Detailed Specifications & Technical Data

METRIC MEASUREMENT VERSION



3105A 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.

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Physical Characteristics (Overall)

Conductor

AWG:

# Pairs	AWG	Stranding	Conductor Material	Dia. (mm)
1	22	7x30	TC - Tinned Copper	0.762

Total Number of Conductors:

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 Jacket

Outer Jacket Material:

Outer Jacket Material
PVC - Polyvinyl Chloride

Overall Cable

Overall Nominal Diameter: 7.137 mm

Pair

Pair Color Code Chart:

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

Pair Lay Length & Direction:

Lay Length (mm) 95.250

Mechanical Characteristics (Overall)

Operating Temperature Range:	-20°C To +60°C
Non-UL Temperature Rating:	60°C
Bulk Cable Weight:	65.481 Kg/Km
Max. Recommended Pulling Tension:	266.892 N
Min. Bend Radius/Minor Axis:	71.120 mm

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Applicable Specifications and Agency Compliance (Overall)				
Applicable Standards & Environmental Prog	rams			
NEC/(UL) Specification:	CM, PLTC			
CEC/C(UL) Specification:	CM			
EU Directive 2011/65/EU (ROHS II):	Yes			
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			
Suitability				
Sunlight Resistance:	Yes			
Plenum/Non-Plenum				
Plenum (Y/N):	No			

Electrical Characteristics (Overall)

Nom. Characteristic Impedance:



Nom. Capacitance Conductor to Conductor:

Capacitance (pF/m) 36.091

Nom. Capacitance Cond. to Other Conductor & Shield:

Capacitance (pF/m) 68.5729

Nominal Velocity of Propagation:

VP (%) 78

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km) 48.2307

Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/km) 9.1868

Nom. Attenuation:

Description	Freq. (MHz)	Start Freq. (MHz)	Stop Freq. (MHz)	Attenuation (dB/100m)
	1			1.6405

Max. Operating Voltage - UL:

Voltage 300 V RMS (NEC Type PLTC) 300 V RMS (NEC Type CM)

Max. Recommended Current:

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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 Part No. YR44345.

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
3105A 0101000	305 MT	20.865 KG	BLACK	С	1 PR #22 FHDPE SH PVC
3105A 010500	152 MT	10.433 KG	BLACK	С	1 PR #22 FHDPE SH PVC
3105A 0105000	1,524 MT	104.327 KG	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.

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