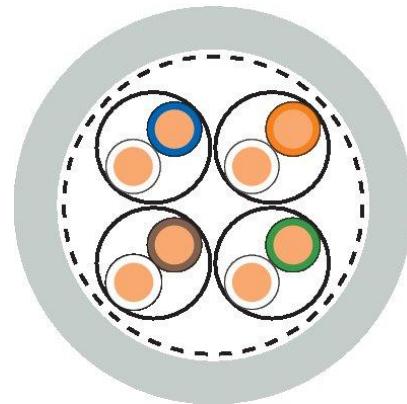




## Description

**ETHERLINE® LAN 500 Cat.6A S/FTP** is an installation cable for structured horizontal cabling. These cables are ideal for LAN data transmission in all Ethernet (IEEE 802.3) applications up to 10GBase-T and higher. The copper braid overall screen offers protection against electromagnetic interference as well as mechanical reinforcement. IEC 61156-5/ISO/IEC 11801, EN 50173-1, EIA/TIA 568C.2



## General characteristics

Conductor	Solid bare copper wire, AWG 23/1	
Insulation	solid polyethylene	
Core identification code	Pair 1: white – blue	Pair 2: white – orange
	Pair 3: white – green	Pair 4: white – brown
Stranding	two cores stranded to pairs,	
Pair screening	aluminum laminated polyester foil	
Stranding	Pairs stranded to bundle	
Screening	Braiding of tinned copper wires	
Outer sheath	PVC compound outer Ø: approx. 7.3 mm color: grey, similar to RAL 7035	

## Mechanical characteristics

Minimum bending radius	at installation: 4 x cable Ø fixed installation: 8 x cable Ø
Permissible temperature range	at installation: 0 °C up to +50 °C fixed installation: -20 °C up to +60 °C
Flame propagation	flame retardant acc. to IEC 60332-1-2
Classification of fire behaviour acc. to EU Regulation 305/2011 (CPR)	Eca (acc. to EN13501-6 and EN50575)

AbN  
automation

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## Electrical characteristics

DC-Resistance (loop)	max. 150.0 Ω/km
Insulation resistance	min. 5 GΩ x km
Mutual capacitance	nom. 43 nF/km at 1 kHz
Characteristic impedance	nom. 100 Ω acc. to IEC 61156-5
Operating peak voltage	100 V (not for power purposes)
velocity of propagation	approx. 0.79 c
Test voltage	core/core: 1000 V

## Transmission properties

Transmission properties acc. to IEC 61156-5 for Category Cat.6A:

f [MHz]	Attenuation [dB/100m]		PS NEXT [dB]		EL FEXT [dB]		Return Loss [dB]	
	standard	typical	standard	typical	standard	typical	standard	typical
<b>1*</b>	2.1	1.8	75	100	68	105	20.0	-
<b>4</b>	3.8	3.4	66	100	56	105	23.0	27
<b>10</b>	6.0	5.4	60	100	48	97	25.0	30
<b>16</b>	7.6	6.8	57	100	44	93	25.0	30
<b>31,25</b>	10.7	9.6	53	100	38	87	23.6	30
<b>62,5</b>	15.5	13.7	48	100	32	81	21.5	30
<b>100</b>	19.9	17.4	45	100	28	77	20.1	30
<b>200</b>	29.1	25.0	41	92	22	71	18.0	25
<b>250</b>	33.0	28.1	39	90	20	69	17.3	24
<b>300</b>	36.4	32.1	37	89	18	67	16.8	23
<b>500</b>	48.9	46.6	34	86	14	65	15.2	23

\* Extract of normative minimum requirements

## Standard

EU-Directive

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