

**ETHERLINE® HEAT Cat. 5e FL9YBC11Y
4x2x0,22sn****DB2170850**
*alid from: 25.08.2015***Application**

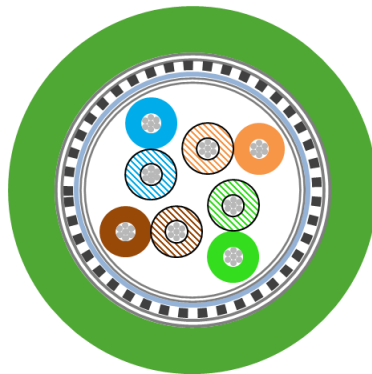
ETHERLINE® HEAT CAT.5e FL9YBC11Y 4x2x0,22sn is a PUR sheathed CATEGORY 5e high speed data cable for industrial usage acc. to ISO 6722. The cable is designed for fixed installation and limited moved applications in dry and damp areas. It is heat resistant up to 105 °C and also suitable for outdoor applications. At room temperature the cable is widely resistant against acids and bases as well as certain oils. Permanently moved applications with forcible control or usage on cable drums and reels with more than 15 N/mm² tensile stress on the conductor cross-section is not allowed for this cable.

Naming acc. to ISO/IEC 11801: SF/UTP
Short mark naming acc. to DIN 76722: FL9YBC11Y 4x2x0,22sn

Tested acc. to LV 112-1, LV-212-2, LV 213-2 and certified acc. to ECE-R 118.

Design

sketch



conductor	tinned copper, 7-wire (AWG24/7), ca. 0.61 mm Ø
insulation	polyolefin, heat resistant, nom. 1.17 mm outer Ø
core identification	pair 1: white/blue + blue; pair 2: white/orange + orange; pair 3: white/green + green; pair 4: white/brown + brown
stranding	2 cores stranded to pair, pairs stranded to bundle
wrapping	non-woven tape (overlapping)
screening	plastic laminated aluminum foil (side with metal outwards, overlapping) <u>on top:</u> braid of copper wire, tinned wire, coverage ca. 85 %
wrapping	thin non-woven tape, longitudinally applied (used for improved stripping characteristics)
outer sheath	PUR based compound, yellow-green similar to RAL 6018, wall thickness ca. 1 mm, outer Ø ca. 7.7 mm
weight	ca. 0.072 kg/m

Electrical properties at 20° C

resistance (loop)	max. 173 Ω/km
insulation resistance	min. 5 GΩ xkm
mutual capacitance	nom. 48 nF/km (at 800 Hz)
characteristic impedance	nom. 100 Ω acc. to IEC 61156-6
operating peak voltage	125 V (not for power purposes)
test voltage (rms 50 Hz, 1 minute)	core/core: 1000 V core/screening: 500 V

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4x2x0,22sn****DB2170850**gültig ab / *valid from*: 25.08.2015**Transmission properties**

Transmission properties acc. to IEC 61156-6 edition 3.0 2010-01

frequency [MHz]	attenuation [dB/100m]	NEXT [dB]	ACR-F [dB/100 m]
1	(3.2)	(65.3)	(64.0)
4	6.1	56.3	52.0
10	9.6	50.3	44.0
16	12.1	47.2	39.9
31.25	17.2	42.9	34.1
62.5	24.9	38.4	28.1
100	32.2	35.3	24.0

Mechanical and thermal properties

minimum bending radius

moved: 15 x cable Ø

fixed installation: 10 x cable Ø

temperature range (temperature class B on the
basis of ISO 6722-1)

moved: -30° C up to +105° C

fixed installation: -40° C up to +105° C

halogen free

halogen free acc. to VDE 0472-815

flame propagation

flame retardant acc. to ISO 6722-1

EU-directives

Dangerous and forbidden substances acc. to RoHS directive
(2011/65/EU) are not allowed to the manufacturing.