

2170486	DATA SHEET	
valid from: 23.03.2020	ETHERLINE® Y Flex CAT.5e 4x2x26/7 AWG	

Application

Field of use: Connecting cable for generic cabling systems acc. to ISO/IEC 11801 and EN 50173
Performance: Bandwidth up to 100 MHz acc. To IEC 61156-6 Category 5e and EN 50288 2-2
Characteristics: flame retardant, oil resistant, UV resistant and largely resistant to acids, alkalis and certain oils
Applications: EtherCAT, EtherNet/IP, Power over Ethernet (IEEE 802.3af) and many others



Design

Certification c(UL)us CMG 75°C acc. to UL444 and CSA C22.2 No.214 certified for CC-Link IE Field Network
Conductor stranded bare copper
26/7 AWG
Insulation geschäumtes PE,
Ader Ø: ca. 0,95 mm
Core identification code pair 1: white-blue/blue; pair 2: white-orange/orange;
pair 3: white-green/green; pair 4: white-brown/brown
Stranding cores twisted to pairs, pairs stranded together
wrapped by non-woven tape
Screen plastic laminated aluminum foil
on top:
braid of tinned copper wire (coverage ca. 85 %)
Outer sheath PVC
green, similar RAL 6018
outer Ø: approx. 6.2 mm

Electrical properties at 20°C

Loop resistance max. 28,0 Ω/100 m
Insulation resistance min. 5 GΩxkm
Mutual capacitance nom. 48 nF/km
Characteristic impedance nom. 100 Ω acc. to IEC 61156-6
Peak operating voltage VDE: 100 V (not for power purposes)
UL: 300 V
Test voltage core/core: 2000 V
core/screen: 2000 V

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Electrical transmission properties at 20°C

The transmission characteristics meet the requirements of the standards EN 50288-2-2 and IEC 61156-6 for category 5e. The normative requirements for the transmission properties are shown in the following table:

f [MHz]		4	10	16	20	31,25	62,5	100
(max.) Attenuation	[dB/100 m]	6	9,5	12,1	13,5	17,1	24,8	32
(min.) TCL	[dB]	34	30	28	27	25,1	22	20
(min.) EL TCTL	[dB/100 m]	23	15	10,9	9	5,1	—	—
(min.) NEXT	[dB]	56,3	50,3	47,2	45,8	42,9	38,4	35,3
(min.) PS EL FEXT	[dB/100 m]	49	41	36,9	35	31,1	25,1	21
(min.) ACR-F/EL FEXT	[dB/100 m]	52	44	39,9	38	34,1	28,1	24
(min.) Return Loss	[dB]	23	25	25	25	23,6	21,5	20,1

Mechanical and thermal properties

Minimum bending radius	fixed: 8x cable \varnothing occasional flexing: 15x cable \varnothing
Temperature range	fixed: -40 °C up to +80 °C occasional flexing: -10 °C up to +70 °C
Flammability	flame retardant acc. to IEC 60332-3-24 resp. EN 60332-3-24 FT4 acc. to UL 1685
UV resistance	SUN RES acc. To UL1581
Oil resistance	OIL RES acc. To UL1581
General requirements	These cables are conform to the EU-Directive 2011/65/EU (RoHS, Restriction of the use of certain hazardous substances) and the LV-Directive 2014/35/EU (Low voltage Directive).
Environmental information	These cables meet the substance-specific requirements of the EU Directive 2011/65/EU (RoHS).

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