



Generation 2 Features

- Provides a standard RJ interface ideal for harsh environments where Ethernet/IP Protocol is used
- Protection is provided for IP68 applications per IEC 60529 specification
- Data Rates conform to 10 Base-T or 100 Base-T Ethernet
- Features an Epoxy-free assembly; sealed with O-rings & gaskets
- More robust construction with improved thermal cycling and a slim conductive panel gasket for enhanced EMI performance



Markets

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



Photos Shown: MRJR-5780-01 2, MRJR-3460-0F 2, MRJR-5580-01, MRJ-2586-10BP2

Technical Specifications

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| External Shell: | Die Cast Zinc, Nickel Plated |
| Front Insert: | Clear Polycarbonate, UL94V-0 |
| Rear Inserts: | High Temperature Resistant Nylon, Glass Reinforced, UL94-0, Black |
| Contacts: | Phosphor Bronze Alloy Plated with 1.27 μ m (50 μ ") min Gold over 1.27 μ m (50 μ ") min Nickel on the Mating Area and 2.54 μ m (100 μ ") min Matte Tin over Nickel on the Contact Tails |
| Panel Gasket: | Conductive Silicone Rubber, Black |
| Mating Area Ground Tab: | Nickel Plated Copper Alloy |
| LED's: | Epoxy Lens, Tin Plated Steel Tails |
| Rear Screws: | Nickel Plated Steel |
| Internal O-rings: | Silicone Rubber, Beige |
| PCB: | FR4 Fibreglass, Lead Free |
| Additional Connector: | UL Recognized Component |
| Ferrite: | Nickel Zinc Soft Ferrite Ceramic |
| UL Recognition: | Level DUXR2, File Number E135615 |
| Water & Dust Protection Level: | Code IP67 per IEC 60529 |
| Operating Temperature: | -55 $^{\circ}$ C to +105 $^{\circ}$ C |
| Durability: | Per EIA 364-09, 2500 Mating Cycles |
| Vibration: | Per EIA 364-28 Condition II (10g, 10-500Hz, 6 hours), No Discontinuity \geq 1 μ s |
| Shock: | Per EIA 364-27 Test Condition A (11ms, 50g, 1/2 Sine), No Discontinuity \geq 1 μ s |
| Temperature Life w/ Load: | Per EIA-364-17, 1.5 A, 70 $^{\circ}$ C, 500 Hours |
| Temperature Life w/o Load: | Per EIA-364-17, 105 $^{\circ}$ C, 1000 Hours |
| Thermal Shock: | Per EIA-364-32, -55 $^{\circ}$ C to +105 $^{\circ}$ C, 25 Cycles |
| Humidity: | Per EIA-364-31, 21 Cycles, 504 Hrs, 25 $^{\circ}$ C to 65 $^{\circ}$ C, 90-95%RH, with -10 $^{\circ}$ C Cold Shock |
| Humidity: | Per EIA-364-31, Steady State, 21 Days, 50 $^{\circ}$ C, 90-95%RH |
| Mixed Flowing Gas: | Per EIA 364-65 Class IIA (Cl ₂ , NO ₂ , H ₂ S, & SO ₂), 14 Day Exposure |
| Salt Spray: | Per EIA 364-26, 250 Hours, 5% Salt, 35 $^{\circ}$ C |
| Solvent Resistance: | Isopropyl Alcohol & 5% Sodium Hydroxide Solution, 24 Hrs Each |
| LED Luminous Intensity: | 0.5mCd min at 2mA Forward Current |
| Solderability: | Per EIA-364-52, 95% Coverage after Category 2 Steam Aging |
| Insertion & Withdrawal Force: | Per EIA-364-13, 20N (4.5lb.) max (Latch Disengaged) |
| Effectiveness of Plug Latch (Coupling Device): | Per EIA-364-13, 50N (11.2lb.) min |
| Current Rating: | 1.5A max per Contact ($\Delta T \leq 30^{\circ}$ C) |
| Contact Resistance: | 20 m Ω max |
| Insulation Resistance: | 500 M Ω min |
| DWV: | 1000 VAC rms (between adjacent contacts), 1500 VAC rms (contacts to ground) |
| LED Characteristics: | Forward DC Current 25mA max, Forward Voltage 2.5V max @2mA |
| Ferrite Characteristics: | 38 Ω at 25 MHz min Impedance, Common Mode Rejection -30dB min up to 250 MHz |

To learn more about Harsh Environment Connectors:

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