BELDEN
SENDING ALL THE RIGHT SIGNALS®

# Industrial Ethernet Media Solutions

Featured Brands

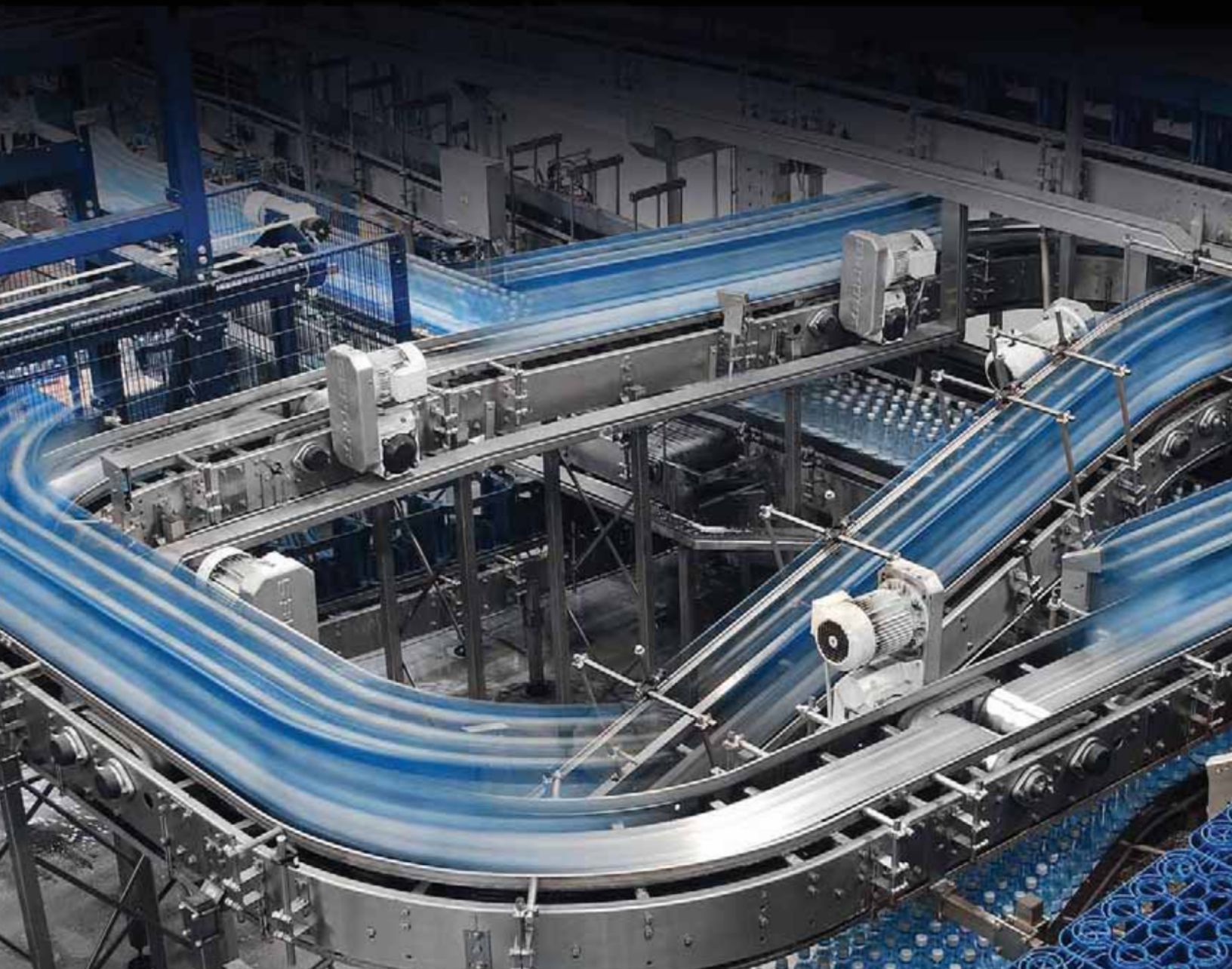
BELDEN

HIRSCHMANN
A BELDEN BRAND

**Industrial Ethernet Cord Sets For Rugged Industrial Automation Applications**

BELDEN
SENDING ALL THE RIGHT SIGNALS®

Only Belden® Combines the Strength of Hirschmann™ Connectors and Belden® Bonded-Pair Ethernet Cables for a Complete Industrial End-to-End Connectivity Solution.



**Belden and Hirschmann Industrial Ethernet Solutions help keep many different rugged and mission-critical operations up and running.**

## Process Industries

Safety and uptime are critical in all processing operations, This is why Hirschmann's networking and media products have multiple forms of redundancy, the necessary industry approvals, and integrated security - all to insure your network's maximum availability.

Date can be transmitted between multiple devices via redundant data paths (optical and/or fiber), even in applications having potentially hazardous environments.

**Applications:**

- Oil, Gas, and Petrochemical Processing
- Mining
- Food and Beverage Processing
- Pulp and Paper Processing
- Cement and Concrete Manufacturing
- Oil Drilling and Exploration
- Pharmaceutical
- Chemical Processing

## Discrete Manufacturing

Uptime and dependability of operations are hallmarks of Belden and Hirschmann products, preventing transmission problems in the factory network which can lead to catastrophic failures and untold costs. These products are designed to meet stringent system requirements, providing resilient data throughput. The service and support provided by our Competence Center makes it possible to meet and exceed the high demands of our discrete manufacturing customers.

**Applications:**

- Industrial Equipment
- Semiconductors
- Rubber Products
- Electronic Components
- Automotive Powertrain and Assembly
- Fabricated Metals
- Machine Tools
- Plastics
- Packaging
- Consumer Products
- Medical Devices and Equipment
- Construction and Off-Road Equipment

## Infrastructure

Control, centralized monitoring and management continue to perform seamlessly in very demanding applications for our infrastructure customers. Whether networking a long underground rail tunnel, a large wastewater complex, an airport in the desert, or power generation facilities in the arctic, Belden and Hirschmann products will deliver continuity in network availability and efficiency to operations.

**Applications:**

- Water Supply
- Roadway and Railway Tunnels
- Pipelines
- Bridges
- Wind Power
- Waste Treatment and Management
- Shipyards and Shipping Vessels
- Airports
- Rail Yards
- Electric, Hydro-Electric, Gas, and Nuclear Power Generation

BELDEN
SENDING ALL THE RIGHT SIGNALS®

## Industrial Ethernet Media Solutions - Product Characteristics

From the Factory Floor to the Office, Hirschmann has you connected with the industry's largest selection of Industrial Ethernet Media Solutions.

Hirschmann Industrial Grade OCTOPUS with M12 D-Coded Industrial Ethernet connectors and stranded (Bonded-Pairs) TPE jacket.

Hirschmann Industrial Ethernet Compact OpenRail Switch with RJ45 Industrial Ethernet connectors and stranded (Bonded-Pairs) TPE jacket.

### About The Products

Prior to the advent of Industrial Ethernet (standardized Ethernet communications via hardened networking infrastructure), office grade Ethernet cabling and connectors were the only available options. Unfortunately, these traditional media solutions proved unable to withstand the harsh environment of the factory floor or other industrial applications.

The HirschmannTM product family of Industrial Ethernet Media Solutions eliminates these issues by combining standard RJ45 connection technology with the proven industrial Micro (M12) connection technology typically found in sensor/actuator machine applications. Standard combinations include:

- RJ45 to RJ45
- RJ45 to Micro (M12)
- Micro (M12) to Micro (M12)
- RJ45 to Micro (M12) Panel Mount Receptacle

### Cable Designed for Maximum Durability

The cable itself is also designed for maximum durability. We chose the finest technology on the market for our products, Bonded-Pairs from Belden. This patented technology absolutely ensures that Hirschmann media is the most rugged and dependable product available. A wide variety of cable and jacket construction is also available, including:

- Copper 2- and 4-pair, 24 AWG Bonded-Pairs
- Stranded construction
- Polyolefin insulation
- Shielded and Unshielded
- PVC or ultra-rugged TPE jackets

## Why the Hirschmann Product Brand?

With Layer One issues comprising over 50% of reported problems in network installations, trust the global leader in industrial Ethernet with your media requirements.

- We use only industry-approved, standard connector options
- Proven, state-of-the-art Bonded-Pairs technology in every cable
- Over 200 standard cables in the connectors/wire/jacket/lengths/colors you need for every installation
- We manufacture our own products. No third party production facilities here.

## Non-Bonded-Pair versus Bonded-Pair Cable for Mission Critical Industrial Ethernet Applications

### What is Bonded-Pair Technology?

Bonded-Pair Technology was developed to ensure superior electrical performance in twisted pair Ethernet cable installations. This design affixes the individual insulated conductors together along their longitudinal axes which assures uniform conductor-to-conductor spacing and electrical integrity.

### How Does Bonded-Pair Cable Help You?

1) Bonded-Pairs are Less Susceptible to Noise – Cables with nonbonded-pairs tend to separate due to movement during installation, flexing or handling. Each pair can be pictured as an antenna that can receive or transmit signals. Variations in non-bonded conductor-to-conductor spacing are cumulative and result in susceptibility to EMI and RFI that degrades signal transmission and network performance. In addition, the cable will emit more noise that can adversely affect surrounding instrumentation. Bonded-Pairs lock conductor-to conductor spacing in place. "Physicals Equals Electricals" is a statement that describes why bonded-pairs are critical.

2) Bonded-Pairs Improve Impedance and Return Loss Performance - Impedance irregularities, due to non-bonded-Pair separation, cause signal reflections (return loss). Any impedance variation is cumulative along the length of the cable. Bonded-Pairs maintain conductor-to-conductor spacing, thus improving impedance stability and return loss performance.

3) Minimizes pair-to-pair crosstalk – All twisted pair Ethernet cables have crosstalk or pair-to-pair coupling. Each pair has different twists/inch (lay length) to minimize crosstalk. Lay length variation can increase the crosstalk that is cumulative down the length of the cable. Bonded-Pairs reduce crosstalk by minimizing lay length variation.

Illustration: Non-Bonded-Pair

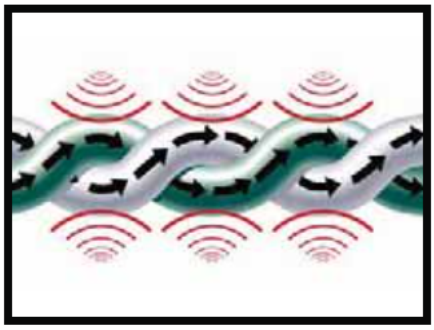


Illustration: Bonded-Pair

4) Lower Connectorization Failure – Bonded-Pairs maintain the electrical characteristics all the way into the connector. Bonded-Pairs increase installation consistency and signal integrity while reducing maintenance calls.

5) Superior Mechanical Robustness – Bonded-Pairs improve the pulling strength of a cable by up to 60% over non-bonded designs by equalizing the tension on each conductor. This is especially critical during the installation process, flexing or handling.

## TPE - High Flex Applications

Hirschmann by Belden is the first to offer High Flex Industrial Ethernet Cord Sets with bonded pairs.

We warrantee these products (THF) to no less than 10 million flex cycles @ 20X OD and 1M flex cycles @ 10X OD.

## CAT 5e Ethernet Media Cord Sets Page Number Cross Reference

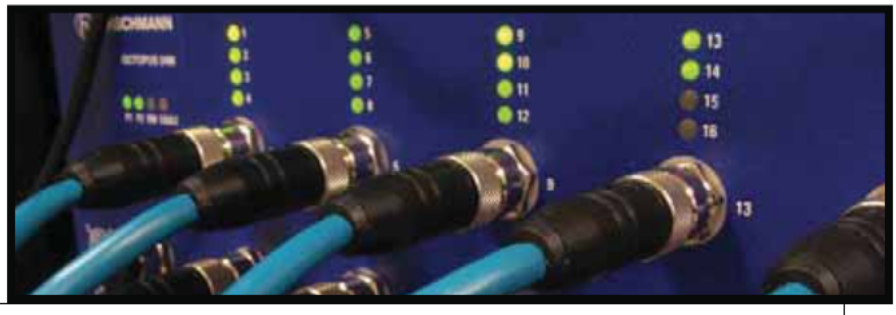
| Page No. | Shielding | | Pairs | Cable Type | | Flex | Jacket Color | | | | Connector Styles | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Unshielded | Shielded | | PVC | TPE | HF | Teal | Red | Blue | Orange | RJ45/RJ45 | RJ45/M12 | M12/M12 | RJ45/M12P |
| 8 | ● | | 4 | ● | | | ● | | | | ● | | | |
| 9 | ● | | 2 | ● | | | ● | | | | | ● | | |
| 10 | ● | | 2 | ● | | | ● | | | | | | ● | |
| 11 | ● | | 2 | ● | | | ● | | | | | | | ● |
| 12 | ● | | 4 | | ● | | ● | | | | ● | | | |
| 13 | ● | | 2 | | ● | | ● | | | | | ● | | |
| 14 | ● | | 2 | | ● | | ● | | | | | | ● | |
| 15 | ● | | 2 | | ● | | ● | | | | | | | ● |
| 16 | ● | | 4 | | ● | ● | ● | | | | ● | | | |
| 17 | ● | | 2 | | ● | ● | ● | | | | | ● | | |
| 18 | ● | | 2 | | ● | ● | ● | | | | | | ● | |
| 19 | | ● | 2 | | ● | | ● | | | | ● | | | |
| 20 | | ● | 2 | | ● | | ● | | | | | | ● | |
| 21 | | ● | 2 | | ● | ● | ● | | | | | | ● | |
| 22 | | ● | 2 | | ● | ● | ● | | | | | | | ● |
| 23 | ● | | 4 | | ● | | | | ● | | ● | | | |
| 24 | ● | | 2 | | ● | | | | ● | | | | | ● |
| 25 | ● | | 2 | | ● | | | | ● | | | | ● | |
| 26 | ● | | 4 | | ● | | | ● | | | ● | | | |
| 27 | ● | | 2 | | ● | | | ● | | | | | ● | |
| 28 | ● | | 2 | | ● | | | ● | | | | | | ● |
| 29 | ● | | 2 | | ● | ● | | ● | | | | | ● | |
| 30 | | ● | 2 | | ● | | | ● | | | ● | | | |
| 31 | | ● | 2 | | ● | | | ● | | | | | ● | |
| 32 | | ● | 2 | | ● | | | ● | | | | | | ● |
| 33 | | ● | 2 | | ● | ● | | ● | | | | | ● | |
| 34 | ● | | 2 | | ● | | | | | ● | | | ● | |

