

# Series Specifications

NF Series • MIL-DTL-28876 Type Connectors

## Performance Specifications

Built to meet or exceed MIL-DTL-28876 specifications  
Guaranteed fully compatible and interchangeable with physical and performance characteristics with all existing MIL-DTL-28876 military and commercial derivatives

## Environmental Characteristics

### Operating Temperature

-18 to +149°F (-28° to +65°C)

### Storage Temperature

-40 to +158°F (-40 to +70°C)

### Water Pressure

Equivalent depth of 32 feet for 48 hours  
at +50 to +95°F (+10° to +35°C)

### Fluid Immersion

Turbine fuel, isopropyl alcohol, hydraulic fluid, lubricating oil, coolant, tap water, and seawater, 24-hour immersion duration, per TIA/EIA-455-12

### Freezing Water

1 hour, per TIA/EIA-455-98, Test Method A, Procedure 1

### Humidity

240 hours at 98% RH, per EIA/TIA-455-5, Method B

### Ozone Exposure

150 ppm for 2 hours at +158°F (+70°C), per TIA/EIA-455-189

### Sand & Dust

12 hours, per TIA/EIA-455-35

### Fungus Resistance

28 days at +86°F (+30°C), 95% RH, per TIA/EIA-455-56

### Flamability

0.75 inch flame for 10 seconds mated, 1.50 inch flame for 60 seconds unmated, per EIA/ECA-364-81

## Endurance Characteristics

### Coupling Cycles

500 coupling cycles (minimum), per TIA/EIA-455-21

### Shock

Per MIL-S-901, Lightweight, Grade A, Class I (Hammer Shock)

### Impact

8 drops from 8 feet, per TIA/EIA-455-2, Test Method B

### Crush Resistance

281 lbs, 7 loading cycles, per TIA/EIA-455-26

### Vibration - Sinusoidal

10 g peak, 5-500 Hz, 12 cycles (3 hours) per axis at ambient temperature, per TIA/EIA-455-11, Test Condition II

### Vibration - Random

10.2 g RMS, 50-2000 Hz, 30 minutes per axis at ambient temperature, per TIA/EIA-455-11, Test Condition VII-C

### Cable Pull Out Force - Termini

22 lbs min for 1 minute, per TIA/EIA-455-6

### Cable Pull Out Force - Connector

162 lbs min for 10 minutes, per TIA/EIA-455-6

### External Bending Moment

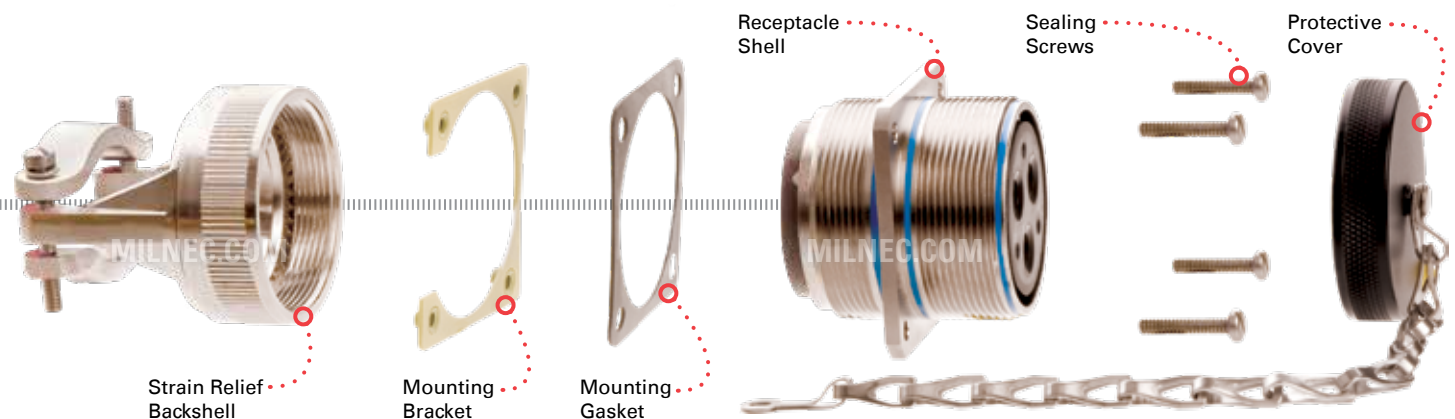
300 inch-lbs min for 1 minute

### Cable Seal Flexing

180° flex, 200 cycles, per TIA/EIA-455-1

### Cable Twist

360°±180° twist, 50 cycles, 11 lbs min tension, per TIA/EIA-455-36



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

Rev. 1825

## Material Characteristics

### Shell

Aluminum alloy per ASTM B211

### Shell Plating - W Finish

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

### Insulator

High-grade engineering plastic per ASTM D5948

## Physical Characteristics

### Coupling

Threaded

### Polarization

Single master key and keyway on top position of shell

### Insert Arrangements

6 standard contact inserts available

### Key/Keyway Polarizations

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

## Contact Characteristics

### Contact Design

Removable, fiber optic termini

### Contact Size

#16

### Contact Material

Ferrule: zirconia ceramic

Terminus assembly: stainless steel/passivate

Retaining clip, spring washers: spring alloy

Seal: fluorosilicone

Crimp sleeve: brass alloy/nickel

### Max Number of Contacts

31 standard

## Contact Performance

### Optical Insertion Loss, Singlemode

-0.3 dB typical (9/125)

### Optical Insertion Loss, Multimode

-0.3 dB typical (62.5/125)

### Optical Back Reflection, Singlemode

Better than -40 dB - PC polish

Better than -50 dB - enhanced PC polish

