



**Product:** [50022L](#)



RS485 FR, 2P 20AWG Str TC, MGT, XLPE Ins, OS+TC Brd, LSZH Jkt, IEC60331-23, ABS Approved

### Product Description

RS-485 Fire Resistant, 2PR x 20AWG 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
20 AWG	Stranded	TC - Tinned Copper

##### Insulation

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

##### Outer Shield

Shield Type	Material	Drainwire Type
Tape	Bi-Laminate (Alum+Poly)	
Braid	Tinned Copper (TC)	22 AWG (7x30) TC

##### Outer Jacket

Material
LSZH - Low Smoke Zero Halogen (Flame Retardant)

Overall Cable Diameter (Nominal):	15.4 mm (0.606 in)
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#### Electrical Characteristics

##### Electricals

Nom. Conductor DCR	Nom. Capacitance Cond-to-Cond	Nom. Capacitance Cond-to-Shield	Nom. Characteristic Impedance
36.7 Ohm/km (11.2 Ohm/1000ft)	46 pF/m (14 pF/ft)	82 pF/m	120 Ohm

Table Notes:	Nom. Inductance to Resistance ratio (L/R): 25 µH/Ω
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##### Voltage

Voltage Rating	Breakdown Voltage
300 V	1.5 kVac / 5 min

Table Notes:	Voltage Test in Water : 450Vac X 4 hours
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#### Mechanical Characteristics

##### Temperature

<b>Operating</b>
-40°C To +90°C

Table Notes:	Insulation Resistance $\geq$ 3670 M $\Omega$ *km
Bulk Cable Weight:	252 kg/km (169 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 $\mu$ S/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%
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## History

Update and Revision:	Revision Number: 0.58 Revision Date: 07-05-2024
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## Part Numbers

### Variants

Item #	Color	Putup Type	Length	EAN
50022L 010500M	Black	Reel	500 m	
50022L-A500	Black	Reel	500 m	8719605219862
50022L-A550	Black	Reel	550 m	8719605219879
50022L-A750	Black	Reel	750 m	8719605219886
50022L 0101000M	Black	Reel	1,000 m	
50022L-G500	Chrome	Reel	500 m	8719605219848
50022L 060500M	Grey	Reel	500 m	
50022L 0601000M	Grey	Reel	1,000 m	
50022L-A100	Red	Reel	100 m	8719605219855

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