MRJ Rugged RJ11 & RJ45 Series Connectors





Generation 1 Features

• Provides a standard RJ interface ideal for harsh environments where Ethernet/IP Protocol is used

- Protection is provided for IP67 applications per IEC 60529 specification
- Data Rates conform to 10 Base-T
- Features standard epoxy sealing technology
- Available with ferrite filtering to reduce EMI for improved performance





Markets

Amphenol's line of Rugged RJ connectors serve many markets and applications across the globe including Transportation, Military, Medical and Industrial.

Amphenol Commercial Products

MRJ Rugged RJ11 & RJ45 Series Connectors









Drawings Shown: MRJ-53XX, MRJ-55XX, MRJ-69XX, MRJ-63XX

Technical Specifications

Die Cast Zinc, Nickel Plated Clear Polycarbonate, UL94V-0 High Temperature Resistant Nylon, Glass Reinforced, UL94-0, Black Phosphor Bronze Alloy Plated with 1.7µm (50µ") min Gold over 1.27µm (50µ") min Nickel on the Mating Area and 2.54µm (100µ") min Matte Tin over Nickel on the Contact Tails Conductive Silicone Rubber, Black Nickel Plated Copper Alloy Epoxy Lens, Tin Plated Steel Tails Nickel Plated Steel Silicone Rubber, Beige FR4 Fibreglass, Lead Free **UL Recognized Component** Nickel Zinc Soft Ferrite Ceramic Level DUXR2, File Number E135615 Code IP67 per IEC 60529 -55°C to +105°C Per EIA 364-09, 2500 Mating Cycles Per EIA 364-28 Condition II (10q, 10-500 Hz, 6 hours), No Discontinuity $\geq 1 \mu s$ Per EIA 364-27 Test Condition H (11ms, 30g, $\frac{1}{2}$ Sine), No Discontinuity $\geq 1 \mu s$ Per EIA-364-17, 1.5 A, 70°C, 500 Hours Per EIA-364-17, 105°C, 1000 Hours Per EIA-364-32, -55°C to +105°C, 25 Cycles Per EIA-364-31, 21 Cycles, 504 Hrs, 25°C to 65°C, 90-95%RH, with -10°C Cold Shock Per EIA-364-31, Steady State, 21 Days, 50°C, 90-95%RH Per EIA 364-65 Class IIA (Cl₂, NO₂, H₂S, & SO₂), 14 Day Exposure Per EIA 364-26, 250 Hours, 5% Salt, 35°C Isopropyl Alcohol & 5% Sodium Hydroxide Solution, 24 Hrs Each 0.5mCd min at 2mA Forward Current Per EIA-364-52, 95% Coverage after Category 2 Steam Aging Per EIA-364-13, 20N (4.5lb,) max (Latch Disengaged) Per EIA-364-13, 50N (11.2lb,) min 1.5A max per Contact ($\Delta T \leq 30^{\circ}$ C) $20 \text{ m}\Omega \text{ max}$ 500 MΩ min 1000 VAC rms (between adjacent contacts),1500 VAC rms (contacts to ground) Forward DC Current 25mA max, Forward Voltage 2.5V max @2mA

 38Ω at 25 MHz min Impedance, Common Mode Rejection -30dB min up to 250 MHz

Front Insert: Rear Inserts: Contacts: Panel Gasket: Mating Area Ground Tab: LED's: Rear Screws: Internal O-rings:

External Shell:

Rear Screws: Internal O-rings: PCB: Addiontal Connector: Ferrite:

UL Recognition: Water & Dust Protection Level: **Operating Temperature: Durability:** Vibration: Shock: Temperature Life w/ Load: **Temperature Life w/o Load: Thermal Shock: Humidity: Humidity: Mixed Flowing Gas:** Salt Spray: **Solvent Resistance: LED Luminous Intensity:** Solderability: **Insertion & Withdrawal Force: Effectiveness of Plug** Latch (Coupling Device):

Current Rating: Contact Resistance: Insulation Resistance: DWV: LED Characteristics: Ferrite Characteristics:

To learn more about Harsh Environment Connectors: web: amphenolcanada.com email: sales@amphenolcanada.com