

## 3106A Multi-Conductor - EIA Industrial RS-485 PLTC/CM

For more Information  
please call

1-800-Belden1



### Description:

22 AWG stranded (7x30) tinned copper conductors, Datalene® insulation, twisted pairs, overall Beldfoil® shield (100% coverage) plus a tinned copper braid (65% coverage), drain wire, UV resistant PVC jacket.

### Physical Characteristics (Overall)

#### Conductor

AWG:

# Conductors	# Pairs	AWG	Stranding	Conductor Material	Dia. (in.)
1	1	22	7x30	TC - Tinned Copper	.030

#### Insulation

Insulation Material:

Insulation Trade Name	Insulation Material
Datalene®	FHDPE - Foam High Density Polyethylene

#### Outer Shield

Outer Shield Material:

Layer #	Outer Shield Trade Name	Type	Outer Shield Material	Coverage (%)
1	Beldfoil®	Tape	Aluminum Foil-Polyester Tape	100.000
2		Braid	TC - Tinned Copper	65.000

Outer Shield Drain Wire AWG:

AWG	Stranding	Drain Wire Conductor Material
22	7x30	TC - Tinned Copper

Outer Shield Drain Wire Diameter: .030

#### Outer Jacket

Outer Jacket Material:

Outer Jacket Material
PVC - Polyvinyl Chloride

#### Overall Cabling

Overall Cabling Color Code Chart:

Number	Color
1	White/Orange Stripe
2	Orange/White Stripe
3	Blue/White Stripe

Overall Nominal Diameter: 0.300 in.

#### Pair

Pair Lay Length & Direction:

Lay Length (in.)
3.000

### Mechanical Characteristics (Overall)

Operating Temperature Range:	-20°C To +60°C
Non-UL Temperature Rating:	60°C
Bulk Cable Weight:	48 lbs/1000 ft.
Max. Recommended Pulling Tension:	65 lbs.

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Min. Bend Radius (Install)/Minor Axis: 3 in.

### Applicable Specifications and Agency Compliance (Overall)

#### Applicable Standards & Environmental Programs

CEC/C(UL) Specification: CM

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): 10/01/2005

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

#### Flame Test

UL Flame Test: UL1685 UL Loading

CSA Flame Test: FT1

#### Plenum/Non-Plenum

Plenum (Y/N): No

### Surface Printing (Overall)

Surface Printing: BELDEN 3106A E34972 3C22 SHIELDED (UL) CM OR PLTC SUN RES OR C(UL) CM --- FT4

### Electrical Characteristics (Overall)

#### Nom. Inductance:

Inductance (µH/ft)

.203

#### Nom. Capacitance Conductor to Conductor:

Capacitance (pF/ft)

11.0

#### Nom. Capacitance Cond. to Other Conductor & Shield:

Capacitance (pF/ft)

20.9

#### Nominal Velocity of Propagation:

VP (%)

78

#### Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)

14.7

#### Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft)

2.8

#### Nom. Attenuation:

Description	Freq. (MHz)	Start Freq. (MHz)	Stop Freq. (MHz)	Attenuation (dB/100 ft.)
	1			.5

#### Max. Operating Voltage - UL:

Voltage

300 V RMS

#### Max. Recommended Current:

Current

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2.7 Amps per conductor @ 25°C

### Input/Unfitted Impedance:

Description	Freq. (MHz)	Start Freq. (MHz)	Stop Freq. (MHz)	Impedance (Ohm)
	1			120

### Notes (Overall)

**Notes:** Oil Resistance: Passes Oil Res II Per UL1277, Table 10.17. For CPE jacketed version order YR46721.

### Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
3106A 0101000	1,000 FT	47.000 LB	BLACK	C	#22 FS PR,1#22PVCBRDPVC
3106A 010500	500 FT	25.000 LB	BLACK	C	#22FSPR,1#22PVCBRDPVC
3106A 0105000	5,000 FT	240.000 LB	BLACK	C N	#22 FS PR,1#22PVCBRDPVC

#### Notes:

C = CRATE REEL PUT-UP.

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

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