## Industrial Ethernet Media Cord Sets Part Number Configurator

| J424PVCST.JT00.3M | Industrial Ethernet Media Cord Sets - Part Number Configurations |
|---|---|
| J | **Connector Type 1** |
| | J RJ45 |
| | M M12 |
| 4 | **Number of Conductors (Pairs)** |
| | 2 2-Pair |
| | 4 4-Pair |
| 24 | **Wire Gauge** |
| | 24 24 AWG cable |
| PVC | **Cable Type** |
| | PVC PVC cable type - Bonded-Pair |
| | TPE TPE cable type - Bonded-Pair |
| | THF TPE High-Flex cable type - Bonded-Pair |
| ST | **Stranding** |
| | ST Stranded, Unshielded |
| TL | **Shielding** |
| | TL Stranded, Shielded |
| J | **Connector Type 2** |
| | J RJ45 |
| | M M12 |
| | P M12 Panel-mount receptacle |
| T | **Cable Jacket Color** |
| | T Teal cable jacket |
| | B Black cable jacket* |
| | G Grey cable jacket* |
| | R Red cable jacket* |
| | U Blue cable jacket* |
| | N Orange cable jacket* |

* Denotes special order. Minimum quantities apply.

| 00.3M | Cable Lengths | | |
|---|---|---|---|
| | 00.3M | 0.3 meters | 55M 55 meters |
| | 00.5M | 0.5 meters | 60M 60 meters |
| | 01.0M | 1 meter | 65M 65 meters |
| | 02.0M | 2 meters | 70M 70 meters |
| | 03.0M | 3 meters | 75M 75 meters |
| | 04.0M | 4 meters | 80M 80 meters |
| | 05.0M | 5 meters | 90M 90 meters |
| | 06.0M | 6 meters | |
| | 07.0M | 7 meters | |
| | 10.0M | 10 meters | |
| | 12.0M | 12 meters | |
| | 15.0M | 15 meters | |
| | 20.0M | 20 meters | |
| | 25.0M | 25 meters | |
| | 30.0M | 30 meters | |
| | 40.0M | 40 meters | |
| | 50.0M | 50 meters | |



BELDEN
SENDING ALL THE RIGHT SIGNALS®

# Industrial Ethernet Cord Sets

RJ45 to RJ45, 24 AWG, PVC, Teal Jacket

## Cable Description

Industrial Ethernet CAT 5E, PVC unshielded, 4-pair, 24 AWG cable, bonded-pairs, stranded (7x32) tinned copper conductors, polyolefin insulation, and industrial grade sunlight-and-oil-resistant.

| Physical Characteristics | |
|---|---|
| Number of Pairs | 4 |
| Conductors | 8 |
| Gauge | 24 AWG |
| Stranding | Stranded (7x32) |
| Diameter | .022" |
| Material | TC - Tinned Copper |
| Color Codes | 1 = White/Blue Stripe & Blue<br>2 = White/Orange Stripe & Orange<br>3 = White/Green Stripe & Green<br>4 = White/Brown Stripe & Brown |
| **Outer Shield** | |
| Material | Unshielded |
| **Outer Jacket** | |
| Material | PVC - Polyvinyl Chloride |
| Jacket Color | Teal |
| Overall Diameter | 0.242" |
| **Mechanical Characteristics** | |
| Operating Temperature Range | -40°C to +75°C |
| Storage Temperature Range | -25°C to +75°C |
| Installation Temperature Range | -25°C to +75°C |
| Max. Pulling Tension | 40 lbs. |
| Min. Bend Radius | 0.250" |
| **Application Standards** | |
| NEC(UL) | CMR, CMX-Outdoor, UL444 |
| CEC(UL) | CMR |
| IEC | 11801 Category 5e Patch |
| EU RoHS Compliant | Yes |
| TIA/EIA | 568-B.2 Category 5e Patch |

| Connector Specifications | |
|---|---|
| Pins | 8 |
| Coding | N/A |
| Housing/Molded Body | Pre-Tinned Copper Alloy |
| Insert | Clear Polycarbonate |
| Contacts | 50 µ Gold Contact over Nickel Plated |
| Coupling Nut | N/A |
| Ingress Protection Rating | IP 20 |
| Temperature Range | -20°C to +75°C |
| CMR(UL) | CMR |

| Description | Order NO. |
|---|---|
| J424PVCSTJT00.3M | 900 001-896 |
| J424PVCSTJT00.5M | 900 001-897 |
| J424PVCSTJT01.0M | 900 001-898 |
| J424PVCSTJT02.0M | 900 001-899 |
| J424PVCSTJT03.0M | 900 001-900 |
| J424PVCSTJT04.0M | 900 001-901 |
| J424PVCSTJT05.0M | 900 001-902 |
| J424PVCSTJT06.0M | 900 001-903 |
| J424PVCSTJT07.0M | 900 001-904 |
| J424PVCSTJT10.0M | 900 001-905 |
| J424PVCSTJT12.0M | 900 001-906 |
| J424PVCSTJT15.0M | 900 001-907 |
| J424PVCSTJT20.0M | 900 001-908 |
| J424PVCSTJT25.0M | 900 001-909 |
| J424PVCSTJT30.0M | 900 001-910 |
| J424PVCSTJT40.0M | 900 001-911 |
| J424PVCSTJT50.0M | 900 001-912 |

## Industrial Ethernet Cord Sets
M12 to RJ45, 24 AWG, PVC, Teal Jacket

### Cable Description

Industrial Ethernet CAT 5E, PVC unshielded, 2-pair, 24 AWG cable, bonded-pairs, stranded (7x32) tinned copper conductors, polyolefin insulation, and industrial grade sunlight-and-oil-resistant.

| Physical Characteristics | |
|---|---|
| Number of Pairs | 2 |
| Conductors | 4 |
| Gauge | 24 AWG |
| Stranding | Stranded (7x32) |
| Diameter | .022" |
| Material | TC - Tinned Copper |
| Color Codes | 1 = White/Orange Stripe & Orange<br>2 = White/Green Stripe & Green |
| **Outer Shield** | |
| Material | Unshielded |
| **Outer Jacket** | |
| Material | PVC - Polyvinyl Chloride |
| Jacket Color | Teal |
| Overall Diameter | 0.275" |
| **Mechanical Characteristics** | |
| Operating Temperature Range | -40°C to +75°C |
| Storage Temperature Range | -25°C to +75°C |
| Installation Temperature Range | -25°C to +75°C |
| Max. Pulling Tension | 40 lbs. |
| Min. Bend Radius | 0.280" |
| **Application Standards** | |
| NEC(UL) | TBD |
| CEC(UL) | TBD |
| IEC | 11801 Category 5e Patch |
| EU RoHS Compliant | Yes |
| TIA/EIA | 568-B.2 Category 5e Patch |

| Connector Specifications | | |
|---|---|---|
| Pins | 8 | 4 |
| Coding | N/A | D-Coded |
| Housing/Molded Body | Pre-Tinned Copper Alloy | PUR, Black |
| Insert | Clear Polycarbonate | PUR, Self Extinguishing |
| Contacts | 50 µ Gold Contact over Nickel Plated | Brass, Gold over Nickel Plated |
| Coupling Nut | N/A | Brass, Nickel Plated |
| Ingress Protection Rating | IP 20 | IP 68 |
| Temperature Range | -20°C to +75°C | -20°C to +75°C |
| CMR(UL) | CMR | CMR |

| Description | Order NO. |
|---|---|
| M224PVCSTJT01.0M | 900 001-991 |
| M224PVCSTJT02.0M | 900 001-992 |
| M224PVCSTJT03.0M | 900 001-993 |
| M224PVCSTJT04.0M | 900 001-994 |
| M224PVCSTJT05.0M | 900 001-995 |
| M224PVCSTJT07.0M | 900 001-997 |
| M224PVCSTJT10.0M | 900 001-998 |
| M224PVCSTJT12.0M | 900 001-999 |
| M224PVCSTJT15.0M | 900 002-000 |
| M224PVCSTJT20.0M | 900 002-001 |
| M224PVCSTJT25.0M | 900 002-002 |
| M224PVCSTJT30.0M | 900 002-003 |

BELDEN
SENDING ALL THE RIGHT SIGNALS®

## Industrial Ethernet Cord Sets
M12 to M12, 24 AWG, PVC, Teal Jacket

### Cable Description

Industrial Ethernet CAT 5E, PVC unshielded, 2-pair, 24 AWG cable, bonded-pairs, stranded (7x32) tinned copper conductors, polyolefin insulation, and industrial grade sunlight-and-oil-resistant, teal jacket.

| Physical Characteristics | |
|---|---|
| Number of Pairs | 2 |
| Conductors | 4 |
| Gauge | 24 AWG |
| Stranding | Stranded (7x32) |
| Diameter | .022" |
| Material | TC - Tinned Copper |
| Color Codes | 1 = White/Orange Stripe & Orange<br>2 = White/Green Stripe & Green |

| Connector Specifications | |
|---|---|
| Pins | 4 |
| Coding | D-Coded |
| Housing/Molded Body | PUR, Black |
| Insert | PUR, Self Extinguishing |
| Contacts | Brass, Gold over Nickel Plated |
| Coupling Nut | Brass, Nickel Plated |
| Ingress Protection Rating | IP 68 |
| Temperature Range | -20°C to +75°C |
| CMR(UL) | CMR |

#### Outer Shield

| | |
|---|---|
| Material | Unshielded |

#### Outer Jacket

| | |
|---|---|
| Material | PVC - Polyvinyl Chloride |
| Jacket Color | Teal |
| Overall Diameter | 0.275" |

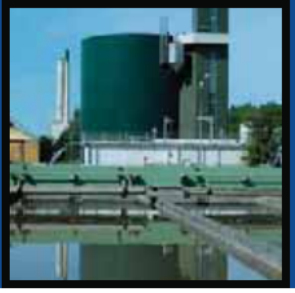
#### Mechanical Characteristics

| | |
|---|---|
| Operating Temperature Range | -40°C to +75°C |
| Storage Temperature Range | -25°C to +75°C |
| Installation Temperature Range | -25°C to +75°C |
| Max. Pulling Tension | 40 lbs. |
| Min. Bend Radius | 0.280" |

#### Application Standards

| | |
|---|---|
| NEC(UL) | TBD |
| CEC(UL) | TBD |
| IEC | 11801 Category 5e Patch |
| EU RoHS Compliant | Yes |
| TIA/EIA | 568-B.2 Category 5e Patch |

| Description | Order NO. |
|---|---|
| M224PVCSTMT00.5M | 900 001-973 |
| M224PVCSTMT01.0M | 900 001-974 |
| M224PVCSTMT02.0M | 900 001-975 |
| M224PVCSTMT03.0M | 900 001-976 |
| M224PVCSTMT04.0M | 900 001-977 |
| M224PVCSTMT05.0M | 900 001-978 |
| M224PVCSTMT07.0M | 900 001-980 |
| M224PVCSTMT10.0M | 900 001-981 |
| M224PVCSTMT15.0M | 900 001-983 |
| M224PVCSTMT20.0M | 900 001-984 |
| M224PVCSTMT25.0M | 900 001-985 |
| M224PVCSTMT40.0M | 900 001-987 |



## Industrial Ethernet Cord Sets

RJ45 to M12 Panel-Mount Receptacle, 24 AWG, PVC, Teal Jacket

### Cable Description

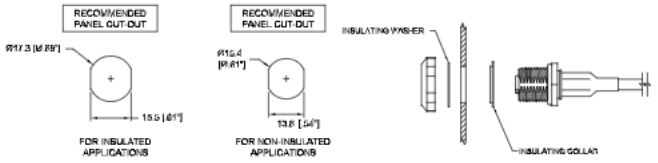
Industrial Ethernet CAT 5E, PVC unshielded, 2-pair, 24 AWG cable, bonded-pairs, stranded (7x32) tinned copper conductors, polyolefin insulation, and industrial grade sunlight-and-oil-resistant, teal jacket.

| Physical Characteristics | |
|---|---|
| Number of Pairs | 2 |
| Conductors | 4 |
| Gauge | 24 AWG |
| Stranding | Stranded (7x32) |
| Diameter | .022" |
| Material | TC - Tinned Copper |
| Color Codes | 1 = White/Orange Stripe & Orange<br>2 = White/Green Stripe & Green |
| **Outer Shield** | |
| Material | Unshielded |
| **Outer Jacket** | |
| Material | PVC - Polyvinyl Chloride |
| Jacket Color | Teal |
| Overall Diameter | 0.275" |
| **Mechanical Characteristics** | |
| Operating Temperature Range | -40°C to +75°C |
| Storage Temperature Range | -25°C to +75°C |
| Installation Temperature Range | -25°C to +75°C |
| Max. Pulling Tension | 40 lbs. |
| Min. Bend Radius | 0.280" |
| **Application Standards** | |
| NEC(UL) | TBD |
| CEC(UL) | TBD |
| IEC | 11801 Category 5e Patch |
| EU RoHS Compliant | Yes |
| TIA/EIA | 568-B.2 Category 5e Patch |

| Connector Specifications | | |
|---|---|---|
| Pins | 8 | 4 |
| Coding | N/A | D-Coded |
| Housing/Molded Body | Pre-Tinned Copper Alloy | PUR, Black |
| Insert | Clear Polycarbonate | PUR, Self Extinguishing |
| Contacts | 50 µ Gold Contact over Nickel Plated | Brass, Gold over Nickel Plated |
| Coupling Nut | N/A | Brass, Nickel Plated |
| Ingress Protection Rating | IP 20 | IP 68 |
| Temperature Range | -20°C to +75°C | -20°C to +75°C |
| CMR(UL) | CMR | CMR |

| Description | Order NO. |
|---|---|
| J224PVCSTPT00.3M | 900 002-006 |
| J224PVCSTPT00.5M | 900 002-007 |
| J224PVCSTPT01.0M | 900 002-008 |
| J224PVCSTPT02.0M | 900 002-009 |
| J224PVCSTPT03.0M | 900 002-010 |
| J224PVCSTPT04.0M | 900 002-011 |
| J224PVCSTPT05.0M | 900 002-012 |

