

VS-MSD-MSD-93E-LI/3,0 - Network cable



1404302

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Assembled Ethernet cable, CAT5e, shielded, 2-pair, 26 AWG stranded (7-wire), RAL 5021 (water blue), M12 plug to M12 plug, line, length 3 m

Commercial data

Item number	1404302
Packing unit	1 pc
Minimum order quantity	50 pc
Product key	BF1CJI
GTIN	4046356690096
Weight per piece (including packing)	158.8 g
Weight per piece (excluding packing)	158 g
Customs tariff number	85444290
Country of origin	PL

Technical data

Product properties

Product type	Data cable preassembled
Number of positions	4

Insulation characteristics

Overvoltage category	II
Degree of pollution	3

Electrical properties

Nominal voltage U_N	48 V AC
Nominal current I_N	4 A
Transmission characteristics (category)	CAT5 (IEC 11801:2002)

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	≥ 100
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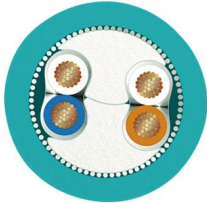
Material specifications

Flammability rating according to UL 94	V0
Material of grip body	TPU, hardly inflammable, self-extinguishing
Contact material	CuSn
Contact surface material	Ni/Au
Contact carrier material	PA 6.6
Material for screw connection	Zinc die-cast, nickel-plated

Cable/line

Cable length	3 m
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Ethernet [93E]

Dimensional drawing	
Cable weight	43 kg/km
Number of positions	4
Shielded	yes
Cable type	Ethernet [93E]
Conductor structure	2x2xAWG26/7, SF/UTP

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Signal runtime	4.3 ns/m
Signal speed	0.77 c
Conductor structure signal line	7x 0.16 mm
AWG signal line	26
Conductor cross section	2x 2x 0.14 mm ²
Wire diameter incl. insulation	1 mm -0.2 mm
External cable diameter	5.75 mm ±0.15 mm
Outer sheath, material	PUR
External sheath, color	water blue RAL 5021
Conductor material	Bare Cu litz wires
Material wire insulation	Foam-Skin PE
Single wire, color	white/orange-orange, white/green-green
Twisted pairs	2 cores to the pair
Overall twist	Two pairs with two fillers to the core
Optical shield covering	85 %
Max. conductor resistance	≤ 284 Ω/km
Insulation resistance	≥ 5 GΩ*km
Coupling resistance	≤ 5.00 mΩ/m (at 20 MHz)
Wave impedance	100 Ω ±15 % (at 1 ... 100 MHz)
Cable capacity	nom. 48 nF/km (At 800 Hz)
Nominal voltage, cable	50 V _{rms}
	125 V (Peak value, not for high-power applications)
Test voltage Core/Core	1000 V _{rms}
Test voltage Core/Shield	500.00 V _{rms}
Smallest bending radius, fixed installation	30 mm (cable, fixed installation)
Smallest bending radius, movable installation	78 mm (Cable, flexible installation)
Tensile strength	≤ 50 N (temporary)
	≤ 10 N (Permanent)
Near end crosstalk attenuation (NEXT)	66 dB/m (with 1 MHz)
	57 dB/m (at 4 MHz)
	52 dB/m (at 10 MHz)
	50 dB/m (at 16 MHz)
	47 dB/m (at 20 MHz)
	45 dB/m (at 31.25 MHz)
	40 dB/m (at 62.5 MHz)
	36 dB/m (at 100 MHz)
Crosstalk attenuation (ACR)	6.57 dB/m (with 1 MHz)
	5.64 dB/m (at 4 MHz)
	5.12 dB/m (at 10 MHz)
	4.89 dB/m (at 16 MHz)
	4.57 dB/m (at 20 MHz)
	4.34 dB/m (at 31.25 MHz)
	3.77 dB/m (at 62.5 MHz)
	3.31 dB/m (at 100 MHz)

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Shield attenuation	0.028 dB/m (with 1 MHz)
	0.06 dB/m (at 4 MHz)
	0.085 dB/m (at 10 MHz)
	0.115 dB/m (at 16 MHz)
	0.128 dB/m (at 20 MHz)
	0.162 dB/m (at 31.25 MHz)
	0.23 dB/m (at 62.5 MHz)
	0.29 dB/m (at 100 MHz)
Flame resistance	according to VDE 0482 Part 265-2-1
	according to IEC 332-1
Ambient temperature (operation)	-30 °C ... 80 °C (cable, fixed installation)
Ambient temperature (installation)	-5 °C ... 60 °C

