IndustrialNet™ Category 6A S/FTP Copper Cable

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specifications

Category 6A S/FTP copper cable shall meet or exceed the IEC 61156-6 and ANSI/TIA-568-C.2 Category 6A standards up to 80 meters. The stranded copper conductors shall be 24/7 AWG with foamed polyethylene (PE) insulation. The copper conductors shall be twisted in pairs. Each of the four pairs shall be surrounded by an overall metallic foil. All four pairs shall then be surrounded by an overall braided shield and covered with a polyurethane (PUR) jacket. The jacket shall be oil, ozone, and abrasion resistant for enhanced chemical resistance and mechanical performance. The jacket shall be flame retardant and halogen-free for industrial Ethernet applications. The cable shall support high flex and torsion applications.

technical information

Electrical performance:	Certified component performance up to 80 meters and exceeds the requirements IEC 61156-6 and ANSI/TIA-568-C.2 Category 6A at swept frequencies up to 500 MHz
Standard compliances:	Flexure IEC 61935-2 Flex Life Test: 1 million cycles at 10x cable diameter; 10 million cycles at 20x cable diameter Torsion Life Test: 3 million cycles, 360° Ozone resistance VDE 0805 Oil resistance EN 60811-2-1 (7 days x 24hrs/90°C)
Conductors/insulators:	Four pairs of 24/7 AWG stranded copper insulated with foamed polyethylene
Insulation diameter:	1.38 – 1.48mm (0.054 – 0.058 in.)
Flame rating:	Flame retardant, halogen-free – IEC 60332-1, IEC 60754-1 and -2, IEC 61034-2, EN50575: Eurolass Eca
Installation tension:	80 N (18 lbf) maximum
Temperature rating:	-40°C to 80°C (-40°F to 167°F) during transport, installation, and operation
Cable jacket:	Polyurethane (PUR), oil, ozone, and abrasion resistant
Cable diameter:	8.0mm (0.315 in.) nominal
Cable weight:	30 kg/500m (66 lbs /1640 ft.)
Packaging:	Packaged 500 meters (1640 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 and ANSI/TIA-568-C.2 Category 6A standards
Reliability	Shielded S/FTP cable construction protects against environmental elements that can cause electrical performance failures; stranded conductors for standard flex applications and ease of installation; cable jacket shall be oil, ozone, and abrasion resistant for enhanced chemical resistance and mechanical performance
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 6A S/FTP Copper Cable provides reliability and high performance as an integral component of the end-to-end solution for industrial Ethernet based communications networks. The 4-pair high performance cable ensures highest availability in conditions seen in industrial environments. The cable incorporates a durable PUR jacket for use in installations requiring cable with a halogen-free rating.

Key applications include:

- 10BASE-T (Ethernet)
- 100BASE-T (Fast Ethernet)
- 1000BASE-T (Gigabit Ethernet)
- 10GBASE-T (Gigabit Ethernet)
- Industrial Ethernet
- Downlinks from control panel to the machine area
- Uplinks featuring gigabit data transmission from the control panel to the consolidation point

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Side panel

IndustrialNet™ Category 6A S/FTP Copper Cable

Flame retardant, halogen-free 4-pair:	ISX6X04A**- LED

IndustrialNet™ Category 6A RJ45 Field Terminable Plug

Field terminable plug:	ISPS688FA

IndustrialNet™ M12 X-Code to RJ45 Panel Mount Adapter

Straight:	ICAM12XRJS
90 degree angle:	ICAM12X90RJS

Mini-Com® Modular Patch Panel

8-port:	CDPP8RG

DIN Rail Adapter

1-port:	CADIN1IW***

**To designate color, add suffix YL (Yellow), IG (International Gray), BU (Blue), TL (Teal), OR (Orange) or RD (Red).

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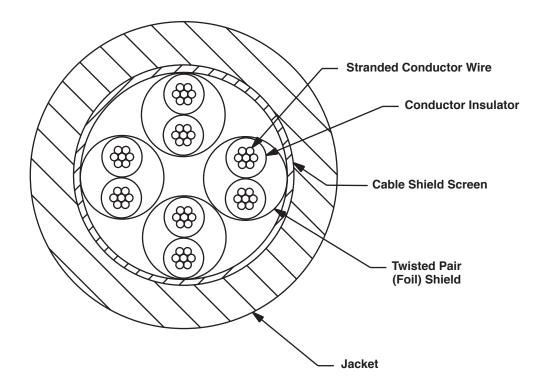
additional specifications

Mechanical Test	
Ultimate Breaking Strength	>400 N (90 lbf.)
Minimum Bend Radius	8x cable diameter
Electrical Test	
Nominal Velocity of Propagation (NVP)	74%
Operating Voltage, Maximum	80V

cable construction

- Stranded Conductor Wire
- Conductor Insulator
- Cable Shield Screen
- Twisted Pair (Foil) Shield
- Jacket

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