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1-800-Belden1



General Description:

15 and 18 AWG stranded tinned copper conductors, PVC insulation (power), FPE insulation (data), individually foil shielded (100% coverage) plus an overall tinned copper braid (65% coverage), sunlight/oil-resistant PVC jacket.

Physical Characteristics (Overall)

Conductor

AWG:

| # Pairs | AWG | Stranding | Conductor Material |
|---------|-----|-----------|--------------------|
| 1 | 15 | 65x33 | TC - Tinned Copper |
| 1 | 18 | 65x36 | TC - Tinned Copper |

Total Number of Conductors: 4

Insulation

Insulation Material:

| Insulation Material | AWG |
|--------------------------|-----|
| PVC - Polyvinyl Chloride | 15 |
| FPE - Foam Polyethylene | 18 |

Inner Shield

Inner Shield Material:

| Layer # | Type | Inner Shield Material | Coverage (%) |
|-------------|------|------------------------------|--------------|
| 15 AWG Pair | Tape | Aluminum Foil-Polyester Tape | 100 |
| 18 AWG Pair | Tape | Aluminum Foil-Polyester Tape | 100 |

Outer Shield

Outer Shield Material:

| Type | Outer Shield Material | Coverage (%) |
|-------|-----------------------|--------------|
| Braid | TC - Tinned Copper | 65 |

Outer Shield Drain Wire AWG:

| AWG | Stranding | Drain Wire Conductor Material |
|-----|-----------|-------------------------------|
| 18 | 65x36 | TC - Tinned Copper |

Outer Jacket

Outer Jacket Material:

| Outer Jacket Material | Nom. Wall Thickness (mm) |
|--------------------------|--------------------------|
| PVC - Polyvinyl Chloride | 1.524 |

Overall Cable

Overall Nominal Diameter: 12.192 mm

Pair

Pair Color Code Chart:

| Number | Color |
|------------|--------------|
| 1 (15 AWG) | Red & Black |
| 2 (18 AWG) | Blue & White |

Mechanical Characteristics (Overall)

Operating Temperature Range: -20°C To +75°C

3082F Multi-Conductor - DeviceBus® for ODVA DeviceNet™

| | |
|-----------------------------------|---------------------------|
| UL Temperature Rating: | 75°C (UL AWM Style 20201) |
| Bulk Cable Weight: | 160.726 Kg/Km |
| Max. Recommended Pulling Tension: | 911.881 N |
| Min. Bend Radius/Minor Axis: | 116.840 mm |

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

| | |
|---------------------------------------|-----------------------------|
| NEC/(UL) Specification: | CMG, PLTC-ER |
| CEC/C(UL) Specification: | CMG |
| AWM Specification: | UL Style 20201 (600 V 75°C) |
| CSA Specification: | III A |
| EU Directive 2011/65/EU (ROHS II): | Yes |
| EU CE Mark: | Yes |
| EU Directive 2000/53/EC (ELV): | Yes |
| EU Directive 2002/95/EC (RoHS): | Yes |
| EU RoHS Compliance Date (mm/dd/yyyy): | 04/01/2005 |
| EU Directive 2002/96/EC (WEEE): | Yes |
| EU Directive 2003/11/EC (BFR): | Yes |
| CA Prop 65 (CJ for Wire & Cable): | Yes |
| MII Order #39 (China RoHS): | Yes |
| Other Specification: | ODVA Class 2 Thick |

Flame Test

| | |
|-----------------|--------------------|
| UL Flame Test: | UL1685 FT4 Loading |
| CSA Flame Test: | FT4 |

Suitability

| | |
|----------------------|-----|
| Sunlight Resistance: | Yes |
| Oil Resistance: | Yes |

Surface Printing (Overall)

| | |
|-------------------|--|
| Surface Printing: | BELDEN 3082F DEVICEBUS(R) HIGH FLEX THICK CABLE 1PR16 1PR18 SHIELDED (UL) E34972 CMG 75C OR PLTC SUN RES OR AWM 20201 600V C(UL) CMG OR AWM I/II A 80C 300V---FT4 OIL RES (1 METER MARKING, "---METER---") |
|-------------------|--|

Electrical Characteristics (Overall)

Unaveraged Impedance:

| Description | Freq. (MHz) | Start Freq. (MHz) | Stop Freq. (MHz) | Impedance (Ohm) |
|------------------|-------------|-------------------|------------------|-----------------|
| 18 AWG Pair Only | | | | 120 |

Nom. Inductance:

| Description | Inductance (µH/m) |
|------------------|-------------------|
| 15 AWG Pair Only | 0.570894 |

Nom. Capacitance Conductor to Conductor:

| Description | Freq. (MHz) | Start Freq. (MHz) | Stop Freq. (MHz) | Capacitance (pF/m) |
|------------------|-------------|-------------------|------------------|--------------------|
| 18 AWG Pair Only | 1 | | | 39.372 |

Nominal Velocity of Propagation:

| Description | VP (%) |
|------------------|--------|
| 18 AWG Pair Only | 75 |

Maximum Delay:

| Description | Freq. (MHz) | Start Freq. (MHz) | Stop Freq. (MHz) | Delay (ns/m) |
|-------------|-------------|-------------------|------------------|--------------|
|-------------|-------------|-------------------|------------------|--------------|

METRIC MEASUREMENT VERSION

3082F Multi-Conductor - DeviceBus® for ODVA DeviceNet™

| | | | | |
|------------------|--|--|--|---------|
| 18 AWG Pair Only | | | | 4.46216 |
|------------------|--|--|--|---------|

Nom. Conductor DC Resistance:

| Description | DCR @ 20°C (Ohm/km) |
|-------------|---------------------|
| 15 AWG | 11.8116 |
| 18 AWG | 22.6389 |

Nominal Outer Shield DC Resistance:

| DCR @ 20°C (Ohm/km) |
|---------------------|
| 5.9058 |

Max. Attenuation:

| () | Description | Freq. (MHz) |
|---------|------------------|-------------|
| 0.42653 | 18 AWG Pair Only | .125 |
| 0.85306 | | .500 |
| 1.3124 | | 1.00 |

Max. Operating Voltage - UL:

| Voltage | Description |
|-----------|-------------|
| 300 V RMS | C(UL) AWM |

Max. Recommended Current:

| Description | Current |
|-------------|----------|
| 15 AWG | 8.0 Amps |
| 18 AWG | 5.0 Amps |

Notes (Overall)

Notes: High-Flex. Thick. Meter marks on jacket to aid users in installation. ODVA DeviceNet is an Open DeviceNet Vendor Association, Inc. trademark. Jacket printed "1PR16" instead of "1PR15" due to UL requirements for CMG Listing.

Put Ups and Colors:

| Item # | Putup | Ship Weight | Color | Notes | Item Desc |
|---------------|----------|-------------|----------|-------|-------------------------|
| 3082F T5U1000 | 1,000 FT | 138.000 LB | GRAY T5U | C | 2 #15, 2 #18 SH PVC |
| 3082F T5U2000 | 2,000 FT | 284.000 LB | GRAY T5U | C | 2 #15, 2 #18 SH PVC |
| 3082F T5U500 | 500 FT | 72.500 LB | GRAY T5U | C | 2 #15, 2 #18 SH PVC |
| 3082F 0021000 | 1,000 FT | 138.000 LB | RED | C | 2 #15, 2 #18 SHLD FRPVC |

Notes:

C = CRATE REEL PUT-UP.

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