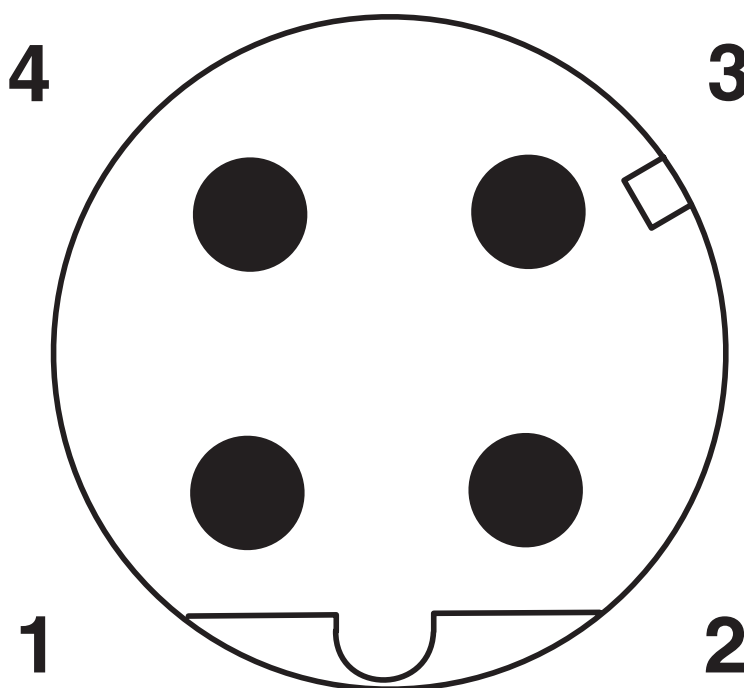
Environmental and real-life conditions

Ambient conditions

Degree of protection	IP65/IP67/IP69K
Ambient temperature (operation)	-25 °C ... 60 °C (cable, fixed installation)
	-5 °C ... 60 °C (Cable, flexible installation)

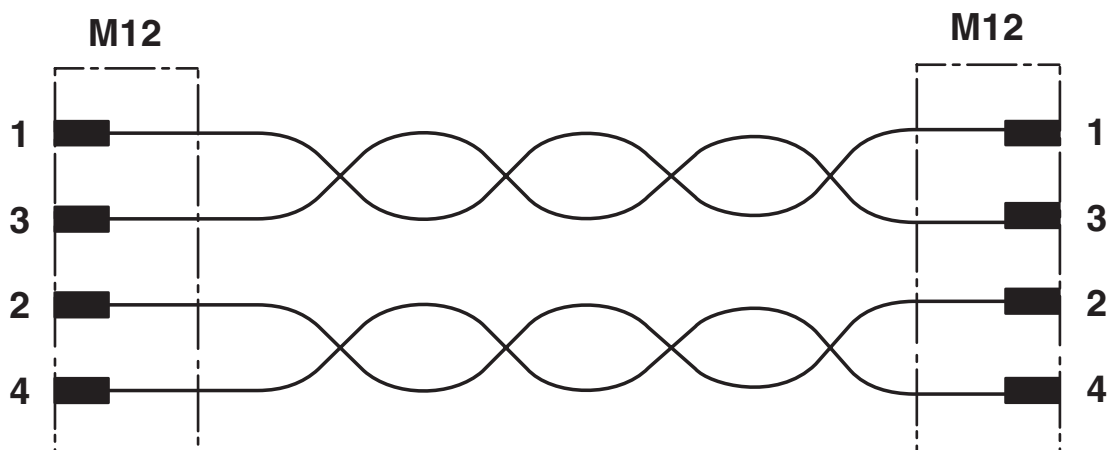
Drawings

Schematic diagram



Pin assignment M12 male connector, 4-pos., D-coded, male side

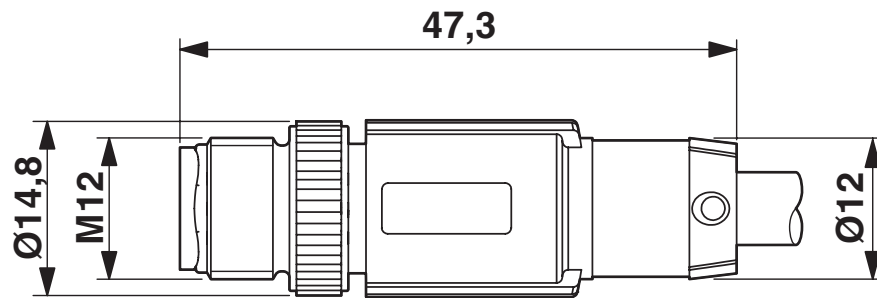
Circuit diagram



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Dimensional drawing



Plug, M12 x 1, straight, shielded

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Classifications

ECLASS

ECLASS-11.0	27060307
ECLASS-12.0	27060307
ECLASS-13.0	27060307

ETIM

ETIM 8.0	EC001855
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UNSPSC

UNSPSC 21.0	26121600
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Environmental product compliance

EU RoHS	
Fulfills EU RoHS substance requirements	Yes, No exemptions
China RoHS	
Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits
EU REACH SVHC	
REACH candidate substance (CAS No.)	No substance above 0.1 wt%

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