IndustrialNet™ Category 6A SF/UTP Copper Cable

specifications

Category 6A 4-pair SF/UTP copper cable shall meet or exceed the IEC 61156-6, ANSI/TIA-568-C.2 Category 6A and ODVA Ethernet/IP standards up to 80 meters. The stranded copper conductors shall be 24/7 and 26/7 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. All 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, UV, 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 shall support high-flex applications and be rated for panel or on-machine applications where space is shared with 600V high voltage cables.

technical information

Electrical performance:	Certified component performance up to 80 meters and exceeds the requirements IEC 61156-6 Category 6A, ANSI/TIA-568-C.2 Category 6A
Standard compliances:	UL AWM Style 2463 (80°C 600V) Flex Life Test: 1 million cycles at 10 x cable diameter; 10 million cycles at 20x cable diameter Torsion Life Test: 3 million cycles, 270° Oil resistance 6 months @ 20°C
Conductors/insulators:	Four pairs of 24/7 AWG and 26/7 stranded copper insulated with high density polyethylene (HDPE) insulation
Insulation diameter:	24 AWG = 1.1mm (0.045 in.) nominal 26 AWG = 0.86mm (0.034 in.) nominal
PoE+ compliant	Meets IEEE 802.3af and IEEE 802.3at for PoE applications
Flame rating:	CMX/CM (UL1685) IEC 60332-1, IEC 60754-1 and -2, IEC 61034-2, EN50575: Eurcolass Fca
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 diameter:	24 AWG = 8.1mm (0.322 in.) nominal 26 AWG = 7.3mm (0.290 in.) nominal
Cable weight:	18 kg/305m (40 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 6A and ANSI/TIA-568-C.2 Category 6A 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 is 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

applications

IndustrialNet™ Category 6A SF/UTP 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 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)
- 1000BASE-T (Gigabit Ethernet)
- 10GBASE-T (Gigabit Ethernet)
- Control panel deployments featuring power source voltages
- Downlinks from control panel to the machine area
- Uplinks featuring gigabit data transmission from the control panel to the consolidation point
- High flex applications – Robotic, C-Track

www.panduit.com

IndustrialNet™ Category 6A SF/UTP Copper Cable

24/7 AWG CMX/CM 4-pair:	ISFCH6X04A**-UG
26/7 AWG CMX/CM 4-pair:	ISFCH6X04B**-UG

Category 6A RJ45 Field Terminable Plug

Field terminable plug:	FPS6X88MTG

IndustrialNet™ M12 X-Code to RJ45 Panel Mount Adapter

Straight:	ICAM12XRJS
90 degree angle:	ICAM12X90RJS

Mini-Com® Modular Patch Panel

8-port, unshielded:	CDPP8RG
8-port, shielded:	CDPP8RG-S

DIN Rail Adapter

1-port, unshielded:	CADIN1IG***
1-port, shielded:	CADIN1IG-S***

**To designate color, add suffix TL (Teal), BL (Black).

***For standard colors other than International Gray, replace IG in part number with BL (Black).

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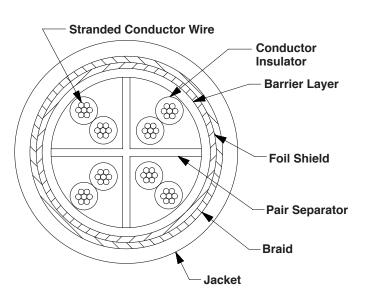
Mechanical Test	
Ultimate Breaking Strength	>400 N (90 lbf.)
Minimum Bend Radius	2x cable diameter
Electrical Test	
Nominal Velocity of Propagation (NVP)	68%
Operating Voltage, Maximum	80V

cable construction

ISFCH6X04A

Stranded Conductor Wire
Conductor Insulator
Barrier Layer
Braid
Foil Shield
Pair Separator
Jacket

ISFCH6X04B

Stranded Conductor Wire
Conductor Insulator
Barrier Layer
Foil Shield
Pair Separator
Braid
Jacket

For a copy of Panduit product warranties, log on to www.panduit.com/warranty

For more information

Visit us at www.panduit.com

Contact Customer Service by email: cs@panduit.com
or by phone: 800.777.3300

PANDUIT®