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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: 80C

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
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
Oil Resistance:	Yes - Oil Res II

### 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 & 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)
12.337

### 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)

## 3105A Multi-Conductor - EIA Industrial RS-485 PLTC/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	1,000 FT	46.000 LB	BLACK	C	1 PR #22 FHDPE SH PVC
3105A 01010000	10,000 FT	490.000 LB	BLACK		1 PR #22 FHDPE SH PVC
3105A 010500	500 FT	23.000 LB	BLACK	C	1 PR #22 FHDPE SH PVC
3105A 0105000	5,000 FT	230.000 LB	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.

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