
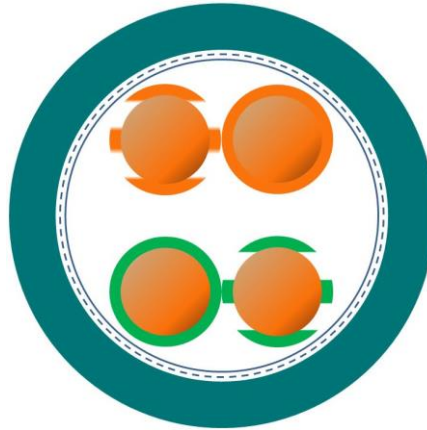


2170281	<b>DATA SHEET</b>	
valid from: 01.01.2019	<b>ETHERLINE® P Cat. 5e 2x2x24/1 AWG</b>	

## Application

ETHERLINE® P Cat. 5e 2x2x24/1 AWG is a CATEGORY 5e high speed data transmission cable for industrial environments. This 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 screen ensures high transmission reliability of data transfer in electro-magnetically polluted areas. The PUR sheath is widely resistant against mineral oils and abrasion. The cable is intended for fixed installation in dry and damp interiors and outdoors.

## Design



Certification	UL AWM styles 11117 and 21576 (1000 V, 80 °C) acc. to UL 758 cRU AWM I/II A/B (FT2) acc. to GSA C22.2 No.210-05
Conductor	bare copper wire, $\varnothing$ ca. 0.51 mm (24 AWG)
Insulation	foam-skin polyolefin, core $\varnothing$ ca. 0.95 mm
Core identification code	acc. to IEC 60708-1 pair 1: white(-orange)/orange; pair 2: white(-green)/green
Stranding	cores twisted to pairs, pairs stranded together 1 layer plastic-foil
Screen	plastic laminated aluminum foil on top: braid of tinned copper wire, coverage ca. 85 %
Outer sheath	PUR halogen free compound, blue (similar to RAL 5021), outer $\varnothing$ : ca. 5.8 mm

## Electrical properties at 20°C

Loop resistance	max. 192 $\Omega$ /km
Insulation resistance	min. 5 G $\Omega$ xkm
Mutual capacitance	nom. 48 nF/km (at 800 Hz)
Characteristic impedance	100 $\Omega$ $\pm$ 15 $\Omega$ (1MHz up to 100 MHz)
Velocity of propagation	ca. 0.77 c
Signal transit time	nom. 433 ns/100 m
Peak operating voltage	125 V (not for power purposes)
Test voltage	conductor/conductor 1000 V conductor/screen 1000 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
<b>4</b>	4,1	56,3	52	23
<b>10</b>	6,7	50	43,3	25
<b>16</b>	8,3	47,2	40	25
<b>31,25</b>	11,7	42,8	34	23,6
<b>62,5</b>	17	38,4	28,1	21,6
<b>100</b>	22	35,3	24	20,1

### Mechanical and thermal properties

Minimum bending radius	7,5 x cable Ø
Temperature range	moved (VDE): -5° C up to +50° C fixed installation (VDE): -30° C up to +80° C moved (UL): -5° C up to +80° C fixed installation (UL): -30° C up to +80° C
Flammability	acc. to IEC 60332-1-2
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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