## IndustrialNet<sup>™</sup> Category 6 S/FTP Copper Cable

#### specifications

Category 6 S/FTP copper cable shall meet or exceed the IEC 61156-6 and ANSI/TIA-568-C.2 Category 6 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 6 at swept frequencies up to 250 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 60332-1-2, IEC 60754-1; EN50575: Euroclass 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 6 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<sup>™</sup> Category 6 S/FTP 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 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)
- Industrial Ethernet
- Ethernet/IP
- Downlinks from control panel to the machine area
- Uplinks featuring gigabit data transmission from the control panel to the consolidation point



IndustrialNet™ Ca Copper Cable	ategory 6 S/FTP	
Flame retardant, 4-pair:	<i>halogen-free</i> ISX6004A*-LED	
IndustrialNet <sup>™</sup> Category 6/5e RJ45 Field Terminable Plug		
Field terminable plug:	ISPS688FA	
IndustrialNet <sup>™</sup> C Shielded 600 V-R	ategory 5e lated Patch Cords	
CM/CMX:	**ISTPHCH1MTL	
IndustrialNet <sup>™</sup> M RJ45 Panel Mour		
Panel mount adapter:	ICAM12DRJS	
Mini-Com <sup>®</sup> Modular Patch Panel		
8-port:	CDPP8RG	
DIN Rail Adapter		
1-port:	CADIN1IW***	
*To designate color, add suffix YL (Yellow), or RD (Red). **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		

\*\*\*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	8x cable diameter		
Electrical Test			
Nominal Velocity of Propagation (NVP)	74%		
Operating Voltage, maximum	80V		

#### cable construction



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