



Product: [50051L](#)

RS485 FR, 1P18AWG Str TC, MGT, XLPE Ins, OS+TC Brd, LSZH Jkt, IEC60331-23, ABS Approved

Product Description

RS-485 Fire Resistant, 1PR x 18AWG Stranded Tinned Copper, Mica Glass Tape, Electron-Beam Cross Linked Polyethylene Insulation, Overall Foil Plus Tinned Copper Braid Shield, Low Smoke Zero Halogen Jacket, IEC60331-23 Fire Resistant Rating, ABS Approved

Technical Specifications

Product Overview

Suitable Applications:	Designed for applications which are used for RS 232/422/485, CANBUS, MODBUS communication protocols. Cable applications include motion oriented machine, machine control networks, temperature controllers, control panels, machine cutting tools, auxiliary equipment, SCADA communications, etc. These cables are used in emergency evacuation / shutdown systems in building automation, offshore, oil & gas and railway applications and are flame retardant according to IEC 60332-3-22 Category A
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Construction Details

Conductor

Size	Stranding	Material
18 AWG	Stranded	TC - Tinned Copper

Insulation

Material	Color Code	Notes
Mica Glass Tape		
XLPE	White & Blue	*XLPE (Electron-Beam Cross Linked Polyethylene)

Outer Shield

Shield Type	Material	Drainwire Type
Tape	Bi-Laminate (Alum+Poly)	21 AWG (7x30) TC
Braid	Tinned Copper (TC)	

Outer Jacket

Material
LSZH - Low Smoke Zero Halogen (Flame Retardant)

Overall Cable Diameter (Nominal):	10.9 mm (0.429 in)
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Electrical Characteristics

Electricals

Nom. Conductor DCR	Nom. Capacitance Cond-to-Cond	Nom. Capacitance Cond-to-Shield	Nom. Characteristic Impedance
23.2 Ohm/km (7.07 Ohm/1000ft)	46 pF/m (14 pF/ft)	82 pF/m	120 Ohm

High Frequency (Nominal/Typical)

Frequency	Nom. Insertion Loss (Attenuation)
1	2.2 dB/100ft

Voltage

Voltage Rating
300 V

Mechanical Characteristics

Temperature

Operating

-40°C To +90°C

Bulk Cable Weight: 132.2 kg/km (88.83 lbs/1000ft)

Standards and Compliance

Environmental Suitability:	Sunlight Resistance, UV Resistance, Oil Resistance, Oil Resistance
Flammability / Reaction to Fire:	IEC 60332-1-2, IEC 60332-3-22
Resistance to Fire:	IEC 60331-23-E90
Marine Compliance:	ABS Type Approval Certificate 20-2029060-PDA
ISO/IEC Compliance:	IEC 60092-376, IEC 61034-2 - Smoke Density Min Transmittance = Min. 70% as per IEC 61034-2
European Halogen Free Standards:	IEC 60754-1 - Halogen Amount = Max 0.5%, IEC 60754-2 - Halogen Acid Gas Amount - Max. Conductivity = 10 µS/mm, IEC 60754-2 - Halogen Acid Gas Amount - Min. pH = 4.3
European Directive Compliance:	EU CE Mark, EU Directive 2015/863/EU (RoHS 2 amendment), REACH, EU Directive 2011/65/EU (RoHS 2)
APAC Compliance:	China RoHS II (GB/T 26572-2011)
Other Standard Compliance(s):	Toxicity Index 5 as per EN 50305 / NF F63-305 (ITC)

Product Notes

Notes: Smoke Density ASTM D2843 Max. 40%

History

Update and Revision: Revision Number: 0.67 Revision Date: 07-05-2024

Part Numbers

Variants

Item #	Color	Putup Type	Length	EAN
50051L 010500M	Black	Reel	500 m	
50051L-A500	Black	Reel	500 m	8719605198211
50051L 0101000M	Black	Reel	1,000 m	
50051L 060500M	Grey	Reel	500 m	
50051L 0601000M	Grey	Reel	1,000 m	
50051L-E305	Purple	Reel	305 m	8719605202529

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