IntelliConnect

A Different Kind of Interconnect Solutions Provider

Product Data Sheet

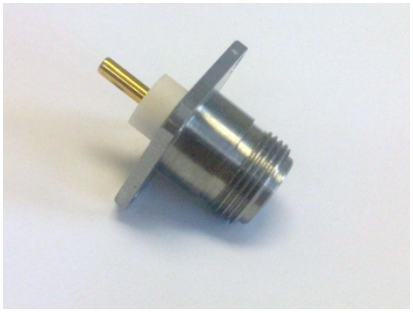
N SERIES - WATERPROOF CONNECTORS

Typical Applications – Mil-Aero, Safety, Radar, Marine, SCADA and Telematics

GENERAL DESCRIPTION

This medium size connector series is designed for various applications. They feature a 5/8-24 thread coupling mechanism that includes a gasket for weatherproof operations. They operate up to 12 GHz for Standard and 18Ghz for Precision N and can withstand rugged environmental conditions. This series can accommodate various coaxial cables, PCB, flange and bulkhead configurations.

N Type Waterproof Connectors and Adaptors are specified to IP68/NEMA 6. Minimum 10m depth for 4 hours.



MATERIALS/ Plating Options

Bodies & Other Parts: Brass per ASTM B16 or Stainless Steel per ASTM A582 Nickel: Per QQ-N-290, Class II, Silver: Per QQ-S-365, Type II, Grade A, Passivate: Per QQ-P-35, Type II, Gold: Per MIL-G-45204, Type II, Grade C

Female Contacts: Beryllium Copper per ASTM B196 or equiv. Gold: Per MIL-G-45204, Type II, Grade C, Silver: Per QQ-S-365, Type II, Grade A

Male Contacts: Brass per ASTM B16 or equivalent. Gold: Per MIL-G-45204, Type II, Grade C, Silver: Per QQ-S-365, Type II, Grade A

Insulators (Dielectric): PTFE Fluorocarbon per ASTM D1710 or equivalent.

Gaskets: Silicone Rubber per AA59588 or equivalent.

MECHANICAL SPECIFICATION

Force to Engage and Disengage: 3 in-lbs. max.
Coupling Proof Torque: 30 in-lbs. min.
Coupling Nut Retention Force: 100 lbs. Min.
Mating Cycles: 500 min.

ELECTRICAL SPECIFICATION

Impedance: 50 Ohms Nominal

Frequency Range: DC-18 GHz

Insulation Resistance: 5,000 Megohms min.

Voltage Rating: 1000 VRMS

Dielectric Withstanding: 2,500 VRMS at sea level

Voltage Standing Wave Ratio (VSWR): 1.07 max.

Contact Resistance: Outer Contact: 0.2 Milliohms, Center Contact: 1 Milliohms

ENVIRONMENTAL SPECIFICATION

Waterproofing: Meets IP68 per IEC 60529 / NEMA6, tested to a 10 meter water depth in an unmated condition for a duration of 4 hours.

Temperature rating: -65°C to +165°C

Vibration: MIL-STD-202, Method 204

Shock: MIL-STD-202, Method 213

Thermal Shock: MIL-STD-202, Method 107

Corrosion (Salt Spray): MIL-STD-202, Method 101

Moisture Resistance: MIL-STD-202, Method 106

DESIGNED IN ACCORDANCE WITH:

US MIL-PRF-39012, MIL-STD-348

IEC: 169-16, 60529, CECC: 22 110

INTELLICONNECT: ES101, ES103