



Product: [3109A](#)

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

[Request Sample](#)

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.
------------------------	--

Construction Details

Conductor

Element	No. of Elements	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)
-----------------------------------	--------------------

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)
------------------------	-------------------------------

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.
--------	---

History

Update and Revision:	Revision Number: 0.546 Revision Date: 04-14-2023
----------------------	--

Part Numbers

Variants

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

© 2023 Belden, Inc

All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described here in are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "ASIS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. The Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.