# **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 (65% coverage), drain wire, UV resistant PVC jacket.

# **Physical Characteristics (Overall)**

## Conductor

#### AWG:

# Pairs	AWG	Stranding	<b>Conductor Material</b>	Dia. (in.)
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:**

Laye	er#	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	<b>Drain Wire Conductor Material</b>				
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: 0.284 in.

#### Pair

#### Pair Color Code Chart:

Number	Color
1	White/Blue Stripe and Blue/White Stripe

# Pair Lay Length & Direction:



Me	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)/Minor Axis:	2.800 in.			

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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				
Electrical Characteristics (Overall)					

## **Electrical Characteristics (Overall)**

Nom. Characteristic Impedance:

Impedance (Ohm) 120

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**2.7 Amps per conductor @ 25°C

Input/Unfitted Impedance:

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

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# **Notes (Overall)**

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

#### **Related Documents:**

No related documents are available for this product

### **Put Ups and Colors:**

Item #	Putup	Ship Weight	Color	Notes	Item Desc
3105A 0101000	1,000 FT	46.000 LB	BLACK	С	1 PR #22 FHDPE SH PVC
3105A 010500	500 FT	21.500 LB	BLACK	С	1 PR #22 FHDPE SH PVC
3105A 0105000	5,000 FT	235.000 LB	BLACK	CN	1 PR #22 FHDPE SH PVC

#### Notes:

C = CRATE REEL PUT-UP

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

Revision Number: 1 Revision Date: 12-05-2008

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