



**Product:** [7929A](#) 

DataTuff® Cat 5e, 4 Bonded-Pr #24 Sol BC, PO Ins, OS, PVC Jkt, CMR CMG

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## Product Description

Industrial Ethernet Cat 5e, 4 Bonded-Pair 24AWG (Solid) Bare Copper, PO Insulation, Overall Beldfoil® Shield, PVC Outer Jacket, CMR CMG

## Technical Specifications

### Product Overview

|                        |                                                                                                                                                                            |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Suitable Applications: | mining, harsh environment, IIoT, factory or process automation, IP cameras and devices, data communication, etc.                                                           |
| Patent:                | This product has one or more applicable patents. More information on patents can be found at <a href="https://www.belden.com/patents">https://www.belden.com/patents</a> . |

### Construction Details

#### Conductor

| Element | Size   | Stranding | Material         | No. of Pairs |
|---------|--------|-----------|------------------|--------------|
| Pair(s) | 24 AWG | Solid     | BC - Bare Copper | 4            |

#### Insulation

| Material        | Color Code                                                                                                     |
|-----------------|----------------------------------------------------------------------------------------------------------------|
| PO - Polyolefin | White/Blue Stripe & Blue, White/Orange Stripe & Orange, White/Green Stripe & Green, White/Brown Stripe & Brown |

|              |     |
|--------------|-----|
| Bonded-Pair: | Yes |
|--------------|-----|

#### Outer Shield

| Shield Type | Material                            | Coverage | Drainwire Type   |
|-------------|-------------------------------------|----------|------------------|
| Tape        | Polyester + Bi-Laminate (Alum+Poly) | 100%     | 24 AWG (7x32) TC |

#### Outer Jacket

| Material                 | Nom. Diameter      |
|--------------------------|--------------------|
| PVC - Polyvinyl Chloride | 0.275 in (6.99 mm) |

|                                   |                    |
|-----------------------------------|--------------------|
| Overall Cable Diameter (Nominal): | 0.275 in (6.99 mm) |
|-----------------------------------|--------------------|

### Electrical Characteristics

#### Electricals

| Max. Conductor DCR            | Max. Capacitance Unbalance |
|-------------------------------|----------------------------|
| 93.8 Ohm/km (28.6 Ohm/1000ft) | 330 pF/100m                |

#### Delay

| Max. Delay  | Max. Delay Skew | Nom. Velocity of Prop. |
|-------------|-----------------|------------------------|
| 538 ns/100m | 45 ns/100m      | 70%                    |

#### High Frequency

| Frequency [MHz] | Max. Insertion Loss (Attenuation) | Min. NEXT [dB] | Min. PSNEXT [dB] | Min. ACR [dB] | Min. PSACR [dB] | Min. ACRF (ELFEXT) [dB] | Min. PSACRF (PSELFEXT) [dB] | Min. RL (Return Loss) [dB] | Min. SRL (Structural Return Loss) [dB] | Max./Min. Input Impedance (unFitted) [Ohm] | Max./Min. Fitted Impedance [Ohm] |
|-----------------|-----------------------------------|----------------|------------------|---------------|-----------------|-------------------------|-----------------------------|----------------------------|----------------------------------------|--------------------------------------------|----------------------------------|
| 1               | 2.0 dB/100m                       | 65.3           | 62.3             | 63            | 60              | 63.8                    | 60.8                        | 20                         | 23                                     | 100 ± 15                                   | 100 ± 15                         |
| 4               | 4.1 dB/100m                       | 56.3           | 53.3             | 51            | 49              | 51.7                    | 48.7                        | 23                         | 23                                     | 100 ± 15                                   | 100 ± 15                         |
| 8               | 5.8 dB/100m                       | 51.8           | 48.8             | 46            | 43              | 45.7                    | 42.7                        | 24.5                       | 24.5                                   | 100 ± 15                                   | 100 ± 15                         |
| 10              | 6.5 dB/100m                       | 50.3           | 47.3             | 43            | 41              | 43.8                    | 40.8                        | 25                         | 25                                     | 100 ± 15                                   | 100 ± 15                         |

