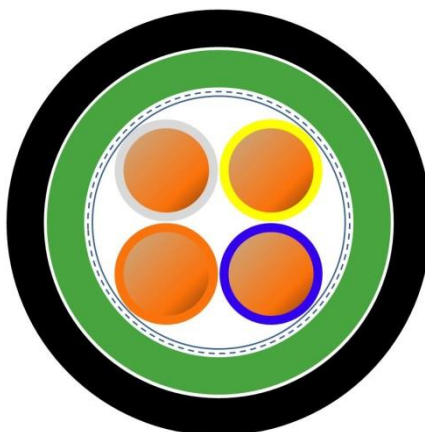


2170494	DATA SHEET	
valid from: 01.01.2019	ETHERLINE® Cat. 5e YY 2 x 2 x AWG22/1	

Application

ETHERLINE® CAT. 5e YY 2 x 2 x AWG 22/1 is CATEGORY 5e high speed data transmission cable suitable for application in the industrial environments. This data cable meets the requirements in accordance to the Standards EIA/TIA-568 TSB-36 and ISO/IEC 11801 „Generic Cabling for Customer Premises“ for CLASS D Links. The high quality double screening ensures a high security during data transmission in areas with electromagnetic fields.

Design



Conductor	solid bare copper wire, AWG 22/1 or $\varnothing$ approx. 0,65 mm
Insulation	Polyethylene, nom. Core $\varnothing$ ca. 1.50 mm
Core identification code	orange-orange/white; green-green/white
Stranding	star quad construction with plastic tape wrapping
Screen	aluminium laminated plastic foil, braiding of tinned copper wires, coverage approx. 90%
Outer sheath	2 layer construction Inner layer PVC, YM2 in acc. to VDE 0207-5 Colour similar yellowgreen RAL 6018, nom. $\varnothing$ approx. 6.2 mm Outer layer PVC, YM2 in acc. to VDE 0207-5, Colour similar black RAL 9005, Outer $\varnothing$ approx. 7.7 mm

Electrical properties at 20°C

Loop resistance	max. 118.2 Ω /km
Insulation resistance	min. 5 G Ω xkm
Mutual capacitance	nom. 48 nF/km
Characteristic impedance	nom. 100 Ω ($\pm 15\%$) (1 MHz up to 100 MHz)
Velocity of propagation	nom. 0.66 c
Signal transit time	<506 ns/100 m
Peak operating voltage	125 V
Test voltage	conductor/conductor 1000 V conductor/screen 500 V

Creator: TOST / PDC	Document: DB2170494EN	Page 1 of 2
Released: ALTE / PDC	Version: 02	

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valid from: 01.01.2019	ETHERLINE® Cat. 5e YY 2 x 2 x AWG22/1	

Electrical transmission properties at 20°C

f [MHz]	Attenuation [dB/100m] standard	NEXT [dB] standard	EL FEXT [dB] standard	Return Loss [dB] standard
4	4,1	56,3	52	23
10	6,7	50	43,3	25
16	8,3	47,2	40	25
31,25	11,7	42,8	34	23,6
62,5	17	38,4	28,1	21,6
100	22	35,3	24	20,1

Mechanical and thermal properties

Minimum bending radius	flexing: 8 x cable Ø fixed installation: 4 x cable Ø
Temperature range	flexing: -5° C up to +70° C fixed installation: -25° C up to +80° C
Flammability	acc. to IEC 60332-1-2, FT-4 acc. to UL 1685 /CSA FT4

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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Creator: TOST / PDC	Document: DB2170494EN	Page 2 of 2
Released: ALTE / PDC	Version: 02	