

Amphenol® RF

Global RF Solutions

FEATURES & BENEFITS

Accommodates a wide range of medium to miniature-sized RG coaxial cables in a rugged medium-sized design.

Broad line of Military (M39012), Industrial (UG) and Commercial (RFX) grade products available.

Meets many customer application demands with plug styles available in straight and right angle configurations and jack styles available in panel and bulkhead cable mounts and receptacles.

APPLICATIONS

Antennas

Base Stations

Broadcast

Instrumentation

Microwave Radio

Mil-Aero

PCS

Radar

Radios

Satellite Communications

Surge Protection

WLAN



Type N Connectors

Type N Connectors

Named after Paul Neill of Bell Labs after being developed in the 1940's, the Type N offered the first true microwave performance. The Type N connector was developed to satisfy the need for a durable, weatherproof, medium-size RF connector with consistent performance through 11 GHz.

There are two families of Type N connectors: Standard N (coaxial cable) and Corrugated N (helical and annular cable). Their primary applications are the termination of medium to miniature size coaxial cable, including RG-8, RG-58, RG-141, and RG-225, as well as popular low loss performance cables.

Specifications

Electrical

Impedance	50 Ω
Frequency Range	0 – 11 GHz
Voltage Rating	1,500 volts peak
VSWR	MIL-C-39012 straight connectors: 1.3 max 0-11 GHz MIL-C-39012 right angle connectors: 1.35 max 0-11 GHz
Dielectric Withstanding Voltage	2,500 volts rms
Insulation Resistance	5,000 M Ω minimum
Center Contact Resistance	1.0 m Ω
Outer Contact Resistance	0.2 m Ω
RF Leakage	-90 dB minimum at 3 GHz
Insertion Loss	.15 dB maximum at 10 GHz

Mechanical

Mating	5/8-24 threaded coupling
Braid or Jacket Cable Affixment	All crimps: hex braid crimp Clamps: screw-thread nut and braid clamp
Center Conductor Cable Affixment	Crimp: crimp or solder All others: solder only
Captivated Contact	All crimps unless specified otherwise
Cable Retention	Crimps: 60-120 lbs Clamps: 30-70 lbs

Material

Male Contacts	Brass, silver or gold plated
Female Contacts	Phosphorus bronze or beryllium copper, silver or gold plated
Other Metal Parts	Brass, nickel or silver plated (MIL-C-39012). White bronze also available
Insulators	TFE, copolymer of styrene or glass-TFE (hermetic seal)
Weatherproof Gaskets	Silicone rubber or synthetic rubber
Crimp Ferrule	Copper, nickel or silver plated. White bronze also available

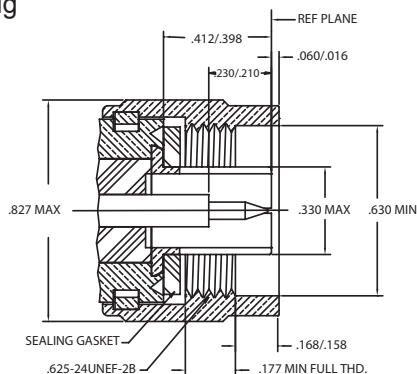
Environmental

Temperature Range	TFE: -65°C to +165°C
Weatherproof	All N connectors with gaskets are weatherproof (when mated)
Hermetic Seals	Pass helium leak test of 2×10^{-8} cc/sec (where applicable)
Pressurized	Compression seal
Shock	MIL-STD-202, method 213
Vibration	MIL-STD-202, method 204, test condition B
Moisture Resistance	MIL-STD-202, method 106
Corrosion	MIL-STD-202, method 101, test condition B
Temperature Cycling	MIL-STD-202, method 102, test condition C

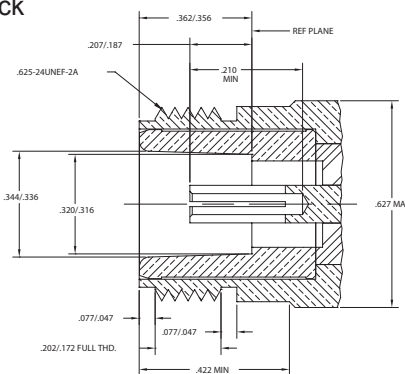
Military

MIL-C-39012	Where applicable
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Plug



Jack



Rev. C