

TP/.. Twisted Pair Cable

TP/.. TWISTED PAIR CABLE



Description

Screened and unshielded twisted pair cables recommended for general purpose Trend system installations. All cables are manufactured with a violet, halogen-free outer sheath. Screened cables have twisted pairs wrapped in an aluminium polyester tape with a tinned copper drain wire

Features

- Violet sheath for ease of identification
- Flame retardant halogen-free sheath
- 600 V rating

Physical

TP/1/1/22/HF/200. Screened single twisted pair, 0.34 mm² (22 AWG), 200 m (Belden equivalent 8761NH). Recommended Trend system use: Trend Lan, Input/output wiring (Analogue voltage, Analogue current, Thermistor, Digital inputs and Analogue voltage outputs)



diam 4.55 mm

TP/2/2/22/HF/200. Screened twin twisted pair, 0.34 mm² (22 AWG), 200m (Belden equivalent 8723NH). Recommended Trend system use: Trend Lan



diam 5.85 mm

TP/1/0/16/HF/200. Unshielded single twisted pair, 1.34 mm² (16 AWG), 200 m (Belden equivalent 8471NH). Recommended Trend system use: LonWorks bus



diam 7.05 mm

ORDER CODES

TP/1/1/22/HF/200	200 m reel of screened single twisted pair 22 AWG
TP/2/2/22/HF/200	200 m reel of screened twin twisted pair 22 AWG
TP/1/0/16/HF/200	200 m reel of unscreened single twisted pair 16 AWG

SPECIFICATIONS

CODE	TP/1/1/22/HF/200	TP/2/2/22/HF/200	TP/1/0/16/HF/200
Description	Single shielded twisted pair. 0.34 mm ² , 22 AWG(7x0.25mm) stranded tinned copper, polyethylene insulation, twisted aluminium-polyester shielded pair. 0.34 mm ² (7x0.25mm) stranded tinned copper drain wire, flame retardant halogen-free sheath	Two twisted pairs individually shielded. 0.34 mm ² , 22 AWG (7x0.25mm) stranded tinned copper, polyethylene insulation, twisted aluminium-polyester shielded pair. Cabled on common axis with a common 0.22 mm ² (7x0.2mm) stranded tinned copper drain wire, flame retardant halogen-free sheath	Single unshielded twisted pair. 1.34 mm ² , 16 AWG (19x0.30mm) stranded tinned copper, polyethylene insulated twisted pair, unshielded flame retardant, halogen-free sheath
Belden equivalent	8761NH	8723NH	8471NH
Trend system use	Trend Lan, Trend input/output wiring (Analogue voltage, Analogue current, Thermistor, Digital inputs, and Analogue voltage outputs)	Trend Lan	LonWorks bus (Lon)
Electrical Characteristics			
Maximum operating voltage	600 V RMS	600 V RMS	600 V RMS
Velocity of propagation		65% nominal	
Maximum continuous current per conductor	2.9 A	2.3 A	7.1 A
Nominal breakdown voltage- jacket			20 kV RMS
Nominal breakdown voltage between conductors			20 kV RMS
Nominal capacitance between conductors at 1 kHz	79 pF/m	115 pF/m	-
Nominal capacitance between conductor and shield at 1 kHz (one conductor to other conductor and shield)	154 pF/m	203 pF/m	-
Nominal inductance of pairs	0.66 µH/m	0.56 µH/m	0.62 µH/m
Nominal conductor DC resistance at 20 °C	55.34 ohms/km	55.34 ohms/km	14.5 ohms/km
Nominal impedance	80 ohms	50 ohms ±10 at 10 Mhz	-
Physical Characteristics			
Temperature rating	-20 to +60 °C	-20 to +60 °C	-20 to +60 °C
Insulation Material	Polyethylene	Polyethylene	Polyethylene
Core nominal diameter	1.57 mm	1.57 mm	2.72 mm
Screen type and percentage coverage	Aluminium/polyester tape aluminium side in, 100%	Aluminium/polyester tape aluminium side out, 100%	
Sheath Material (colour)	Flame retardant thermoplastic halogen-free polyolefin compound (violet)	Flame retardant, thermoplastic halogen-free polyolefin compound (violet)	Flame retardant, thermoplastic halogen-free polyolefin compound (violet)
Sheath radial thickness	0.67 mm	0.75 mm	0.81 mm
Overall nominal diameter	4.45 mm ±0.25 mm	5.85 mm ±0.15 mm	7.05 mm ±0.15 mm
Colour Code	black/white	black/red, green/white	black/white
Pulling tension	15.5 kg estimated	22.7 kg estimated	27.7 kg estimated
Minimum bending radius	44.5 mm	40.6 mm	129.5 mm
Nominal weight	26 kg/km	45 kg/km	62 kg/km

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