### Ground Isolation - Panel Installation



BELDEN
SENDING ALL THE RIGHT SIGNALS®

## Industrial Ethernet Cord Sets
RJ45 to RJ45, 24 AWG, TPE, Teal Jacket

### Cable Description

Industrial Ethernet CAT 5E, TPE unshielded, 4-pair, 24 AWG cable, bonded-pairs, stranded (7x32) tinned copper conductors, polyolefin insulation, and industrial grade sunlight-and-oil-resistant, teal jacket.

| Physical Characteristics | |
|---|---|
| Number of Pairs | 4 |
| Conductors | 8 |
| Gauge | 24 AWG |
| Stranding | Stranded (7x32) |
| Diameter | .022" |
| Material | TC - Tinned Copper |
| Color Codes | 1 = White/Blue Stripe & Blue<br>2 = White/Orange Stripe & Orange<br>3 = White/Green Stripe & Green<br>4 = White/Brown Stripe & Brown |
| **Outer Shield** | |
| Material | Unshielded |
| **Outer Jacket** | |
| Material | TPE |
| Jacket Color | Teal |
| Overall Diameter | 0.242" |
| **Mechanical Characteristics** | |
| Operating Temperature Range | -40°C to +75°C |
| Storage Temperature Range | -25°C to +75°C |
| Installation Temperature Range | -25°C to +75°C |
| Max. Pulling Tension | 40 lbs. |
| Min. Bend Radius | 0.250" |
| **Application Standards** | |
| NEC(UL) | TBD |
| CEC(UL) | TBD |
| IEC | 11801 Category 5e Patch |
| EU RoHS Compliant | Yes |
| TIA/EIA | 568-B.2 Category 5e Patch |

| Connector Specifications | |
|---|---|
| Pins | 8 |
| Coding | N/A |
| Housing/Molded Body | Pre-Tinned Copper Alloy |
| Insert | Clear Polycarbonate |
| Contacts | 50 µ Gold Contact over Nickel Plated |
| Coupling Nut | N/A |
| Ingress Protection Rating | IP 20 |
| Temperature Range | -20°C to +75°C |
| CMR(UL) | CMR |

| Description | Order NO. |
|---|---|
| J424TPESTJT00.3M | 900 002-022 |
| J424TPESTJT00.5M | 900 002-023 |
| J424TPESTJT01.0M | 900 002-024 |
| J424TPESTJT02.0M | 900 002-025 |
| J424TPESTJT03.0M | 900 002-026 |
| J424TPESTJT04.0M | 900 002-027 |
| J424TPESTJT05.0M | 900 002-028 |
| J424TPESTJT06.0M | 900 002-029 |
| J424TPESTJT07.0M | 900 002-030 |
| J424TPESTJT10.0M | 900 002-031 |
| J424TPESTJT12.0M | 900 002-032 |
| J424TPESTJT15.0M | 900 002-033 |
| J424TPESTJT20.0M | 900 002-034 |
| J424TPESTJT25.0M | 900 002-035 |
| J424TPESTJT30.0M | 900 002-036 |
| J424TPESTJT40.0M | 900 002-037 |
| J424TPESTJT50.0M | 900 002-038 |

## Industrial Ethernet Cord Sets
M12 to RJ45, 24 AWG, TPE, Teal Jacket

### Cable Description

Industrial Ethernet CAT 5E, PVC unshielded, 2-pair, 24 AWG cable, bonded-pairs, stranded (7x32) tinned copper conductors, polyolefin insulation, and industrial grade sunlight-and-oil-resistant, teal jacket.

| Physical Characteristics | |
|---|---|
| Number of Pairs | 2 |
| Conductors | 4 |
| Gauge | 24 AWG |
| Stranding | Stranded (7x32) |
| Diameter | .022" |
| Material | TC - Tinned Copper |
| Color Codes | 1 = White/Orange Stripe & Orange<br>2 = White/Green Stripe & Green |
| **Outer Shield** | |
| Material | Unshielded |
| **Outer Jacket** | |
| Material | TPE |
| Jacket Color | Teal |
| Overall Diameter | 0.275" |
| **Mechanical Characteristics** | |
| Operating Temperature Range | -40°C to +75°C |
| Storage Temperature Range | -25°C to +75°C |
| Installation Temperature Range | -25°C to +75°C |
| Max. Pulling Tension | 40 lbs. |
| Min. Bend Radius | 0.250" |
| **Application Standards** | |
| NEC(UL) | TBD |
| CEC(UL) | TBD |
| IEC | 11801 Category 5e Patch |
| EU RoHS Compliant | Yes |
| TIA/EIA | 568-B.2 Category 5e Patch |

| Connector Specifications | | |
|---|---|---|
| Pins | 8 | 4 |
| Coding | N/A | D-Coded |
| Housing/Molded Body | Pre-Tinned Copper Alloy | PUR, Black |
| Insert | Clear Polycarbonate | PUR, Self Extinguishing |
| Contacts | 50 µ Gold Contact over Nickel Plated | Brass, Gold over Nickel Plated |
| Coupling Nut | N/A | Brass, Nickel Plated |
| Ingress Protection Rating | IP 20 | IP 68 |
| Temperature Range | -20°C to +75°C | -20°C to +75°C |
| CMR(UL) | CMR | CMR |

| Description | Order NO. |
|---|---|
| M224TPESTJT00.3M | 900 002-063 |
| M224TPESTJT00.5M | 900 002-064 |
| M224TPESTJT01.0M | 900 002-065 |
| M224TPESTJT02.0M | 900 002-066 |
| M224TPESTJT03.0M | 900 002-067 |
| M224TPESTJT04.0M | 900 002-068 |
| M224TPESTJT05.0M | 900 002-069 |
| M224TPESTJT06.0M | 900 002-070 |
| M224TPESTJT07.0M | 900 002-071 |
| M224TPESTJT10.0M | 900 002-072 |
| M224TPESTJT12.0M | 900 002-073 |
| M224TPESTJT15.0M | 900 002-074 |
| M224TPESTJT20.0M | 900 002-075 |
| M224TPESTJT25.0M | 900 002-076 |
| M224TPESTJT30.0M | 900 002-077 |
| M224TPESTJT40.0M | 900 002-078 |
| M224TPESTJT50.0M | 900 002-079 |

BELDEN
SENDING ALL THE RIGHT SIGNALS®

## Industrial Ethernet Cord Sets
M12 to M12, 24 AWG, TPE, Teal Jacket

### Cable Description

Industrial Ethernet CAT 5E, TPE unshielded, 2-pair, 24 AWG cable, bonded-pairs, stranded (7x32) tinned copper conductors, polyolefin insulation, and industrial grade sunlight-and-oil-resistant, teal jacket.

| Physical Characteristics | |
|---|---|
| Number of Pairs | 2 |
| Conductors | 4 |
| Gauge | 24 AWG |
| Stranding | Stranded (7x32) |
| Diameter | .022" |
| Material | TC - Tinned Copper |
| Color Codes | 1 = White/Orange Stripe & Orange<br>2 = White/Green Stripe & Green |

| Connector Specifications | |
|---|---|
| Pins | 4 |
| Coding | D-Coded |
| Housing/Molded Body | PUR, Black |
| Insert | PUR, Self Extinguishing |
| Contacts | Brass, Gold over Nickel Plated |
| Coupling Nut | Brass, Nickel Plated |
| Ingress Protection Rating | IP 68 |
| Temperature Range | -20°C to +75°C |
| CMR(UL) | CMR |

#### Outer Shield

| | |
|---|---|
| Material | Unshielded |

#### Outer Jacket

| | |
|---|---|
| Material | TPE |
| Jacket Color | Teal |
| Overall Diameter | 0.275" |

#### Mechanical Characteristics

| | |
|---|---|
| Operating Temperature Range | -40°C to +75°C |
| Storage Temperature Range | -25°C to +75°C |
| Installation Temperature Range | -25°C to +75°C |
| Max. Pulling Tension | 40 lbs. |
| Min. Bend Radius | 0.250" |

#### Application Standards

| | |
|---|---|
| NEC(UL) | TBD |
| CEC(UL) | TBD |
| IEC | 11801 Category 5e Patch |
| EU RoHS Compliant | Yes |
| TIA/EIA | 568-B.2 Category 5e Patch |

| Description | Order NO. |
|---|---|
| M224TPESTMT00.3M | 900 002-039 |
| M224TPESTMT00.5M | 900 002-040 |
| M224TPESTMT01.0M | 900 002-041 |
| M224TPESTMT02.0M | 900 002-042 |
| M224TPESTMT03.0M | 900 002-043 |
| M224TPESTMT04.0M | 900 002-044 |
| M224TPESTMT05.0M | 900 002-045 |
| M224TPESTMT07.0M | 900 002-047 |
| M224TPESTMT10.0M | 900 002-048 |
| M224TPESTMT15.0M | 900 002-050 |
| M224TPESTMT20.0M | 900 002-051 |
| M224TPESTMT25.0M | 900 002-052 |
| M224TPESTMT30.0M | 900 002-053 |
| M224TPESTMT40.0M | 900 002-054 |
| M224TPESTMT50.0M | 900 002-055 |
| M224TPESTMT60.0M | 900 002-484 |
| M224TPESTMT70.0M | 900 002-485 |
| M224TPESTMT80.0M | 900 002-486 |

## Industrial Ethernet Cord Sets

RJ45 to M12 Panel-Mount Receptacle, 24 AWG, TPE, Teal Jacket

### Cable Description

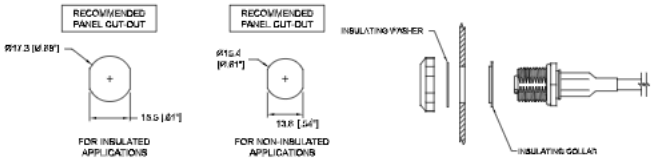
Industrial Ethernet CAT 5E, TPE unshielded, 2-pair, 24 AWG cable, bonded-pairs, stranded (7x32) tinned copper conductors, polyolefin insulation, and industrial grade sunlight-and-oil-resistant, teal jacket.

| Physical Characteristics | |
|---|---|
| Number of Pairs | 2 |
| Conductors | 4 |
| Gauge | 24 AWG |
| Stranding | Stranded (7x32) |
| Diameter | .022" |
| Material | TC - Tinned Copper |
| Color Codes | 1 = White/Orange Stripe & Orange<br>2 = White/Green Stripe & Green |
| **Outer Shield** | |
| Material | Unshielded |
| **Outer Jacket** | |
| Material | TPE |
| Jacket Color | Teal |
| Overall Diameter | 0.275" |
| **Mechanical Characteristics** | |
| Operating Temperature Range | -40°C to +75°C |
| Storage Temperature Range | -25°C to +75°C |
| Installation Temperature Range | -25°C to +75°C |
| Max. Pulling Tension | 40 lbs. |
| Min. Bend Radius | 0.250" |
| **Application Standards** | |
| NEC(UL) | TBD |
| CEC(UL) | TBD |
| IEC | 11801 Category 5e Patch |
| EU RoHS Compliant | Yes |
| TIA/EIA | 568-B.2 Category 5e Patch |

| Connector Specifications | | |
|---|---|---|
| Pins | 8 | 4 |
| Coding | N/A | D-Coded |
| Housing/Molded Body | Pre-Tinned Copper Alloy | PUR, Black |
| Insert | Clear Polycarbonate | PUR, Self Extinguishing |
| Contacts | 50 µ Gold Contact over Nickel Plated | Brass, Gold over Nickel Plated |
| Coupling Nut | N/A | Brass, Nickel Plated |
| Ingress Protection Rating | IP 20 | IP 68 |
| Temperature Range | -20°C to +75°C | -20°C to +75°C |
| CMR(UL) | CMR | CMR |

| Description | Order NO. |
|---|---|
| J224TPESTPT00.3M | 900 002-056 |
| J224TPESTPT00.5M | 900 002-057 |
| J224TPESTPT01.0M | 900 002-058 |
| J224TPESTPT02.0M | 900 002-059 |
| J224TPESTPT03.0M | 900 002-060 |
| J224TPESTPT04.0M | 900 002-061 |
| J224TPESTPT05.0M | 900 002-062 |
| J224TPESTPT10.0M | 900 002-277 |
| J224TPESTPT15.0M | 900 002-278 |
| J224TPESTPT20.0M | 900 002-279 |
| J224TPESTPT25.0M | 900 002-280 |

### Ground Isolation - Panel Installation



BELDEN
SENDING ALL THE RIGHT SIGNALS®

## Industrial Ethernet Cord Sets

RJ45 to RJ45, 24 AWG, TPE, High Flex, Teal Jacket

### Cable Description

Industrial Ethernet High-Flex CAT 5E, TPE unshielded, 4 pair, 24 AWG cable, stranded copper alloy conductors, polyolefin insulation, teal jacket.

