



Product: [3107ELS](#)

RS-485, 2PR #22 Str TC, PO ins, F/B, LSNH Jkt, SWA

Product Description

RS-485, 2 Pair AWG 22 Tinned Copper - Stranded, Polyolefin (PO, PE, PP) insulation, Foil + Braid(s) shielding, LSZH / FRNC jacket ,SWA

Technical Specifications

Product Overview

Suitable Applications:	Instrumentation and computer cable. For EIA RS-485 transmissions applications
------------------------	---

Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	No. of Pairs
22	7x30	TC - Tinned Copper	2

Conductor Count:	4
Total Number of Pairs:	2

Insulation

Material	Nominal Diameter	Diameter +/- Tolerance
PE - Polyethylene (Foam)	2.04 mm	0.05 mm

Color Chart

Number	Color
Pair 1	White/Blue & Blue/White
Pair 2	White/Orange & Orange/White

Inner Shield

Material	Material Trade Name	Drainwire Material
Bi-Laminate (Alum+Poly)	Beldfoil®	TC - Tinned Copper

Inner Jacket

Nominal Diameter	Nominal Wall Thickness
8.9 mm	1.35 mm

Table Notes:	UV Stabilised
--------------	---------------

Outer Shield

Type	Layer	Material	Material Trade Name	Coverage [%]	Drainwire Material	Drainwire AWG
Tape	1		Beldfoil®	100%	TC - Tinned Copper	22
Braid	2	Tinned Copper (TC)		65%		

Outer Jacket

Material	Color	Nominal Diameter	Nominal Wall Thickness
LSZH - Low Smoke Zero Halogen (Flame Retardant)	Black	13.3 mm	1.35 mm

Construction and Dimensions

Armor

Type of Armor	Material	Thickness of Armoring Wires	Coverage Percentage
---------------	----------	-----------------------------	---------------------

Steel Wire Armoring	Galvanized steel wire	0.9 mm	Min. 90%
---------------------	-----------------------	--------	----------

Electrical Characteristics

Conductor DCR

Nominal Conductor DCR	Nominal Outer Shield DCR
48.2 Ohm/km	5.9 Ohm/km

Capacitance

Nom. Capacitance Conductor to Conductor	Nom. Capacitance Conductor to Other Conductor to Shield
36.1 pF/m	68.6 pF/m

Impedance

Frequency [MHz]	Nominal Characteristic Impedance
1 MHz	120 Ohm

High Frequency (Nominal/Typical)

Frequency [MHz]	Nom. Insertion Loss
1 MHz	1.64 dB/100m

Delay

Nominal Velocity of Propagation (VP) [%]
78%

Current

Element	Max. Recommended Current [A]
Conductor(s)	2.1 Amps per Conductor

Voltage

Voltage Rating [V]
300 V

Temperature Range

Installation Temperature Range:	-15°C To +80°C
Storage Temperature Range:	-45°C To +80°C
Operating Temperature Range:	-15°C To +80°C
Operating Temp Range (Fixed Install):	-45°C To +80°C

Mechanical Characteristics

Oil Resistance:	IEC 60811-404
Max. Pull Tension:	290 N
Min Bend Radius (W/o Pulling Strength):	200 mm
Min. Bend Radius During Installation:	260 mm

Standards

CENELEC Compliance:	EN 50290-2-20
Other Specification:	DMX-512

Applicable Environmental and Other Programs

Environmental Space:	Indoor, Indoor/Outdoor, Outdoor, Indoor/Outdoor - Euroclass Eca
----------------------	---

Suitability

Suitability - Indoor:	Yes
Suitability - Non-Halogenated:	Yes
Suitability - Oil Resistance:	Yes
Suitability - Outdoor:	Yes
Suitability - Sunlight Resistance:	Yes

Flammability, LS0H, Toxicity Testing

IEC Flammability:	IEC 60332-1-2
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
IEC 61034-2 - Smoke Density Min. Transmittance:	60%

Related Part Numbers

Variants

Item #	Color	Put-Up Type	Length	EAN
3107ELS.00500	Black	Reel	500 m	
3107ELS.001000	Black	Reel	1,000 m	8719605160508
3107ELS.001500	Black	Reel	1,500 m	8719605195623

History

Update and Revision:	Revision Number: 0.56 Revision Date: 02-20-2024
----------------------	---

© 2024 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.