|       |              |      |      |      |      |      |      |      |      |          |          |
|-------|--------------|------|------|------|------|------|------|------|------|----------|----------|
| 16    | 8.2 dB/100m  | 47.3 | 44.3 | 39   | 36   | 39.7 | 36.7 | 25   | 25   | 100 ± 15 | 100 ± 15 |
| 20    | 9.3 dB/100m  | 45.8 | 42.8 | 36.5 | 33.5 | 37.7 | 34.7 | 25   | 25   | 100 ± 15 | 100 ± 15 |
| 25    | 10.4 dB/100m | 44.3 | 41.3 | 33.9 | 30.9 | 35.8 | 32.8 | 24.3 | 24.3 | 100 ± 15 | 100 ± 15 |
| 31.25 | 11.7 dB/100m | 42.9 | 39.9 | 31   | 28   | 33.9 | 30.9 | 23.6 | 23.6 | 100 ± 15 | 100 ± 15 |
| 62.5  | 17.0 dB/100m | 38.4 | 35.4 | 22   | 19   | 27.8 | 24.8 | 21.5 | 21.5 | 100 ± 15 | 100 ± 15 |
| 100   | 22.0 dB/100m | 35.3 | 32.3 | 14   | 11   | 23.8 | 20.8 | 20.1 | 20.1 | 100 ± 15 |          |
| 200   | 32.4 dB/100m |      | 27.8 |      | 1    |      | 14.7 |      | 15   | 100 ± 25 |          |

Voltage

| UL Voltage Rating                |
|----------------------------------|
| 300 V (CMR), 300 V (CMX-Outdoor) |

Mechanical Characteristics

Temperature

| UL Temperature | Operating      | Installation   | Storage        |
|----------------|----------------|----------------|----------------|
| 60°C           | -40°C To +75°C | -25°C To +75°C | -40°C To +80°C |

Bend Radius

| Stationary Min. |
|-----------------|
| 0.5 in (13 mm)  |

|                    |                 |
|--------------------|-----------------|
| Max. Pull Tension: | 20 lbs (9.1 kg) |
| Bulk Cable Weight: | 32 lbs/1000ft   |

Standards and Compliance

|                                  |                                                                                                                                         |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Environmental Suitability:       | Indoor/Outdoor, Indoor, Outdoor, Sunlight Resistance, Oil Resistance                                                                    |
| Flammability / Reaction to Fire: | UL1666 Riser, FT4, IEC 60332-1-2                                                                                                        |
| CPR Compliance:                  | CPR Euroclass: Eca; CPR UKCA Class: Eca                                                                                                 |
| NEC / UL Compliance:             | Article 800, CMR, CMX-Outdoor                                                                                                           |
| CEC / C(UL) Compliance:          | CMG                                                                                                                                     |
| Data Category:                   | Category 5e                                                                                                                             |
| European Directive Compliance:   | EU Directive 2015/863/EU (RoHS 2 amendment), REACH, EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE), REACH: 2020-01-16 |
| UK Regulation Compliance:        | UKCA Mark                                                                                                                               |
| APAC Compliance:                 | China RoHS II (GB/T 26572-2011)                                                                                                         |

Product Notes

|        |                                                                                                                                                                                        |
|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Notes: | Operating temperatures are subject to length de-rating. Cable passes -40C Cold Bend per UL 1581. *Special RJ45 plug required. See WWW. BELDEN.COM - Tools - Connector Cross Reference. |
|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

History

|                      |                                                  |
|----------------------|--------------------------------------------------|
| Update and Revision: | Revision Number: 0.585 Revision Date: 02-20-2026 |
|----------------------|--------------------------------------------------|

Part Numbers

Variants

| Item #        | Color | Putup Type | Length   | UPC          | Footnote |
|---------------|-------|------------|----------|--------------|----------|
| 7929A 0101000 | Black | Reel       | 1,000 ft | 612825191520 | C        |
| 7929A 0102000 | Black | Reel       | 2,000 ft | 612825191537 | C        |
| 7929A 0105000 | Black | Reel       | 5,000 ft | 612825191544 | C        |
| 7929A 0061000 | Blue  | Reel       | 1,000 ft | 612825191506 | C        |
| 7929A 0081000 | Gray  | Reel       | 1,000 ft | 612825191513 | C        |
| 7929A 0021000 | Red   | Reel       | 1,000 ft | 612825191490 | C        |
| 7929A 1NH1000 | Teal  | Reel       | 1,000 ft | 612825191551 | C        |

|           |                        |
|-----------|------------------------|
| Footnote: | C - CRATE REEL PUT-UP. |
|-----------|------------------------|

Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.