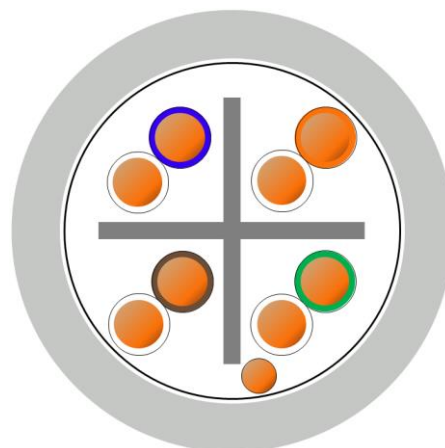


2170961	DATA SHEET	
Valid from: 01.05.2018	ETHERLINE® LAN 500 Cat.6A F/UTP	

Description

ETHERLINE® LAN 500 Cat.6A F/UTP 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. The foil screen prevents electromagnetic interference making them suitable for use in industrial environments.
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, pairs are separated by a central cross element
Screening	Aluminum laminated plastic foil with tinned copper drain wire
Outer sheath	PVC compound outer Ø: approx. 7.4 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 retardant acc. to IEC 60332-1-2
Flame propagation	
Classification of fire behaviour acc. to EU Regulation 305/2011 (CPR)	Eca (acc. to EN13501-6 and EN50575)

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Electrical characteristics

DC-Resistance (loop)	max. 160.0 Ω /km
Insulation resistance	min. 5 G Ω x km
Mutual capacitance	nom. 50 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. 0.67 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
1*	2.1	1.9	75	90	68	86	20.0	30
4	3.8	3.6	66	79	56	79	23.0	29
10	5.9	5.6	60	76	48	76	25.0	33
16	7.5	7.0	57	72	44	68	25.0	30
31,25	10.5	9.9	53	67	38	64	23.6	29
62,5	15.0	14.0	48	63	32	58	21.5	27
100	19.1	17.8	45	62	28	52	20.1	26
250	31.1	28.4	39	57	20	49	17.3	25
300	34.3	31.2	37	51	18	44	16.8	30
500	45.3	39.1	34	46	14	41	15.2	21

* 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.
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