

Series Specifications

HR Series • MIL-26482 Series 1 Crimp Type Connectors

Performance Specifications

Built to meet or exceed MIL-DTL-26482 specifications and is guaranteed fully compatible and interchangeable with respect to physical and performance characteristics with all existing MIL-DTL-26482 Series I military and commercial derivatives

Environmental Characteristics

Temperature Range

-67° to +257°F (-55° to +125°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): 1,000 hours

257°F (125°C): 250 hours

Water Pressure

IP67 rating (environmental sealing)

Fully submersible to 3.3 ft (1m) for minimum of 30 min

Air Leakage Rate

Environmental

Air leakage not to exceed 1 inch³/hr (4.55 x10⁻³ cm³/sec) at 30 psi (2.11 kg/cm²) pressure differential

Hermetic

Helium leakage not to exceed 0.1 micron per ft³/hr (1.0 x10⁻⁶ cc³/sec) at 15 psi (1.1 kg/cm²)

Hermetic inserts rated to 75 psi (5.3 kg/cm²)

Salt Spray Rating

See Materials & Finishes, p. U-6

Humidity

Mated connectors shall maintain an insulation resistance of 100 megohms or greater at 77°F (25°C) with 95% humidity for duration of 20 days

Chemical Resistance to Fluids

20 hour full immersion (unmated) in hydraulic fluid and lubricating oil without damage or material degradation

Physical Characteristics

Coupling

Three-point bayonet, stainless steel bayonet pins spaced at 120° on receptacle shells, corresponding ramps on plug coupling ring with locking detent 1/3 turn to couple and uncouple

Coupling Torque

Engagement & Disengagement Force (max / min)

Shell Size 8: .67 ft-lb_f (.908 N-m) / .08 ft-lb_f (.108 N-m)

Shell Size 10: 1.00 ft-lb_f (1.36 N-m) / .08 ft-lb_f (.108 N-m)

Shell Size 12: 1.33 ft-lb_f (1.80 N-m) / .17 ft-lb_f (.230 N-m)

Shell Size 14: 1.67 ft-lb_f (2.26 N-m) / .33 ft-lb_f (.447 N-m)

Shell Size 16: 2.00 ft-lb_f (2.71 N-m) / .33 ft-lb_f (.447 N-m)

Shell Size 18: 2.33 ft-lb_f (3.16 N-m) / .33 ft-lb_f (.447 N-m)

Shell Size 20: 2.66 ft-lb_f (3.61 N-m) / .50 ft-lb_f (.678 N-m)

Shell Size 22: 3.00 ft-lb_f (4.07 N-m) / .58 ft-lb_f (.786 N-m)

Shell Size 24: 3.67 ft-lb_f (4.97 N-m) / .58 ft-lb_f (.786 N-m)

Polarization

Single master key and keyway on top position of shell

Four minor keys and keyways on shell

Insert Arrangements

27 standard, custom inserts available

Insert Rotations

Normal polarization (N), plus 4 alternate insert rotational polarizations (W, X, Y, Z)

Endurance Characteristics

Coupling Cycles

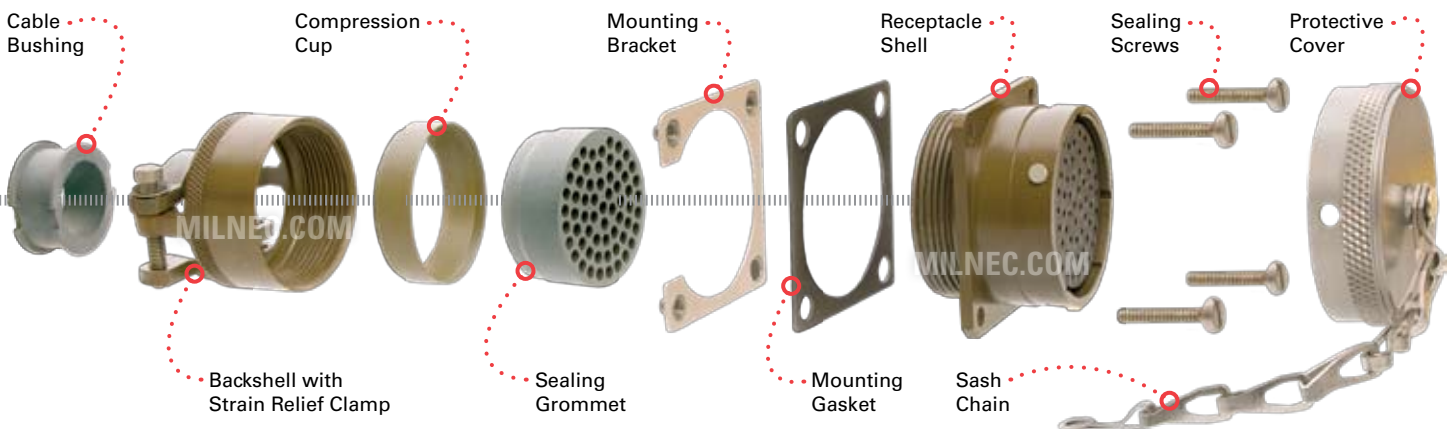
500 coupling cycles (minimum)

