

3085A Paired - DeviceBus® for ODVA DeviceNetTM





For more information please call 1-800-Belden1

See Put-ups and Colors

Description:

22 and 24 AWG stranded tinned copper conductors, PVC insulation (power), FPE insulation (Data), individually foil shielded (100% coverage) and an overall tinned copper braid (65% coverage), CPE jacket.

PHYSICAL CHARACTERISTICS:

CONDUCTOR:

Number of Pairs 2
Number of Conductors 4

AWG:

| Number of Pairs | AWG | Stranding | Conductor Material | Conductor Diameter (in.) |
|-----------------|-----|-----------|--------------------|--------------------------|
| 1 | 22 | 19x34 | TC - Tinned Copper | |
| 1 | 24 | 19x36 | TC - Tinned Copper | |

Stranding 19x34, 19x36
Conductor Material TC - Tinned Copper

INSULATION:

Insulation Material PVC - Polyvinyl Chloride, FPE - Foam Polyethylene

Insulation Material (Multi-AWG):

| AWG | Layer Number | Material Trade Name | Material | Wall Thickness (in.) | Diameter (in.) |
|-----|--------------|------------------------|-----------------------------|----------------------|----------------|
| 22 | | | PVC - Polyvinyl Chloride | | |
| 24 | | | FPE - Foam Polyethylene | | |

Pair Color Code Chart:

| Number | Color | Number | Color |
|-------------|-------------|-------------|--------------|
| 22 AWG Pair | Red & Black | 24 AWG Pair | Blue & White |

INNER SHIELD:

Inner Shield Type Tape/Tape

Inner Shield Material:

| Layer Number/Descri ption | Material Trade Name | Туре | Material | % Coverage (%) | Stranding | Conductor Material |
|---------------------------------|------------------------|------|----------------------------------|----------------|-----------|-----------------------|
| 22 AWG Pair | | Tape | Aluminum Foil- Polyester Tape | 100 | | |
| 24 AWG Pair | | 1 | Aluminum Foil- Polyester Tape | 100 | | |



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| Inner Shield % Coverage | 100 % |
|--|--------------------|
| Inner Shield Drain Wire AWG | 22 |
| Inner Shield Drain Wire Stranding | 19x34 |
| Inner Shield Drain Wire Conductor Material | TC - Tinned Copper |

OUTER SHIELD:

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

OUTER JACKET:

Outer Jacket Material CPE - Chlorinated Polyethylene

OVERALL NOMINAL DIAMETER:

Overall Nominal Diameter .280 in.

MECHANICAL CHARACTERISTICS:

| Operating Temperature Range | -20°C To +75°C |
|----------------------------------|-----------------|
| UL Temperature Rating | 75°C |
| Bulk Cable Weight | 46 lbs/1000 ft. |
| Max. Recommended Pulling Tension | 65 lbs. |
| Min. Bend Radius (Install) | 2.75 in. |

APPLICABLE SPECIFICATIONS AND AGENCY COMPLIANCE:

APPLICABLE STANDARDS:

| NEC/(UL) Specification | CMG, CL2 |
|---------------------------------------|-------------------|
| CEC/C(UL) Specification | CMG |
| EU RoHS Compliant (Y/N) | Yes |
| EU RoHS Compliance Date (mm/dd/yyyy): | 10/13/2005 |
| Other Specification | ODVA Class 2 Thin |

FLAME TEST:

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

PLENUM/NON-PLENUM:

Plenum (Y/N) N

ELECTRICAL CHARACTERISTICS:

Nom. Characteristic Impedance:

| Description | Nom. Characteristic Impedance (Ohms) |
|-------------|--------------------------------------|
| 24 AWG Pair | 120 |

Nom. Capacitance Conductor to Conductor:



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| Description | Frequency (kHz) | Start Frequency (kHz) | I | Nom. Capacitance Conductor to Conductor (pF/ft) |
|-------------|-----------------|-----------------------|---|---|
| 24 AWG Pair | 1 | | | 12.0 |

Nominal Velocity of Propagation:

| Description | Nominal Velocity of Propagation (%) |
|-------------|-------------------------------------|
| 24 AWG Pair | 75 |

Maximum Delay:

| Description | Frequency (MHz) | Start Frequency (MHz) | Stop Frequency (MHz) | Maximum Delay (ns/ft) |
|-------------|-----------------|-----------------------|----------------------|-----------------------|
| 24 AWG Pair | | | | 1.36 |

Maximum Conductor DC Resistance:

| Description | Maximum Conductor DC Resistance @ 20 Deg. C (Ohms/1000 ft) |
|-------------|--|
| 22 AWG | 17.5 |
| 24 AWG | 28.0 |

Nominal Outer Shield DC Resistance @ 20 Deg. C

3.2 Ohms/1000 ft

Max. Attenuation (dB/100 ft.):

| Description | Frequency (MHz) | Start Frequency (MHz) | Stop Frequency (MHz) | Max. Attenuation (dB/100 ft.) |
|------------------|-----------------|-----------------------|----------------------|-------------------------------|
| 24 AWG Pair Only | .125 | | | .29 |
| | .500 | | | .50 |
| | 1.000 | | | .70 |

Max. Operating Voltage - UL 300 V RMS

Max. Recommended Current

1.7 Amps per conductor @ 25°C (24 AWG), 4 Amps per conductor @ 24 V per NEC CL2 (Power Pair)

NOTES:

Notes Thin. Meter marks on jacket to aid users in installation. ODVA Devicenet is an Open DeviceNet Vendor Association, Inc. trademark.

PUT-UPS AND COLORS:

| Item | Description | Put-Up (ft.) | Ship Weight (lbs.) | Jacket Color | Notes |
|---------------|--------------------------|--------------|--------------------|----------------|-------|
| 3085A 5601000 | 2 #22, 2 #24 SHLD CPE | 1000 | 47 | YELLOW, BRIGHT | С |
| 3085A 5602000 | 2 #22, 2 #24 SHLD CPE | 2000 | 96 | YELLOW, BRIGHT | С |
| 3085A 560500 | 2 #22, 2 #24 SHLD CPE | 500 | 22 | YELLOW, BRIGHT | С |

C = CRATE REEL PUT-UP.

Revision Number: 1 Revision Date: 08-31-2006

Detailed Specifications & Technical Data



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