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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. (mm)
1	22	7x30	TC - Tinned Copper	0.762

Total Number of Conductors: 2

#### 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

### Applicable Specifications and Agency Compliance (Overall)

#### Applicable Standards & Environmental Programs

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

## 3105A Multi-Conductor - EIA Industrial RS-485 PLTC/CM

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
MIL Order #39 (China RoHS):	Yes

## Flame Test

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

## Suitability

Sunlight Resistance:	Yes
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## Plenum/Non-Plenum

Plenum (Y/N):	No
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## 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 &amp; 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:

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	C	1 PR #22 FHDPE SH PVC
3105A 010500	152 MT	10.433 KG	BLACK	C	1 PR #22 FHDPE SH PVC
3105A 0105000	1,524 MT	104.327 KG	BLACK	C N	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.

## METRIC MEASUREMENT VERSION

### 3105A Multi-Conductor - EIA Industrial RS-485 PLTC/CM

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