| Physical Characteristics | |
|---|---|
| Number of Pairs | 4 |
| Conductors | 8 |
| Gauge | 24 AWG |
| Stranding | Stranded |
| Diameter | .022" |
| Material | TC - Tinned Copper |
| Color Codes | 1 = White/Blue Stripe & Blue<br>2 = White/Brown Stripe & Brown<br>3 = White/Orange Stripe & Orange<br>4 = White/Green Stripe & Green |
| **Outer Shield** | |
| Material | Unshielded |
| **Outer Jacket** | |
| Material | TPE (High-Flex) |
| Jacket Color | Teal |
| Overall Diameter | 0.250" |
| **Mechanical Characteristics** | |
| Operating Temperature Range | -40°C to +75°C |
| Storage Temperature Range | -40°C to +85°C |
| Installation Temperature Range | -25°C to +75°C |
| Max. Pulling Tension | 40 lbs. |
| Min. Bend Radius | 0.25" |
| **Application Standards** | |
| NEC(UL) | AWM 20626 |
| TIA/EIA | 568-B.2 Category 5e Patch |

| Connector Specifications | |
|---|---|
| Pins | 8 |
| Coding | N/A |
| Housing/Molded Body | Pre-Tinned Copper Alloy |
| Insert | Clear Polycarbonate |
| Contacts | 50 µ Gold Contact over Nickel Plated |
| Coupling Nut | N/A |
| Ingress Protection Rating | IP 20 |
| Temperature Range | -20°C to +75°C |
| CMR(UL) | CMR |

| Description | Order NO. |
|---|---|
| J424THFSTJT00.3M | 900 002-151 |
| J424THFSTJT00.5M | 900 002-152 |
| J424THFSTJT01.0M | 900 002-153 |
| J424THFSTJT02.0M | 900 002-154 |
| J424THFSTJT03.0M | 900 002-155 |
| J424THFSTJT04.0M | 900 002-156 |
| J424THFSTJT05.0M | 900 002-157 |
| J424THFSTJT06.0M | 900 002-158 |
| J424THFSTJT07.0M | 900 002-159 |
| J424THFSTJT10.0M | 900 002-160 |
| J424THFSTJT12.0M | 900 002-161 |
| J424THFSTJT15.0M | 900 002-162 |
| J424THFSTJT20.0M | 900 002-163 |
| J424THFSTJT25.0M | 900 002-164 |
| J424THFSTJT30.0M | 900 002-165 |
| J424THFSTJT40.0M | 900 002-166 |
| J424THFSTJT50.0M | 900 002-167 |

## Industrial Ethernet Cord Sets

M12 to RJ45, 24 AWG, TPE, High Flex, Teal Jacket

### Cable Description

Industrial Ethernet High-Flex CAT 5E, TPE unshielded, 2 pair, 24 AWG cable, stranded copper alloy conductors, polyolefin insulation, teal jacket.

| Physical Characteristics | |
|---|---|
| Number of Pairs | 2 |
| Conductors | 4 |
| Gauge | 24 AWG |
| Stranding | Stranded |
| Diameter | .024" |
| Material | Copper Alloy |
| Color Codes | 1 = White/Orange Stripe & Orange<br>2 = White/Green Stripe & Green |
| **Outer Shield** | |
| Material | Unshielded |
| **Outer Jacket** | |
| Material | TPE |
| Jacket Color | Teal |
| Overall Diameter | 0.250" |
| **Mechanical Characteristics** | |
| Operating Temperature Range | -40°C to +80°C |
| Storage Temperature Range | -40°C to +85°C |
| Installation Temperature Range | -25°C to +80°C |
| Max. Pulling Tension | 25 lbs. |
| Min. Bend Radius | 0.25" |
| **Application Standards** | |
| NEC(UL) | AWM 20626 |
| TIA/EIA | 568-B.2 Category 5e Patch |

| Connector Specifications | | |
|---|---|---|
| Pins | 8 | 4 |
| Coding | N/A | D-Coded |
| Housing/Molded Body | Pre-Tinned Copper Alloy | PUR, Black |
| Insert | Clear Polycarbonate | PUR, Self Extinguishing |
| Contacts | 50 µ Gold Contact over Nickel Plated | Brass, Gold over Nickel Plated |
| Coupling Nut | N/A | Brass, Nickel Plated |
| Ingress Protection Rating | IP 20 | IP 68 |
| Temperature Range | -20°C to +75°C | -20°C to +75°C |
| CMR(UL) | CMR | CMR |

| Description | Order NO. |
|---|---|
| M224THFSTJT00.3M | 900 002-185 |
| M224THFSTJT00.5M | 900 002-186 |
| M224THFSTJT01.0M | 900 002-187 |
| M224THFSTJT02.0M | 900 002-188 |
| M224THFSTJT03.0M | 900 002-189 |
| M224THFSTJT04.0M | 900 002-190 |
| M224THFSTJT05.0M | 900 002-191 |
| M224THFSTJT06.0M | 900 002-192 |
| M224THFSTJT07.0M | 900 002-193 |
| M224THFSTJT10.0M | 900 002-194 |
| M224THFSTJT12.0M | 900 002-195 |
| M224THFSTJT15.0M | 900 002-196 |
| M224THFSTJT20.0M | 900 002-197 |
| M224THFSTJT25.0M | 900 002-198 |
| M224THFSTJT30.0M | 900 002-199 |
| M224THFSTJT40.0M | 900 002-200 |
| M224THFSTJT50.0M | 900 002-201 |

BELDEN
SENDING ALL THE RIGHT SIGNALS®

## Industrial Ethernet Cord Sets

M12 to M12, 24 AWG, TPE, High Flex, Teal Jacket

### Cable Description

Industrial Ethernet High-Flex CAT 5E, TPE unshielded, 2 pair, 24 AWG cable, stranded copper alloy conductors, polyolefin insulation, teal jacket.

| Physical Characteristics | |
|---|---|
| Number of Pairs | 2 |
| Conductors | 4 |
| Gauge | 24 AWG |
| Stranding | Stranded |
| Diameter | .024" |
| Material | Copper Alloy |
| Color Codes | 1 = White/Orange Stripe & Orange<br>2 = White/Green Stripe & Green |

| Connector Specifications | |
|---|---|
| Pins | 4 |
| Coding | D-Coded |
| Housing/Molded Body | PUR, Black |
| Insert | PUR, Self Extinguishing |
| Contacts | Brass, Gold over Nickel Plated |
| Coupling Nut | Brass, Nickel Plated |
| Ingress Protection Rating | IP 68 |
| Temperature Range | -20°C to +75°C |
| CMR(UL) | CMR |

#### Outer Shield

| | |
|---|---|
| Material | Unshielded |

#### Outer Jacket

| | |
|---|---|
| Material | TPE (High-Flex) |
| Jacket Color | Teal |
| Overall Diameter | 0.250" |

#### Mechanical Characteristics

| | |
|---|---|
| Operating Temperature Range | -40°C to +80°C |
| Storage Temperature Range | -40°C to +85°C |
| Installation Temperature Range | -25°C to +80°C |
| Max. Pulling Tension | 25 lbs. |
| Min. Bend Radius | 0.25" |

#### Application Standards

| | |
|---|---|
| NEC(UL) | AWM 20626 |
| TIA/EIA | 568-B.2 Category 5e Patch |

| Description | Order NO. |
|---|---|
| M224THFSTMT00.3M | 900 002-168 |
| M224THFSTMT00.5M | 900 002-169 |
| M224THFSTMT01.0M | 900 002-170 |
| M224THFSTMT02.0M | 900 002-171 |
| M224THFSTMT03.0M | 900 002-172 |
| M224THFSTMT04.0M | 900 002-173 |
| M224THFSTMT05.0M | 900 002-174 |
| M224THFSTMT06.0M | 900 002-175 |
| M224THFSTMT07.0M | 900 002-176 |
| M224THFSTMT10.0M | 900 002-177 |
| M224THFSTMT12.0M | 900 002-178 |
| M224THFSTMT15.0M | 900 002-179 |
| M224THFSTMT20.0M | 900 002-180 |
| M224THFSTMT25.0M | 900 002-181 |
| M224THFSTMT30.0M | 900 002-182 |
| M224THFSTMT40.0M | 900 002-183 |
| M224THFSTMT50.0M | 900 002-184 |

## Industrial Ethernet Cord Sets

RJ45 to RJ45, 24 AWG, Stranded, Shielded TPE Cable, Teal Jacket

### Cable Description

Industrial Ethernet CAT 5E, TPE shielded, 2-pair, 24 AWG cable, bonded-pairs, stranded (7x32) tinned copper conductors, polyolefin insulation, and industrial grade sunlight-and-oil-resistant, teal jacket.

| Physical Characteristics | |
|---|---|
| Number of Pairs | 2 |
| Conductors | 8 |
| Gauge | 24 AWG |
| Stranding | Stranded (7x32) |
| Diameter | .022" |
| Material | TC - Tinned Copper |
| Color Codes | 1 = White/Orange<br>3 = White/Green<br>2 = Orange<br>6 = Green |
| **Outer Shield** | |
| Material | Overall Beldfoil + TC Braid Shield (65% Coverage) |
| **Outer Jacket** | |
| Material | TPE |
| Jacket Color | Teal |
| Overall Diameter | 0.300" |
| **Mechanical Characteristics** | |
| Operating Temperature Range | -40°C to +75°C |
| Storage Temperature Range | -25°C to +75°C |
| Installation Temperature Range | -25°C to +75°C |
| Max. Pulling Tension | 40 lbs. |
| Min. Bend Radius | 0.250" |
| **Application Standards** | |
| NEC(UL) | TBD |
| CEC(UL) | TBD |
| IEC | 11801 Category 5e Patch |
| EU RoHS Compliant | Yes |
| TIA/EIA | 568-B.2 Category 5e Patch |

| Connector Specifications | |
|---|---|
| Pins | 8 |
| RJ45 Plug | Polycarbonate |
| RJ45 Contacts | Phosphor Bronze, Gold Plated |
| RJ45 Boot | Elastomer Polyolefin |
| Insert | Clear Polycarbonate |
| Contacts | 50 µ Gold Contact over Nickel Plated |
| Ingress Protection Rating | IP 20 |
| Temperature Range | -20°C to +60°C |
| CMR(UL) | CMR |

| Description | Order NO. |
|---|---|
| J224TPETLJT00.3M | 900 002-882 |
| J224TPETLJT00.5M | 900 002-883 |
| J224TPETLJT01.0M | 900 002-884 |
| J224TPETLJT02.0M | 900 002-885 |
| J224TPETLJT03.0M | 900 002-886 |
| J224TPETLJT04.0M | 900 002-887 |
| J224TPETLJT05.0M | 900 002-888 |

BELDEN
SENDING ALL THE RIGHT SIGNALS®

## Industrial Ethernet Cord Sets

M12 to M12, 24 AWG, Stranded, Shielded TPE Cable, Teal Jacket

### Cable Description

Industrial Ethernet CAT 5E, TPE shielded, 2-pair, 24 AWG cable, bonded-pairs, stranded (7x32) tinned copper conductors, polyolefin insulation, and industrial grade sunlight-and-oil-resistant, teal jacket.

| Physical Characteristics | |
|---|---|
| Number of Pairs | 2 |
| Conductors | 4 |
| Gauge | 24 AWG |
| Stranding | Stranded (7x32) |
| Diameter | .022" |
| Material | TC - Tinned Copper |
| Color Codes | 1 = White/Orange<br>2 = White/Blue<br>3 = Orange<br>4 = Blue |
| **Outer Shield** | |
| Material | Overall Beldfoil + TC Braid Shield (65% Coverage) |
| **Outer Jacket** | |
| Material | TPE |
| Jacket Color | Teal |
| Overall Diameter | 0.300" |
| **Mechanical Characteristics** | |
| Operating Temperature Range | -40°C to +75°C |
| Storage Temperature Range | -25°C to +75°C |
| Installation Temperature Range | -25°C to +75°C |
| Max. Pulling Tension | 40 lbs. |
| Min. Bend Radius | 0.250" |
| **Application Standards** | |
| NEC(UL) | TBD |
| CEC(UL) | TBD |
| IEC | 11801 Category 5e Patch |
| EU RoHS Compliant | Yes |
| TIA/EIA | 568-B.2 Category 5e Patch |

| Connector Specifications | |
|---|---|
| Pins | 4 |
| Housing/Molded Body | PUR, Black |
| Insert | PUR, Black |
| Contacts | Brass, Gold Plated |
| Coupling Nut | Brass, Nickel Plated |
| Ingress Protection Rating | IP 68 |
| Temperature Range | -40°C to +75°C |
| Current Rating | 4 A |
| Voltage Rating | 250 V |
| Performance | CAT5e |

| Description | Order NO. |
|---|---|
| M224TPETLMT00.3M | 900 002-833 |
| M224TPETLMT00.5M | 900 002-834 |
| M224TPETLMT01.0M | 900 002-835 |
| M224TPETLMT02.0M | 900 002-836 |
| M224TPETLMT03.0M | 900 002-837 |
| M224TPETLMT04.0M | 900 002-838 |
| M224TPETLMT05.0M | 900 002-839 |
| M224TPETLMT06.0M | 900 002-840 |
| M224TPETLMT07.0M | 900 002-841 |
| M224TPETLMT10.0M | 900 002-842 |
| M224TPETLMT12.0M | 900 002-843 |
| M224TPETLMT15.0M | 900 002-844 |
| M224TPETLMT20.0M | 900 002-845 |
| M224TPETLMT25.0M | 900 002-846 |
| M224TPETLMT30.0M | 900 002-847 |
| M224TPETLMT35.0M | 900 002-848 |
| M224TPETLMT40.0M | 900 002-849 |
| M224TPETLMT45.0M | 900 002-850 |
| M224TPETLMT50.0M | 900 002-851 |
| M224TPETLMT55.0M | 900 002-852 |
| M224TPETLMT60.0M | 900 002-853 |
| M224TPETLMT65.0M | 900 002-854 |
| M224TPETLMT70.0M | 900 002-855 |
| M224TPETLMT75.0M | 900 002-856 |
| M224TPETLMT80.0M | 900 002-857 |

