



# Industrial RJ Plug

## NEXT GENERATION INDUSTRIAL IoT CONNECTIVITY

Industrial Ethernet connectors enable IoT connectivity for Ethernet and other Industrial protocols through all levels of operations from the Enterprise/Cloud to the sensors/actuators at the factory floor. The Industrial RJ series of modular Ethernet plugs provide CAT6A performance per ANSI/TIA-568.2-D. It supports Gigabit Ethernet Protocols and 10Gig links in applications up to 100m. The field terminable design provides easy assembly/disassembly and it's robust construction ensures reliable operation in harsh environments.

- Straight, 45° and 90° cable exit options for cable management flexibility
- High data rate performance for 10G Ethernet
- Field terminable IDC plugs
- Metal construction for harsh environments
- Re-terminable for easy rework



### TARGET MARKETS



### FEATURES

- Multiple cable exit options including straight, 45° and 90°, configurable in 4 positions
- High data rate, with CAT6A performance
- Field terminable IDC plugs with solder options
- Cast metal body and stainless-steel latch
- Ratchet locking cable clamp

### BENEFITS

- Flexibility for enhanced cable management in different applications
- Supports Gigabit Ethernet Protocols and 10Gig links in applications up to 100m
- Ease of custom cabling or repair in the field with IDC contacts
- Rugged construction and latching resists damage and ensures reliable latching, plus full shielding
- Adjustable for varying cable diameters, with reliable cable strain relief

# TECHNICAL INFORMATION

## MATERIAL

- RJ Terminal: Copper Alloy with Gold thickness options (Gold flash, 6µin, 15µin, 30µin, 50µin) over 50µin minimum Nickel on contact mating area, 100µin minimum matte Tin plating on solder tails
- IDC Terminal: Copper Alloy with 100µin minimum matte Tin over 50µin minimum Nickel overall
- Housing: Engineering thermoplastic with color options, flammability rating UL 94V-0
- Shield: Die-cast Zinc alloy with Nickel plating
- Latch: Stainless steel, 0.30mm thickness
- Spring: Stainless steel, 0.30mm thickness
- PCB: FR4 with 0.05mm. Copper, 1.02mm thickness

## ELECTRICAL PERFORMANCE

- Current Rating: 1.5A per contact
- Voltage Rating: 60VDC
- Contact Resistance: 20mΩ max.
- Insulation Resistance: 500MΩ min. at 100VDC for 2 minutes max.
- Dielectric Withstanding Voltage: Contact to Contact: 1,000VAC, 6Hz, 1 min.
- Contact to Shield: 2,250VDC, 60Hz, 1 min.
- Transmission Characteristics: Category 6A per ANSI/TIA-568.2-D
- Transmission Speed: 10Gb/s
- Frequency Range: To 500MHZ

## MECHANICAL PERFORMANCE

- Mating Connector Insertion Force: 5.0lbs max.
- Mating Connector Pull Retention Force: 20.0lbs min.
- Durability: 750 mating and unmating cycles for 50µin Gold plating
- Retention Force of Cable: Pull-out force – 36N min.
- Vibration: Per EIA364-28/6d, Condition II, 10g's
- Physical Shock: Per EIA364-27/6c, 50g's, 1/2 Sine, 11ms
- Supports PoE per IEEE 802.3bt

## APPROVALS & CERTIFICATION

- RoHS per EU Directive 2011/65/EU and amendments

## ENVIRONMENTAL

- Temperature Rise at Current Rating: Per EIA364-70, 30°C rise max.
- Thermal Shock: Per EIA-364-32/11d, -40°C to +85°C, 25 cycles
- Cyclic Damp Heat: Per EIA-364-31a, 21 cycles
- Mixed Flowing Gas: Per EIA-364-65 /11g, Class IIA, 7 days
- Degrees of Protection: Per IEC 60529, IP20
- Operating Temperature: -40°C to +85°C

## SPECIFICATION

- ANSI/TIA-568.2-D
- Amphenol Specification: S6179C

## PACKAGING

- PE Bag and Boxes

## TARGET MARKETS/APPLICATIONS



Transportation



Internet of Things (IoT)  
Sensors, Actuators, and Network Nodes  
Mobile Communication Systems  
Traffic Control and Monitoring Systems



Machine to Machine (M2M)  
Robotics  
Building Automation  
Test Equipment



Healthcare / Medical Equipment

## PART NUMBER SELECTOR

