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1-800-Belden1



## General 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 (Overall)

### Conductor

AWG:

# Conductors	# Pairs	AWG	Stranding	Conductor Material
4	1	22	19x34	TC - Tinned Copper
	1	24	19x36	TC - Tinned Copper

### Insulation

Insulation Material:

Insulation Material	AWG
PVC - Polyvinyl Chloride	22
FPE - Foam Polyethylene	24

### Inner Shield

Inner Shield Material:

Layer #	Type	Inner Shield Material	Coverage (%)
22 AWG Pair	Tape	Aluminum Foil-Polyester Tape	100
24 AWG Pair	Tape	Aluminum Foil-Polyester Tape	100

Inner Shield Drain Wire AWG:

AWG
22

Inner Shield Drain Wire Stranding: 19x34

Inner Shield Drain Wire Conductor Material: TC - Tinned Copper

### Outer Shield

Outer Shield Material:

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

### Outer Jacket

Outer Jacket Material:

Outer Jacket Material
CPE - Chlorinated Polyethylene

### Overall Cable

Overall Nominal Diameter: 7.112 mm

### Pair

Pair Color Code Chart:

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

## Mechanical Characteristics (Overall)

Operating Temperature Range: -30°C To +75°C

UL Temperature Rating: 75°C

Bulk Cable Weight: 68.457 Kg/Km

Max. Recommended Pulling Tension: 289.133 N

Min. Bend Radius/Minor Axis: 69.850 mm

## Applicable Specifications and Agency Compliance (Overall)

### Applicable Standards & Environmental Programs

NEC/(UL) Specification: CMG, CL2

## 3085A Multi-Conductor - DeviceBus® for ODVA DeviceNet™

CEC/C(UL) Specification:	CMG
EU Directive 2011/65/EU (ROHS II):	Yes
EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2002/95/EC (RoHS):	Yes
EU RoHS Compliance Date (mm/dd/yyyy):	10/13/2005
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 Thin

### Flame Test

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

### Plenum/Non-Plenum

Plenum (Y/N):	No
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## Electrical Characteristics (Overall)

### Nom. Characteristic Impedance:

Description	Impedance (Ohm)
24 AWG Pair	120

### Nom. Capacitance Conductor to Conductor:

Description	Freq. (MHz)	Start Freq. (MHz)	Stop Freq. (MHz)	Capacitance (pF/m)
24 AWG Pair	1			39.372

### Nominal Velocity of Propagation:

Description	VP (%)
24 AWG Pair	75

### Maximum Delay:

Description	Freq. (MHz)	Start Freq. (MHz)	Stop Freq. (MHz)	Delay (ns/m)
24 AWG Pair				4.46216

### Maximum Conductor DC Resistance:

Description	DCR @ 20°C (Ohm/100 m)
22 AWG	57.4175
24 AWG	91.868

### Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/km)
10.4992

### Max. Attenuation:

()	Description	Freq. (MHz)
0.95149	24 AWG Pair Only	.125
1.6405		.500
2.2967		1.000

### Max. Operating Voltage - UL:

Voltage
300 V RMS

### Max. Recommended Current:

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

## Notes (Overall)

**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 #	Putup	Ship Weight	Color	Notes	Item Desc
3085A 5601000	1,000 FT	47.000 LB	YELLOW, BRIGHT	C	2 #22, 2 #24 SHLD CPE
3085A 5602000	2,000 FT	96.000 LB	YELLOW, BRIGHT	C	2 #22, 2 #24 SHLD CPE
3085A 5605000	500 FT	23.500 LB	YELLOW, BRIGHT	C	2 #22, 2 #24 SHLD CPE
3085A 5605000	5,000 FT	235.000 LB	YELLOW, BRIGHT	C Z	2 #22, 2 #24 SHLD CPE

## METRIC MEASUREMENT VERSION

### 3085A Multi-Conductor - DeviceBus® for ODVA DeviceNet™

**Notes:**

C = CRATE REEL PUT-UP.

Z = FINAL PUT-UP LENGTH MAY VARY (+ OR -) 10% FOR SPOOLS OR REELS AND(+ OR -) 5% FOR UNREEL CARTONS FROM LENGTH SHOWN.

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