

P | Cabling

Data sheet

Patch cord 6kV Flex500 Outdoor black

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13084FXX00-E

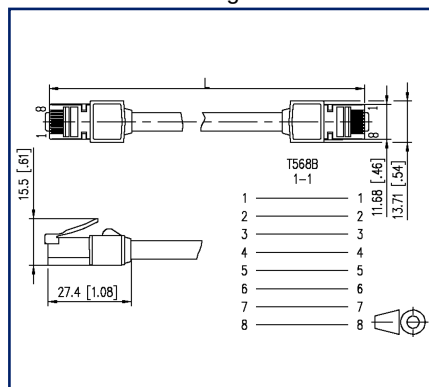
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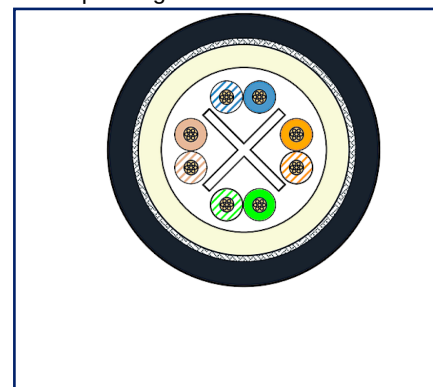
Illustrations



Dimensional drawing



Principle diagram



See enlarged drawings at the end of document

Product specification

- RJ45 patch cord for industrial and outdoor applications
- shielded Cat.5e, Class E_A RJ45 patch cord
- compliance with class EA Channel-Link acc. to ISO/IEC 11801-1, DIN EN 50173-1
- tested: Channel-Link up to 500 MHz
- suitable 10 GBit/s Ethernet (IEEE 802.3an) up to 40 m
- especially suitable for unshielded and shielded Class EA systems
- robust and abrasion-resistant cable for industrial applications, such as machine and plant construction. Also suitable for outdoor installation
- meeting the VDE-AR-N 4100:2019-04 (6KV impulse voltage test according to DIN EN 60664-1) for installation in metering position and electrical distribution panels
- cable type: S/UTP 4x2xAWG24/7
- cable sheath: LSHF (FRNC) PUR, schwarz
- drag chain suitable
- two shielded RJ45 connectors; 1:1 assignment
- UV and oil-resistant
- Remote Powering (PoE, PoE plus and UPoE)
- suitable for IoT, M2M IoT, HDBaseT, industry 4.0, multimedia, wideband video
- molded snagless anti-bend sleeve
- considerably longer durability than standard patch cords
- very short cable boot



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Technical Data

General Data

Fields of application	Industrial Ethernet, Harsh environment, METZ CONNECT Patch Management System, Tertiary patch cord
Design	shielded
Shielding	Copper
Transmission technology	S/UTP
Cable Type	4
Number of twisting elements	Pair
Twisting element	1 - 1
Wiring	black
Color	
Dimensions	
Dimension - Interface 1 (L x W x H)	27.4 mm x 13.71 mm x 15.5 mm
Dimension - Interface 1 (L x W x H)	1.079 in. x 0.54 in. x 0.61 in.
Dimension - Interface 2 (L x W x H)	27.4 mm x 13.71 mm x 15.5 mm
Dimension - Interface 2 (L x W x H)	1.079 in. x 0.54 in. x 0.61 in.
Weight	71.8 kg/km
Marking option	by cable boot

Transmission characteristics

Category (ISO)	5
Class (ISO/IEC)	E _A
Category (TIA)	5e
Remote Powering	yes
PoE	IEEE 802.3af
PoE plus	IEEE 802.3at
UPoE	yes
HDBaseT	yes
Transmission rate up to 100 MBit (Fast Ethernet)	IEEE 802.3u
Transmission rate up to 1 GBit (Fast Ethernet)	IEEE 802.3ab
Transmission rate up to 10 GBit	IEEE 802.3an



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Connections/interfaces	
Connector technology interface 1	RJ45 plug
Connector technology interface 2	RJ45 plug
Number of ports interface 1	1
Number of ports interface 2	1
Number of equipped ports interface 1	1
Number of ports interface 2 equipped	1
Number of positions/contacts interface 1	8P/8C
Number of positions/contacts interface 2	8P/8C
Termination data, stranded wire (min. - max.)	
Conductor cross section, stranded wire	AWG 24/7
Conductor cross section, stranded wire	0.227 mm ² - 0.227 mm ²
Conductor diameter, stranded wire (bare copper)	0.61 mm - 0.61 mm
Conductor diameter, stranded wire (bare copper)	0.024 in. - 0.024 in.
Core diameter (min. - max.)	
Core diameter (conductor with insulation)	0.96 mm - 0.96 mm
Core diameter (conductor with insulation)	0.038 in. - 0.038 in.
Cable sheath diameter (min. - max.)	
Cable sheath diameter mm	8 mm - 8 mm
Copper index	33.9 kg/km
Electrical characteristics	
Current carrying capacity	max. 1 A
Rated voltage	max. 60 V DC
Rated test voltage	
Core / cable jacket acc. to DIN EN 60664-1	6000 V
Shield / cable jacket acc. to DIN EN 60664-1	6000 V
Core / shield	1500 V
Core / core	800 V
Contact resistance	max. 20 mOhm
Through resistance	max. 200 mOhm
Insulation resistance	min. 1000 MOhm
Resistance unbalance	max. 2 %
Capacitance at 800 Hz	Nom. 45 nF/km
Capacitance unbalance pair to ground	max. 1200 pF/km
Nominal velocity of propagation	ca. 65 %



