

LONGTRONIC® DeviceNet thick cable

1x2x18AWG/40+1x2x15AWG/84 PUR

P/N: ZL5103019

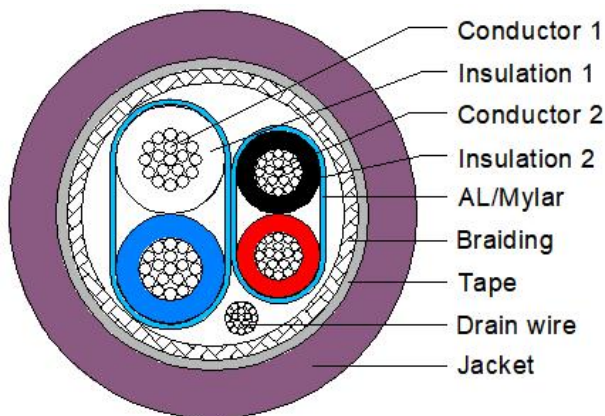
Version: A/01

Date: 2023-05-20

Description

This is a cable with 120 Ω characteristic impedance for data transmission. Application for moved installation. 18AWG/40 stranded TC conductor with Foam-PE insulation, 15AWG/84 stranded TC conductor with HDPE insulation, AL/Mylar individual screen, Drain wire, Tinned copper braiding overall screen, Non-woven tape, PUR jacket.

Design



Conductor	①18AWG(40*0.18 mm) stranded tinned copper wire ②15AWG(84*0.16 mm) stranded tinned copper wire
Insulation	①Foam-PE OD: 3.80 ± 0.15 mm Color: White, Blue ②HDPE OD: 2.65 ± 0.15 mm Color: Red, Black
Individual screen	AL/Mylar
Drain wire	40*0.18 mm stranded tinned copper wire
Overall screen	Tinned copper braiding, coverage about 80 %
Tape	Non-woven
Jacket	PUR Color: Violet (Similar to RAL4001) OD: 11.80 ± 0.40 mm
Marking	ZHAOLONG□LONGTRONIC®□BUS□DeviceNet□2x18AWG/40+2x15AWG/84□PUR □□□□E324007□  □AWM□21329□80℃□600V□FT2□□□□XXXXXX□****m

Note: □ means blank; XXXXXX means batch number; ****m means meter

Electrical characteristics (20℃)

Data pair(18AWG):

Conductor resistance	$\leq 22.60 \Omega/\text{km}$
Dielectric strength	AC 2.0 kV for 1 min.
Insulation resistance	$\geq 5000 \text{ M}\Omega \cdot \text{km}$
Mutual Capacitance	Nom. 39.37 pF/m at 800 Hz or 1000 Hz
Capacitance between one conductor and other conductor connected to shield	Nom. 78.74 pF/m at 800 Hz or 1000 Hz
Velocity of propagation	Nom. 70%
Characteristic impedance	$120 \pm 12 \Omega$ at 1.0 MHz
Attenuation	$\leq 0.43 \text{ dB}/100\text{m}$ at 125 kHz $\leq 0.82 \text{ dB}/100\text{m}$ at 500 kHz $\leq 1.31 \text{ dB}/100\text{m}$ at 1.0 MHz

Power pair(15AWG):

Conductor resistance	$\leq 11.81 \Omega/\text{km}$
Dielectric strength	AC 2.0 kV for 1 min.
Insulation resistance	$\geq 5000 \text{ M}\Omega \cdot \text{km}$

Other characteristics

Operating temperature	Fixed: $-40 \sim +80 \text{ }^{\circ}\text{C}$ Moving: $-10 \sim +60 \text{ }^{\circ}\text{C}$
Installation temperature	$-20 \sim +60 \text{ }^{\circ}\text{C}$
Min bending radius	Fixed: $5 \times \text{OD}$ Moving: $15 \times \text{OD}$
Halogen free	IEC 60754-1
Oil resistance	IRM 902, $100^{\circ}\text{C} \times 96 \text{ h}$ (UL 758)
Flame resistance	IEC 60332-1-2, FT2
Sunlight resistance	300 h (UL1581)
Trailing chain test	≥ 2.5 million cycles Drag chain route: 5 m Bending radius: 200 mm Acceleration: 5 m/s^2 Speed: 3 m/s

This cable meets RoHS requirements.

Packing information

Packaging	500 m / drum
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