



MIL-DTL-28840

Shipboard Electrical Connectors

Performance Specifications, Class and Finishes

B

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°
Operating Temperature Tin-Zinc Finish	-55° C to +175° C
Fluid Immersion	per test method EIA-364-10
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 Material	Aluminum alloy per ASTM B211, or stainless steel per AMS-QQ-S-763
Contacts	Copper alloy, 50 μm 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 Nuts Plating	Stainless Steel, Black Cadmium plated Aluminum alloy, Cadmium O.D. over Nickel Tin-Zinc over Nickel, non-reflective, Green-Gold color, RoHS-compliant material
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	.040 (1.02)	.070 (1.78)
G	Socket	SAE-AS39029/84-509		22		
P	Pin	SAE-AS39029/83-450	20-22	20		
S	Socket	SAE-AS39029/84-452		24		
D	Pin	SAE-AS39029/83-451	20-28	22		
E	Socket	SAE-AS39029/84-453		32		
				30		
				28		

Notes

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