

# VS-M12FSBP-PPC/ME-94C-LI/2,0 - Network cable



1413599

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Assembled Ethernet cable, shielded, 4-pair, AWG 26 suitable for use with drag chain (19-wire), RAL 5021 (sea blue), M12 flush-type socket, rear wall/screw mounting with M16 thread on RJ45 connector/IP67, push/pull metal housing, line, length 2 m

## Commercial data

Item number	1413599
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	AB18
Product key	ABNPAA
GTIN	4046356475846
Weight per piece (including packing)	173.08 g
Weight per piece (excluding packing)	173.08 g
Customs tariff number	85444210
Country of origin	DE

## Technical data

### Product properties

Product type	Circular connectors (device side)
Sensor type	Ethernet
Number of positions	8
No. of cable outlets	1
Shielded	yes
Cable outlet	straight

### Insulation characteristics

Degree of pollution	3
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### Material specifications

Flammability rating according to UL 94	V2
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### Electrical properties

Transmission medium	Copper
Transmission speed	1 Gbps
Transmission characteristics (category)	CAT5 (IEC 11801:2002)
Transmission speed	1 Gbps

### Mechanical properties

Mechanical data	
Insertion/withdrawal cycles	≥ 100

### Connector

Connection 1	
Type	Flush-type female connector straight M12
Coding type	A (Standard)
Degree of protection	IP67

### Connection 2

Type	Plug straight RJ45
Locking type	Push Pull
Material	Metal
Degree of protection	IP67

### Cable/line

Cable length	2.00 m
Ethernet drag chain CAT5, 4-pair [94C]	

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## Dimensional drawing



Cable weight	57 kg/km
UL AWM Style	20963 (80°C/30 V)
Number of positions	8
Shielded	yes
Cable type	Ethernet drag chain CAT5, 4-pair [94C]
Conductor structure	4x2xAWG26/19, S/UTP
Signal runtime	5.3 ns/m
Conductor structure signal line	19x 0.10 mm
AWG signal line	26
Conductor cross section	4x 2x 0.14 mm <sup>2</sup>
Wire diameter incl. insulation	1 mm
External cable diameter	6.90 mm +0.1 mm ... 0.2 mm
Outer sheath, material	PUR
External sheath, color	water blue RAL 5021
Conductor material	Bare Cu litz wires
Material wire insulation	PP
Single wire, color	white/blue-blue, white/orange-orange, white/green-green, white/brown-brown
Thickness, outer sheath	0.85 mm
Twisted pairs	2 cores to the pair
Overall twist	Four pairs and four fillers to the core
Optical shield covering	90 %
Insulation resistance	≥ 500 MΩ*km
Coupling resistance	≤ 100.00 mΩ/m (at 10 MHz)
Loop resistance	≤ 290.00 Ω/km
Wave impedance	100 Ω ±5 Ω (at 100 MHz)
Cable capacity	approx. 50 nF/km (at 1 kHz)
Nominal voltage, cable	≤ 100 V
Test voltage Core/Core	700 V (50 Hz, 1 min.)
Test voltage Core/Shield	700.00 V (50 Hz, 1 min.)
Minimum bending radius, fixed installation	4 x D
Minimum bending radius, flexible installation	8 x D
Smallest bending radius, fixed installation	28 mm
Smallest bending radius, movable installation	56 mm
Dynamic load capacity (bending)	Max. bending cycles: 5000000, Bending radius: 7,5 x D, Traversing rate: 3 m/s, Acceleration: 5 m/s <sup>2</sup>

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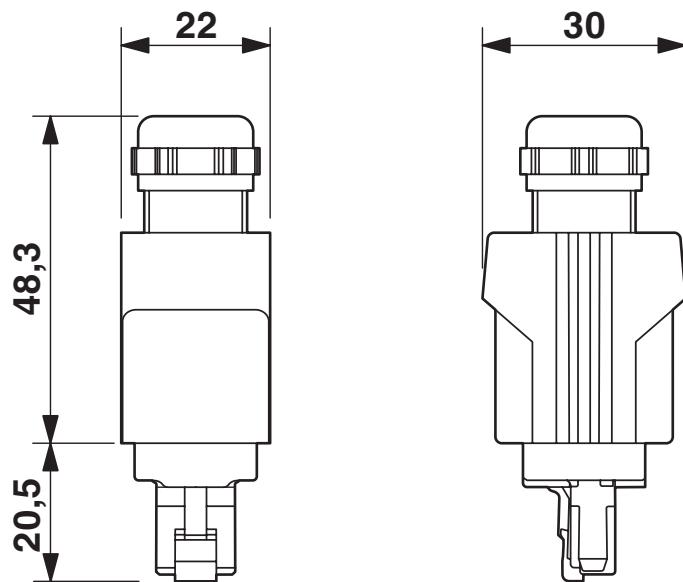
Tensile strength	≤ 100 N
Near end crosstalk attenuation (NEXT)	65.3 dB (with 1 MHz) 56.3 dB (at 4 MHz) 50.3 dB (at 10 MHz) 47.2 dB (at 16 MHz) 45.8 dB (at 20 MHz) 42.9 dB (at 31.25 MHz) 38.4 dB (at 62.5 MHz) 35.3 dB (at 100 MHz)
Power-summed near end crosstalk attenuation (PSNEXT)	62.3 dB (with 1 MHz) 53.3 dB (at 4 MHz) 47.3 dB (at 10 MHz) 44.2 dB (at 16 MHz) 42.8 dB (at 20 MHz) 39.9 dB (at 31.25 MHz) 35.4 dB (at 62.5 MHz) 32.3 dB (at 100 MHz)
Return attenuation (RL)	23 dB (at 4 MHz) 24.1 dB (at 8 MHz) 25 dB (at 10 MHz) 25 dB (at 16 MHz) 25 dB (at 20 MHz) 23.6 dB (at 31.25 MHz) 21.5 dB (at 62.5 MHz) 20.1 dB (at 100 MHz)
Shield attenuation	3.2 dB (with 1 MHz) 6 dB (at 4 MHz) 9.5 dB (at 10 MHz) 12.1 dB (at 16 MHz) 13.6 dB (at 20 MHz) 17.1 dB (at 31.25 MHz) 24.8 dB (at 62.5 MHz) 32 dB (at 100 MHz)
Halogen-free	according to IEC 60754-1
Flame resistance	according to IEC 60332-1-2
Resistance to oil	in accordance with EN 60811-2-1
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation) -20 °C ... 80 °C (Cable, flexible installation)
Ambient temperature (installation)	-20 °C ... 80 °C

