

# IndustrialNet™ Category 5e Solid Conductor F/UTP Copper Cable

## specifications

Category 5e 4-pair UTP copper cable shall meet or exceed the ANSI/TIA-568-C.2 Category 5e and ODVA EtherNet/IP<sup>^</sup> standards. The solid copper conductors shall be 24 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 600 V high voltage cables.



## technical information

<b>Category 5e component performance up to 100 meters:</b>	Meets or exceeds the requirements of ANSI/TIA-568-C.2 Category 5e at swept frequencies up to 100 MHz
<b>Electrical performance:</b>	Conforms to ODVA EtherNet/IP <sup>^</sup> performance requirements
<b>Standard compliances:</b>	UL AWM Style 2570 (80°C 600 V), 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 24 AWG solid copper insulated with high density polyethylene (HDPE) insulation
<b>Insulation diameter:</b>	0.97 – 1.17mm (0.038 – 0.046 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>	6.55 – 7.19mm (0.258 – 0.283 in.)
<b>Cable weight:</b>	15 kg/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>Third party tested:</b>	Provides confidence that the cable delivers Category 5e performance for the 100 meter channel
<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>600 V rated jacket:</b>	Approved for control panel or on-machine applications when the space is shared with 600 V high voltage power cables, required for UL 508A

## applications

IndustrialNet™ Category 5e 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 600 V high voltage power cables, IndustrialNet™ Category 5e Solid Conductor F/UTP Copper Cable is ideal for control panel deployments featuring power source voltages. Category 5e rated 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 5e F/UTP Copper Cable

**CMX Outdoor/CMR**  
4-pair, Black: IFRH5C04BL-UG

### Category 6A RJ45 Field Terminable Plug

**Field terminable plug:** FPS6X88MTG

### IndustrialNet™ M12X-Code Field Terminable Plug

**Field terminable plug:** ISPS6A88MFA

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

**CM/CMX:** ISTPHCH1MTL\*

### 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:** CADIN1IG\*\*

\*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 ISTPHCH2MTL.

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

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

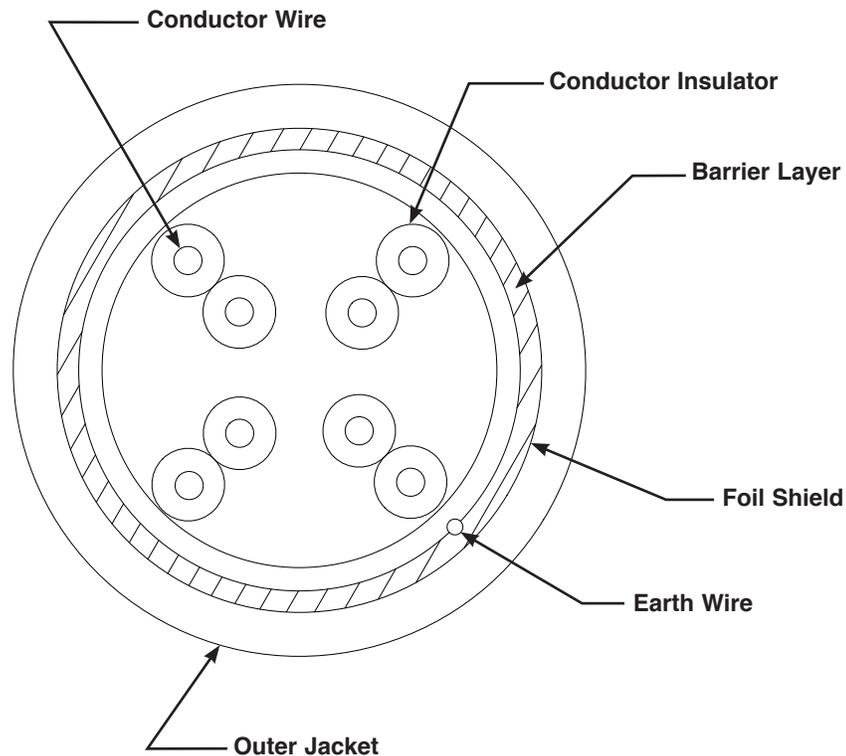
# IndustrialNet™ Category 5e Solid Conductor F/UTP Copper Cable

## additional specifications

Mechanical Test	
Maximum Pulling Force	111 N (25 lbf)
Minimum Bend Radius	25mm (0.98 in.)
Electrical Test	
Nominal Velocity of Propagation (NVP)	70%
Operating Voltage, Maximum	80 V

## cable construction

IFRH5C04BL Cable Cross-Section



### WORLDWIDE SUBSIDIARIES AND SALES OFFICES

PANDUIT US/CANADA  
Phone: 800.777.3300

PANDUIT EUROPE LTD.  
London, UK  
Phone: 44.20.8601.7200

PANDUIT SINGAPORE PTE. LTD.  
Republic of Singapore  
Phone: 65.6305.7575

PANDUIT JAPAN  
Tokyo, Japan  
Phone: 81.3.6863.6000

PANDUIT LATIN AMERICA  
Guadalajara, Mexico  
Phone: 52.33.3777.6000

PANDUIT AUSTRALIA PTY. LTD.  
Victoria, Australia  
Phone: 61.3.9794.9020

For a copy of Panduit product warranties, log on to [www.panduit.com/warranty](http://www.panduit.com/warranty)

**PANDUIT**®

For more information  
Visit us at [www.panduit.com](http://www.panduit.com)  
Contact Customer Service by email: [cs@panduit.com](mailto:cs@panduit.com)  
or by phone: 800.777.3300

© 2021 Panduit Corp.  
ALL RIGHTS RESERVED.  
COSP438--WW-ENG  
4/2021