



**Product:** [3109A](#)

RS485, 4 Pr #22 Str TC, PE Ins, OS+TC Brd, PVC Jkt, CM, PLTC, Oil Resistant

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### Product Description

RS-485, 4 Pair 22AWG (7x30) Tinned Copper, PE Insulation, Overall Beldfoil®+Tinned Copper Braid(65%) Shield, PVC Outer Jacket, CM, PLTC, and oil-resistant

### Technical Specifications

#### Product Overview

Suitable Applications:	harsh environment, IIoT, factory or process automation, video, audio, data communication, etc.
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#### Construction Details

##### Conductor

Element	Number of Element	Size	Stranding	Material
Pair(s)	4	22 AWG	7x30	TC - Tinned Copper

##### Insulation

Element	Material	Nom. Thickness	Nom. Insulation Diameter	Color Code	Notes
Pair(s)	PE - Polyethylene (Foam)	0.023 in (0.58 mm)	0.075 in (1.9 mm)	White/Blue Stripe & Blue/White Stripe, White/Orange Stripe & Orange/White Stripe, White/Green Stripe & Green/White Stripe, White/Brown Stripe & Brown/White Stripe	HDPE

##### Outer Shield

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

##### Outer Jacket

Material	Nom. Thickness	Nom. Diameter
PVC - Polyvinyl Chloride	0.053 in (1.3 mm)	0.448 in (11.4 mm)

Overall Cable Diameter (Nominal):	0.448 in (11.4 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)	14.7 Ohm/1000ft	11 pF/ft (36 pF/m)	20.9 pF/ft	120 Ohm	78%	2.7 Amps per Conductor at 25°C

Nom. Outer Shield DCR:	2.53 Ohm/1000ft (8.30 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.
5.5 in (140 mm)	5.5 in (140 mm)

Max. Pull Tension:	100 lbs (45 kg)
Bulk Cable Weight:	82 lbs/1000ft

## Standards and Compliance

Environmental Suitability:	Indoor, Outdoor, Sunlight Resistance, Oil Resistance
Flammability / Reaction to Fire:	UL 1685 UL Loading, FT1, IEC 60332-1-2
CPR Compliance:	CPR Euroclass: Eca; CPR UKCA Class: Eca
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)
UK Regulation Compliance:	UKCA Mark
APAC Compliance:	China RoHS II (GB/T 26572-2011)

## Product Notes

Notes:	Oil Resistance: Passes Oil Res II Per UL1277, Table 10.17, For CPE jacketed version order Part No. YR44768.
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## History

Update and Revision:	Revision Number: 0.545 Revision Date: 01-20-2023
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## Part Numbers

### Variants

Item #	Color	Putup Type	Length	UPC
3109A 0101000	Black	Reel	1,000 ft	612825141808
3109A 0102000	Black	Reel	2,000 ft	612825141815
3109A 0105000	Black	Reel	5,000 ft	612825141822

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