# **Detailed Specifications & Technical Data**

**ENGLISH MEASUREMENT VERSION** 



## 3105A 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 (90% coverage), drain wire, UV resistant PVC jacket.

## **Physical Characteristics (Overall):**

#### Conductor:

**AWG** 

# Pairs	Pairs AWG Stranding		Conductor Material	Dia. (in.)
1.000	22	7x30	TC - Tinned Copper	0.030

#### Insulation:

Insulation Material

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

#### **Outer Shield:**

**Outer Shield Material** 

Layer #	Outer Shield Trade Name	Туре	Outer Shield Material	% Coverage (%)
1	Beldfoil®	Таре	Aluminum Foil-Polyester Tape	100
2		Braid	TC - Tinned Copper	90

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** 

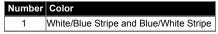
Outer Jacket Material
PVC - Polyvinyl Chloride

## Overall Cabling:

Overall Nominal Diameter: .284 in.

#### Pair:

Pair Color Code Chart



Pair Lay Length & Direction

Lay Length (in.) 2.500

## **Mechanical Characteristics (Overall):**

Operating Temperature Range	-20°C To +60°C
Non-UL Temperature Rating	60°C
Bulk Cable Weight:	44 lbs/1000 ft.
Max. Recommended Pulling Tension:	60 lbs.
Min. Bend Radius (Install):	2.500 in.

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## Applicable Specifications and Agency Compliance (Overall):

Applicable Standards: NEC/(UL) Specification	CM, PLTC OIL RES II
CEC/C(UL) Specification	CM
EU CE Mark (Y/N)	Yes
EU RoHS Compliant (Y/N)	Yes
EU RoHS Compliance Date (mm/dd/yyyy)	10/01/2005
Flame Test: UL Flame Test	UL1685 UL Loading
CSA Flame Test	FT1
Suitability: Sunlight Resistance	Passes UL 1581, 720 Hours
Plenum/Non-Plenum: Plenum (Y/N)	N

## **Electrical Characteristics (Overall):**

Nom. Characteristic Impedance

Impedance (Ohm) 120.000

Nom. Capacitance Conductor to Conductor

Capacitance (pF/ft) 11.000

Nom. Capacitance Cond. to Other Conductor & Shield

Capacitance (pF/ft) 20.900

Nominal Velocity of Propagation

**VP (%)** 78

Nom. Conductor DC Resistance

DCR @ 20°C (Ohm/1000 ft) 14.700

Nom. Attenuation

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

1.000 0.500

Max. Operating Voltage - UL

Voltage 300 V RMS

Max. Recommended Current

Current
2.7 Amps per conductor @ 25°C

Nominal Outer Shield DC Resistance

DCR @ 20°C (Ohm/1000 ft) 2.800

Input/Unfitted Impedance

Description	Freq. (MHz)	Start Freq. (MHz)	Stop Freq. (MHz)	Impedance (Ohm)
	1.000			

### Notes (Overall):

Notes Oil Resistance: Passes Oil Res II Per UL1277, Table 10.17. For CPE jacketed version order Part No. YR44345.

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## **PUT UPS AND COLORS:**

Item #	Putup	Ship Weight	Jacket Color	Notes	Item Desc
3105A 0101000	1,000 FT	50.000 LB	BLACK	С	1 PR #22 FHDPE SH PVC BLK
3105A 010500	500 FT	23.000 LB	BLACK	С	1 PR #22 FHDPE SH PVC BLK
3105A 0105000	5,000 FT	255.000 LB	BLACK	CN	1 PR #22 FHDPE SH PVC BLK

#### Notes:

C = CRATE REEL PUT-UP.

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

Revision Number: 1 Revision Date: 05-14-2007

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