per EIA-364-20
Insulation Resistance	5000 megohms minimum (at ambient temperature) per EIA-364-21
Contact Resistance	Per SAE-AS39029
Operating Temperature	-55° C. to +200° C.
Immersion	per test method EIA-364-09
Shock	in accordance with MIL-S-901 grade A
Vibration	per EIA-364-28 test procedure
Magnetic Permeability	2.0 µ (Aluminum), 5.0 µ (Stainless Steel) maximum; ASTM-A342/A342M

Materials and Finishes	
Shells, Coupling Nuts, Jam Nuts	Aluminum alloy per ASTM B211, or stainless steel per AMS-QQ-S-763
Contacts	Copper alloy, 50 µInch gold plated per ASTM B488 Type 3, Code C, Class 1,27 over nickel underplate per QQ-N-290 Class 2. Socket contact hood: stainless steel, passivated.
Insulators	High Grade Engineering Plastic per ASTM D5948
Contact Retention Clip	Beryllium copper
Shells, Coupling Nuts, Jam Nut Plating Finish	Stainless Steel, Black Cadmium plated
Grommet, Seal	Blended elastomer, 30% silicone per ZZ-R-765, 70% fluorosilicone per MIL-R-25988

Contact Code	Type	Contact Spec.	Contact Size	Acceptable Wire Size	Outside Diameter of Finished Wire	
					Minimum	Maximum
F	Pin	SAE-AS39029/83-508	20-20	24 22 20	.040 (1.02)	.070 (1.78)
G	Socket	SAE-AS39029/84-509				
P	Pin	SAE-AS39029/83-450	20-22	26 24 22		
S	Socket	SAE-AS39029/84-452				
D	Pin	SAE-AS39029/83-451	20-28	32 30 28		
E	Socket	SAE-AS39029/84-453				

Notes
To achieve sealing, wires must be built up to finished wire diameter.
In accordance with MIL-DTL-24643 and MIL-DTL-16878.

Dimensions in Inches (millimeters) are subject to change without notice.

 U.S. CAGE Code 06324 Printed in U.S.A.