

3076F Paired - DataBus® ISA/SP-50 FOUNDATION Fieldbus or PROFIBUS Cable





For more information please call 1-800-Belden1

See Put-ups and Colors

Description:

 $18 \ AWG \ stranded \ (7x26) \ tinned \ copper \ conductors, polyolefin \ insulation, polyolefin \ fillers, Beldfoil \& \ shield \ (100\% \ coverage), tinned \ copper \ drain \ wire, polypropylene \ separator, oil \& \ sunlight \ resistant \ PVC \ jacket.$

PHYSICAL CHARACTERISTICS:

CONDUCTOR:

| Number of Pairs | 1 |
|----------------------------|--------------------|
| Total Number of Conductors | 2 |
| AWG | 18 |
| Stranding | 7x26 |
| Conductor Diameter | .048 in. |
| Conductor Material | TC - Tinned Copper |

INSULATION:

 Insulation Material
 PO - Polyolefin

 Fillers
 Polyolefin

Pair Color Code Chart:

| Number | Color |
|--------|---------------|
| 1 | Blue & Orange |

OVERALL CABLING:

| Overall Cabling Separator Material | Polypropylene |
|-------------------------------------|---------------|
| Overall Cabling Separator Thickness | 0.005 in. |

OUTER SHIELD:

| 0012401222 | |
|-----------------------------------|------------------------------|
| Outer Shield Material Trade Name | Beldfoil® |
| Outer Shield Type | Tape |
| Outer Shield Material | Aluminum Foil-Polyester Tape |
| Outer Shield %Coverage | 100 % |
| OUTER SHIELD DRAIN WIRE: | |
| Outer Shield Drain Wire AWG | 20 |
| Outer Shield Drain Wire Stranding | 7x28 |

OUTER JACKET:

Outer Shield Drain Wire Conductor Material

TC - Tinned Copper



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| Outer Jacket Material | PVC - Polyvinyl Chloride |
|-----------------------|--------------------------|
| | |

OVERALL NOMINAL DIAMETER:

Overall Nominal Diameter .292 in.

MECHANICAL CHARACTERISTICS:

| Operating Temperature Range | -30°C To +105°C |
|----------------------------------|-----------------|
| UL Temperature Rating | 105°C |
| Bulk Cable Weight | 43 lbs/1000 ft. |
| Max. Recommended Pulling Tension | 59 lbs. |
| Min. Bend Radius (Install) | 2.9 in. |

APPLICABLE SPECIFICATIONS AND AGENCY COMPLIANCE:

APPLICABLE STANDARDS:

| NEC/(UL) Specification | CM, ITC, PLTC-ER |
|---------------------------------------|------------------|
| CEC/C(UL) Specification | CM |
| EU CE Mark (Y/N) | Yes |
| EU RoHS Compliant (Y/N) | Yes |
| EU RoHS Compliance Date (mm/dd/yyyy): | 01/01/2004 |

FLAME TEST:

UL Flame Test UL1685 UL Loading

SUITABILITY:

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

PLENUM/NON-PLENUM:

Plenum (Y/N) N

ELECTRICAL CHARACTERISTICS:

Unaveraged Impedance:

| Description F | requency (MHz) | Start Frequency (MHz) | Stop Frequency (MHz) | Unaveraged Impedance (Ohms) |
|--|-------------------|-----------------------|----------------------|--------------------------------|
| 0. |)3125 | | | 100 |
| Nom. Inductance | | .19 μH/ft | | |
| Nom. Capacitance Conductor t | to Shield @ 1 KHz | 45.0 pF/ft | | |
| Nom. Mutual Capacitance @ 1 | l KHz | 24.0 pF/ft | | |
| Maximum Capacitance Unbala | ance @ 1 KHz | 1.2 pF/ft | | |
| Nominal Velocity of Propagati | ion | 66 % | | |
| Nom. Conductor DC Resistance | ce @ 20 Deg. C | 5.86 Ohms/1000 ft | | |
| Ind. Pair Nominal Shield DC Resistance @ 20 Deg. C | | 7.5 Ohms/1000 ft | | |



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Nom. Attenuation (dB/100 ft):

| Description | Frequency (MHz) | Start Frequency (MHz) | Stop Frequency (MHz) | Nom. Attenuation (dB/100 ft.) |
|-------------|-----------------|-----------------------|----------------------|-------------------------------|
| | .039 | | | .08 |

Max. Attenuation (dB/100 ft.):

| Description | Frequency (MHz) | Start Frequency (MHz) | Stop Frequency (MHz) | Max. Attenuation (dB/100 ft.) |
|-------------|-----------------|-----------------------|----------------------|-------------------------------|
| | .039 | | | .091 |

Max. Operating Voltage - UL 300 V RMS

Max. Recommended Current:

| Description | Max. Recommended Current |
|---------------|--------------------------|
| Per Conductor | 5.2 Amps |

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

NOTES:

| Notes | Fieldbus: Orange jacket. Profibus PA: Intrinsically Safe Blue jacket. CPE Jacket is | |
|-------|---|--|
| | optional. Tape around pair has shorting fold. | |

PUT-UPS AND COLORS:

| Item | Description | Put-Up (ft.) | Ship Weight (lbs.) | Jacket Color | Notes |
|---------------|------------------------|--------------|--------------------|--------------|-------|
| 3076F 0031000 | TWPR #18 PP FS PVC | 1000 | 48 | ORANGE | C |
| 3076F 003250 | TWPR #18 PP FS PVC | 250 | 14 | ORANGE | С |
| 3076F 0032500 | TWPR #18 PP FS PVC | 2500 | 117.5 | ORANGE | С |
| 3076F 003500 | TWPR #18 PP FS PVC | 500 | 25.5 | ORANGE | С |
| 3076F 0035000 | TWPR #18 PP FS PVC | 5000 | 245 | ORANGE | CN |
| 3076F 0061000 | TW PR #18 PP FS PVC | 1000 | 48 | BLUE, LIGHT | С |

C = CRATE REEL PUT-UP.

N = FINAL PUT-UP LENGTH MAY VARY -0% TO +10% FROM LENGTH SHOWN.

Revision Number: 1 Revision Date: 09-10-2007

Detailed Specifications & Technical Data



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