# 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$_A$ channel and component performance:** | Exceeds channel and component requirements of ANSI/TIA-556-C.2 Category 6A and ISO11801 Class E$_A$ 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:** | • Interface conforms to IEC-61076-2-101<br>• ANSI/TIA 568-C.2: Category 6A<br>• ISO 11801 Class E$_A$ standards at swept frequencies up to 500 MHz<br>• ANSI/TIA-1005-A: Telecommunications Infrastructure Standard for Industrial Premises<br>• IEC 61076-2-109 Connectors for Electronic Equipment: Circular connectors – Detail specification for connectors with M 12 × 1 screw-locking, for data transmission frequencies up to 500 MHz |
| **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

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|---|---|
| **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 |

## 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.

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

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|---|---|
| **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, STP, teal:** | *ICX11T1NTL1M |

### Accessories

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|---|---|
| **IndustrialNet™ Category 6A M12 X-Code field terminable plug:** | ISPS6A88MFA |
| **IndustrialNet™ M12 X-Code female to 90° RJ45 jack panel mount adapter:** | ICAM12X90DRJS |
| **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, CMR 4-pair:** | IFRH6C04**-UG |

*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.

**ICX45T1NBL0.5M**

Twist Tie

X-Code
Female Bulkhead

**ICX44T1NBL**

Twist Tie

RJ45

X-Code
Female Bulkhead

**ICX15T1NTL**

Twist Tie

X-Code Male

**ICX11T1NTL**

Twist Tie

X-Code Male

X-Code Male

For more information

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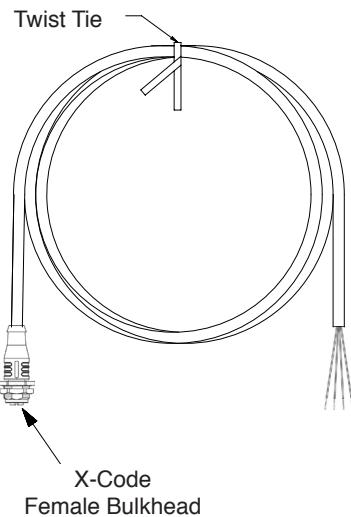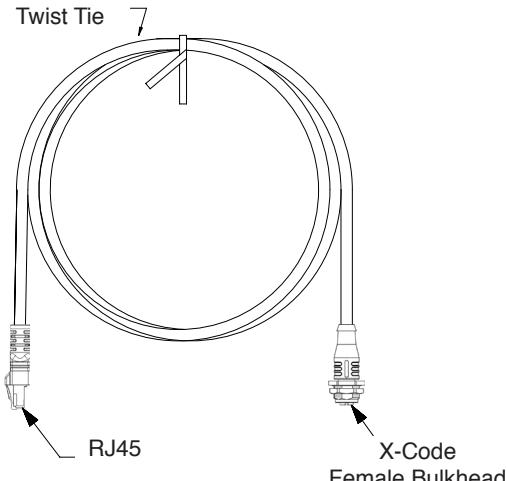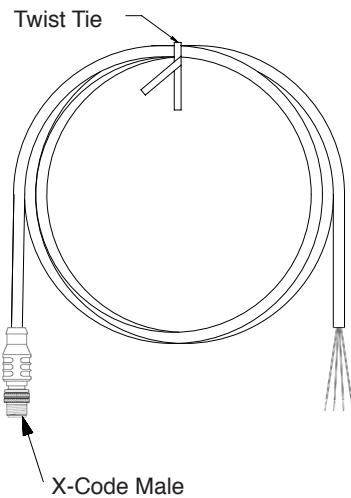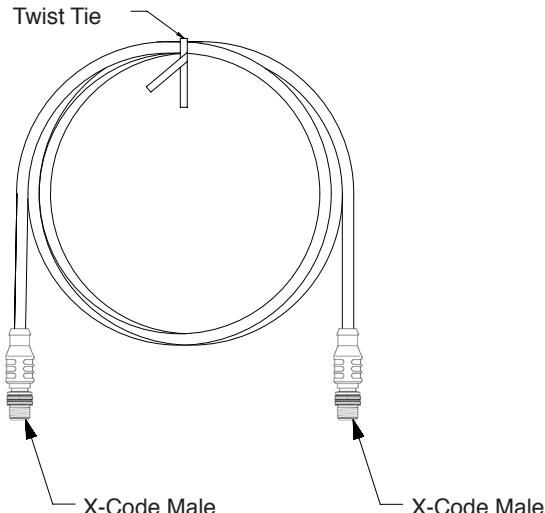
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