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:

1	Layer # Outer Shield Trade Name		Type	Outer Shield Material	Coverage (%)
1	1	Beldfoil®	Tape	Aluminum Foil-Polyester Tape	100.000
1	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:



Pair Lay Length & Direction:

Lay Length (mm) 69.850

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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NEC	ble Standards & Environmental Progra c/(UL) Specification: c/C(UL) Specification:	ms CM, PLTC
	<u> </u>	CM, PLTC
CEC	/C/III \ Specification:	
	(OL) Specification.	CM
EU (CE Mark:	Yes
EU [Directive 2000/53/EC (ELV):	Yes
EU [Directive 2002/95/EC (RoHS):	Yes
EU I	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 1	Test Test	
UL F	Flame Test:	UL1685 UL Loading
CSA	Flame Test:	FT1
Plenum	/Non-Plenum	
Pler	ium (Y/N):	No

Electrical Characteristics (Overall)

Nom. Characteristic Impedance:

Impedance (Ohm) 120

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:

DescriptionFreq. (MHz)Start Freq. (MHz)Stop Freq. (MHz)Attenuation (dB/100m)11.6405

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

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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.

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	106.595 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.

Test Reports

i) UL Test Reports are available on-line through the UL Client Document Access web portal.
ii) UL Inspection Reports are also available through the UL Client Document Access web portal.

b) CŚA

i) CSA "Descriptive Report and Test Results" documents are available on the CSA Gateway Portal.

ii) CSA Inspection Reports are maintained on the CSA issued 'flash drive' at each manufacturing location.

Revision Number: 1 Revision Date: 07-18-2012

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Belden declares this product to be in compliance with EU LVD (Low Voltage Directive 73/23/EEC), as amended by directive 93/68/EEC.

^{*} other test data may be available if requested at time of order.