Shock

50g's, 11ms duration, three major axes, 10 microseconds maximum discontinuity

Vibration

Random vibration at 10 to 2,000Hz (15g's), 10 microseconds maximum discontinuity



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

Rev. 1401.1

Material Characteristics

Shell

Environmental

Aluminum, solid, one piece, seamless construction

Hermetic

Carbon steel or stainless steel (special order)

Shell Plating

Environmental

Standard (F) finish is electrically conductive cadmium plate finish with an olive drab chromate after-treat for additional corrosion resistance
(See p. U-6 for all available finishes)

Hermetic

Tin plate over nickel (H) finish, suitable for soldering

Shell Conductivity

Maximum shell-to-shell conductivity potential drop shall not exceed 200 millivolts across assembly

Jam Nut

Aluminum

Bayonet Pins

Passivated stainless steel

Insert

Resilient polychlorophrene (neoprene)

Non-removable and mechanically bonded to shell

Hermetic Insert

Vitreous (glass compression)

Non-removable and mechanically bonded to shell

Protective Cover Chain

Passivated stainless steel, sash chain able to withstand a 25 lb (11.3 kg) tensile force without damage

Sealing Grommet

Neoprene

O-Ring Seal

Neoprene or silicone

Mounting Gasket

Neoprene or silicone

Contact Characteristics

Contact Design

Environmental

Removable, rear-release crimp contacts

Hermetic

Solder style, permanently bonded to insert

Contact Sizes

#16, #20

Contacts

Copper alloy

Contact Plating

Environmental

Gold plate, 50 pinches (1.27 μ m) minimum

Hermetic

Tin plate, 50 pinches (1.27 μ m) minimum

Gold plated contacts (special order)

Max Number of Contacts

61 standard, custom inserts available

Max Contact Resistance

9 milliohm maximum resistance

Potential Voltage Drop

25 millivolt maximum voltage drop (initial)

Contact Retention

Pin and socket contacts are designed to resist severe vibration and repeated connection and disconnection

Electrical Characteristics

Current Rating

13 amps (test current) at 68°F (20°C)

Max Operating Voltage

1,000 VAC (RMS) at sea level

Insulation Resistance

>5,000 megohms at 77°F (25°C)

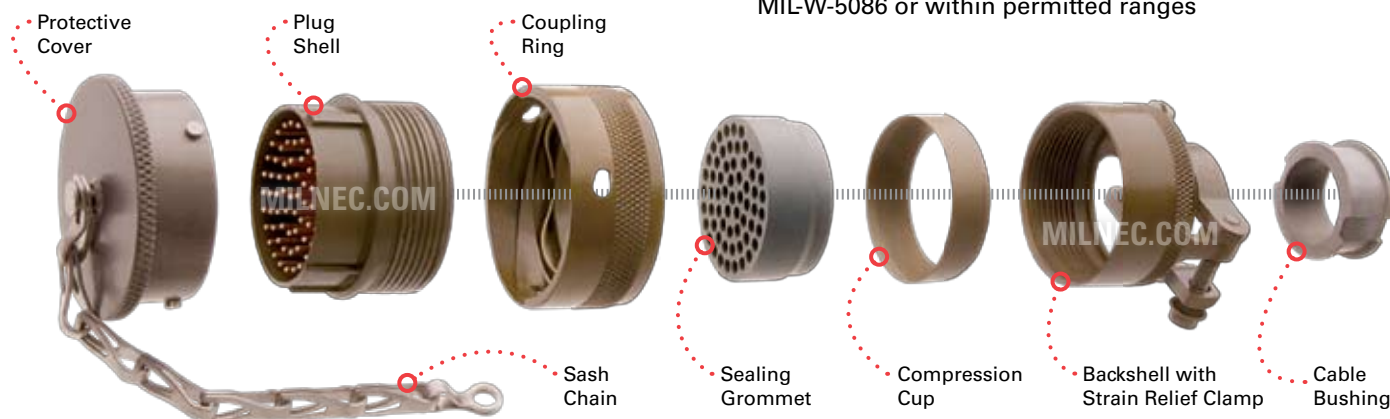
Wire Size

16 to 24 (AWG)

Wire Sealing Range

Designed for individual wire sealing

Sealing is only guaranteed if wires meet MIL-W-5086 or within permitted ranges



Rev. 1401.1