## Industrial Ethernet Cord Sets

M12 to M12, 24 AWG, Stranded, Shielded TPE, High Flex Cable, Teal Jacket

### Cable Description

Industrial Ethernet High-Flex CAT 5E, TPE shielded, 2 pair, 24 AWG cable, stranded copper alloy conductors, polyolefin insulation, teal jacket.

| Physical Characteristics | |
|---|---|
| Number of Pairs | 2 |
| Conductors | 4 |
| Gauge | 24 AWG |
| Stranding | Stranded |
| Diameter | .024" |
| Material | Copper Alloy |
| Color Codes | 1 White/Orange<br>2 White/Blue<br>3 Orange<br>4 Blue |

| Connector Specifications | |
|---|---|
| Pins | 4 |
| Molded Body | PUR, Black |
| Coupling Nut | Brass, Nickel Plated |
| Contacts | Brass, Gold Plated |
| Insert | PUR, Black |
| Temperature Range | -40°C to +75°C |
| IP Rating | IP 68 / MEMA 6P |
| Current Rating | 4 A |
| Voltage Rating | 250 V |
| Performance | CAT5e |

#### Outer Shield

| | |
|---|---|
| Material | Overall Beldfoil + TC Braid Shield (65% Coverage) |

#### Outer Jacket

| | |
|---|---|
| Material | TPE (High-Flex) |
| Jacket Color | Teal |
| Overall Diameter | 0.300" |

#### Mechanical Characteristics

| | |
|---|---|
| Operating Temperature Range | -40°C to +80°C |
| Storage Temperature Range | -40°C to +85°C |
| Installation Temperature Range | -25°C to +80°C |
| Max. Pulling Tension | 25 lbs. |
| Min. Bend Radius | 0.25" |

#### Application Standards

| | |
|---|---|
| NEC(UL) | AWM 20626 |
| TIA/EIA | 568-B.2 Category 5e Patch |

| Description | Order NO. |
|---|---|
| M224THFTLMT00.3M | 900 002-858 |
| M224THFTLMT00.5M | 900 002-859 |
| M224THFTLMT01.0M | 900 002-860 |
| M224THFTLMT02.0M | 900 002-861 |
| M224THFTLMT03.0M | 900 002-862 |
| M224THFTLMT04.0M | 900 002-863 |
| M224THFTLMT05.0M | 900 002-864 |
| M224THFTLMT06.0M | 900 002-865 |
| M224THFTLMT07.0M | 900 002-866 |
| M224THFTLMT10.0M | 900 002-867 |
| M224THFTLMT12.0M | 900 002-868 |
| M224THFTLMT15.0M | 900 002-869 |
| M224THFTLMT20.0M | 900 002-870 |
| M224THFTLMT25.0M | 900 002-871 |
| M224THFTLMT30.0M | 900 002-872 |
| M224THFTLMT35.0M | 900 002-873 |
| M224THFTLMT40.0M | 900 002-874 |
| M224THFTLMT45.0M | 900 002-875 |
| M224THFTLMT50.0M | 900 002-876 |

BELDEN
SENDING ALL THE RIGHT SIGNALS®

## Industrial Ethernet Cord Sets

RJ45 to M12 Panel-Mount Receptacle, 24 AWG, Stranded, Shielded TPE, High Flex Cable, Teal Jacket

### Cable Description

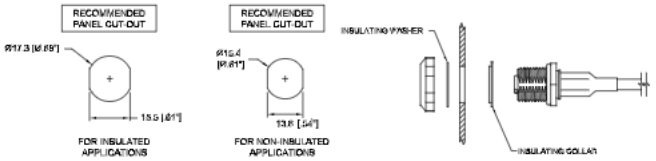
Industrial Ethernet CAT 5E, TPE shielded, 2-pair, 24 AWG cable, bonded-pairs, stranded (7x32) tinned copper conductors, polyolefin insulation, and industrial grade sunlight-and-oil-resistant, teal jacket.

| Physical Characteristics | |
|---|---|
| Number of Pairs | 2 |
| Conductors | 4 |
| Gauge | 24 AWG |
| Stranding | Stranded (7x32) |
| Diameter | .022" |
| Material | TC - Tinned Copper |
| Color Codes | M12 / RJ45<br>1 White/Orange 1<br>2 White/Green 3<br>3 Orange 2<br>4 Green 6 |
| **Outer Shield** | |
| Material | Overall Beldfoil + TC Braid Shield (65% Coverage) |
| **Outer Jacket** | |
| Material | TPE |
| Jacket Color | Teal |
| Overall Diameter | 0.275" |
| **Mechanical Characteristics** | |
| Operating Temperature Range | -40°C to +75°C |
| Storage Temperature Range | -25°C to +75°C |
| Installation Temperature Range | -25°C to +75°C |
| Max. Pulling Tension | 40 lbs. |
| Min. Bend Radius | 0.250" |
| **Application Standards** | |
| NEC(UL) | TBD |
| CEC(UL) | TBD |
| IEC | 11801 Category 5e Patch |
| EU RoHS Compliant | Yes |
| TIA/EIA | 568-B.2 Category 5e Patch |

| Connector Specifications | |
|---|---|
| Pins | 4 |
| M12 Housing | Brass, Nickel Plated |
| M12 Insert | PUR, Black |
| M12 Contacts | Brass, Gold Plated |
| RJ45 Plug | Polycarbonate |
| RJ45 Contacts | Phosphor Bronze, Gold Plated |
| RJ45 Boot | Elastomer Polyolefin |
| Temperature Range | -20°C to +60°C |
| IP Rating | IP 68 / MEMA 6P |
| Current Rating | 1.5 A |
| Voltage Rating | 60 V |
| Performance | CAT5e |

| Description | Order NO. |
|---|---|
| J224TPETLPT00.3M | 900 002-877 |
| J224TPETLPT00.5M | 900 002-878 |
| J224TPETLPT01.0M | 900 002-879 |
| J224TPETLPT02.0M | 900 002-880 |
| J224TPETLPT03.0M | 900 002-881 |

### Ground Isolation - Panel Installation



## Industrial Ethernet Cord Sets

RJ45 to RJ45, 24 AWG, TPE, Blue Jacket

### Cable Description

Industrial Ethernet CAT 5E, TPE unshielded, 4-pair, 24 AWG cable, bonded-pairs, stranded (7x32) tinned copper conductors, polyolefin insulation, and industrial grade sunlight-and-oil-resistant, blue jacket.

| Physical Characteristics | |
|---|---|
| Number of Pairs | 4 |
| Conductors | 8 |
| Gauge | 24 AWG |
| Stranding | Stranded (7x32) |
| Diameter | .022" |
| Material | TC - Tinned Copper |
| Color Codes | 1 = White/Blue Stripe & Blue<br>2 = White/Orange Stripe & Orange<br>3 = White/Green Stripe & Green<br>4 = White/Brown Stripe & Brown |
| **Outer Shield** | |
| Material | Unshielded |
| **Outer Jacket** | |
| Material | TPE |
| Jacket Color | Blue |
| Overall Diameter | 0.242" |
| **Mechanical Characteristics** | |
| Operating Temperature Range | -40°C to +75°C |
| Storage Temperature Range | -25°C to +75°C |
| Installation Temperature Range | -25°C to +75°C |
| Max. Pulling Tension | 40 lbs. |
| Min. Bend Radius | 0.250" |
| **Application Standards** | |
| NEC(UL) | TBD |
| CEC(UL) | TBD |
| IEC | 11801 Category 5e Patch |
| EU RoHS Compliant | Yes |
| TIA/EIA | 568-B.2 Category 5e Patch |

| Connector Specifications | |
|---|---|
| Pins | 8 |
| Coding | N/A |
| Housing/Molded Body | Pre-Tinned Copper Alloy |
| Insert | Clear Polycarbonate |
| Contacts | 50 µ Gold Contact over Nickel Plated |
| Coupling Nut | N/A |
| Ingress Protection Rating | IP 20 |
| Temperature Range | -20°C to +75°C |
| CMR(UL) | CMR |

| Description | Order NO. |
|---|---|
| J424TPESTJU00.3M | 900 002-222 |
| J424TPESTJU00.5M | 900 002-223 |
| J424TPESTJU01.0M | 900 002-224 |
| J424TPESTJU02.0M | 900 002-225 |
| J424TPESTJU03.0M | 900 002-226 |
| J424TPESTJU04.0M | 900 002-227 |
| J424TPESTJU05.0M | 900 002-228 |
| J424TPESTJU06.0M | 900 002-527 |
| J424TPESTJU07.0M | 900 002-528 |
| J424TPESTJU10.0M | 900 002-529 |
| J424TPESTJU12.0M | 900 002-530 |
| J424TPESTJU15.0M | 900 002-531 |
| J424TPESTJU20.0M | 900 002-532 |
| J424TPESTJU25.0M | 900 002-533 |
| J424TPESTJU30.0M | 900 002-534 |
| J424TPESTJU40.0M | 900 002-535 |
| J424TPESTJU50.0M | 900 002-536 |
| J424TPESTJU60.0M | 900 002-537 |
| J424TPESTJU70.0M | 900 002-538 |
| J424TPESTJU80.0M | 900 002-539 |

BELDEN
SENDING ALL THE RIGHT SIGNALS®

## Industrial Ethernet Cord Sets

RJ45 to M12 Panel-Mount Receptacle, 24 AWG, TPE, Blue Jacket

### Cable Description

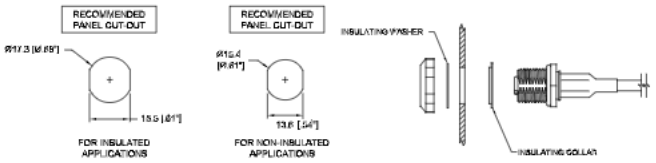
Industrial Ethernet CAT 5E, TPE unshielded, 2-pair, 24 AWG cable, bonded-pairs, stranded (7x32) tinned copper conductors, polyolefin insulation, and industrial grade sunlight-and-oil-resistant, blue jacket.

| Physical Characteristics | |
|---|---|
| Number of Pairs | 2 |
| Conductors | 4 |
| Gauge | 24 AWG |
| Stranding | Stranded (7x32) |
| Diameter | .022" |
| Material | TC - Tinned Copper |
| Color Codes | 1 = White/Orange Stripe & Orange<br>2 = White/Green Stripe & Green |
| **Outer Shield** | |
| Material | Unshielded |
| **Outer Jacket** | |
| Material | TPE |
| Jacket Color | Blue |
| Overall Diameter | 0.275" |
| **Mechanical Characteristics** | |
| Operating Temperature Range | -40°C to +75°C |
| Storage Temperature Range | -25°C to +75°C |
| Installation Temperature Range | -25°C to +75°C |
| Max. Pulling Tension | 40 lbs. |
| Min. Bend Radius | 0.250" |
| **Application Standards** | |
| NEC(UL) | TBD |
| CEC(UL) | TBD |
| IEC | 11801 Category 5e Patch |
| EU RoHS Compliant | Yes |
| TIA/EIA | 568-B.2 Category 5e Patch |

| Connector Specifications | |
|---|---|
| Pins | 4 |
| M12 Housing | Brass, Nickel Plated |
| M12 Insert | PUR, Black |
| M12 Contacts | Brass, Gold Plated |
| RJ45 Plug | Polycarbonate |
| RJ45 Contacts | Phosphor Bronze, Gold Plated |
| RJ45 Boot | Elastomer Polyolefin |
| Temperature Range | -20°C to +60°C |
| IP Rating | IP 68 / MEMA 6P |
| Current Rating | 1.5 A |
| Voltage Rating | 60 V |
| Performance | CAT5e |

| Description | Order NO. |
|---|---|
| J224TPESTPU00.3M | 900 002-229 |
| J224TPESTPU00.5M | 900 002-230 |
| J224TPESTPU01.0M | 900 002-231 |
| J224TPESTPU02.0M | 900 002-232 |
| J224TPESTPU03.0M | 900 002-233 |
| J224TPESTPU04.0M | 900 002-487 |
| J224TPESTPU05.0M | 900 002-488 |
| J224TPESTPU06.0M | 900 002-489 |
| J224TPESTPU07.0M | 900 002-490 |
| J224TPESTPU10.0M | 900 002-491 |

### Ground Isolation - Panel Installation



## Industrial Ethernet Cord Sets
M12 to M12, 24 AWG, TPE, Blue Jacket

### Cable Description

Industrial Ethernet CAT 5E, TPE unshielded, 2-pair, 24 AWG cable, bonded-pairs, stranded (7x32) tinned copper conductors, polyolefin insulation, and industrial grade sunlight-and-oil-resistant, blue jacket.

| Physical Characteristics | |
|---|---|
| Number of Pairs | 2 |
| Conductors | 4 |
| Gauge | 24 AWG |
| Stranding | Stranded (7x32) |
| Diameter | .022" |
| Material | TC - Tinned Copper |
| Color Codes | 1 = White/Orange Stripe & Orange<br>2 = White/Green Stripe & Green |

| Connector Specifications | |
|---|---|
| Pins | 4 |
| Coding | D-Coded |
| Housing/Molded Body | PUR, Black |
| Insert | PUR, Self Extinguishing |
| Contacts | Brass, Gold over Nickel Plated |
| Coupling Nut | Brass, Nickel Plated |
| Ingress Protection Rating | IP 68 |
| Temperature Range | -20°C to +75°C |
| CMR(UL) | CMR |

#### Outer Shield

| | |
|---|---|
| Material | Unshielded |

#### Outer Jacket

| | |
|---|---|
| Material | TPE |
| Jacket Color | Blue |
| Overall Diameter | 0.275" |

#### Mechanical Characteristics

| | |
|---|---|
| Operating Temperature Range | -40°C to +75°C |
| Storage Temperature Range | -25°C to +75°C |
| Installation Temperature Range | -25°C to +75°C |
| Max. Pulling Tension | 40 lbs. |
| Min. Bend Radius | 0.250" |

