

Industrial M8 Single Pair Ethernet Field Terminable Plug

specifications

Industrial M8 Single Pair Ethernet field terminable plug shall be applicable for use in manufacturing as well as other harsh environments. The M8 plug shall meet or exceed the requirements of ANSI/TIA-568.7 and ISO 11801-3 and with ODVA EtherNet/IP. The plug shall be constructed of a zinc die cast housing with 360° shielding. To meet more demanding industrial applications, the plug shall incorporate an ingress protection rating of IP65/IP67 and offer an extended temperature range. The plug shall be easily field attachable without any special tools and shall be capable of termination to a single pair stranded twisted pair copper cable - up to ten re-terminations with the same gauge cable.



technical information

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| Channel and component performance: | Meets channel and component requirements ANSI/TIA-568.7 and ISO 11801-3 |
| Electrical/mechanical performance: | Shall meet ODVA Ethernet/IP [^] , PROFINET, and CC-Link performance requirements |
| IEC compliance: | Plug meets IEC 61076-2-109, IEC 60532-4, and IEC 60529 specifications |
| Environmental protection: | Industrial connector protects and seals connections against dust and water immersion to IP65/IP67 per ANSI/IEC 60529-2004; vibration, temperature and chemical resistant; shielded version further enhances electromagnetic performance |
| UL compliance: | Compliant to UL 1863 |
| RoHS compliancy status: | Compliant |
| PoE compliance: | Meets IEEE 802.3af and IEEE 802.3at for PoE applications |
| Temperature rating: | -25°C to 85°C (-13°F to 185°F) operating and storage |
| Wiring scheme: | 4-position |
| Conductor termination range: | Stranded AWG 24/7-18/7; Solid AWG 26/1-22/1 |
| Conductor insulation termination range: | 7/0.4 ± 0.02mm |
| Cable jacket diameter range: | 2.0 ± 0.02mm |

key features and benefits

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| Zinc die cast housing with 360° shielding | Ensures secure data transmission in high noise (EMI/RFI) environments for optimal performance |
| Field attachable | Can be terminated in seconds without any special tools and is re-terminable up to 10 times with the same gauge cable |
| IP/NEMA/UL rated connection | Withstands light wash down and temporary submerged conditions without loss of performance for reliability in harsh factory environments |
| Extended temperature range | Provides durable connection in extreme conditions for increased system reliability |

applications

Single Pair Ethernet M8 field terminable plug provides reliability and high performance as an integral component of the end-to-end solution for industrial SP1-1000 communication systems. This communications system includes copper cabling and connectivity for IP20 and harsh IP67 applications and enables edge devices to be efficiently added to the ethernet network which was formerly limited to 2- and 4-pair cabling systems.

This system allows for Power over Data Line (PoDL) power delivery and up to 10 Mb/s bandwidth for up to 1km, and will drive ethernet convergence in the following applications:

- Process Automation Sensors and Valves
- Logistics Automation VFDs and Conveyors
- Upgrades from analog to intelligent Sensors
- Building Automation upgrades to BACnet/IP

M8 A-Code Single Pair Ethernet

Field Terminable Plug: SP-18SA42BL

Industrial Single Pair Ethernet (SPE) Shielded Copper Cable

SF/FTP Stranded (18 AWG): SP-SFCS1**-CEG

IP20 Single Pair Ethernet Connector

IEC 63171-1 Single Pair Ethernet Connector: SP-1LSA22BL

**For standard colors, replace ** in part number with IG (International Gray) or BL (Black).
Contact Customer Service for additional color options.

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