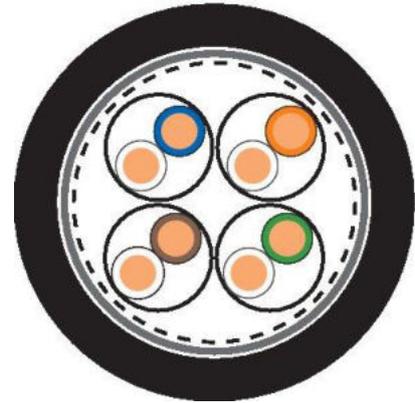


2170977	<b>DATA SHEET</b>	
Valid from: 13.11.2018	<b>ETHERLINE<sup>®</sup> LAN 1000 Cat.7 S/FTP (L)PE OUTDOOR</b>	

## Description

**ETHERLINE<sup>®</sup> LAN 1000 Cat.7 S/FTP (L)PE OUTDOOR** is a crosstudinally waterproof 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 copper braid overall screen offers protection against electromagnetic interference as well as mechanical reinforcement. The PE outer sheath along with the aluminum screen makes the cable suitable for outdoor usage and direct burial due to the crosstudinal water protection properties. ISO/IEC 11801, EN 50173-1, IEC 61156-5



## 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 plastic foil
Stranding	Pairs stranded to bundle
Screening	Braiding of tinned copper wires
Outer sheath	Laminated sheath formed by an aluminum tape coated, on one side with copolymer and bonded with black PE compound outer Ø: approx. 9.6 mm color: black, similar to RAL 9005

## Mechanical characteristics

Minimum bending radius	at installation: 4 x cable Ø fixed installation: 8 x cable Ø
Permissible temperature range	at installation: -10 °C up to +50 °C fixed installation: -30 °C up to +70 °C
Classification of fire behaviour acc. to EU Regulation 305/2011 (CPR)	Fca (acc. to EN13501-6 and EN50575)

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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. 0.77 c
Test voltage	core/core: 1000 V

### Transmission properties

Transmission properties acc. to IEC 61156-5 for Category Cat.7:

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>	2.0	1.8	78	103	78	101	20.0	-
<b>4</b>	3.7	3.4	78	103	78	101	23.0	29
<b>10</b>	5.9	5.3	78	103	75	96	25.0	35
<b>16</b>	7.4	6.7	78	103	71	91	25.0	35
<b>31,25</b>	10.4	9.5	78	103	65	85	23.6	35
<b>62,5</b>	14.9	13.7	78	103	59	81	21.5	34
<b>100</b>	19.0	17.2	75	102	55	80	20.1	34
<b>200</b>	27.5	24.5	71	100	49	80	18.0	34
<b>300</b>	34.2	30.3	68	96	46	75	17.3	32
<b>600</b>	50.1	43.2	64	92	40	71	17.3	31
<b>900</b>	58.5	53.5	61	90	36	60	15.5	25
<b>1000</b>	61.9	56.8	60	89	35	55	15.1	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.

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