



Product: [3107LWS](#)

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

Product Description

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

Technical Specifications

Product Overview

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

Color	Nominal Diameter	Nominal Wall Thickness
Black	8.9 mm	1.35 mm

Table Notes:	UV Stabilised
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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

Cabling

Description

2 pairs + tinned copper drainwire (AWG22)

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

CPR Euroclass:	Cca-s1a,d1,a1
CENELEC Compliance:	EN 50290-2-20
Other Specification:	DMX-512

Applicable Environmental and Other Programs

Environmental Space:	Indoor, Indoor/Outdoor, Outdoor, Indoor/Outdoor - Euroclass Cca
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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:	80%

Related Part Numbers

Variants

Item #	Color	Put-Up Type	Length	EAN
3107LWS.00500	Black	Reel	500 m	8719605190635
3107LWS.001000	Black	Reel	1,000 m	8719605186997

History

Update and Revision:	Revision Number: 0.82 Revision Date: 06-28-2024
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