# IndustrialNet™ M12 X-Code **Category 6A Overmolded Cordsets**

### specifications

Industrial Ethernet cordsets shall be constructed of Category 6A, industrial grade, stranded, twisted pair cable for UTP and STP installations. Each cordset shall be pre-terminated and overmolded to include Category 6A M12 or RJ45 industrial plugs on each end which are wired according to the T568B and IEC 60603-7-41 standards.



### technical information

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Category 6A/ Class E <sub>A</sub> channel and component performance:	Exceeds channel and component requirements of ANSI/TIA-556-C.2 Category 6A and ISO11801 Class $\rm E_{\rm A}$ standards at swept frequencies of 1 to 500 MHz
FCC and ANSI compliance:	Meets ANSI/TIA-1096-A; contacts plated with 50 micro-inches of gold for superior performance
IEC compliance:	<ul> <li>Interface conforms to IEC-61076-2-101</li> <li>ANSI/TIA 568-C.2: Category 6A</li> <li>ISO 11801 Class E<sub>A</sub> standards at swept frequencies up to 500 MHz</li> <li>ANSI/TIA-1005-A: Telecommunications Infrastructure Standard for Industrial Premises</li> <li>IEC 61076-2-109 Connectors for Electronic Equipment: Circular connectors – Detail specification for connectors with M 12 x 1 screwlocking, for data transmission frequencies up to 500 MHz</li> </ul>
IP compliance:	Rated IP67/68 for dust protection and temporary liquid immersion. 10 million plus flex cycles
NEMA/UL compliance:	NEMA, 1, 3, 4, 6, 6P and IEC IP67/68, UL Type 12
PoE compliance:	Meets IEEE 802.3af and IEEE 802.3at for PoE applications
RoHS compliance:	Compliant
Temperature rating:	-40° to +75°C (32° to +167°F)
Materials:	Constructed of 24 AWG UTP or STP stranded industrial grade and TPU and TPO cable and IP67/68 overmolded connectors; Coupling nut: nickel plated over copper-zinc alloy; Contact pins: gold plated over copper-zinc alloy

## key features and benefits

IP/NEMA/UL/CE rated	Withstands light wash down and temporary submerged conditions without loss of performance to ensure reliability in harsh factory environments
TPU and TPO jackets	Protect cable against weld splatter, chemicals and abrasions; suitable for high-flex applications for increased reliability
Factory terminated	Helps reduce termination errors in the field; assures reliability and saves time
Extended temperature range	Provides durable connection in extreme conditions to increase system reliability
Robust construction	Rated to 10 million flex cycles, providing durability and reliability
Optional RJ45 connector	Offers industry standard solution familiar to end users to speed deployment
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### applications

IndustrialNet™ M12 X-Code Category 6A Overmolded Cordsets provide fast, reliable connections from machines and devices to switches and enclosures on the plant floor for Ethernet, PROFINET, Modbus and EtherCAT. The cordsets are rated to IP67/68, NEMA 1,3,4,6,6P, UL and M.I.C.E., ensuring high

performance and longevity under harsh environmental conditions. In mated conditions, these cordsets can withstand high temperature and high vibration commonly found in harsh industrial applications such as automotive. food and beverage, oil and gas, transportation and mining.

#### IndustrialNet™ M12 X-Code Category 6A Overmolded Cordsets

M12 bulkhead female X-code. STP, black: ICX45T1NBL0.5M

M12 bulkhead female X-code, RJ45 plug, STP, black: \*ICX44T1NBL1M

M12 male X-code, straight connector, STP, teal: \*ICX15T1NTL1M

M12 male to male X-Code, straight connector,

\*ICX11T1NTL1M STP, teal:

#### Accessories

IndustrialNet™ Category 6A M12 X-Code field

terminable plug: ISPS6A88MFA

IndustrialNet™ M12 X-Code female to 90° RJ45 jack panel ICAM12X90DRJS mount adapter:

IndustrialNet™ M12 X-Code female to RJ45 jack panel mount adapter: ICAM12XRJS

#### IndustrialNet™ Copper Cable

Category 6A S/FTP, 24/7 AWG stranded, PUR 4-pair: ISX6X04\*\*-LED

Category 6 S/FTP, 22/1 AWG stranded, LSZH 4-pair: PSM6004\*\*-LED

Category 7 S/FTP, 22/1 AWG stranded, LSZH 4-pair: PSMD7004BL-LED

Category 6A SF/UTP, 24/7 AWG stranded, CM 4-pair: ISFCH6X04A\*\*-UG

Category 6A SF/UTP, 26/7 AWG stranded, CM 4-pair: ISFCH6X04B\*\*-UG

Category 6 U/UTP, 24/7 AWG stranded, CM 4-pair, black: IUC6C04ABL-CEG

Category 6 F/UTP, 26/7 AWG stranded, CM 4-pair, black: IFC6C04BBL-CEG

Category 6 S/FTP, 24/7 AWG stranded, PUR 4-pair: ISX6004A\*\*-LED

Category 6 U/UTP, 23/1 AWG stranded, CMR 4-pair: IURH6004\*\*-UG

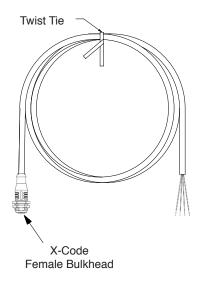
Category 6 F/UTP, 23/1 AWG stranded, IFRH6C04\*\*-UG CMR 4-pair:

\*For other lengths, change the length designation (1M) of the part number to the desired standard length (2M, 3M, 5M, 10M, 15M or 20M).

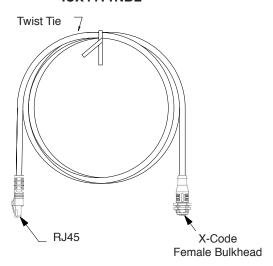
\*\* To designate color, add suffix TL (Teal), BL (Black), RD (Red), BU (Blue), GY (Gray), YL (Yellow), OR (Orange), or IG (International Gray). Contact Customer Service for complete list of colors.

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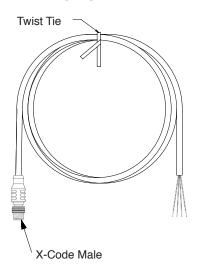
#### ICX45T1NBL0.5M



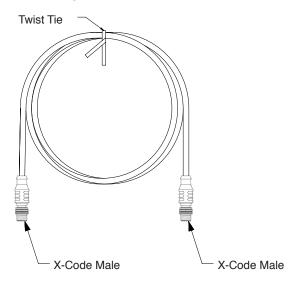
#### ICX44T1NBL



#### **ICX15T1NTL**



#### **ICX11T1NTL**



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