

Series Specifications

NS Series • MIL-DTL-28840 Type Connectors

Performance Specifications

Built to meet or exceed MIL-DTL-28840 specifications
Guaranteed fully compatible and interchangeable with physical and performance characteristics with all existing MIL-DTL-28840 military and commercial derivatives

Environmental Characteristics

Temperature Range

-67 to +392°F (-55° to +200°C)

Service life varies with the maximum internal hot spot temperature resulting from any combination of electrical load or ambient temperature:

77°F (25°C): Continuous

221°F (105°C): 35,000 hours

392°F (200°C): 1,000 hours

Water Pressure

IP67 rating (environmental sealing)

Fully submersible to 6 ft (1.8m) for 48 hours

Fluid Immersion

Per test method EIA-364-10

Humidity

Mated connectors shall maintain an insulation resistance of 100 megohms or greater at 77°F (25°C) per test procedure EIA-364-31

Physical Characteristics

Coupling

Threaded

Polarization

Single master key and keyway on top position of shell

Insert Arrangements

9 standard, custom inserts available

Key/Keyway Polarizations

Normal polarization (1), plus five alternate keyway polarizations (2, 3, 4, 5, 6)

Endurance Characteristics

Coupling Cycles

500 coupling cycles (minimum)

Shock

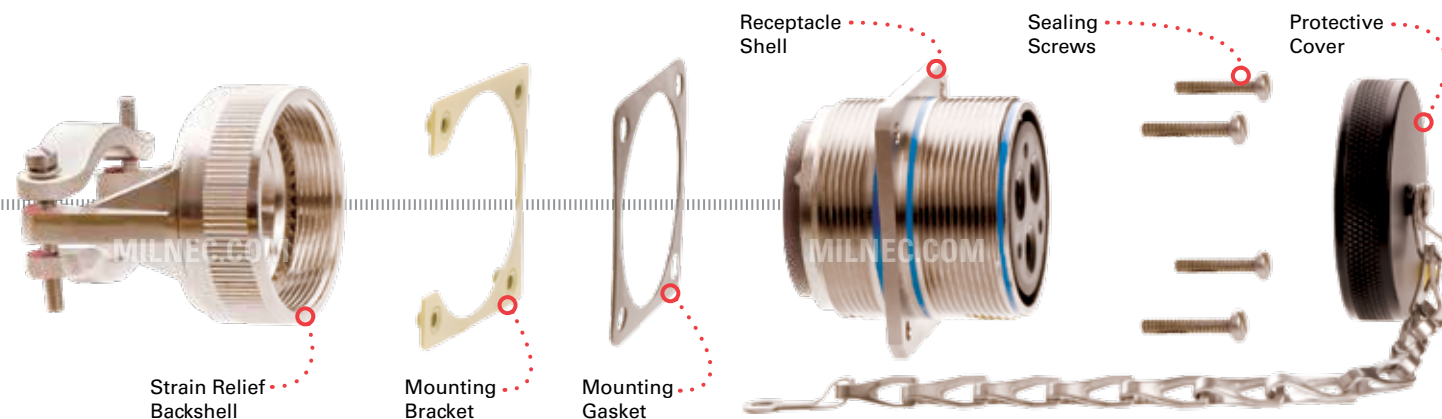
In accordance with MIL-S-901, Grade A

Vibration

Per EIA-364-28 test procedure

Magnetic Permeability

2.0 μ (aluminum), 5.0 μ (stainless steel) maximum;
ASTM-A342/A342M



Connectors shown for illustrative purposes only, actual design may differ.

Rev. 1825

Material Characteristics

Shell

Aluminum alloy per ASTM B211, or stainless steel, Class 316, per AMS-QQ-S-763

Shell Plating (Standard Finishes)

W Finish

Electrically conductive cadmium plate finish with an olive drab chromate after-treat for additional corrosion resistance (500 hr salt spray rating)

D Finish

Stainless steel, Class 316, black cadmium plate (1,000 hr salt spray rating)

Shell Conductivity

Mated connectors are electrically conductive from the plug accessory thread to the receptacle mounting flange or the accessory thread on the cable receptacle. The overall DC resistance shall not exceed 0.005 Ω

Insert

High-grade engineering plastic per ASTM D5948
Non-removable and mechanically bonded to shell

Sealing Grommet

Blended elastomer, 30% silicone per ZZ-R-765, 70% fluorosilicone per MIL-R-25988

O-Ring Seal

Neoprene or silicone

Mounting Gasket

Neoprene or silicone

Mounting Bracket

Aluminum alloy with SST locking nuts

Sealing Screws

SST steel with silicone O-rings

Contact Characteristics

Contact Design

Removable, front-release crimp contacts

Contact Size

#20

Contact Material & Plating

Copper alloy, 50 μ inch 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

Max Number of Contacts

7 to 155 standard

Max Contact Resistance

Per SAE-AS39029

Max Voltage Drop

55 millivolts maximum

Contact Retention Clip

Beryllium copper

Electrical Characteristics

Max Current Rating

Size #20 Contact: 20 AWG 7.5A, 22 AWG 5.0A, 28 AWG 1.5A, 30 AWG 1.0A

Max Operating Voltage

1,000 VAC (RMS) at sea level

Test per EIA-364-20

Insulation Resistance

>5,000 megohms at 77°F (25°C) per EIA-364-21

Wire Size

20 to 32 AWG