#### Application Standards

| | |
|---|---|
| NEC(UL) | TBD |
| CEC(UL) | TBD |
| IEC | 11801 Category 5e Patch |
| EU RoHS Compliant | Yes |
| TIA/EIA | 568-B.2 Category 5e Patch |

| Description | Order NO. |
|---|---|
| M224TPESTMU00.3M | 900 002-236 |
| M224TPESTMU00.5M | 900 002-237 |
| M224TPESTMU01.0M | 900 002-238 |
| M224TPESTMU02.0M | 900 002-239 |
| M224TPESTMU03.0M | 900 002-240 |
| M224TPESTMU04.0M | 900 002-241 |
| M224TPESTMU05.0M | 900 002-242 |
| M224TPESTMU06.0M | 900 002-243 |
| M224TPESTMU07.0M | 900 002-244 |
| M224TPESTMU10.0M | 900 002-245 |
| M224TPESTMU12.0M | 900 002-246 |
| M224TPESTMU15.0M | 900 002-247 |
| M224TPESTMU20.0M | 900 002-248 |
| M224TPESTMU25.0M | 900 002-249 |
| M224TPESTMU30.0M | 900 002-250 |
| M224TPESTMU40.0M | 900 002-251 |
| M224TPESTMU50.0M | 900 002-252 |
| M224TPESTMU60.0M | 900 002-253 |
| M224TPESTMU70.0M | 900 002-254 |
| M224TPESTMU80.0M | 900 002-255 |
| M224TPESTMU90.0M | 900 002-506 |

BELDEN
SENDING ALL THE RIGHT SIGNALS®

## Industrial Ethernet Cord Sets
RJ45 to RJ45, 24 AWG, TPE, Red Jacket

### Cable Description

Industrial Ethernet CAT 5E, TPE unshielded, 4-pair, 24 AWG cable, bonded-pairs, stranded (7x32) tinned copper conductors, polyolefin insulation, and industrial grade sunlight-and-oil-resistant, red jacket.

| Physical Characteristics | |
|---|---|
| Number of Pairs | 4 |
| Conductors | 8 |
| Gauge | 24 AWG |
| Stranding | Stranded (7x32) |
| Diameter | .022" |
| Material | TC - Tinned Copper |
| Color Codes | 1 = White/Blue Stripe & Blue<br>2 = White/Orange Stripe & Orange<br>3 = White/Green Stripe & Green<br>4 = White/Brown Stripe & Brown |
| **Outer Shield** | |
| Material | Unshielded |
| **Outer Jacket** | |
| Material | TPE |
| Jacket Color | Red |
| Overall Diameter | 0.242" |
| **Mechanical Characteristics** | |
| Operating Temperature Range | -40°C to +75°C |
| Storage Temperature Range | -25°C to +75°C |
| Installation Temperature Range | -25°C to +75°C |
| Max. Pulling Tension | 40 lbs. |
| Min. Bend Radius | 0.250" |
| **Application Standards** | |
| NEC(UL) | TBD |
| CEC(UL) | TBD |
| IEC | 11801 Category 5e Patch |
| EU RoHS Compliant | Yes |
| TIA/EIA | 568-B.2 Category 5e Patch |

| Connector Specifications | |
|---|---|
| Pins | 8 |
| Housing/Molded Body | Pre-Tinned Copper Alloy |
| Insert | Clear Polycarbonate |
| Contacts | 50 µ Gold Contact over Nickel Plated |
| Ingress Protection Rating | IP 20 |
| Temperature Range | -20°C to +75°C |
| CMR(UL) | CMR |

| Description | Order NO. |
|---|---|
| J424TPESTJR00.3M | 900 002-801 |
| J424TPESTJR00.5M | 900 002-802 |
| J424TPESTJR01.0M | 900 002-803 |
| J424TPESTJR02.0M | 900 002-804 |
| J424TPESTJR03.0M | 900 002-805 |
| J424TPESTJR04.0M | 900 002-806 |
| J424TPESTJR05.0M | 900 002-807 |
| J424TPESTJR06.0M | 900 002-808 |
| J424TPESTJR07.0M | 900 002-809 |
| J424TPESTJR10.0M | 900 002-810 |
| J424TPESTJR12.0M | 900 002-811 |
| J424TPESTJR15.0M | 900 002-812 |
| J424TPESTJR20.0M | 900 002-813 |
| J424TPESTJR25.0M | 900 002-814 |
| J424TPESTJR30.0M | 900 002-815 |
| J424TPESTJR35.0M | 900 002-816 |
| J424TPESTJR40.0M | 900 002-817 |
| J424TPESTJR45.0M | 900 002-818 |
| J424TPESTJR50.0M | 900 002-819 |
| J424TPESTJR55.0M | 900 002-820 |
| J424TPESTJR60.0M | 900 002-821 |
| J424TPESTJR65.0M | 900 002-822 |
| J424TPESTJR70.0M | 900 002-823 |
| J424TPESTJR75.0M | 900 002-824 |
| J424TPESTJR80.0M | 900 002-825 |

## Industrial Ethernet Cord Sets
M12 to M12, 24 AWG, TPE, Red Jacket

### Cable Description

Industrial Ethernet CAT 5E, TPE unshielded, 2-pair, 24 AWG cable, bonded-pairs, stranded (7x32) tinned copper conductors, polyolefin insulation, and industrial grade sunlight-and-oil-resistant, red jacket.

| Physical Characteristics | |
|---|---|
| Number of Pairs | 2 |
| Conductors | 4 |
| Gauge | 24 AWG |
| Stranding | Stranded (7x32) |
| Diameter | .022" |
| Material | TC - Tinned Copper |
| Color Codes | 1 = White/Orange Stripe & Orange<br>2 = White/Green Stripe & Green |

| Connector Specifications | |
|---|---|
| Pins | 4 |
| Coding | D-Coded |
| Housing/Molded Body | PUR, Black |
| Insert | PUR, Self Extinguishing |
| Contacts | Brass, Gold over Nickel Plated |
| Coupling Nut | Brass, Nickel Plated |
| Ingress Protection Rating | IP 68 |
| Temperature Range | -20°C to +75°C |
| CMR(UL) | CMR |

#### Outer Shield

| | |
|---|---|
| Material | Unshielded |

#### Outer Jacket

| | |
|---|---|
| Material | TPE |
| Jacket Color | Red |
| Overall Diameter | 0.275" |

#### Mechanical Characteristics

| | |
|---|---|
| Operating Temperature Range | -40°C to +75°C |
| Storage Temperature Range | -25°C to +75°C |
| Installation Temperature Range | -25°C to +75°C |
| Max. Pulling Tension | 40 lbs. |
| Min. Bend Radius | 0.250" |

#### Application Standards

| | |
|---|---|
| NEC(UL) | TBD |
| CEC(UL) | TBD |
| IEC | 11801 Category 5e Patch |
| EU RoHS Compliant | Yes |
| TIA/EIA | 568-B.2 Category 5e Patch |

| Description | Order NO. |
|---|---|
| M224TPESTMR00.3M | 900 002-734 |
| M224TPESTMR00.5M | 900 002-735 |
| M224TPESTMR01.0M | 900 002-736 |
| M224TPESTMR02.0M | 900 002-737 |
| M224TPESTMR03.0M | 900 002-738 |
| M224TPESTMR04.0M | 900 002-739 |
| M224TPESTMR05.0M | 900 002-740 |
| M224TPESTMR06.0M | 900 002-741 |
| M224TPESTMR07.0M | 900 002-742 |
| M224TPESTMR10.0M | 900 002-743 |
| M224TPESTMR12.0M | 900 002-744 |
| M224TPESTMR15.0M | 900 002-745 |
| M224TPESTMR20.0M | 900 002-746 |
| M224TPESTMR25.0M | 900 002-747 |
| M224TPESTMR30.0M | 900 002-748 |
| M224TPESTMR40.0M | 900 002-749 |
| M224TPESTMR50.0M | 900 002-750 |
| M224TPESTMR60.0M | 900 002-751 |
| M224TPESTMR70.0M | 900 002-752 |
| M224TPESTMR80.0M | 900 002-753 |

BELDEN
SENDING ALL THE RIGHT SIGNALS®

## Industrial Ethernet Cord Sets

RJ45 to M12 Panel-Mount Receptacle, 24 AWG, TPE, Red Jacket

### Cable Description

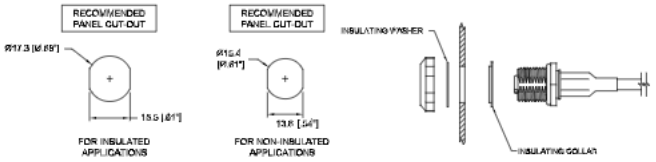
Industrial Ethernet CAT 5E, TPE unshielded, 2-pair, 24 AWG cable, bonded-pairs, stranded (7x32) tinned copper conductors, polyolefin insulation, and industrial grade sunlight-and-oil-resistant, red jacket.

| Physical Characteristics | |
|---|---|
| Number of Pairs | 2 |
| Conductors | 4 |
| Gauge | 24 AWG |
| Stranding | Stranded (7x32) |
| Diameter | .022" |
| Material | TC - Tinned Copper |
| Color Codes | 1 = White/Orange Stripe & Orange<br>2 = White/Green Stripe & Green |
| **Outer Shield** | |
| Material | Unshielded |
| **Outer Jacket** | |
| Material | TPE |
| Jacket Color | Red |
| Overall Diameter | 0.275" |
| **Mechanical Characteristics** | |
| Operating Temperature Range | -40°C to +75°C |
| Storage Temperature Range | -25°C to +75°C |
| Installation Temperature Range | -25°C to +75°C |
| Max. Pulling Tension | 40 lbs. |
| Min. Bend Radius | 0.250" |
| **Application Standards** | |
| NEC(UL) | TBD |
| CEC(UL) | TBD |
| IEC | 11801 Category 5e Patch |
| EU RoHS Compliant | Yes |
| TIA/EIA | 568-B.2 Category 5e Patch |

| Connector Specifications | | |
|---|---|---|
| Pins | 8 | 4 |
| Coding | N/A | D-Coded |
| Housing/Molded Body | Pre-Tinned Copper Alloy | PUR, Black |
| Insert | Clear Polycarbonate | PUR, Self Extinguishing |
| Contacts | 50 µ Gold Contact over Nickel Plated | Brass, Gold over Nickel Plated |
| Coupling Nut | N/A | Brass, Nickel Plated |
| Ingress Protection Rating | IP 20 | IP 68 |
| Temperature Range | -20°C to +75°C | -20°C to +75°C |
| CMR(UL) | CMR | CMR |

| Description | Order NO. |
|---|---|
| J224TPESTPR00.3M | 900 002-796 |
| J224TPESTPR00.5M | 900 002-797 |
| J224TPESTPR01.0M | 900 002-798 |
| J224TPESTPR02.0M | 900 002-799 |
| J224TPESTPR03.0M | 900 002-800 |

### Ground Isolation - Panel Installation



## Industrial Ethernet Cord Sets

M12 to M12, 24 AWG, TPE, High Flex, Red Jacket

### Cable Description

Industrial Ethernet High-Flex CAT 5E, TPE unshielded, 2 pair, 24 AWG cable, stranded copper alloy conductors, polyolefin insulation, red jacket.

| Physical Characteristics | |
|---|---|
| Number of Pairs | 2 |
| Conductors | 4 |
| Gauge | 24 AWG |
| Stranding | Stranded |
| Diameter | .024" |
| Material | Copper Alloy |
| Color Codes | 1 = White/Orange Stripe & Orange<br>2 = White/Green Stripe & Green |

| Connector Specifications | |
|---|---|
| Pins | 4 |
| Coding | D-Coded |
| Housing/Molded Body | PUR, Black |
| Insert | PUR, Self Extinguishing |
| Contacts | Brass, Gold over Nickel Plated |
| Coupling Nut | Brass, Nickel Plated |
| Ingress Protection Rating | IP 68 |
| Temperature Range | -20°C to +75°C |
| CMR(UL) | CMR |

#### Outer Shield

| | |
|---|---|
| Material | Unshielded |

#### Outer Jacket

| | |
|---|---|
| Material | TPE (High-Flex) |
| Jacket Color | Red |
| Overall Diameter | 0.250" |

#### Mechanical Characteristics

| | |
|---|---|
| Operating Temperature Range | -40°C to +80°C |
| Storage Temperature Range | -40°C to +85°C |
| Installation Temperature Range | -25°C to +80°C |
| Max. Pulling Tension | 25 lbs. |
| Min. Bend Radius | 0.25" |

#### Application Standards

| | |
|---|---|
| NEC(UL) | AWM 20626 |
| TIA/EIA | 568-B.2 Category 5e Patch |

| Description | Order NO. |
|---|---|
| M224THFSTMR00.3M | 900 002-717 |
| M224THFSTMR00.5M | 900 002-718 |
| M224THFSTMR01.0M | 900 002-719 |
| M224THFSTMR02.0M | 900 002-720 |
| M224THFSTMR03.0M | 900 002-721 |
| M224THFSTMR04.0M | 900 002-722 |
| M224THFSTMR05.0M | 900 002-723 |
| M224THFSTMR06.0M | 900 002-724 |
| M224THFSTMR07.0M | 900 002-725 |
| M224THFSTMR10.0M | 900 002-726 |
| M224THFSTMR12.0M | 900 002-727 |
| M224THFSTMR15.0M | 900 002-728 |
| M224THFSTMR20.0M | 900 002-729 |
| M224THFSTMR25.0M | 900 002-730 |
| M224THFSTMR30.0M | 900 002-731 |
| M224THFSTMR40.0M | 900 002-732 |
| M224THFSTMR50.0M | 900 002-733 |

BELDEN
SENDING ALL THE RIGHT SIGNALS®

## Industrial Ethernet Cord Sets

RJ45 to RJ45, 24 AWG, Stranded, Shielded TPE Cable, Red Jacket

### Cable Description

Industrial Ethernet CAT 5E, TPE shielded, 2-pair, 24 AWG cable, bonded-pairs, stranded (7x32) tinned copper conductors, polyolefin insulation, and industrial grade sunlight-and-oil-resistant, red jacket.