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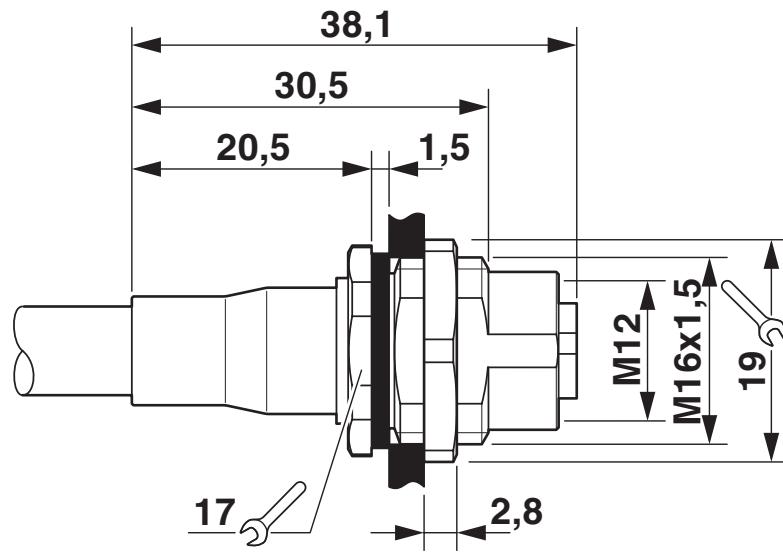
## Drawings

Dimensional drawing



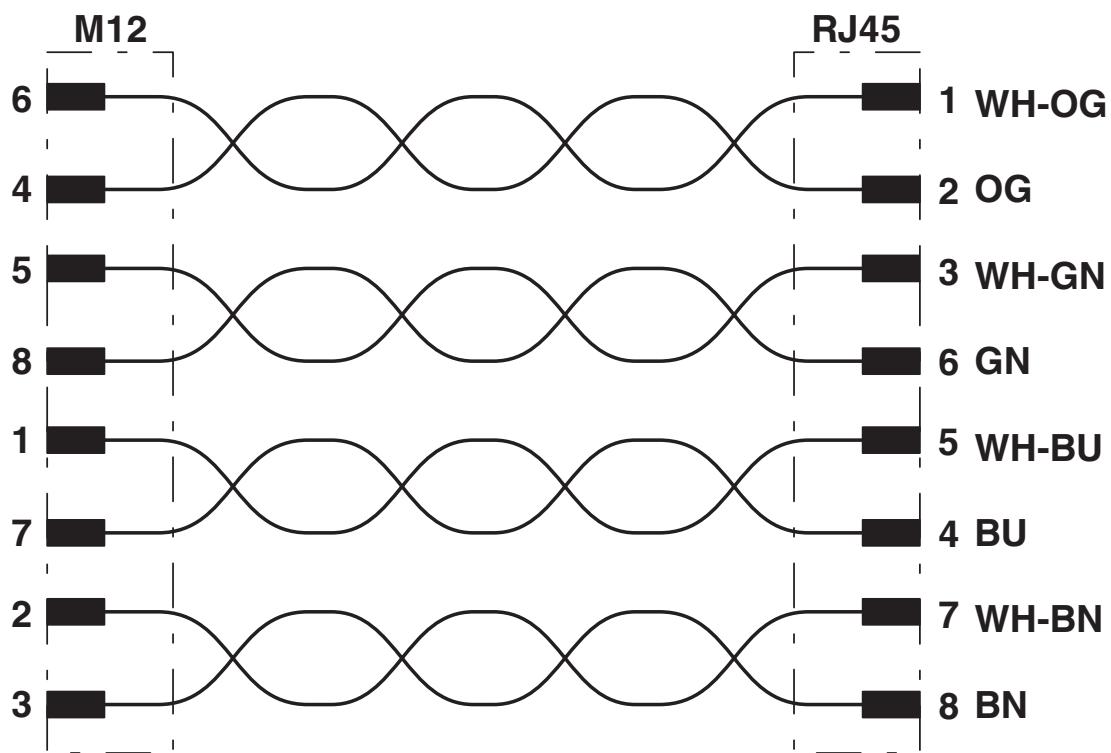
Push-pull RJ45 connector IP65/67

Dimensional drawing



M12 flush-type connector

Circuit diagram



## Classifications

### ECLASS

ECLASS-13.0	27060307
ECLASS-15.0	27440103

### ETIM

ETIM 9.0	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
Exemption	6(c)

### China RoHS

Environment friendly use period (EFUP)	EFUP-50
An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.	

### EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
	6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol(CAS: 119-47-1)
SCIP	2ba764f4-5ba8-400f-b494-e31b7307c006

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