

IndustrialNet™ Category 5e SF/UTP Copper Cable

specifications

Category 5e 2-pair SF/UTP copper cable shall meet or exceed the IEC 61156-6, ANSI/TIA-568-C.2 Category 5e and ODVA EtherNet/IP standards up to 80 meters. The stranded copper conductors shall be 24/7 AWG with high density polyethylene (HDPE) insulation. The copper conductors shall be twisted in pairs and wrapped with a foam polypropylene tape to form a core. Both pairs shall then be surrounded by an overall braided shield and metallic foil and covered with a thermoplastic elastomer (TPE) jacket. The jacket shall be oil, sunlight, weld splatter, and abrasion resistant for enhanced chemical resistance and mechanical performance. The jacket shall be flame retardant (CMX/CM) for industrial Ethernet applications. This cable is designed to support high-flex applications and is rated for panel or on-machine applications when the space is shared with 600V high voltage power cables.



technical information

Electrical performance:	Certified component performance up to 80 meters and exceeds the requirements IEC 61156-6 Category 5e, ANSI/TIA-568-C.2 Category 5e, and ODVA EtherNet/IP standards at swept frequencies up to 100 MHz
Standard compliances:	UL AWM Style 2463 (80°C 600V) Flex Life Test: 1 million cycles at 10x cable diameter; 10 million cycles at 20x cable diameter Torsion Life Test: 3 million cycles, 360° Oil resistance 6 months @ 20°C
Conductors/insulators:	Two pairs of 24/7 AWG stranded copper insulated with high density polyethylene (HDPE)
Insulation diameter:	1.15 – 1.25mm (0.045 – 0.049 in.)
Flame rating:	CMX/CM (UL1685)
Installation tension:	110 N (25 lbf) maximum
Temperature rating:	-40°C to 80°C (-40°F to 176°F) during transport, installation and operation
Cable jacket:	Thermoplastic elastomer (TPE), oil, sunlight, weld splatter, and abrasion resistant
Cable jacket diameter:	6.1mm (0.241 in.) nominal
Cable weight:	13 kg/305m (30 lbs./1000 ft.)
Packaging:	Packaged 305 meters (1000 feet) on a reel Package tested to ISTA Procedure 1A

key features and benefits

Third party tested	Cable has been tested by an independent laboratory and complies with the electrical standard requirements of IEC 61156-6 Category 5e and ANSI/TIA-568-C.2 Category 5e standards
Reliability	Shielded SF/UTP cable construction protects against environmental elements that can cause electrical performance failures; stranded conductors for high flex applications and ease of installation; cable jacket shall be oil, sunlight, weld splatter, and abrasion resistant for enhanced chemical resistance and mechanical performance
High flex applications	Life cycle tested for robotic and c-track use
600V on-machine applications	Rated for panel or on-machine applications when the space is shared with 600V high voltage power cables
Ethernet/IP compliant	Enhanced design to provide performance levels required to support industrial network applications; meets ODVA Ethernet/IP performance requirements
Descending length cable markings	Easy identification of remaining cable reduces installation time and cable scrap
Packaged on a reel	Ensures proper performance and provides quick installation

applications

IndustrialNet™ Category 5e SF/UTP Copper Cable provides reliability and high performance as an integral component of the end-to-end solution for industrial Ethernet and Ethernet/IP based communications networks. The 2-pair high performance cable ensures highest availability in conditions seen in industrial environments. The cable incorporates a durable oil and UV resistant TPE jacket meeting Appliance Wiring Material requirements and rated for panel or on-machine applications when the space is shared with 600V high voltage power cables.

Key applications include:

- 10BASE-T (Ethernet)
- 100BASE-T (Fast Ethernet)
- Industrial Ethernet
- Ethernet/IP
- Control Panel deployments featuring power source voltages
- Downlinks from control panel to the machine area
- High flex applications – robotic, c-track

PANDUIT®

SPECIFICATION SHEET

IndustrialNet™ Category 5e SF/UTP Copper Cable

CM/CMX
2-pair: ISFCH5C02A*-XG

IndustrialNet™ Category 6/5e RJ45 Field Terminable Plug

Field terminable plug: ISPS688FA

IndustrialNet™ M12 D-Code Field Terminable Plug

Field terminable plug: ISPS5E44MFA

IndustrialNet™ Category 5e Shielded 600V-Rated Patch Cords

CM/CMX: **ISTPHCH1MTL

IndustrialNet™ M12 D-Code to RJ45 Panel Mount Adapter

Panel mount adapter: ICAM12DRJS

Mini-Com® Modular Patch Panel

8-port: CDPP8RG

DIN Rail Adapter

1-port: CADIN1IW***

*To designate color, add suffix TL (Teal), BL (Black), RD (Red), BU (Blue) GY (Gray), or YL (Yellow).

**For other lengths, change the length designation (1M) of the part number to the desired length (0.3M, 0.6M, 2M, 3M, 5M, or 10M); to designate color, replace TL (Teal) suffix with BL (Black), RD (Red), or YL (Yellow). For example, the part number for a 2-meter teal patch cord is ISTPHCH2MTL.

***For standard colors other than Off White, replace IW in part number with BL (Black), EI (Electric Ivory), IG (International Gray), or WH (White).

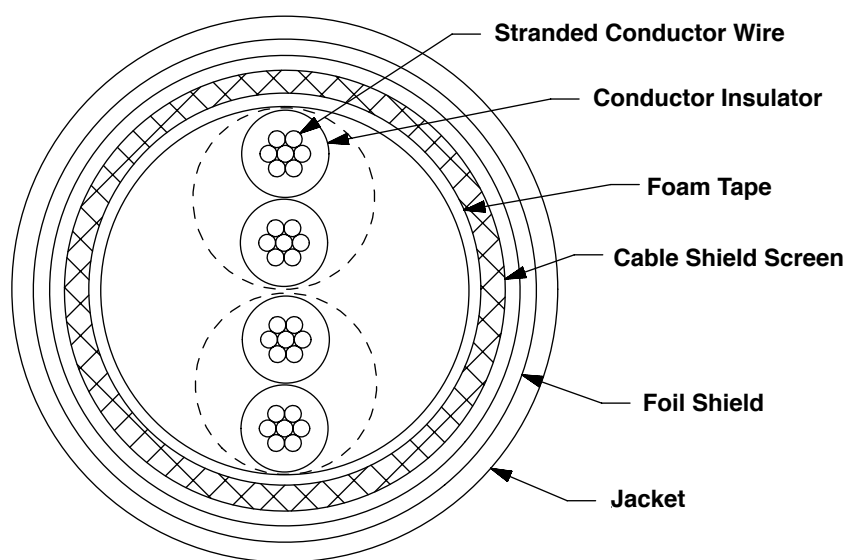
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additional specifications

Mechanical Test	
Ultimate Breaking Strength	>400 N (90 lbf.)
Minimum Bend Radius	2x cable diameter
Electrical Test	
Nominal Velocity of Propagation (NVP)	68%
Operating Voltage, Maximum	80V

cable construction



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