

VS-IP20-M12FSBP-93C-LI/2,0 - Network cable



1416212

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Assembled PROFINET cable, CAT5e, shielded, star quad, AWG 22 flexible cable conduit capable (7-wire), RAL 6018 (yellow-green), RJ45 plug/IP20 on M12 flush-type socket, rear/screw mounting with M16 thread, line, length 2 m

Commercial data

Item number	1416212
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	AB18
Product key	ABNPAB
Catalog page	Page 309 (PC-2011)
GTIN	4046356474757
Weight per piece (including packing)	164 g
Weight per piece (excluding packing)	164 g
Customs tariff number	85444210
Country of origin	PL

Technical data

Product properties

Product type	Circular connectors (device side)
Sensor type	PROFINET
Number of positions	4
No. of cable outlets	1
Shielded	yes
Cable outlet	straight

Insulation characteristics

Overvoltage category	I
Degree of pollution	3

Material specifications

Flammability rating according to UL 94	V0
Outer sheath, material	PUR
Conductor material	Tin-plated Cu litz wires

Electrical properties

Transmission medium	Copper
Transmission characteristics (category)	CAT5 (IEC 11801:2002)
Transmission speed	100 Mbps
Wave impedance	100 Ω

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	≥ 100
Insertion force per signal contact	50.00 N
Extraction force per signal contact	30 N
Max. bending cycles	3000000

Connector

Connection 1

Type	Plug straight RJ45
Shielded	yes
Degree of protection	IP20

Connection 2

Type	Flush-type female connector straight M12
Shielded	yes
Insertion/withdrawal cycles	> 100
Degree of protection	IP67

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Cable/line

Cable length	2.00 m
PROFINET drag chain CAT5 [93C]	
Dimensional drawing	
Shielded	yes
Cable weight	61 kg/km
Cable type	PROFINET drag chain CAT5
Short symbol	2YH(ST)C11Y
Cable type (abbreviation)	93C
Signal type/category	PROFINET CAT5 (IEC 11801), 100 Mbps EtherCAT® CAT5 (IEC 11801), 100 Mbps
Cable structure	1x4xAWG22/7, SF/TQ
External cable diameter	6.50 mm ±0.2 mm
Outer sheath, material	PUR
External sheath, color	green RAL 6018
Thickness, outer sheath	approx. 0.90 mm
Material, inner sheath	FRNC
Conductor material	Tin-plated Cu litz wires
Conductor structure signal line	7x 0.25 mm
AWG signal line	22
Conductor cross section	4x 0.34 mm²
Material wire insulation	PE
Wire diameter incl. insulation	1.5 mm
Single wire, color	white, yellow, blue, orange
Overall twist	Star quad
Shielding	Aluminum-coated foil, tinned copper braided shield
Optical shield covering	85 %
Nominal voltage, cable	600 V (UL rating)
Test voltage Core/Core	2000 V (50 Hz, 1 min.)
Test voltage Core/Shield	2000.00 V (50 Hz, 1 min.)
Cable insulation resistance	≥ 500 MΩ*km
Coupling resistance	≤ 20.00 mΩ/m (at 10 MHz)
Wave impedance	100 Ω ±15 Ω (at 1 ... 100 MHz)
Loop resistance	≤ 120.00 Ω/km
Signal runtime	5.3 ns/m

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Signal speed	0.66 c
Tensile strength	≤ 150 N
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	7.5 x D
Number of bending cycles	3000000
Bending radius	100 mm
Traversing path	10 m
Traversing rate	4 m/s
Acceleration	4 m/s ²
Torsion force	± 30 °/m
Near end crosstalk attenuation (NEXT)	80 dB (with 1 MHz)
	76 dB (at 4 MHz)
	70 dB (at 10 MHz)
	65 dB (at 16 MHz)
	63 dB (at 20 MHz)
	60 dB (at 31.25 MHz)
	55 dB (at 62.5 MHz)
	50 dB (at 100 MHz)
Halogen-free	yes
Resistance to oil	in accordance with DIN EN 60811-2-1
Flame resistance	according to IEC 60332-1-2
Other resistance	UV resistant
Special properties	Electrical properties in accordance with EN 50288-2-2
Ambient temperature (operation)	-40 °C ... 70 °C (Cable, flexible installation)
	-40 °C ... 70 °C (cable, fixed installation)

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
	IP67
	IP67/IP20

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