

SP1-1000 Single Pair Ethernet Type 1 Shielded Connector

specifications

The Single Pair Ethernet Shielded Connector shall provide simple field-termination to 18 AWG 1-pair shielded copper cable that is compliant with ANSI/TIA-568.5 (draft) SP1 and IEC 61156-13 and -14 (draft) standards. The plug shall comply with IEC 63171-1 "Type 1" standard and be provide IP20 performance according to IEC SC48B standard. The plug shall be comprised of three loose pieces – a plug housing, a wire cap and an outer metal cover – and shall provide positive cover engagement and a proven repeatable latching mechanism. The plug shall terminate to the cable without needing a custom tool.



technical information

SP1 Performance:	Exceeds proposed ANSI/TIA 568.5 (draft) SP1-1000 and SP1-400 channel performance requirements with up to 10 connectors per SP1-1000 channel and 5 connectors per SP1-400 channel
Cable compatibility:	Compatible with 1-pair, 18 AWG stranded or solid twisted pair cable with maximum conductor insulation diameter of 0.098 in. (2.5mm) and overall cable jacket diameter of 0.280 in. (7.1mm)
IEC Compliance:	IEC 63171-1 Type 1 copper LC style connector
RoHS Compliance:	Compliant
PoDL Compliance:	Support for Power over Data Lines for power up to 52 W
Plug mating cycles:	Rated to 750 mating cycles
UL rated:	UL 1863 (Use as communications circuit accessory)
Operating temperature:	-14°F to +140°F (-10°C to +60°C)
Storage temperature:	-40°F to +185°F (-40°C to +85°C)

key features and benefits

Simple three-piece assembly	Field friendly, easier to handle during field installation, saving time and reducing termination error
Slim LC-style plug profile	Easily fits in tight port spaces and is compatible with established LC mating footprint
18 AWG termination capable	Works with all commonly used stranded and solid 18 AWG shielded cabling, enabling channel lengths of up to 1,000 meters
Re-termination	Ability to re-terminate up to 20 times with no additional parts, providing convenience and cost-savings in cases when plug must be re-terminated to cable

applications

Single Pair Ethernet copper cabling and connector solutions provide 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 a variety of application environments and enables edge devices to be efficiently added to the ethernet network using only 1-pair cabling rather than the 2- and 4-pair cabling systems formerly available. This system allows for Power over Data Line (PoDL) power delivery and up to 10 Mb/s

bandwidth over channels up to 1km in length and supports standards in development for 100 Mb/s and 1 Gb/s bandwidths at shorter channel lengths. This 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

SP1 Single Pair Ethernet Connector

Shielded Plug Connector (18 AWG): SP-1LSA22BL

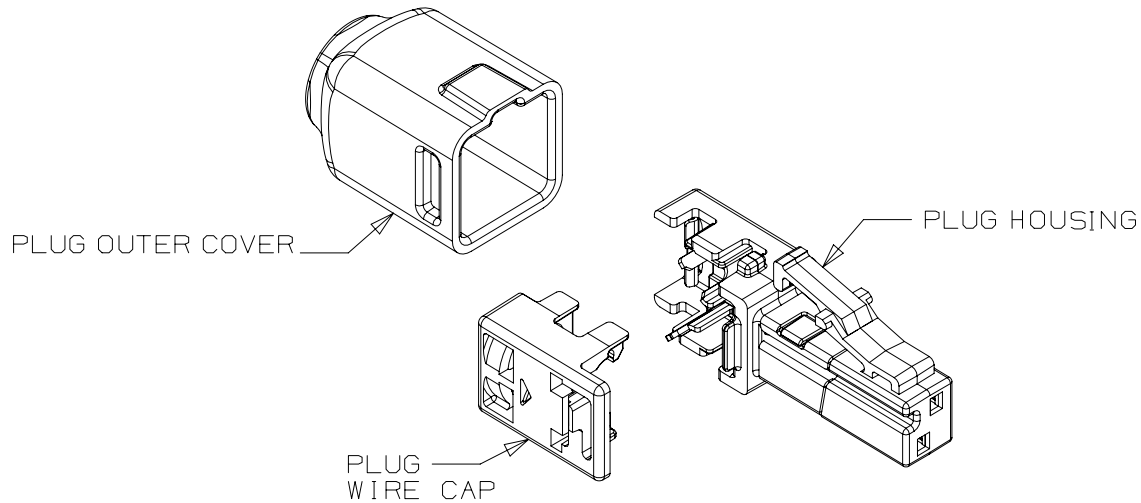
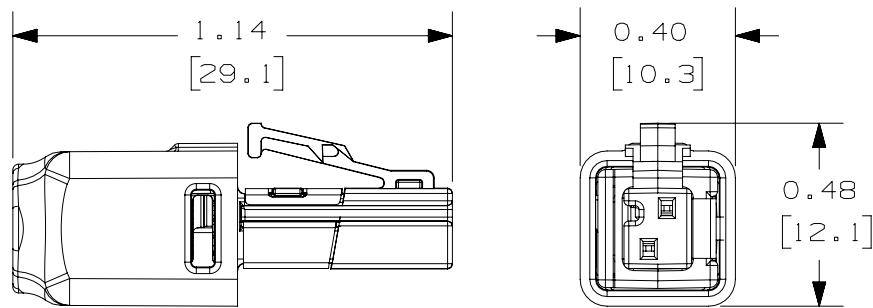
Related Products

Field Terminable Plug: SP-18SA42BL

Shielded Copper Cable (18 AWG): SP-SFCS1**-CEG

**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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Dimensions are in inches. (Dimensions in brackets are metric).

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