

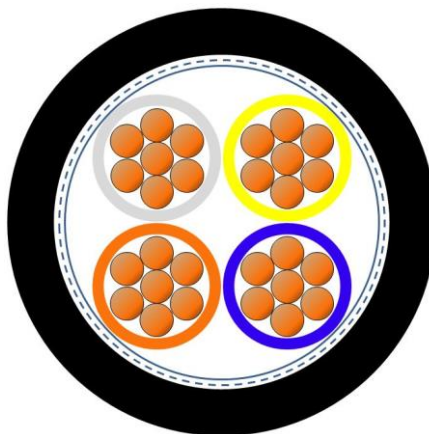
2170901	DATA SHEET	
valid from: 01.01.2019	ETHERLINE® Y CAT.5e BK 2 x 2 x AWG 22/7	

Application

ETHERLINE® Y CAT.5e BK 2x2xAWG22/7 is a CATEGORY 5e high speed data transmission cable suitable for application in the industrial environment according to PROFINET Type C. The cable has a black UV- resistant PVC outer sheath. The data cable meets the requirements of Standards EIA/TIA-568, TSB-36 and ISO/IEC 11801 "Generic Cabling for Customer Premises" for Class D Links.

The high quality screening ensures a high security during data transmission in areas with electromagnetic fields. The cable is designed for stationary applications and occasional movements in dry and wet rooms. It may be used outside regarding the thermal characteristics. At room temperature, the cable is widely resistant against impact of acids, soaps and certain oils. Permanent, operational movements, forced guidance respectively the use of cable reels or rolls or under tensile stress with more than 15 N/mm² conductor cross-section are not allowed.

Design



Conductor	stranded bare copper wire, AWG 22/7 conductor \varnothing 0.75 mm
Insulation	Polyolefin core \varnothing approx.. 1.5 mm
Core identification code	pair 1: white + blue pair 2: yellow + orange
Stranding	cores stranded to a quad, 1 layer plastic foil (overlapped)
Screen	aluminium laminated foil (metal side outside, overlapped) braid of tinned copper wires coverage approx. 85 %
Outer sheath	PVC mixture TM2 according to EN50363-4-1 Colour: black similar RAL 9005 Outer \varnothing approx. 6.2 mm

Electrical properties at 20°C

Loop resistance	max. 115 Ω /km
Insulation resistance	min. 5 G Ω x km
Mutual capacitance	nom. 48 nF/km (@ 800 Hz)
Characteristic impedance	nom. 100 Ω acc. to IEC 61156-5 100 \pm 15 Ω (1 MHz up to 100 MHz)
Peak operating voltage	125 V (not for power purposes)
Test voltage	conductor/conductor 1000 V conductor/screen 500 V

AbN
automation

Creator: TOST / PDC	Document: DB2170901EN	Page 1 of 2
Released: ALTE / PDC	Version: 02	

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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	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	fixed installation: 10x cable Ø occasional flexing: 15x cable Ø
Temperature range	fixed installation: -40° C up to +80° C occasional flexing: -10° C up to +70° C
Flammability	flame retardant acc. to IEC 60332-1-2
General requirements	This cable is conform to the EU-Directive 2011/65/EU (RoHS, Restriction of the use of certain hazardous substances).

Creator: TOST / PDC	Document: DB2170901EN	Page 2 of 2
Released: ALTE / PDC	Version: 02	