| Physical Characteristics | |
|---|---|
| Number of Pairs | 2 |
| Conductors | 8 |
| Gauge | 24 AWG |
| Stranding | Stranded (7x32) |
| Diameter | .022" |
| Material | TC - Tinned Copper |
| Color Codes | 1 = White/Orange<br>3 = White/Green<br>2 = Orange<br>6 = Green |
| **Outer Shield** | |
| Material | Overall Beldfoil + TC Braid Shield (65% Coverage) |
| **Outer Jacket** | |
| Material | TPE |
| Jacket Color | Red |
| Overall Diameter | 0.300" |
| **Mechanical Characteristics** | |
| Operating Temperature Range | -40°C to +75°C |
| Storage Temperature Range | -25°C to +75°C |
| Installation Temperature Range | -25°C to +75°C |
| Max. Pulling Tension | 40 lbs. |
| Min. Bend Radius | 0.250" |
| **Application Standards** | |
| NEC(UL) | TBD |
| CEC(UL) | TBD |
| IEC | 11801 Category 5e Patch |
| EU RoHS Compliant | Yes |
| TIA/EIA | 568-B.2 Category 5e Patch |

| Connector Specifications | |
|---|---|
| Pins | 8 |
| RJ45 Plug | Polycarbonate |
| RJ45 Contacts | Phosphor Bronze, Gold Plated |
| RJ45 Boot | Elastomer Polyolefin |
| Ingress Protection Rating | IP 20 |
| Temperature Range | -20°C to +60°C |
| Current Rating | 1.5 A |
| Voltage Rating | 60 V |
| Performance | CAT5e |

| Description | Order NO. |
|---|---|
| J224TPETLJR00.3M | 900 002-826 |
| J224TPETLJR00.5M | 900 002-827 |
| J224TPETLJR01.0M | 900 002-828 |
| J224TPETLJR02.0M | 900 002-829 |
| J224TPETLJR03.0M | 900 002-830 |
| J224TPETLJR04.0M | 900 002-831 |
| J224TPETLJR05.0M | 900 002-832 |

## Industrial Ethernet Cord Sets

M12 to M12, 24 AWG, Stranded, Shielded TPE Cable, Red Jacket

### Cable Description

Industrial Ethernet High-Flex CAT 5E, TPE shielded, 2 pair, 24 AWG cable, stranded copper alloy conductors, polyolefin insulation, red jacket.

| Physical Characteristics | |
|---|---|
| Number of Pairs | 2 |
| Conductors | 4 |
| Gauge | 24 AWG |
| Stranding | Stranded |
| Diameter | .024" |
| Material | Copper Alloy |
| Color Codes | 1 = White/Orange Stripe & Orange<br>2 = White/Green Stripe & Green |
| **Outer Shield** | |
| Material | Overall Beldfoil + TC Braid Shield (65% Coverage) |
| **Outer Jacket** | |
| Material | TPE (High-Flex) |
| Jacket Color | Red |
| Overall Diameter | 0.250" |
| **Mechanical Characteristics** | |
| Operating Temperature Range | -40°C to +80°C |
| Storage Temperature Range | -40°C to +85°C |
| Installation Temperature Range | -25°C to +80°C |
| Max. Pulling Tension | 25 lbs. |
| Min. Bend Radius | 0.25" |
| **Application Standards** | |
| NEC(UL) | AWM 20626 |
| TIA/EIA | 568-B.2 Category 5e Patch |

| Connector Specifications | |
|---|---|
| Pins | 4 |
| Coding | D-Coded |
| Housing/Molded Body | PUR, Black |
| Insert | PUR, Self Extinguishing |
| Contacts | Brass, Gold Plated |
| Coupling Nut | Brass, Nickel Plated |
| Ingress Protection Rating | IP 68 / NEMA 6P |
| Temperature Range | -40°C to +75°C |
| Current Rating | 4 A |
| Voltage Rating | 250 V |
| Performance | CAT5e |

| Description | Order NO. |
|---|---|
| M224TPETLMR00.3M | 900 002-754 |
| M224TPETLMR00.5M | 900 002-755 |
| M224TPETLMR01.0M | 900 002-756 |
| M224TPETLMR02.0M | 900 002-757 |
| M224TPETLMR03.0M | 900 002-758 |
| M224TPETLMR04.0M | 900 002-759 |
| M224TPETLMR05.0M | 900 002-760 |
| M224TPETLMR06.0M | 900 002-761 |
| M224TPETLMR07.0M | 900 002-762 |
| M224TPETLMR10.0M | 900 002-763 |
| M224TPETLMR12.0M | 900 002-764 |
| M224TPETLMR15.0M | 900 002-765 |
| M224TPETLMR20.0M | 900 002-766 |
| M224TPETLMR25.0M | 900 002-767 |
| M224TPETLMR30.0M | 900 002-768 |
| M224TPETLMR40.0M | 900 002-769 |
| M224TPETLMR50.0M | 900 002-770 |
| M224TPETLMR60.0M | 900 002-771 |
| M224TPETLMR70.0M | 900 002-772 |
| M224TPETLMR80.0M | 900 002-773 |

BELDEN
SENDING ALL THE RIGHT SIGNALS®

## Industrial Ethernet Cord Sets

RJ45 to M12 Panel-Mount Receptacle, 24 AWG, Stranded, Shielded TPE Cable, Red Jacket

### Cable Description

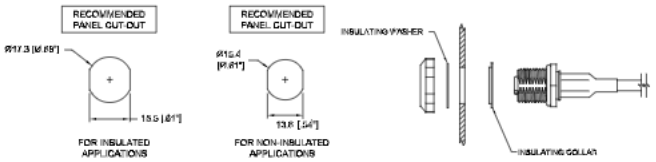
Industrial Ethernet CAT 5E, TPE shielded, 2-pair, 24 AWG cable, bonded-pairs, stranded (7x32) tinned copper conductors, polyolefin insulation, and industrial grade sunlight-and-oil-resistant, red jacket.

| Physical Characteristics | |
|---|---|
| Number of Pairs | 2 |
| Conductors | 4 |
| Gauge | 24 AWG |
| Stranding | Stranded |
| Diameter | .024" |
| Material | Copper Alloy |
| Color Codes | M12 / RJ45<br>1 White/Orange / 1<br>2 White/Green / 3<br>3 Orange / 2<br>4 Green / 6 |
| **Outer Shield** | |
| Material | Overall Beldfoil + TC Braid Shield (65% Coverage) |
| **Outer Jacket** | |
| Material | TPE (High-Flex) |
| Jacket Color | Red |
| Overall Diameter | 0.300" |
| **Mechanical Characteristics** | |
| Operating Temperature Range | -40°C to +80°C |
| Storage Temperature Range | -40°C to +85°C |
| Installation Temperature Range | -25°C to +80°C |
| Max. Pulling Tension | 25 lbs. |
| Min. Bend Radius | 0.25" |
| **Application Standards** | |
| NEC(UL) | AWM 20626 |
| TIA/EIA | 568-B.2 Category 5e Patch |

| Connector Specifications | |
|---|---|
| Pins | 4 |
| M12 Housing | Brass, Nickel Plated |
| M12 Insert | PUR, Black |
| M12 Contacts | Brass, Gold Plated |
| RJ45 Plug | Polycarbonate |
| RJ45 Contacts | Phosphor Bronze, Gold Plated |
| RJ45 Boot | Elastomer Polyolefin |
| Temperature Range | -20°C to +60°C |
| IP Rating | IP 68 / MEMA 6P |
| Current Rating | 1.5 A |
| Voltage Rating | 60 V |
| Performance | CAT5e |

| Description | Order NO. |
|---|---|
| J224TPETLPR00.3M | 900 002-791 |
| J224TPETLPR00.5M | 900 002-792 |
| J224TPETLPR01.0M | 900 002-793 |
| J224TPETLPR02.0M | 900 002-794 |
| J224TPETLPR03.0M | 900 002-795 |

### Ground Isolation - Panel Installation



## Industrial Ethernet Cord Sets

M12 to M12, 24 AWG, Stranded, Shielded TPE Cable, High Flex, Red Jacket

### Cable Description

Industrial Ethernet High-Flex CAT 5E, TPE shielded, 2 pair, 24 AWG cable, stranded copper alloy conductors, polyolefin insulation, red jacket.

| Physical Characteristics | |
|---|---|
| Number of Pairs | 2 |
| Conductors | 4 |
| Gauge | 24 AWG |
| Stranding | Stranded |
| Diameter | .024" |
| Material | Copper Alloy |
| Color Codes | 1 = White/Orange Stripe & Orange<br>2 = White/Green Stripe & Green |
| **Outer Shield** | |
| Material | Overall Beldfoil + TC Braid Shield (65% Coverage) |
| **Outer Jacket** | |
| Material | TPE (High-Flex) |
| Jacket Color | Red |
| Overall Diameter | 0.300" |
| **Mechanical Characteristics** | |
| Operating Temperature Range | -40°C to +80°C |
| Storage Temperature Range | -40°C to +85°C |
| Installation Temperature Range | -25°C to +80°C |
| Max. Pulling Tension | 25 lbs. |
| Min. Bend Radius | 0.25" |
| **Application Standards** | |
| NEC(UL) | AWM 20626 |
| TIA/EIA | 568-B.2 Category 5e Patch |

| Connector Specifications | |
|---|---|
| Pins | 4 |
| Coding | D-Coded |
| Housing/Molded Body | PUR, Black |
| Insert | PUR, Self Extinguishing |
| Contacts | Brass, Gold Plated |
| Coupling Nut | Brass, Nickel Plated |
| Ingress Protection Rating | IP 68 / NEMA 6P |
| Temperature Range | -40°C to +75°C |
| Current Rating | 4 A |
| Voltage Rating | 250 V |
| Performance | CAT5e |

| Description | Order NO. |
|---|---|
| M224THFTLMR00.3M | 900 002-774 |
| M224THFTLMR00.5M | 900 002-775 |
| M224THFTLMR01.0M | 900 002-776 |
| M224THFTLMR02.0M | 900 002-777 |
| M224THFTLMR03.0M | 900 002-778 |
| M224THFTLMR04.0M | 900 002-779 |
| M224THFTLMR05.0M | 900 002-780 |
| M224THFTLMR06.0M | 900 002-781 |
| M224THFTLMR07.0M | 900 002-782 |
| M224THFTLMR10.0M | 900 002-783 |
| M224THFTLMR12.0M | 900 002-784 |
| M224THFTLMR15.0M | 900 002-785 |
| M224THFTLMR20.0M | 900 002-786 |
| M224THFTLMR25.0M | 900 002-787 |
| M224THFTLMR30.0M | 900 002-788 |
| M224THFTLMR40.0M | 900 002-789 |
| M224THFTLMR50.0M | 900 002-790 |

## Industrial Ethernet Cord Sets

M12 to M12, 24 AWG, TPE, High Flex, Orange Jacket

### Cable Description

Industrial Ethernet High-Flex CAT 5E, TPE unshielded, 2 pair, 24 AWG cable, stranded copper alloy conductors, polyolefin insulation, orange jacket.

| Physical Characteristics | |
|---|---|
| Number of Pairs | 2 |
| Conductors | 4 |
| Gauge | 24 AWG |
| Stranding | Stranded |
| Diameter | .024" |
| Material | Copper Alloy |
| Color Codes | 1 = White/Orange Stripe & Orange<br>2 = White/Green Stripe & Green |

| Connector Specifications | |
|---|---|
| Pins | 4 |
| Coding | D-Coded |
| Housing/Molded Body | PUR, Black |
| Insert | PUR, Self Extinguishing |
| Contacts | Brass, Gold over Nickel Plated |
| Coupling Nut | Brass, Nickel Plated |
| Ingress Protection Rating | IP 68 |
| Temperature Range | -20°C to +75°C |
| CMR(UL) | CMR |

#### Outer Shield

| | |
|---|---|
| Material | Unshielded |

#### Outer Jacket

| | |
|---|---|
| Material | TPE (High-Flex) |
| Jacket Color | Orange |
| Overall Diameter | 0.250" |

#### Mechanical Characteristics

| | |
|---|---|
| Operating Temperature Range | -40°C to +80°C |
| Storage Temperature Range | -40°C to +85°C |
| Installation Temperature Range | -25°C to +80°C |
| Max. Pulling Tension | 25 lbs. |
| Min. Bend Radius | 0.25" |

#### Application Standards

| | |
|---|---|
| NEC(UL) | AWM 20626 |
| TIA/EIA | 568-B.2 Category 5e Patch |

| Description | Order NO. |
|---|---|
| M224THFSTMN00.3M | 900 002-256 |
| M224THFSTMN00.5M | 900 002-257 |
| M224THFSTMN01.0M | 900 002-258 |
| M224THFSTMN02.0M | 900 002-259 |
| M224THFSTMN03.0M | 900 002-260 |
| M224THFSTMN04.0M | 900 002-261 |
| M224THFSTMN05.0M | 900 002-262 |
| M224THFSTMN06.0M | 900 002-263 |
| M224THFSTMN07.0M | 900 002-264 |
| M224THFSTMN10.0M | 900 002-265 |
| M224THFSTMN12.0M | 900 002-266 |
| M224THFSTMN15.0M | 900 002-267 |
| M224THFSTMN20.0M | 900 002-268 |
| M224THFSTMN25.0M | 900 002-269 |
| M224THFSTMN30.0M | 900 002-270 |
| M224THFSTMN40.0M | 900 002-271 |
| M224THFSTMN50.0M | 900 002-272 |
| M224THFSTMN60.0M | 900 002-283 |
| M224THFSTMN70.0M | 900 002-284 |

## DataTuff Industrial Ethernet Cord Sets (RJ45). Cat 5e 4 Pair, 24 AWG – Heavy Duty Oil- & Sunlight-Resistant Black Jackets

