MRJR Ruggedized RJ Receptacle Connectors

RUGGED RJ PANEL MOUNT CONNECTOR IP67 SEALING

Ruggedized RJ connectors with die cast housings and IP67 sealing for Harsh Environment applications, provide reliable performance in extreme conditions for the most demanding applications, and mate with standard RJ plugs.

- IP67 sealing protects against water, dust
- Die cast metal housings protect against mechanical damage
- Wide variety of mounting and termination options
- Operating temperature range from –55°C to +105°C for extreme conditions
- RoHS for environmental compliance

TARGET MARKETS

FEATURES

- Internal and external seals made with flexible silicone rubber
- Standard RJ interface where Ethernet/IP Protocol is used
- Die Cast metal housing
- Mates with existing standard connectors
- Comparable in size to standard equivalents
- Wide variety of mounting and termination options

BENEFITS

- Excellent sealing to IP67 and higher over wide temperature range, protects equipment from water and dust incursion
- Can be used in wide variety of applications where standard RJs would be used
- Mechanically rugged and stable protects against shock, vibration and impact and prevents distortion
- Can be used with wide variety of readily available mating connectors
- Can usually replace existing standard parts with little to no changes or additional space required
- Replace virtually any existing standard connector using standard footprints and mounting hardware

TECHNICAL INFORMATION

MATERIAL

- External Shell: Die Cast Zinc, Nickel Plated
- Front Insert: Clear Polucarbonate, UL94V-0
- Rear Inserts: High Temperature Resistant Nylon, Glass Reinforced, UL94V-0
- Contacts: Phosphor Bronze, Plated with 1.27um (50u") min Gold over 1.27um (50u") min Nickel on the Mating Area and 2.54um (100u") min Matte Tin over Nickel on the Contact Tails
- Mating Area Ground Tab: Nickel Plated Copper Alloy
- Panel Gasket: Conductive Silicone Rubber, Black
- LED's: Epoxy Lens, Tin Plated Steel Tails
- Rear Screws: Nickel Plated Steel
- Internal O-ring: Silicone Rubber, Beige
- Printed Circuit Board: FR4 Fibreglass, Lead Free
- Additional Connector: UL Recognized Component
- Ferrite: Nickel Zinc Soft Ferrite Ceramic

ELECTRICAL PERFORMANCE

- Current Rating: 1.5A max per Contact (delta T < 30°C)
- Contact Resistance: 20mΩ max
- Insulation Resistance: 500mΩ min
- Dielectric Withstanding Voltage: 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

MECHANICAL PERFORMANCE

- UL Recognition: Level DUXR2, File Number E135615
- Water & Dust Protection Level: Code IP67 per IEC 60529
- Operating Temperature: -55°C to +105°C
- Durability: Per EIA 364-09, 2500 Mating Cycles
- Vibration: Per EIA 364-28 Random Condition II (10g, 10-500Hz, 6 Hours), No Discontinuity > 1us
- Shock: Per EIA 364-27 Test Condition A (11 ms, 50g, 1/2 Sine), No Discontinuity > 1us
- Insertion & Withdrawal Force: Per EIA-364-13, 20N (4.5lbf) max (Latch Disengaged)

SPECIFICATION

- Amphenol Product Specification: TIA-1096-A, IEC 60603-7, IEC 60529

APPROVALS AND CERTIFICATIONS

- RoHS

PACKAGING

- Tray

ENVIRONMENTAL

- Temperature Life w/ Load: Per EIA-364-17, 1.5 A, 70°C, 500 Hours
- Temperature Life w/o Load: Per EIA-364-17, 105°C, 1000 Hours
- Thermal Shock: Per EIA-364-32, -55°C to +105°C, 25 Cycles
- Humidity: Per EIA 364-31, 21 Cycles, 504 Hrs, 25°C to 65°C, 90-95%RH, with -10°C Cold Shock
- Humidity: Per EIA-364-31, Steady State, 21 Days, 50°C, 90-95%RH
- Mixed Flowing Gas: Per EIA 364-65 Class IIA (Cl2, NO2, H2S & SO2), 14 Day Exposure
- Salt Spray: Per EIA 364-26, 250 Hours, 5% Salt, 35°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

TARGET MARKETS/APPLICATIONS


Transportation


Datacom
Telecom


Energy
Industrial


Medical


Military

For more information,
please contact: Marketing@fci.com
or visit us at www.amphenol-icc.com

PART NUMBER SELECTOR

BASE PART NUMBER	—	MRJR	—	X	—	X	—	X	—	X	—	X	—	X	—	X

MRJR	Rugged RJ Series, Generation 2

Modular Jack Type	
3	RJ11, 6 Position
4	RJ11, 6 Position with EMI Ferrite Filtering
5	RJ45, 8 or 10 Position
6	RJ45, 8 or 10 Position with EMI Ferrite Filtering
7	RJ45, 8 or 10 Position with Transient Voltage Suppression
8	RJ45, 8 Position with Cat5e Performance Level

Termination Style	
3	Right Angle
4	Vertical
5	Right Angle on PCB with Right Angle Cable Header
7	Right Angle on PCB with Right Angle RJ45 Modular Jack
8	Right Angle on PCB with Vertical RJ45 Modular Jack
9	Right Angle on PCB with Terminal Blocks
A	Right Angle on PCB with Holes for Wiring (Style 5 PCB)
B	Right Angle on PCB with Vertical Cable Header
C	Right Angle on PCB with Holes for Wiring (Style 7 PCB)
D	Right Angle on PCB with Vertical Cable Header

Number of Contacts	
4	4 contacts
6	6 contacts
8	8 contacts
A	10 contacts

LED options	
0	No LEDs
1	Green left, Yellow right
4	Yellow left, Green right
5	Green left, Green right
A	Bi-colour Green/Yellow Left & Right

Tail Length & Thread Options	
0	2.54mm [.100”] Tail Length, #4–40 UNC Thread
B	3.81mm [.150”] Tail Length, #4–40 UNC Thread
M	2.54mm [.100”] Tail Length, M3 x 0.5 Thread
P	3.81mm [.150”] Tail Length, M3 x 0.5 Thread

Other Features	
1	1 port (vertical has through hole mounting, right angle has threaded lug)
F	1 port, vertical connector, threaded lug mounting

Unique Special Code	
No Digit	Part defined by previous 10 digits
1 to 9	Unique special feature

CMIOMRJR0717EA4

For more information,
please contact: Marketing@fci.com
or visit us at www.amphenol-icc.com