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Electrical characteristics

Delay skew	max. 45 ns/100 m
Dielectric strength conductor-conductor (primarily)	max. 500 V DC
Dielectric strength conductor-conductor (primarily)	max. 500 V AC
Dielectric strength conductor-conductor (secondary)	max. 500 V DC
Dielectric strength conductor-conductor (secondary)	max. 500 V AC

Mechanical data

Tensile force	100 N
Position/mounting of latch - standard installation position	top
Bending radius without load	max. 60 mm
Bending radius with load	max. 80 mm
Number of alternating bending cycles	max. 8500
Alternating bending radius	100 mm
acceleration	4 m/s ²

Materials and material properties

Material - Conductor	Cu (copper)
Material - Conductor Insulation	Polyethylene
Material - Cable jacket	PUR
Material - Inner cable jacket	HFFR
Material - Plug housing interface 1	PC (polycarbonate)
Material - Plug housing interface 2	PC (polycarbonate)
Material - Contact interface 1	CuSn (tin bronze)
Material - Contact interface 2	CuSn (tin bronze)
Material - Contact finish interface 1	Au (gold)
Material - Contact finish interface 2	Au (gold)
Material - Contact carriers interface 1	Plastics
Material - Contact carriers interface 2	Plastics
Material - Shield interface 1	CuSn (tin bronze)
Material - Shield interface 2	CuSn (tin bronze)
Material - Shield finish interface 1	Sn (tin)
Material - Shield finish interface 2	Sn (tin)
Material - Main shield	Cu (copper) braid
Flame retardancy	yes
Halogen free	yes
Oil resistance	yes

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Materials and material properties

UV-resistance	yes
drag chain suitable	yes
REACH - substance (SVHC)	none

Environmental conditions

Temperature (min. - max.)	
Temperature - Storage °C	-40 °C - 70 °C
Temperature - Storage °F	-40 °F - 158 °F
Temperature - Operating °C	0 °C - 50 °C
Temperature - Operating °F	32 °F - 122 °F
Temperature - Installation °C	0 °C - 50 °C
Temperature - Installation °F	32 °F - 122 °F

Approvals

CE	yes
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The product meets the following standards

Generic cabling systems	
General requirements	ISO/IEC 11801-1 DIN EN 50173-1 ANSI/TIA-568.2-D
Test for vertical flame propagation for a single insulated wire or cable	IEC 60332-1
Measurement of smoke density of cables burning	IEC 61034
Determination of acidity (by measuring the pH value) and conductivity	IEC 60754-2
Specification for the testing of balanced and coaxial information technology cabling	
Cords as specified in ISO/IEC 11801 and related standards	IEC 61935-2

Classifications

ETIM 7.0	EC001262
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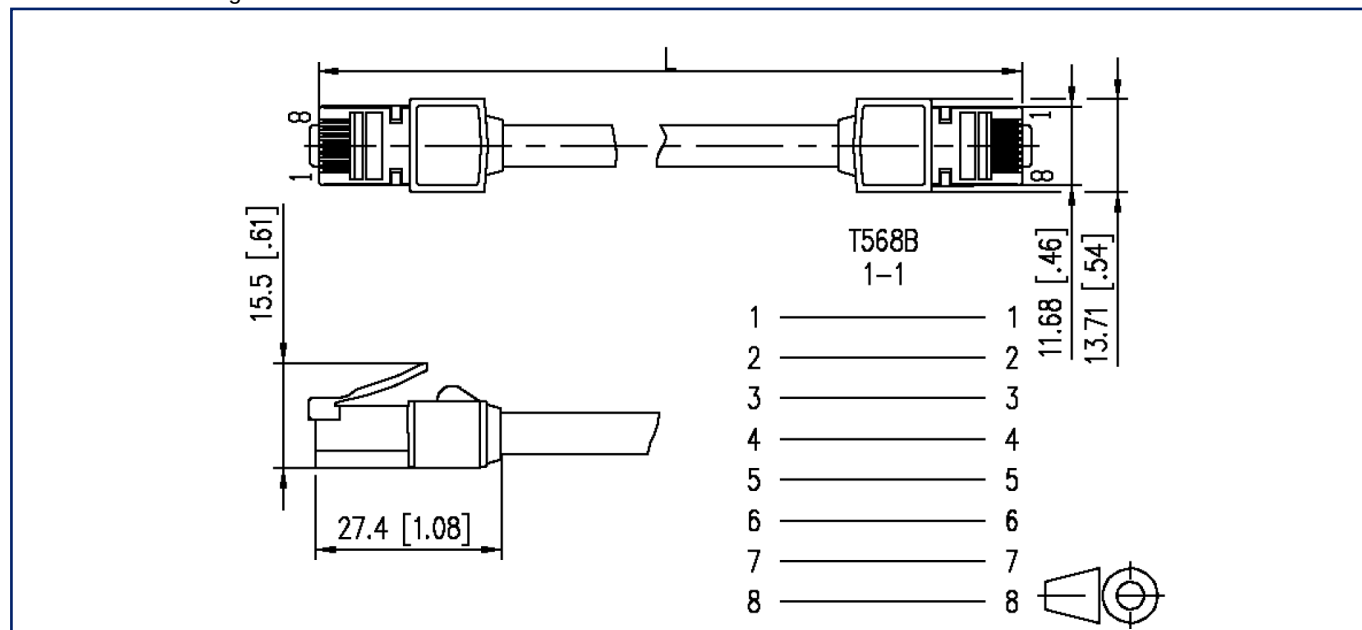
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