



**Part Number:** 2134a

FOUNDATION Fieldbus, (24 pr) 16 AWG (7x24) TC, XLP/TPE, Foil Shld, 600V, TC

## Product Description

Twenty-four 16 AWG pairs stranded (7x24) tinned copper, cross-linked polyolefin insulation, overall Beldfoil® shield (100% coverage), thermoplastic elastomer (TPE) jacket.

## Product Specifications

## Technical Specifications

### Construction and Dimensions

#### Conductor:

| AWG                                | Stranding | Material           | No. of Pairs |
|------------------------------------|-----------|--------------------|--------------|
| 16                                 | 7X24      | TC - Tinned Copper | 24           |
| <b>Total Number of Conductors:</b> |           |                    | 48           |

#### Insulation:

| Material                      |
|-------------------------------|
| XLP - Cross-linked Polyolefin |

#### Color Chart 1:

| 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 |
| 17     | Blue & Orange Numbered 17 |
| 18     | Blue & Orange Numbered 18 |
| 19     | Blue & Orange Numbered 19 |
| 20     | Blue & Orange Numbered 20 |
| 21     | Blue & Orange Numbered 21 |
| 22     | Blue & Orange Numbered 22 |
| 23     | Blue & Orange Numbered 23 |
| 24     | Blue & Orange Numbered 24 |

**Stranding:**

| Lay Length |
|------------|
| 0.091 mm   |

**Innershield:**

| Type | Material                     | Material Trade Name | Coverage [%] | Drainwire AWG | Drainwire Construction n x D |
|------|------------------------------|---------------------|--------------|---------------|------------------------------|
| Tape | Aluminum Foil-Polyester Tape | Beldfoil®           | 100 %        | 18            | 7x26 mm                      |
|      | TC - Tinned Copper           |                     |              |               |                              |

**Outershield 1:**

| Type | Material                     | Material Trade Name | Coverage [%] | Drainwire Material | Drainwire AWG | Drainwire Construction n x D |
|------|------------------------------|---------------------|--------------|--------------------|---------------|------------------------------|
| Tape | Aluminum Foil-Polyester Tape | Beldfoil®           | 100 %        | TC - Tinned Copper | 16            | 7x24 mm                      |

**Outerjacket 1:**

| Material                                    | Nominal Diameter | Ripcord |
|---|------------------|---------|
| FR PVC - Flame Retardant Polyvinyl Chloride | 1.638 in         | Yes     |

## Electrical Characteristics

### Conductor DCR:

| Nominal Conductor DCR |
|-----------------------|
| 4.2 Ohm/1000ft        |

### Capacitance:

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

|                                    |   |
|------------------------------------|---|
| Other Electrical Characteristic 1: | Max Propagation Delay Change From 7.812 kHz to 39.06 kHz: 518 pS/ft |
|------------------------------------|---|

|                                    |                 |
|------------------------------------|-----------------|
| Other Electrical Characteristic 2: | 31.25 KBits/sec |
|------------------------------------|-----------------|

### High Frequency (Nominal/Typical):

| Nom. Insertion Loss |
|---------------------|
| 0.065 db/100ft      |

### Delay:

| Nominal Velocity of Propagation (VP) [%] |
|--|
| 0.64 %                                   |

### High Freq:

| Frequency [MHz] | Max. Insertion Loss (Attenuation) | Max./Min. Input Impedance (unFitted) |
|-----------------|-----------------------------------|--------------------------------------|
|                 | 0.091 db/100ft                    | 100 Ohm                              |
| 0.03125 MHz     |                                   |                                      |
| 0.039 MHz       |                                   |                                      |
| 0.039 MHz       |                                   |                                      |

### Current:

| Element       | Max. Recommended Current [A] |
|---------------|------------------------------|
| Per Conductor | 7.2 Amps                     |

### Inductance:

| Nominal Inductance |
|--------------------|
| 0.22 $\mu$ H/ft    |

### Voltage:

| Description     | UL Voltage Rating | Voltage Rating [V] |
|-----------------|-------------------|--------------------|
| CSA CIC type TC | 600 V RMS         | 600 V RMS          |

## Use

|                                    |          |
|------------------------------------|----------|
| Suitability - Oil Resistance:      | Yes      |
| Suitability - Indoor:              | Yes      |
| Suitability - Outdoor:             | Yes      |
| Suitability - Sunlight Resistance: | Yes      |
| Max Recommended Pulling Tension:   | 2286 lbs |

## Safety

|                       |                         |
|-----------------------|-------------------------|
| CSA Flammability:     | FT4                     |
| ISO/IEC Flammability: | 60332-3-24 (Category C) |
| UL Flammability:      | UL1581 Vertical Tray    |

## Temperature Range

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

## Mechanical Characteristics

|                             |         |
|-----------------------------|---------|
| Min Bend Radius/Minor Axis: | 16.5 in |
|-----------------------------|---------|

## Part Number

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

## Standards

|                                   |                                  |
|-----------------------------------|----------------------------------|
| CA Prop 65 (CJ for Wire & Cable): | CA Prop 65 (CJ for Wire & Cable) |
| CSA AWM Specification:            | CSA Specification                |
| MII Order #39 (China RoHS):       | MII Order #39 (China RoHS)       |
| NEC/(UL) Specification:           | NEC/(UL) Specification           |
| Other Specification:              | Other Specification              |
| EU Directive Compliance:          | EU Directive 2003/11/EC (BFR)    |
| EU CE Mark:                       | EU CE Mark                       |

## History

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