



**Product:** [3074F](#) 

DataTray® 120Ω Twinax, 1 Pr #18 Str TC, PP Ins, OS+TC Brd, PVC Jkt, TC, PLTC, ITC, CMG

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## Product Description

RS-485 Twinax 120Ω, 1 Pair 18 AWG (7x26) Tinned Copper, PP Insulation, Overall Beldfoil®+Tinned Copper Braid(55%) Shield, PVC Outer Jacket, TC, PLTC, ITC, CMG

## Technical Specifications

### Product Overview

|                        |                                                                                                       |
|------------------------|-------------------------------------------------------------------------------------------------------|
| Suitable Applications: | Harsh environment, IIoT, factory or process automation, video, audio, data communication, etc. RS-485 |
|------------------------|-------------------------------------------------------------------------------------------------------|

### Construction Details

#### Conductor

| Element | No. of Elements | Size   | Stranding | Nom. Diameter | Material           |
|---------|-----------------|--------|-----------|---------------|--------------------|
| Pair(s) | 1               | 18 AWG | 7x26      | 0.046 in      | TC - Tinned Copper |

#### Insulation

| Element | Material           | Nom. Insulation Diameter | Color Code   | Notes           |
|---------|--------------------|--------------------------|--------------|-----------------|
| Pair(s) | PP - Polypropylene | 0.164 in (4.17 mm)       | White & Blue | Flame Retardant |

#### Outer Shield

| Layer | Outer Shield Type | Material                | Material Trade Name | Coverage | Notes    |
|-------|-------------------|-------------------------|---------------------|----------|----------|
| 1     | Tape              | Bi-Laminate (Alum+Poly) | Beldfoil®           | 100%     | Foil Out |
| 2     | Braid             | Tinned Copper (TC)      |                     | 55%      |          |

#### Outer Jacket

| Material                 | Nom. Diameter      |
|--------------------------|--------------------|
| PVC - Polyvinyl Chloride | 0.460 in (11.7 mm) |

|                                   |                    |
|-----------------------------------|--------------------|
| Overall Cable Diameter (Nominal): | 0.460 in (11.7 mm) |
|-----------------------------------|--------------------|

### Electrical Characteristics

#### Attenuation

| Frequency | Nom. Attenuation |
|-----------|------------------|
| 3 MHz     | 0.34 dB/100ft    |
| 10 MHz    | 1.07 dB/100ft    |
| 50 MHz    | 2.39 dB/100ft    |
| 100 MHz   | 3.38 dB/100ft    |
| 200 MHz   | 4.78 dB/100ft    |
| 400 MHz   | 6.76 dB/100ft    |

#### Electricals

| Element | Nom. Conductor DCR | Nom. Outer Shield DCR         | Nom. Characteristic Impedance | Nom. Velocity of Prop. |
|---------|--------------------|-------------------------------|-------------------------------|------------------------|
| Pair(s) | 6.9 Ohm/1000ft     | 2.83 Ohm/1000ft (9.28 Ohm/km) | 120 Ohm                       | 65%                    |

#### Voltage

| UL Voltage Rating             |
|-------------------------------|
| 600 V (TC), 300 V (CMG, PLTC) |

Mechanical Characteristics

Temperature

| UL Temperature              | Operating      |
|-----------------------------|----------------|
| 75°C Dry, PLTC 75°C Dry/Wet | -40°C to +75°C |

Bend Radius

| Stationary Min. | Installation Min. |
|-----------------|-------------------|
| 3.2 in (81 mm)  | 2.5 in (64 mm)    |

|                    |                |
|--------------------|----------------|
| Max. Pull Tension: | 93 lbs (42 kg) |
| Bulk Cable Weight: | 97 lbs/1000ft  |

Standards and Compliance

|                                  |                                                                                                                           |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Environmental Suitability:       | Indoor/Outdoor, Indoor, Outdoor, Sunlight Resistance, UV Resistance, Aerial - When supported by messenger wire            |
| Sustainability:                  | CA Prop 65                                                                                                                |
| Flammability / Reaction to Fire: | UL1685 UL Loading, FT1FT4                                                                                                 |
| NEC / UL Compliance:             | Article 336, Article 725, Article 727, Article 800, CMG, ITC, PLTC, TC                                                    |
| CEC / C(UL) Compliance:          | CMG                                                                                                                       |
| European Directive Compliance:   | EU CE Mark, EU Directive 2015/863/EU (RoHS 2 amendment), EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE) |
| APAC Compliance:                 | China RoHS II (GB/T 26572-2011)                                                                                           |

Product Notes

|        |                                                                                    |
|--------|------------------------------------------------------------------------------------|
| Notes: | Cable contains rod fillers for better electrical performance. CPE Jacket Optional. |
|--------|------------------------------------------------------------------------------------|

History

|                      |                                                  |
|----------------------|--------------------------------------------------|
| Update and Revision: | Revision Number: 0.481 Revision Date: 09-07-2025 |
|----------------------|--------------------------------------------------|

Part Numbers

Variants

| Item #        | Color       | Putup Type | Length   | UPC          | Footnote |
|---------------|-------------|------------|----------|--------------|----------|
| 3074F C55500  | Blue, Cairo | Reel       | 500 ft   | 612825140177 | C        |
| 3074F C551000 | Blue, Cairo | Reel       | 1,000 ft | 612825140153 | C        |
| 3074F C552500 | Blue, Cairo | Reel       | 2,500 ft | 612825140160 | C        |
| 3074F C555000 | Blue, Cairo | Reel       | 5,000 ft | 612825140184 | C N      |

|           |                                                                                         |
|-----------|-----------------------------------------------------------------------------------------|
| Footnote: | C - CRATE REEL PUT-UP., N - FINAL PUT-UP LENGTH MAY VARY -0% TO +10% FROM LENGTH SHOWN. |
|-----------|-----------------------------------------------------------------------------------------|

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