



**Product:** [2100A](#)

Fieldbus, 1 Pr #18 Str TC, XLPO Ins, OS, TPE Jkt, CMG

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**Product Description**

Fieldbus, 1 Pair 18AWG (7x26) Tinned Copper, XLPO Insulation, Overall Beldfoil® Shield, Orange TPE Outer Jacket, CMG

**Technical Specifications**

**Product Overview**

|                        |  |
|------------------------|--|
| Suitable Applications: | harsh environment digital and serial two-way communication, oil and gas extraction and refining sites, petrochemical, Profibus process automation or Foundation FieldBus process automation, extreme temperature environments, exposure to humidity/moisture, dust, and oil, remote locations long distance applications, etc. |
|------------------------|--|

**Physical Characteristics (Overall)**

| Conductor              |     |           |                    |              |
|------------------------|-----|-----------|--------------------|--------------|
| Element                | AWG | Stranding | Material           | No. of Pairs |
| Pair(s)                | 18  | 7x26      | TC - Tinned Copper | 1            |
| Conductor Count:       |     |           | 2                  |              |
| Total Number of Pairs: |     |           | 1                  |              |

| Material                                     |
|--|
| XLPE - Cross-Linked Polyethylene (Thermoset) |

| <b>Color Chart</b> |                           |
|--------------------|---------------------------|
| Number             | Color                     |
| 1                  | Blue, Orange and Numbered |

| Type | Material                | Material Trade Name | Coverage [%] | Drainwire AWG | Drainwire Construction n x D |
|------|-------------------------|---------------------|--------------|---------------|------------------------------|
| Tape | Bi-Laminate (Alum+Poly) | Beldfoil®           | 100%         | 20            | 7x28                         |
|      | Tinned Copper (TC)      |                     |              |               |                              |

| Outer Shield            |
|-------------------------|
| Material                |
| Bi-Laminate (Alum+Poly) |

| Outer Jacket                  |                  |         |
|-------------------------------|------------------|---------|
| Material                      | Nominal Diameter | Ripcord |
| TPE - Thermoplastic Elastomer | 0.319 in         | Yes     |

**Electrical Characteristics**

| Conductor DCR         |
|-----------------------|
| Nominal Conductor DCR |
| 5.86 Ohm/1000ft       |

| Capacitance                |                                      |
|----------------------------|--------------------------------------|
| Max. Capacitance Unbalance | Nom. Capacitance Conductor to Shield |
| 1.2 pF/ft                  | 22 pF/ft                             |

Inductance

| Nominal Inductance |
|--------------------|
| 0.22 µH/ft         |

Impedance

| Nominal Characteristic Impedance |
|----------------------------------|
| 100 Ohm                          |

High Frequency (Nominal/Typical)

| Nom. Insertion Loss |
|---------------------|
| 0.08 dB/100ft       |

Delay

| Nominal Velocity of Propagation (VP) [%] |
|--|
| 64%                                      |

High Frequency

| Max. Insertion Loss (Attenuation) | Max./Min. Input Impedance (unFitted) |
|-----------------------------------|--------------------------------------|
| 0.091 dB/100ft                    | 100 Ohm                              |

Current

| Element       | Max. Recommended Current [A] |
|---------------|------------------------------|
| Per Conductor | 8.7 Amps per Conductor       |

Voltage

| Description     | UL Voltage Rating | Voltage Rating [V] |
|-----------------|-------------------|--------------------|
| CSA CIC type TC | 300 V             | 300 V RMS          |

|                                    |   |
|------------------------------------|---|
| Electrical Characteristics Notes:  | Max Propagation Delay Change From 7.812 kHz to 39.06 kHz: 518 pS/ft |
| Other Electrical Characteristic 2: | 31.25 KBits/sec   |

Temperature Range

|                                 |  |
|---------------------------------|--|
| Installation Temp Rating:       | -25°C  |
| Installation Temperature Range: | -25°C  |
| UL Temp Rating:                 | 90°C Wet/Dry                                     |
| Operating Temperature Range:    | -25°C Cold Impact -40°C to +90°C -55°C Cold Bend |

Mechanical Characteristics

|                              |               |
|------------------------------|---------------|
| UV Resistance:               | Yes           |
| Bulk Cable Weight:           | 51 lbs/1000ft |
| Max. Pull Tension:           | 57 lbs        |
| Min. Bend Radius/Minor Axis: | 3.25 in       |

Standards

|                      |  |
|----------------------|--|
| NEC Articles:        | Article 725, Article 727, Article 800                    |
| NEC/(UL) Compliance: | CMG, ITC, PLTC-ER  |
| CSA AWM Compliance:  | AWM I A/B II A/B, C22.2 #230 Type TC; C22.2#239 Type CIC |

Applicable Environmental and Other Programs

|  |                               |
|--|-------------------------------|
| EU Directive 2000/53/EC (ELV):               | Yes                           |
| EU Directive 2011/65/EU (RoHS 2):            | Yes                           |
| EU Directive 2012/19/EU (WEEE):              | Yes                           |
| EU Directive 2015/863/EU (RoHS 2 amendment): | Yes                           |
| EU Directive Compliance:                     | EU Directive 2003/11/EC (BFR) |
| EU CE Mark:                                  | Yes                           |
| MII Order #39 (China RoHS):                  | Yes                           |

Suitability

|                               |     |
|-------------------------------|-----|
| Suitability - Indoor:         | Yes |
| Suitability - Oil Resistance: | Yes |

|                                    |     |
|------------------------------------|-----|
| Suitability - Outdoor:             | Yes |
| Suitability - Sunlight Resistance: | Yes |

Flammability, LSOH, Toxicity Testing

|                    |                    |
|--------------------|--------------------|
| UL Flammability:   | UL1685 FT4 Loading |
| IEC Flammability:  | IEC 60332-3-24     |
| UL voltage rating: | 300 V RMS          |

Plenum/Non-Plenum

|               |    |
|---------------|----|
| Plenum (Y/N): | No |
|---------------|----|

Related Part Numbers

Variants

| Item #        | Color       | Put-Up Type | Length   | UPC          |
|---------------|-------------|-------------|----------|--------------|
| 2100A 0065000 | Blue, Light | Reel        | 5,000 ft | 612825128786 |
| 2100A 0031000 | Orange      | Reel        | 1,000 ft | 612825128755 |
| 2100A 0035000 | Orange      | Reel        | 5,000 ft | 612825128762 |

History

|                      |  |
|----------------------|--|
| Update and Revision: | Revision Number: 0.482 Revision Date: 02-15-2024 |
|----------------------|--|

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