



Product: [71742ELW](#)

Life Cycle Status: Capability

RS485, 3 Pr #20 Str TC, PE Ins, OS+TC Brd, LSZH Jkt, Cca



Product Description

RS-485, 3 Pair 20AWG (7x28) Tinned Copper, PO Insulation, Overall Beldfoil®+Tinned Copper Braid(65%) Shield, LSZH Outer Jacket, CPR Cca

Technical Specifications

Product Overview

Suitable Applications:	RS-485, POS; Computer communications; Low Voltage Analog Signals (4-20ma, 0-10v, ...); Low Voltage Digital Control (24v, ...); Line Level Audio; Panel Wiring; serial communication (RS-485 standard) comprising of PLCs, VFDs, HMIs, motors, RTU, SCADA, etc. within noisy environments over long distance, etc.
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Construction Details

Conductor

Element	No. of Elements	Size	Stranding	Material
Pair(s)	3	20 AWG	7x28	TC - Tinned Copper

Insulation

Element	Material	Nom. Thickness	Nom. Insulation Diameter	Color Code
Pair(s)	PE - Polyethylene	0.82 mm (0.032 in)	2.60 mm (0.102 in)	White/Blue & Blue/White, White/Orange & Orange/White, White/Green & Green/White

Outer Shield

Shield Type	Material	Coverage	Drainwire Type
Tape	Bi-Laminate (Alum+Poly)	100%	24 AWG (7x32) TC
Braid	Tinned Copper (TC)		

Outer Jacket

Material	Nom. Thickness	Nom. Diameter
LSZH - Low Smoke Zero Halogen (Flame Retardant)	1.0 mm (0.039 in)	12.3 mm (0.484 in)

Overall Cable Diameter (Nominal):	12.3 mm (0.484 in)
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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 Impedence	Nom. Velocity of Prop.	Max. Current
Pair(s)	36 Ohm/km (11 Ohm/1000ft)	40 pF/m (12 pF/ft)	78 pF/m	120 Ohm	66%	2.7 Amps per Conductor

High Frequency (Nominal/Typical)

Element	Frequency [MHz]	Nom. Insertion Loss (Attenuation)
Pair(s)	1	1.45 dB/100m (0.442 dB/100ft)

Voltage

Voltage Rating
300 V

Mechanical Characteristics

Temperature

Operating	Installation	Storage
-45°C To +70°C	-15°C To +70°C	-45°C To +70°C

Bend Radius

Stationary Min.	Installation Min.
62 mm (2.4 in)	123 mm (4.84 in)

Max. Pull Tension:	670 N (150 lbf)
Bulk Cable Weight:	133 kg/km (89.4 lbs/1000ft)

Standards and Compliance

Environmental Suitability:	Indoor - Euroclass Eca, Indoor, Non-Halogenated, Sunlight Resistance, Oil Resistance
Flammability / Reaction to Fire:	IEC 60332-1-2
CPR Compliance:	CPR Euroclass: Cca-s1,d1,a1
ISO/IEC Compliance:	IEC 61034-2 - Smoke Density Min Transmittance = 60%
CENELEC Compliance:	EN 50290-2-20
European Halogen Free Standards:	IEC 62821-1 Halogen Free Compliance = Yes, IEC 60754-1 - Halogen Amount = Zero, IEC 60754-2 - Halogen Acid Gas Amount - Max. Conductivity = 2.5 µS/mm, IEC 60754-2 - Halogen Acid Gas Amount - Min. pH = 4.3
European Directive Compliance:	EU CE Mark
UK Regulation Compliance:	UKCA Mark
Other Standard Compliance(s):	DMX-512

Product Notes

Notes:	This is a preliminary Technical Design Specification (TDS) which is subject to modification throughout the prototyping phase. The minimum business quantity to offer is 3km for the first order. This product will have Grey as standard color and 305mt or 500mt as standard put-ups. Additional options for colors and put-ups are available on special request. The estimated production lead time for the first order will be similar to the production lead time of 3107ENH plus extra 6-7 weeks. Please liaise with your Belden representative for confirmation.
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History

Update and Revision:	Revision Number: 0.21 Revision Date: 05-07-2025
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