HPQN Connectors Series

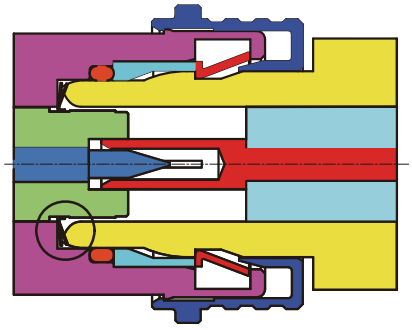
HPQN Connectors, (High Performance Quick-lock N), introduced by Anoison in 2006, are a quick locking version of the widely used type N connector. By replacing the threaded interface of the original N with a snap-on coupling mechanism, the HPQN series is able to provide 10x faster mating, increased installation density and greater flexibility since the connector may be rotated 360° whilein the mated position.

This was achieved without degrading electrical performance up to 11 GHz (for precision cable could be up to 18GHz) by designing the locking mechanism around the industry standard geometry of threaded N connectors. The resulting high performance, in concert with the speed and convenience of the quick connect capability, makes the HPQN ideal for a wide range of applications.

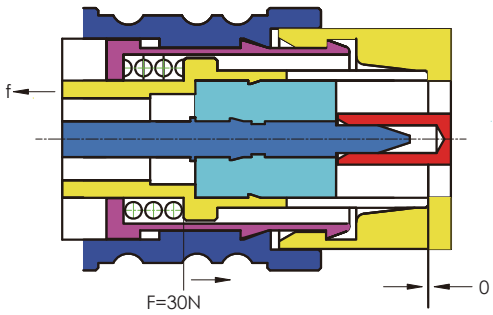
The Anoison HPQN is the third generation quick lock version N connector (the first generation is QN* from Huber+Suhner, the second generation is SnapN* from Rosenberger).

The Anoison HPQN improves on the shortcoming of both previous generations of quick lock N Connectors.

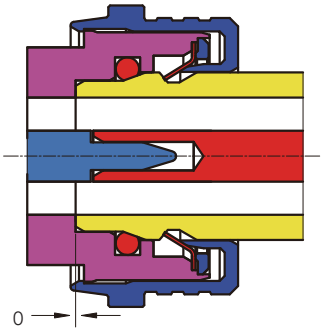
The HPQN offers an excellent locking mechanism maintaining all electrical characteristics of the original N connector while offering a strong retention force. As with the N connector, Anoison offers HPQN cable connectors, PCB/Panel mount connectors, adapters and terminations, as well as the 18GHz precision HPQN connector for some high-end applications.



QN*
First Generation



SnapN*
Second Generation

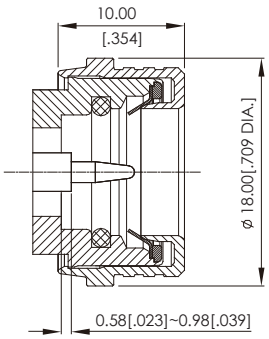


HPQN
Third Generation

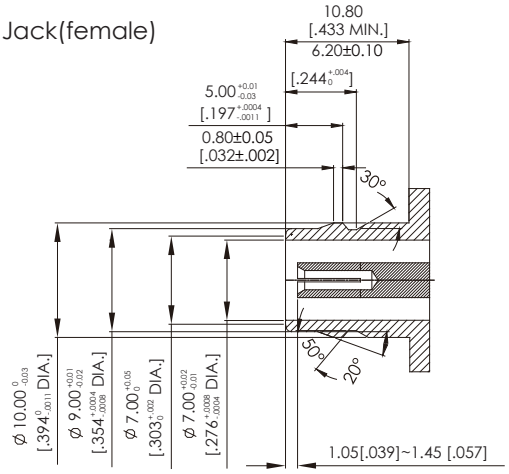
** QN is a registered trade mark of Huber+Suhner, SnapN is a registered trade mark of Rosenberger*

INTERFACE DIMENSIONS

Plug(male)



Jack(female)



CHARACTERISTICS

ELECTRICAL	REQUIREMENTS
Impedance	50 Ω
Frequency range	DC to 18GHz
Dielectric Withstanding Voltage	2500 V rms 50 Hz, sea level
Working Voltage	≤1,000 V rms 50 Hz, sea level
VSWR	Straight connector, .141": ⩽1.28 (DC~18 GHz); RG316: ⩽1.24 (DC~6 GHz) Right angle connector, .141": ⩽1.45 (DC~18 GHz); RG316: ⩽1.32 (DC~6 GHz)
Insulation Resistance	5×10³ M Ohms min. (initial)
Power Handling	300 W @ 2.5 GHz typical
Contact Resistance: - Center contact - Outer contact	1.5 mΩ max. 1.5 mΩ max.
Passive Intermodulation	Better than -160 dBc @ 1.8 GHz 2x20 W static
RF-leakage: DC to 3 GHz 3 GHz to 6GHz	-90 dB min. -75 dB min.

MECHANICAL	REQUIREMENTS
Mating Characteristics: - Engagement Force - Disengagement Force	20 N typical 30 N typical
Interface Retention Force	≥400 N
Durability (Mating Cycles)	200 min.

ENVIRONMENTAL	TEST CONDITIONS
Temperature Range	-55 °C to +125 °C
Vibration	MIL-PRF-39012, paragraph 3.18 Per MIL-STD-202, Method 204, Test Condition B
Shock	MIL-PRF-39012, paragraph 3.19 Per MIL-STD-202, Method 213, Test Condition B
Thermal Shock	MIL-PRF-39012, paragraph 3.2 Per MIL-STD-202, Method 107, Test Condition B
Corrosion (Salt Spray)	MIL-PRF-39012, paragraph 3.13 Per MIL-STD-202, Method 101, Test Condition B
Moisture Resistance	MIL-PRF-39012, paragraph 3.21 Per MIL-STD-202, Method 106, DWV 1000 Vrms (after drying)

Note: The above characteristics are typical but may not applyto all connectors.