


<b>2170582</b>	<b>DATA SHEET</b>	
<b>valid from:</b> <b>01.02.2019</b>	<b>ETHERLINE® HEAT Cat. 7 FL09YBC11Y</b> <b>4x2x0,22sn</b>	

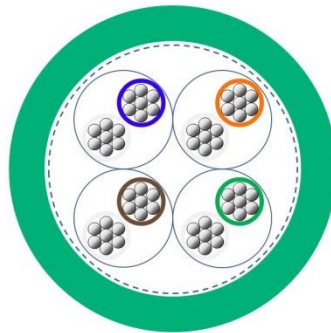
## Application

ETHERLINE® HEAT CAT. 7 FL09YBC11Y 4x2x0,22sn is a PUR sheathed CATEGORY 7 high speed data cable for industrial usage acc. To ISO 6722. The screening ensures a high reliability during data transmission. This cable is designed for fixed installation and limited moved applications in dry and damp areas. It is heat resistant up to 105 °C and also suitable for outdoor applications.

At room temperature the cable is widely resistant against acids and bases as well as certain oils. Per-manently moved applications with forcible control or usage on cable drums and reels with more than 15 N/mm<sup>2</sup> tensile stress on the conductor cross-section is not allowed for this cable.

Naming acc. To ISO/IEC 11801: SF/FTP  
Short mark naming acc. To DIN 76722: FL09YBC11Y 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 AWG 24/7
Insulation	heat resistant polyolefin compound, Foam-Skin OuterØ max. 1.4 mm
Core identification code	pair 1: white + blue; pair 2: white + orange; pair 3: white + green; pair 4: white + brown
Stranding	two cores stranded to pairs and covered with plastic laminated aluminum foil, screened pairs stranded to bundle
Screen	braid of tinned copper wire coverage approx. 85%
Outer sheath	special PUR-based compound colour: RAL 5021 / waterblue outer Ø: approx. 8.1 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

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### Electrical transmission properties at 20°C

f [MHz]	Attenuation [dB/100m] standard	NEXT [dB] standard	EL FEXT [dB] standard	Return Loss [dB] standard
4	5,6	75	78	23
10	8,8	75	74	25
16	11,1	75	69,9	25
31,25	15,8	75	64,3	23,3
62,5	22,2	75	58,3	20,8
100	28,6	72,2	54	19
200	41,2	67,9	48	16,5
250	46,4	66,5	46	15,6
300	51,2	65,2	44,5	14,9
350	55,8	64,2	43,1	14,3
500	67,9	62	40,1	13
600	75,2	60,8	38,4	12,3

### Mechanical and thermal properties

Minimum bending radius	flexing: 15 x Cable Ø fixed 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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