2170850	DATA SHEET	LAPP
valid from: 01.02.2019	ETHERLINE® HEAT Cat. 5e FL9YBC11Y 4x2x0,22sn	

Application

ETHERLINE® HEAT CAT.5e FL9YBC11Y 4x2x0.22sn is an industrial CATEGORY 5e high frequency data cable.
The cable has a PUR outer sheath and fulfills the requirements in accordance with ISO 6722.
It is intended for static and limited flexible use in dry and damp environment up to 105°C. Outdoor usage is permitted.
At room temperature the material is mainly consistent against the influence of acid, alkaline and certain kinds of oil.
Contionous flexing, forced movement in reeling applications etc. or tensile strength applied to cable larger than 15 N / mm² is not permitted.

Abbreviation acc. to ISO/IEC 11801: SF/UTP
Abbreviation acc. to DIN 76722: FL9YBC11Y 4x2x0,22sn

Design

Certification	Tested acc. To LV 112-1, LV-212-2, LV 213-2 and certified acc. To ECE-R 118.
Conductor	stranded, tinned copper wires conductor Ø 0,61 mm AWG24/7
Insulation	heat resistant polyolefin compound, outerØ nom. 1.17 mm
Core identification code	Paar 1: white/blue + blue; Paar 2: white/orange + orange; Paar 3: white/green + green; Paar 4: white/brown + brown
Stranding	two cores twisted to pairs, pairs twisted to bundle, on top: non-woven tape wrapping
Screen	plastic laminated aluminum foil , metal side outwards on top: braid of tinned copper wire coverage approx. 85%
Outer sheath	special PUR-based compound colour: RAL 6018 / yellowgreen outer Ø: ca. 7,7 mm

Electrical properties at 20°C

Loop resistance	max. 173 Ω/km
Insulation resistance	min. 5 GΩ x km
Mutual capacitance	nom. 48 nF/km (at 800 Hz)
Characteristic impedance	100 ± 15 Ω acc. to IEC 61156-6
Peak operating voltage	125 V (not for power purposes)
Test voltage	Core/Core: 1000 V Core/Screen: 500 V

We reserve all rights according to DIN ISO 16016.

Electrical transmission properties at 20°C

f [MHz]	Attenuation [dB/100m]	NEXT [dB]	EL FEXT [dB]	Return Loss [dB]
	standard	standard	standard	standard
4	6	56,3	52	23
10	9,5	50,6	43,6	25
16	12,1	47,2	39,8	25
31,25	17,1	42,9	34,1	23,3
62,5	24,8	38,4	28,1	20,8
100	32	35,3	24,0	19

Mechanical and thermal properties

Minimum bending radius	flexing: 15 x Cable Ø fiexed installation: 10 x Cable Ø
Temperature range	flexing: -30 °C bis +105 °C fixed installation: -40 °C bis +105 °C
Flammability	flame retardant acc. to ISO 6722-1
Halogen free	halogen free acc. To VDE 0472-815
General requirements	This cable is conform to the EU-Directive 2011/65/EU (RoHS, Restriction of the use of certain hazardous substances).

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