



**Product:** [1365A](#)

Fieldbus, 16 Pr #16 Str TC, PO Ins, IS/OS, PVC Jkt, CMG

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**Product Description**

Fieldbus, 16 Pair 16AWG (7x24H) Tinned Copper, PO Insulation, Individual & Overall Beldfoil® Shield, Orange PVC 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**

| AWG | Stranding | Material           | No. of Pairs |
|-----|-----------|--------------------|--------------|
| 16  | 7x24      | TC - Tinned Copper | 16           |

|                  |    |
|------------------|----|
| Conductor Count: | 32 |
|------------------|----|

**Insulation**

| Material           | Nominal Wall Thickness |
|--------------------|------------------------|
| PP - Polypropylene | 0.029 in               |

**Color Chart**

| Number | Color                     |
|--------|---------------------------|
| 1      | Blue & Orange Numbered 1  |
| 2      | Blue & Orange Numbered 2  |
| 3      | Blue & Orange Numbered 3  |
| 4      | Blue & Orange Numbered 4  |
| 5      | Blue & Orange Numbered 5  |
| 6      | Blue & Orange Numbered 6  |
| 7      | Blue & Orange Numbered 7  |
| 8      | Blue & Orange Numbered 8  |
| 9      | Blue & Orange Numbered 9  |
| 10     | Blue & Orange Numbered 10 |
| 11     | Blue & Orange Numbered 11 |
| 12     | Blue & Orange Numbered 12 |
| 13     | Blue & Orange Numbered 13 |
| 14     | Blue & Orange Numbered 14 |
| 15     | Blue & Orange Numbered 15 |
| 16     | Blue & Orange Numbered 16 |

**Inner Shield Material**

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

**Outer Shield Material**

| Type | Material    | Material Trade Name | Coverage [%] | Drainwire Material | Drainwire AWG | Drainwire Construction n x D |
|------|-------------|---------------------|--------------|--------------------|---------------|------------------------------|
| Tape | Alum / Poly | Beldfoil®           | 100%         | TC - Tinned Copper | 16            | 7x24                         |

## Outer Jacket Material

| Material                 | Nominal Diameter | Nominal Wall Thickness | Ripcord |
|--------------------------|------------------|------------------------|---------|
| PVC - Polyvinyl Chloride | 1.233 in         | 0.075 in               | Yes     |

## Construction and Dimensions

### Stranding

#### Twists

5 twist/ft

## Electrical Characteristics

### Conductor DCR

| Individual Pair Nominal Shield DCR | Nominal Conductor DCR | Nominal Outer Shield DCR |
|------------------------------------|-----------------------|--------------------------|
| 7.5 Ohm/1000ft                     | 4.2 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 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) [%]

66%

### High Freq

| 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 Temp Range: | -40°C To +105°C |

## Mechanical Characteristics

|                             |                |
|-----------------------------|----------------|
| Oil Resistance:             | Yes            |
| Bulk Cable Weight:          | 650 lbs/1000ft |
| Max. Pull Tension:          | 1142 lbs       |
| Min Bend Radius/Minor Axis: | 12.3 in        |

## Standards

|                       |                      |
|-----------------------|----------------------|
| NEC Articles:         | Article 800          |
| NEC/(UL) Compliance:  | CMG, ITC-ER, PLTC-ER |
| CEC/C(UL) Compliance: | CMG                  |

## 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 II):    | Yes                           |
| EU Directive 2012/19/EU (WEEE):       | Yes                           |
| EU Directive 2015/863/EU:             | Yes                           |
| EU Directive Compliance:              | EU Directive 2003/11/EC (BFR) |
| EU CE Mark:                           | Yes                           |
| EU RoHS Compliance Date (yyyy-mm-dd): | 2006-09-01                    |
| MII Order #39 (China RoHS):           | Yes                           |

## Suitability

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

## Flammability, LS0H, Toxicity Testing

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

## Plenum/Non-Plenum

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

## Part Number

### Variants

| Item #        | Color  | Putup Type | Length   | UPC          |
|---------------|--------|------------|----------|--------------|
| 1365A 0031000 | Orange | Reel       | 1,000 ft | 612825112693 |

## History

|                      |  |
|----------------------|--|
| Update and Revision: | Revision Number: 0.339 Revision Date: 04-28-2020 |
|----------------------|--|

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