Series Specifications
RS Series • MIL-DTL-5015 Series Reverse Bayonet

Performance Specifications
Built to meet or exceed MIL-DTL-5015, AS95234, and VG95234 specifications.

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 33 ft (10 m) for 12 hours (14.7 PSI)

Air Leakage Rate
Environmental connector air leakage rate shall not exceed 1 inch³/hr (4.55 x10⁻³ cm³/sec) at 30 psi (2.11 kg/cm²) pressure differential

Salt Spray Rating
See Materials & Finishes, p. V-10

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

Coupling Torque
Engagement & Disengagement Force (max / min)
Shell Size 10: 1.25 ft-lb, (1.7 N-m) / .11 ft-lb, (.15 N-m)
Shell Size 12: 1.84 ft-lb, (2.5 N-m) / .17 ft-lb, (.23 N-m)
Shell Size 14: 2.66 ft-lb, (3.6 N-m) / .26 ft-lb, (.35 N-m)
Shell Size 16: 4.06 ft-lb, (5.5 N-m) / .34 ft-lb, (.46 N-m)
Shell Size 18: 5.90 ft-lb, (8.0 N-m) / .43 ft-lb, (.58 N-m)
Shell Size 20: 6.64 ft-lb, (9.0 N-m) / .52 ft-lb, (.70 N-m)
Shell Size 22: 8.11 ft-lb, (11 N-m) / .59 ft-lb, (.80 N-m)
Shell Size 24: 10.33 ft-lb, (14 N-m) / .59 ft-lb, (.80 N-m)
Shell Size 28: 12.54 ft-lb, (17 N-m) / .68 ft-lb, (.92 N-m)
Shell Size 32: 14.01 ft-lb, (19 N-m) / .75 ft-lb, (1.02 N-m)
Shell Size 36: 16.96 ft-lb, (23 N-m) / .77 ft-lb, (1.05 N-m)

Polarization
Single master key and keyway on top position of shell

Insert Arrangements
107 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
**Material Characteristics**

**Shell**  
Aluminum, solid, one piece, seamless construction

**Shell Plating**  
Standard (W) finish is electrically conductive cadmium plate finish with an olive drab chromate after-treat for additional corrosion resistance.  
(See p. V-10 for all available finishes)

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

**Insert**  
Resilient polychlorophrene (neoprene)  
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

**Compression Cup**  
Plastic

**Sealing Grommet**  
Neoprene

**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

**Cable Bushing**  
Neoprene

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**Contact Characteristics**

**Solder Contact Design**  
Permanently bonded to insert  
Pre-tinned solder cups and solder wells standard

**Crimp Contact Design**  
Removable, rear-release contacts

**Contact Sizes**  
#0, #4, #8, #12, #16, #16S

**Contacts**  
Copper alloy

**Contact Plating**  
Silver alloy plate, 100 µinches (2.54 µm) minimum

**Max Number of Contacts**  
1 to 48 standard, custom inserts available

**Max Contact Resistance**  
6 milliohm maximum resistance

**Potential Voltage Drop**  
<50 millivolt maximum drop (initial)

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

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**Electrical Characteristics**

**Current Rating**  
150 amps (test current) at 68°F (20°C)

**Max Operating Voltage**  
3,000 VAC (RMS) at sea level

**Insulation Resistance**  
>5,000 megohms at 77°F (25°C)

**Wire Size**  
0 to 16 (AWG)

**Wire Sealing Range**  
Designed for individual wire sealing  
Sealing is only guaranteed if wires meet MIL-W-5086 or within permitted ranges

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Photograph for Example Only