2170901

DATA SHEET

valid from: 01.01.2019

ETHERLINE® Y CAT.5e BK 2 x 2 x AWG 22/7

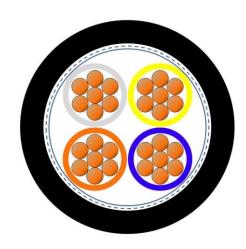


Application

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 ø 0.75 mm

Insulation Polyolefin

core ø 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 Ø approx. 6.2 mm

Electrical properties at 20°C

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

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Electrical transmission properties at 20°C

| f [MHz] | Attenuation [dB/100m] | NEXT [dB] | EL FEXT [dB] | Return Loss [dB] |
|------------|-----------------------|--------------|-----------------|---------------------|
| | standard | standard | standard | 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 \emptyset

occasional flexing: 15x cable Ø

Temperature range fixed installation: -40° C up to +80° C

occasional flexing: -10 $^{\circ}$ C up to +70 $^{\circ}$ 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).