

## 3108A Multi-Conductor - EIA Industrial RS-485 PLTC/CM

For more Information  
please call

1-800-Belden1



## General 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:

# Pairs	AWG	Stranding	Conductor Material	Dia. (in.)
3	22	7x30	TC - Tinned Copper	.030

Total Number of Conductors: 6

## 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 Cable

Overall Cabling Color Code Chart:

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

Overall Nominal Diameter: 0.374 in.

## Mechanical Characteristics (Overall)

Operating Temperature Range:	-20°C To +60°C
Non-UL Temperature Rating:	60°C
Bulk Cable Weight:	85 lbs/1000 ft.
Max. Recommended Pulling Tension:	90 lbs.
Min. Bend Radius/Minor Axis:	3.750 in.

## Applicable Specifications and Agency Compliance (Overall)

## Applicable Standards &amp; Environmental Programs

NEC(UL) Specification:	CM, PLTC Oil Res II
NEC Articles:	725,800
CEC/C(UL) Specification:	CM
EU Directive 2011/65/EU (RoHS II):	Yes
EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2002/95/EC (RoHS):	Yes

# Detailed Specifications & Technical Data



ENGLISH MEASUREMENT VERSION

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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
MIL Order #39 (China RoHS):	Yes

### Flame Test

UL Flame Test:	UL1685 UL Loading
CSA Flame Test:	FT1

### Suitability

Suitability - Indoor:	Yes
Suitability - Outdoor:	Yes

### Plenum/Non-Plenum

Plenum (Y/N):	No
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## Surface Printing (Overall)

## Electrical Characteristics (Overall)

### Nom. Characteristic Impedance:

Impedance (Ohm)

120

### Nom. Inductance:

Description Inductance (µH/ft)

Pair 0.225

### 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)

1.5

### 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

2.7 Amps per conductor @ 25°C

### Other Electrical Characteristic 1:

Input Impedance/Unfitted Impedance .5 - 10 MHz, 120 +/-12 Ohms

## Notes (Overall)

**Notes:** Oil Resistance: Passes Oil Res II Per UL1277, Table 10.17. For CPE jacketed version order YR45287.

## Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
3108A 0101000	1,000 FT	70.000 LB	BLACK	C	3 PR #22 FHDPE SH PVC
3108A 0102000	2,000 FT	134.000 LB	BLACK	C	3 PR #22 FHDPE SH PVC
3108A 0105000	5,000 FT	355.000 LB	BLACK		3 PR #22 FHDPE SH PVC

### Notes:

C = CRATE REEL PUT-UP.

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