



Series 80 Connectors General Information and Reference Data

CONTACT CURRENT RATING

Wire Size (AWG)	Contact Size, Test Current and Voltage Drop ⁽¹⁾					
	#23		#16		#12	
	Current Amperes	Max. Millivolt Drop ⁽²⁾	Current Amperes	Max. Millivolt Drop ⁽²⁾	Current Amperes	Max. Millivolt Drop ⁽²⁾
30 ⁽³⁾	1	90				
28	1.5	81				
26	2	80				
24	3	68				
22	5	110				
20			7.5	83		
18			10	78		
16			13	74		
14					17	60
12					23	63

(1) Current rating and voltage drop data are excerpted from SAE AS39029 Table VI.

(2) Voltage drop is at +25° C. using nickel-coated wire.

(3) #23 small bore contacts for #30 AWG wire are ordered separately. Please refer to the contact ordering information in Section A.

PERFORMANCE SPECIFICATIONS

Current Rating	See "CONTACT CURRENT RATING" table above
Test Voltage (Dielectric Withstanding Voltage)	500 VAC RMS sea level, 100 VAC RMS 70,000 feet
Insulation Resistance	5000 megohms minimum
Contact Resistance	See "CONTACT CURRENT RATING" table above
Operating Temperature	-55° C. to +150° C.
Immersion	1 meter water immersion for 1 hour (Series 803 splashproof only)
Shock	300 g.
Vibration	37 g.
Magnetic Permeability	2.0 μ maximum

Please refer to the comprehensive Series 80 Product Specification for additional parameters and test methods. Filter and hermetic versions have performance specifications which differ from this information.

MATERIALS AND FINISHES⁽¹⁾

Shells, Coupling Nuts, Jam Nuts	Aluminum alloy per ASTM B211, or stainless steel per AMS-QQ-S-763
Contacts	Beryllium 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. Hermetic Pin Contacts: Nickel-Iron Alloy per ASTM-F-30, 50 μInch Gold Plated per ASTM B488 Type 3, Code C, Class 1,27.
Insulators	Liquid crystal polymer (LCP) per MIL-M-24519 GLP-30F, 30% glass-filled
Contact Retention Clip	Beryllium copper
Shells, Coupling Nuts, Jam Nut Plating Finish	Code C: Black anodize per MIL-A-8625, Type II Class 2 Code M: Electroless nickel per AMS-C-26074 Code NF: Olive Drab Cadmium per AMS-QQ-P-416 over Electroless Nickel Code ZN: Olive Drab Zinc-Nickel per ASTM B841-91 over Electroless Nickel Code ZNU: Black Zinc-Nickel per ASTM B841-91 over Electroless Nickel (500 Hour Salt Spray) Code Z1: Passivate per AMS-QQ-P-35
Grommet, Seal	Blended elastomer, 30% silicone per ZZ-R-765, 70% fluorosilicone per MIL-R-25988

(1) See Section E for Series 802 materials and finishes