

# IntelliConnect

A Different Kind of Interconnect Solutions Provider

## Product Data Sheet

### **SERIES TNC Waterproof - WATERPROOF MINIATURE CONNECTORS**

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

#### **GENERAL DESCRIPTION**

This miniature sized connector series is similar to a BNC connector but with a threaded coupling mechanism rather than a bayonet fitting giving superior electrical performance at higher frequencies. This series is used with small and medium size cables. The TNC series also accommodates various PCB, flange and bulkhead configurations. They are generally used in applications up to 12 GHz. although 'Precision' TNCs are available up to 18 GHz.

TNC 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 equivalent. Nickel: Per QQ-N-290, Class II, Silver: Per QQ-S-365, Type II, Grade A

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: 2 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-12 GHz

Insulation Resistance: 5,000 Megohms min.

Voltage Rating: 500 VRMS

Dielectric Withstanding: 1,500 VRMS at sea level

Voltage Standing Wave Ratio (VSWR): 1.07 max.

Contact Resistance: Outer Contact: 0.2 Milliohms, Center Contact: 1.5 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: 169-8, 60529

INTELLICONNECT: ES101, ES103

