

# IndustrialNet™ Category 6 Solid Conductor F/UTP Copper Cable

## specifications

Category 6 4-pair F/UTP copper cable shall meet or exceed the ANSI/TIA-568-C.2 Category 6 and ODVA EtherNet/IP<sup>^</sup> standards. The solid copper conductors shall be 23 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 covered with an industrially rated black PVC jacket which shall be oil and sunlight resistant and flame retardant to CMX Outdoor/CMR for industrial Ethernet applications. This cable shall be rated for panel or on-machine applications where space is shared with 600V high voltage cables.



## technical information

<b>Category 6 component performance up to 100 meters:</b>	Meets or exceeds the requirements of ANSI/TIA-568-C.2 Category 6 at swept frequencies up to 250 MHz
<b>Electrical performance:</b>	Conforms to ODVA EtherNet/IP <sup>^</sup> performance requirements
<b>Standard compliances:</b>	UL AWM Style 21047 (75°C 600V), Oil Res and Sun Res, UL 444 Sun Res, UL 1666 CMR
<b>RoHS compliance:</b>	Compliant (EU DIRECTIVE 2011/65/EU)
<b>Conductors/insulators:</b>	Four pairs of 23 AWG solid copper insulated with high density polyethylene (HDPE) insulation
<b>Insulation diameter:</b>	1.02 - 1.27mm (0.040 - 0.050 in)
<b>Flame rating:</b>	CMX Outdoor/CMR
<b>Installation tension:</b>	110 N (25 lbf) maximum
<b>Temperature rating:</b>	-20°C to 75°C (-4°F to 167°F) during transport, installation -40°C to 75°C (-40°F to 167°F) operation temperature
<b>Cable jacket:</b>	Oil and sunlight resistant PVC
<b>Cable diameter:</b>	8.1 - 8.7mm (0.317 - 0.343 in)
<b>Cable weight:</b>	15kg/305m (34 lbs./1000 ft.)
<b>Packaging:</b>	Packaged 305 meters (1000 feet) on a reel Package tested to ISTA Procedure 1A

## key features and benefits

<b>Oil and sunlight performance rated cable jacket:</b>	Delivers enhanced chemical resistance and mechanical performance
<b>EtherNet/IP compliant design:</b>	Provides performance levels required to support industrial network applications
<b>600V rated jacket:</b>	Approved for control panel or on-machine applications when the space is shared with 600V high voltage power cables, required for UL 508A

## applications

IndustrialNet™ Category 6 Solid Conductor F/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 cable with oil and UV resistant PVC jacket withstands harsh industrial conditions such as oil rigs and other hazardous environments. Rated for panel or on-machine applications when the space is

shared with 600V high voltage power cables, IndustrialNet™ Category 6 Solid Conductor F/UTP Copper Cable is ideal for control panel deployments featuring power source voltages. Cable is suitable for transmission of high performance 10BASE-T, 100BASE-T and 1000BASE-T uplinks featuring up to gigabit data transmission from the control panel to the consolidation point.

### IndustrialNet™ Category 6 F/UTP Copper Cable

**CMX Outdoor/CMR**  
4-pair, Black: IFRH6C04BL-UG  
**CMX Outdoor/CMR**  
4-pair, Red: IFRH6C04RD-UG

### IndustrialNet™ Category 6A/6/5e RJ45 Field Terminable Plug

**Field terminable plug:** ISPS688FA

### IndustrialNet™ M12X-Code Field Terminable Plug

**Field terminable plug:** ISPS6A88MFA

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

**CM/CMX:** ISTEPHCH1MTL\*

### IndustrialNet™ M12 D-Code to RJ45 Panel Mount Adapter

**Panel mount adapter:** ICAM12DRJS

### IndustrialNet™ DIN Rail Mount Patch Panel

**8-port:** CDPP8RG

### Mini-Com® DIN Rail Mount Adapter

**1-port:** CADIN1IW\*\*

\*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), BU (Blue), GY (Gray), or YL (Yellow). For example, the part number for a 2-meter teal patch cord is ISTEPHCH2MTL.

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

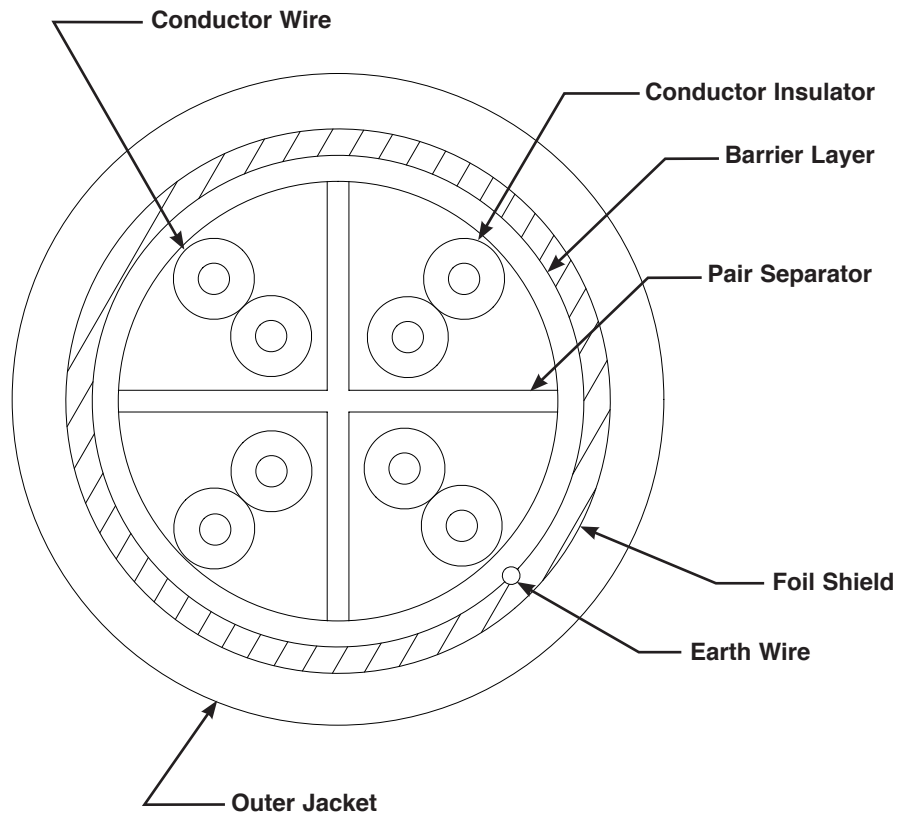
<sup>^</sup>EtherNet/IP is a trademark of ODVA.

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## additional specifications

Mechanical Test	
Maximum Pulling Force	178N (40 lbf.)
Minimum Bend Radius	64mm (2.5in.)
Electrical Test	
Nominal Velocity of Propagation (NVP)	70%
Operating Voltage, Maximum	80V

IFRH6C04BL Cable Cross-Section



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