




Product: [2107A](#) 

Fieldbus, 24 Pr #18 Str TC, XLPO Ins, IS/OS, TPE Jkt, CMG

 [Request Sample](#)

Product Description

Fieldbus, 24 Pair 18AWG (7x26) Tinned Copper, XLPO Insulation, Individual & 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 | 24 |

| | |
|------------------------|----|
| Conductor Count: | 48 |
| Total Number of Pairs: | 24 |

Insulation

| Material | Nominal Wall Thickness |
|--|------------------------|
| XLPE - Cross-Linked Polyethylene (Thermoset) | 0.032 in |

Color Chart

| Number | Color |
|--------|---------------------------|
| 1 | Blue, Orange and Numbered |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |
| 11 | |
| 12 | |
| 13 | |
| 14 | |
| 15 | |
| 16 | |
| 17 | |
| 18 | |
| 19 | |
| 20 | |
| 21 | |
| 22 | |
| 23 | |

Inner Shield Material

| Element | Type | Material | Material Trade Name | Coverage [%] | Drainwire Material | Drainwire AWG |
|--------------|------|-------------------------|---------------------|--------------|--------------------|---------------|
| | Tape | Bi-Laminate (Alum+Poly) | Beldfoil® | 100% | TC - Tinned Copper | 20 |
| Data Pair(s) | | | | | | |

Outer Shield Material

| Type | Material | Material Trade Name | Coverage [%] | Drainwire Material | Drainwire AWG |
|------|-------------------------|---------------------|--------------|--------------------|---------------|
| Tape | Bi-Laminate (Alum+Poly) | Beldfoil® | 100% | TC - Tinned Copper | 18 |

Outer Jacket Material

| Material | Nominal Diameter | Nominal Wall Thickness |
|-------------------------------|------------------|------------------------|
| TPE - Thermoplastic Elastomer | 1.389 in | 0.085 in |

Electrical Characteristics

Conductor DCR

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

Capacitance

| Nom. Capacitance Conductor to Conductor |
|---|
| 22 pF/ft |

Inductance

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

Impedance

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

High Frequency (Nominal/Typical)

| Frequency [MHz] | Nom. Insertion Loss |
|-----------------|---------------------|
| 0.039 MHz | 0.08 dB/100ft |

Delay

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

Current

| Max. Recommended Current [A] |
|------------------------------|
| 5.4 Amps per Conductor |

Voltage

| UL Voltage Rating |
|-------------------|
| 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

| | |
|-----------------------|---------------|
| UL Temp Rating: | 90°C |
| Operating Temp Range: | -40°C to 90°C |

Mechanical Characteristics

| | |
|------------------------------|----------------|
| Oil Resistance: | Yes |
| Bulk Cable Weight: | 797 lbs/1000ft |
| Max. Pull Tension: | 1400 lbs |
| Min. Bend Radius/Minor Axis: | 14.0 in |

Standards

| | |
|---------------|---------------------------------------|
| NEC Articles: | Article 725, Article 727, Article 800 |
|---------------|---------------------------------------|

| | |
|-----------------------|-------------------|
| NEC/(UL) Compliance: | CMG, ITC, PLTC-ER |
| CEC/C(UL) Compliance: | CIC, TC |
| CSA AWM Compliance: | AWM I A/B II A/B |
| IEC Compliance: | IEC 61158-2 |
| Other Standards: | ISA/SP-50 Type A |

Applicable Environmental and Other Programs

| | |
|--|-------------------------------|
| EU Directive 2000/53/EC (ELV): | Yes |
| EU Directive 2003/11/EC (BFR): | 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 |

Suitability

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

Flammability, LSOH, Toxicity Testing

| | |
|--------------------|-------------------------|
| UL Flammability: | UL1685 UL Loading |
| CSA Flammability: | FT4 |
| IEC Flammability: | 60332-3-24 (Category C) |
| UL voltage rating: | 300 V RMS |

Plenum/Non-Plenum

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

Part Number

Variants

| Item # | Color | UPC |
|---------------|-------------|--------------|
| 2107A 0061000 | Blue, Light | 612825129103 |
| 2107A 0031000 | Orange | 612825129097 |

History

| | |
|----------------------|--|
| Update and Revision: | Revision Number: 0.278 Revision Date: 05-26-2021 |
|----------------------|--|

© 2021 Belden, Inc

All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described here in are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "ASIS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. The Product 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.