



**Product:** [3106DB](#)

RS-485, 1 Pr, 22AWG, Str TC, PE Ins, with OS, 1 c #22AWG Str, PVC Ins, OA TC Brd, CPE Jkt, CM, PLTC, Sun Res, Dir Bur, Oil Resistant

**Product Description**

RS-485, 120 Ohm, 1 pair 22AWG (7x30) tinned copper Datalene® insulation and a Foil Tape Shield, and 1 conductor 22AWG (7x30) Tinned Copper, PVC Insulated conductor, Overall 65% Tinned Copper Braid, CPE jacket, CM, PLTC, SUN RES DIR BUR and oil-resistant

**Technical Specifications**

**Product Overview**

Suitable Applications:	direct burial, serial communication (RS-485 standard) comprising of PLCs, VFDs, HMIs, motors, RTU, SCADA, etc. within noisy environments over long distance, outdoor such as solar, lighting, etc.
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**Construction Details**

**Conductor**

Element	No. of Elements	Size	Stranding	Material
Pair(s)	1	22 AWG	7x30	TC - Tinned Copper
Conductor(s)	1	22 AWG	7x30	TC - Tinned Copper

**Insulation**

Element	Material	Nom. Thickness	Nom. Insulation Diameter	Color Code	Notes
Pair(s)	PE - Polyethylene (Foam)	0.033 in (0.84 mm)	0.095 in (2.4 mm)	White/Orange Stripe & Orange/White Stripe	HDPE
Conductor(s)	PVC - Polyvinyl Chloride	0.017 in (0.43 mm)	0.062 in (1.6 mm)	Blue/White Stripe	

**Outer Shield**

Shield Type	Material	Coverage	Drainwire Type
Tape	Bi-Laminate (Alum+Poly)	100%	22 AWG (7x30) TC
Braid	Tinned Copper (TC)	65%	

Waterblocking:	Waterblock Tape
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**Outer Jacket**

Material	Nom. Thickness	Nom. Diameter
CPE - Chlorinated Polyethylene	0.055 in (1.4 mm)	0.359 in (9.12 mm)

Overall Cable Diameter (Nominal):	0.359 in (9.12 mm)
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**Electrical Characteristics**

**Electricals**

Element	Nom. Conductor DCR	Nom. Capacitance Cond-to-Cond	Nom. Capacitance Cond-to-Other (Conds + Shield)	Nom. Characteristic Impedance	Nom. Velocity of Prop.	Max. Current
Pair(s)	18.2 Ohm/1000ft	11 pF/ft (36 pF/m)	20.9 pF/ft	120 Ohm	78%	6 Amps per Conductor at 30°C
Conductor(s)	18.2 Ohm/1000ft (59.7 Ohm/km)					6 Amps per Conductor at 30°C

Nom. Outer Shield DCR:	4.544 Ohm/1000ft (14.91 Ohm/km)
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**High Frequency (Nominal/Typical)**

Element	Frequency [MHz]	Nom. Insertion Loss (Attenuation)
Pair(s)	1	0.5 dB/100ft

## Voltage

UL Voltage Rating
300 V (CM, PLTC)

## Mechanical Characteristics

### Temperature

UL Temperature	Operating
60°C	-20°C to +60°C

### Bend Radius

Stationary Min.	Installation Min.
4.308 in (109.4 mm)	4.308 in (109.4 mm)

Max. Pull Tension:	75.26 lbs (34.14 kg)
Bulk Cable Weight:	62 lbs/1000ft

## Standards and Compliance

Environmental Suitability:	Indoor, Outdoor, Sunlight Resistance, Oil Resistance
Flammability / Reaction to Fire:	UL 1685 UL Loading, IEC 60332-1-2
NEC / UL Compliance:	Article 725, Article 800, CM, PLTC
CEC / C(UL) Compliance:	CM
European Directive Compliance:	EU CE Mark, EU Directive 2015/863/EU (RoHS 2 amendment), EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE)
APAC Compliance:	China RoHS II (GB/T 26572-2011)

## Product Notes

Notes:	Oil Resistance: Passes Oil Res I & II Per UL1277, Table 10.17
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## History

Update and Revision:	Revision Number: 0.296 Revision Date: 12-22-2023
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