Product: 50013L

RS485, 3P24AWG Str TC, XLFMPE Ins, OS+TC Brd, LSZH Jkt, ABS Approved

Product Description

RS-485, 3PR x 24AWG Stranded Tinned Copper, Electron-Beam Cross Linked Foam Polyethylene Insulation, Overall Foil Plus Tinned Copper Braid Shield, Low Smoke Zero Halogen Jacket, 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

Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	No. of Pairs
24	Stranded	TC - Tinned Copper	3

Conductor Count:	6

Insulation

Material
EB-XLFMPE

Color Chart

Number	Color
Pair #1	White & Blue
Pair #2	White & Orange
Pair #3	White & Green

Outer Shield

Type	Material	Drainwire Material
Tape	Bi-Laminate (Alum+Poly)	Stranded Tinned Copper
Braid	Tinned Copper (TC)	

Outer Jacket

Material	Nominal Diameter
LSZH - Low Smoke Zero Halogen (Flame Retardant)	9.5 mm

Electrical Characteristics

Conductor DCR

Nominal Conductor DCR
94.2 Ohm/km

Capacitance

Element	Nom. Capacitance Conductor to Conductor	Nom. Capacitance Conductor to Shield
@ 1 kHz	46 pF/m	82 pF/m

Dielectric Strength:	1.5 kVac / 2s

Min Insulation Resistance:	≥ 1 GΩ*KM

Inductance

Nominal Inductance
1 mH/km

Impedance

Nominal Characteristic Impedance
120 Ohm

High Frequency (Nominal/Typical)

Nom. Insertion Loss
2.2 dB/100ft

Delay

Nominal Delay
5.2 ns/m

Voltage

Non-UL Voltage Rating
300 V

Temperature Range

Operating Temperature Range:	-40°C To +90°C

Mechanical Characteristics

Oil Resistance:	Yes
Bulk Cable Weight:	104 kg/km
Minimum Bend Radius During Operation:	76mm

Standards

ISO/IEC Compliance:	IEC 60754-2, IEC 61034-2
Other Standards:	Toxicity Index < 5 as per EN 50305 / NF F63-305 (ITC)

Suitability

Suitability - Oil Resistance:	Yes
Suitability - Sunlight Resistance:	Yes

Flammability, LS0H, Toxicity Testing

IEC Flammability:	IEC 60332-1-2, IEC 60332-3-22
IEC 60754-1 - Halogen Amount:	Max 0.5% as per IEC 60754-1
IEC 60754-2 - Halogen Acid Gas Amount - Max. Conductivity:	10 µS/mm
IEC 60754-2 - Halogen Acid Gas Amount - Min. pH:	4.3

History

Update and Revision:	Revision Number: 0.49 Revision Date: 09-30-2025