IP67 interface complies with the EtherNet/IP specification (IEC 61076-3-106 Variant 1)

**Unshielded with Solid Conductors** (ref: Belden Bonded-Pair Cable 7923A)
Cable Rating NEC: CMR, CMX-Outdoor CEC: CMR FT4. MSHA

| Belden Part No. | IP Rating | Length meters (Ft.) | Tethered Cap | Standard Package Quantity (Piecies) |
|---|---|---|---|---|
| E500001 010B50 | IP67 | 1 m (3.3 ft.) | Yes | 50 |
| E500002 010B40 | IP67 | 2 m (6.6 ft.) | Yes | 40 |
| E500003 010B32 | IP67 | 3 m (9.8 ft.) | Yes | 32 |
| E500005 010B24 | IP67 | 5 m (16.4 ft.) | Yes | 24 |
| E500025 010B6 | IP67 | 25 m (82 ft.) | Yes | 6 |
| E501001 010B70 | IP20 | 1 m (3.3 ft.) | – | 70 |
| E501002 010B50 | IP20 | 2 m (6.6 ft.) | – | 50 |
| E501003 010B36 | IP20 | 3 m (9.8 ft.) | – | 36 |
| E501005 010B30 | IP20 | 5 m (16.4 ft.) | – | 30 |

IP67 Cord Set

**Unshielded with Stranded Conductors** (ref: Belden Bonded-Pair Cable 7924A)
Cable Rating NEC: CMR, CMX-Outdoor CEC: CMR FT4

| Belden Part No. | IP Rating | Length meters (Ft.) | Tethered Cap | Standard Package Quantity (Piecies) |
|---|---|---|---|---|
| E502001 010B50 | IP67 | 1 m (3.3 ft.) | Yes | 50 |
| E502002 010B40 | IP67 | 2 m (6.6 ft.) | Yes | 40 |
| E502003 010B32 | IP67 | 3 m (9.8 ft.) | Yes | 32 |
| E502005 010B24 | IP67 | 5 m (16.4 ft.) | Yes | 24 |
| E502025 010B6 | IP67 | 25 m (82 ft.) | Yes | 6 |
| E503001 010B70 | IP20 | 1 m (3.3 ft.) | – | 70 |
| E503002 010B50 | IP20 | 2 m (6.6 ft.) | – | 50 |
| E503003 010B36 | IP20 | 3 m (9.8 ft.) | – | 36 |
| E503005 010B30 | IP20 | 5 m (16.4 ft.) | – | 30 |

IP20 Cord Set

**Shielded with Solid Conductors** (ref: Belden Bonded-Pair Cable 7929A)
Cable Rating NEC: CMR, CMX-Outdoor CEC: CMR FT4. MSHA

| Belden Part No. | IP Rating | Length meters (Ft.) | Tethered Cap | Standard Package Quantity (Piecies) |
|---|---|---|---|---|
| E504001 010B50 | IP67 | 1 m (3.3 ft.) | Yes | 50 |
| E504002 010B40 | IP67 | 2 m (6.6 ft.) | Yes | 40 |
| E504003 010B32 | IP67 | 3 m (9.8 ft.) | Yes | 32 |
| E504005 010B24 | IP67 | 5 m (16.4 ft.) | Yes | 24 |
| E504025 010B6 | IP67 | 25 m (82 ft.) | Yes | 6 |
| E505001 010B70 | IP20 | 1 m (3.3 ft.) | – | 70 |
| E505002 010B50 | IP20 | 2 m (6.6 ft.) | – | 50 |
| E505003 010B36 | IP20 | 3 m (9.8 ft.) | – | 36 |
| E505005 010B30 | IP20 | 5 m (16.4 ft.) | – | 30 |

**Shielded with Stranded Conductors** (ref: Belden Bonded-Pair Cable 7939A)
Cable Rating NEC: CMR, CMX-Outdoor CEC: CMR FT4

| Belden Part No. | IP Rating | Length meters (Ft.) | Tethered Cap | Standard Package Quantity (Piecies) |
|---|---|---|---|---|
| E506001 010B50 | IP67 | 1 m (3.3 ft.) | Yes | 50 |
| E506002 010B40 | IP67 | 2 m (6.6 ft.) | Yes | 40 |
| E506003 010B32 | IP67 | 3 m (9.8 ft.) | Yes | 32 |
| E506005 010B24 | IP67 | 5 m (16.4 ft.) | Yes | 24 |
| E506025 010B6 | IP67 | 25 m (82 ft.) | Yes | 6 |
| E507001 010B70 | IP20 | 1 m (3.3 ft.) | – | 70 |
| E507002 010B50 | IP20 | 2 m (6.6 ft.) | – | 50 |
| E507003 010B36 | IP20 | 3 m (9.8 ft.) | – | 36 |
| E507005 010B30 | IP20 | 5 m (16.4 ft.) | – | 30 |

## Modular Jacks (RJ45). Cat 5e. IP67

IP67 interface complies with the *EtherNet/IP* specification (IEC 61076-3-106 Variant 1)

IP67 Modular Jack

| Belden Part No. | Description | Tethered Cap | Carton Quantity |
|---|---|---|---|
| E100501 010B25 | UTP, Black | Yes | 25 |
| E100502 010B25 | FTP, Black | Yes | 25 |

## Plug Kits (RJ45). Cat 5e. IP67

IP67 interface complies with the *EtherNet/IP* specification (IEC 61076-3-106 Variant 1)

IP67 Plug Kit

| Belden Part No. | Description | Tethered Cap | Standard Package Quantity |
|---|---|---|---|
| E300501 010B25 | UTP, Black | Yes | 25 |
| E300502 010B25 | FTP, Black | Yes | 25 |

## Stainless Steel Faceplates. IP67

IP67 Stainless Steel Faceplates

| Belden Part No. | Description | Standard Package Quantity |
|---|---|---|
| E200001 000B25 | Single gang, 1-port | 25 |
| E200002 000B25 | Single gang, 2-port | 25 |
| E200004 000B25 | Double gang, 4-port | 25 |

## Surface Mount Boxes. IP67

Surface Mount Box Dimensions: 12.8 x 12.8 x 6.7 cm deep (5.05" x 5.05" x 2.625" deep)

IP67 Surface Mount Box

| Belden Part No. | Description | Standard Package Quantity |
|---|---|---|
| E200101 009B8 | 1-port, White/Stainless Steel Cover | 8 |
| E200102 009B8 | 2-port, White/Stainless Steel Cover | 8 |
| E200103 009B8 | 3-port, White/Stainless Steel Cover | 8 |
| E200104 009B8 | 4-port, White/Stainless Steel Cover | 8 |

## Tools

Crimp Tool

Stripping Tool

Punch-down Connecting Tool

| Belden Part No. | Description | Standard Package Quantity |
|---|---|---|
| E400001 005S1 | Hand tool to crimp unshielded (UTP) and shielded (FTP) RJ45 plugs, 1 Black with Green handle | 1 |
| E400003 008S1 | Cable stripper, Gray | 1 |
| AX100749 | Punch-down connecting tool | 1 |
| C0054642 | Punch-down connecting tool pouch | 1 |

FTP = Foil Shielded Twisted Pairs • UTP = Unshielded Twisted Pairs

Belden also offers a complete line of commercial Copper and Fiber cabling and connectivity solutions.

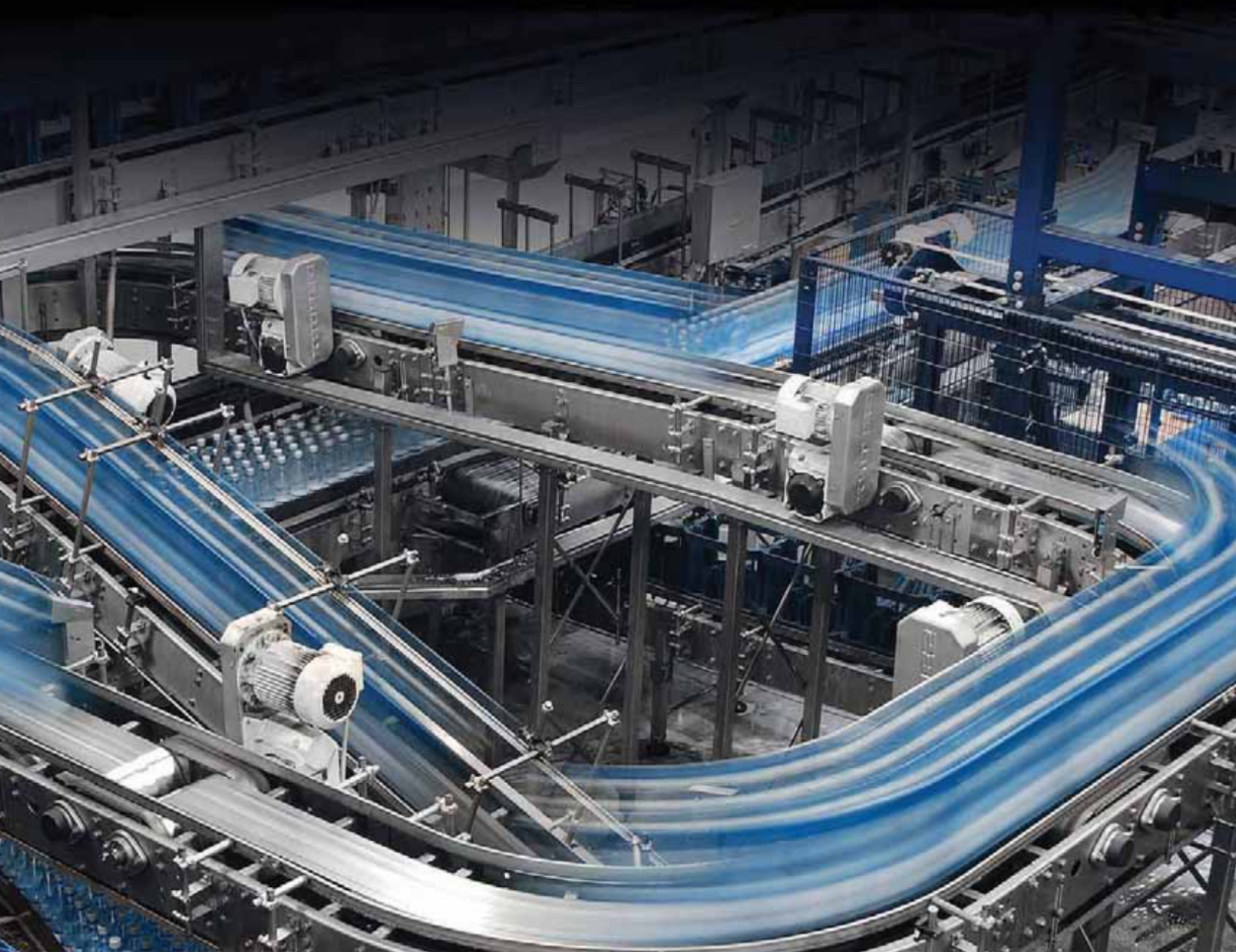
Complete information for the entire Belden DataTuff Industrial Ethernet line is available at www.belden.com

Ethernet/IP is a trademark of ControlNet International, Ltd. under license by Open DeviceNet Vendor Association, Inc.

**Note**: For technical support or to place an order for DataTuff Industrial Ethernet Cord Sets and Accessories, contact your local Belden aacount representative or call **1.800.BELDEN.1**

# Be Certain with Belden

**Regarding the details in this catalog:** Alterations may have been made to the product after the editorial deadline for this publication, namely 08/15/2009. The manufacturer reserves the right to alter the construction and form, manufacture different shades and amend the scope of delivery during the delivery period insofar as the alterations and differences are acceptable to the buyer while allowing for the seller's interests. Insofar as the seller or the manufacturer uses signs or numbers to mark the order or the ordered item, no rights may be derived from this alone. The illustrations may also contain accessories and special equipment which are not part of the mass-produced scope of delivery. Color differences are attributable to technical aspects of the printing process. This publication may also contain types and support services that are not made available/rendered in some countries. The information/details in this publication merely contain general descriptions or performance factors which, when applied in an actual situation, do not always correspond with the described form, and may be amended by way of the further development of products. The desired performance factors shall only be deemed binding if these are expressly agreed on conclusion of the contract. This catalog will be used internationally. However, comments on statutory, legal and fiscal provisions and effects only apply to the Federal Republic of Germany at the time of the editorial deadline for this publication. Please consult your pertinent seller about the provisions and effectsthat apply to your country, and regarding the latest binding version.



BELDEN
SENDING ALL THE RIGHT SIGNALS®

www.belden.com/hirschmann

## GLOBAL LOCATIONS

**For worldwide Industrial Sales and Technical Support, visit: www.belden.com/industrial**

### United States

**Division Headquarters - Americas**

2200 U.S. Highway 27 South
Richmond, IN 47374

**Phone: 765-983-5200**
Fax: 800-235-3361
info@belden.com
www.belden.com

**Contact for Belden Brand**

2200 U.S. Highway 27 South
Richmond, IN 47374

**Inside Sales: 1-800-BELDEN-1**
(1-800-235-3361)

**Phone: 765-983-5200**
Fax: 800-235-3361
info@belden.com
www.belden.com

**Contact for Hirschmann Brand**

1540 Orchard Drive
Chambersburg, PA 17201

**Phone: 717-217-2200**
Fax: 717-217-2279
info.hirschmann@belden.com
www.belden.com/hirschmann

### Canada

**National Business Center**

2280 Alfred-Nobel
Suite 200
Saint-Laurent, QC
Canada H4S 2A4

**Phone: 514-822-2345**
Fax: 514-822-7979

### LATIN AMERICA and the CARIBBEAN ISLANDS

**Regional Office**

6100 Hollywood Boulevard
Suite 100
Hollywood, Florida 33024

**Phone: 954-987-5044**
Fax: 954-987-5044
salessla@belden.com

© Copyright 2011 Belden, Inc.
Printed in U.S.A.
IEM Brochure 022011