




**Product:** [1329A](#) 

ISA/SP-50 FOUNDATION Fieldbus or PROFIBUS, (8 pr) 18 AWG (7x26) TC, PO/PVC, IS/OS, CMG, CMX, PLTC-ER

 [Request Sample](#)

## Product Description

Eight 18 AWG pairs stranded (7x26) tinned copper conductors, polyolefin insulation, individual plus overall Beldfoil® shield (100% coverage), oil-resistant PVC jacket.

## 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           | Nominal Diameter | No. of Pairs |
|---------|-----|-----------|--------------------|------------------|--------------|
| Pair(s) | 18  | 7x26      | TC - Tinned Copper | 0.048 in         | 8            |

|                  |    |
|------------------|----|
| Conductor Count: | 16 |
|------------------|----|

#### Insulation

| Material           |
|--------------------|
| PP - Polypropylene |

#### Color Chart

| Number | Color                     |
|--------|---------------------------|
| 1      | Blue, Orange and Numbered |
| 2      |                           |
| 3      |                           |
| 4      |                           |
| 5      |                           |
| 6      |                           |
| 7      |                           |
| 8      |                           |

#### Inner Shield

| 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

| Type | Material                | Material Trade Name | Coverage [%] | Drainwire Material | Drainwire AWG | Drainwire Construction n x D |
|------|-------------------------|---------------------|--------------|--------------------|---------------|------------------------------|
| Tape | Bi-Laminate (Alum+Poly) | Beldfoil®           | 100%         | TC - Tinned Copper | 18            | 7x26                         |

#### Outer Jacket

| Material                 | Nominal Diameter | Ripcord |
|--------------------------|------------------|---------|
| PVC - Polyvinyl Chloride | 0.67 in          | Yes     |

### Construction and Dimensions

## Stranding

### Twists

6 twist/ft

## Electrical Characteristics

### Conductor DCR

| Individual Pair Nominal Shield DCR | Nominal Conductor DCR | Nominal Outer Shield DCR |
|------------------------------------|-----------------------|--------------------------|
| 7.5 Ohm/1000ft                     | 5.86 Ohm/1000ft       | 4.9 Ohm/1000ft           |

### Capacitance

| Max. Capacitance Unbalance | Nom. Capacitance Conductor to Shield | Nom. Mutual Capacitance |
|----------------------------|--------------------------------------|-------------------------|
| 1.2 pF/ft                  | 45 pF/ft                             | 24 pF/ft                |

### Inductance

#### Nominal Inductance

0.19  $\mu$ H/ft

### Impedance

#### Nominal Characteristic Impedance

100 Ohm

### High Frequency (Nominal/Typical)

#### Nom. Insertion Loss

0.08 dB/100ft

### Delay

#### Nominal Velocity of Propagation (VP) [%]

66%

### 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 | 5.2 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: 105°C

Operating Temperature Range: -40°C to +105°C

## Mechanical Characteristics

Oil Resistance: Yes

UV Resistance: Yes

Max. Pull Tension: 481 lbs

Min. Bend Radius/Minor Axis: 6.7 in

## Standards

NEC Articles: Article 725, Article 727, Article 800

NEC/(UL) Compliance: CMG, CMX-Outdoor, ITC, PLTC-ER

CEC/C(UL) Compliance: CMG

## 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 - Burial:              | Yes - UL |
| Suitability - Indoor:              | Yes      |
| Suitability - Oil Resistance:      | Yes      |
| Suitability - Outdoor:             | Yes      |
| Suitability - Sunlight Resistance: | Yes      |

## Flammability, LS0H, Toxicity Testing

|                    |                    |
|--------------------|--------------------|
| UL Flammability:   | UL1685 FT4 Loading |
| IEC Flammability:  | IEC 60332-3-24     |
| IEEE Flammability: | 1202               |
| UL voltage rating: | 300 V RMS          |

## Plenum/Non-Plenum

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

## History

|                      |  |
|----------------------|--|
| Update and Revision: | Revision Number: 0.253 Revision Date: 05-05-2023 |
|----------------------|--|

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