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Network cable, Ethernet CAT5 (100 Mbps), 4-position, PUR halogen-free, water blue RAL 5021, shielded, Plug straight M12 SPEEDCON / IP67, Coding: D, on Plug straight RJ45 / IP20, Cable length: 0.5 m



## **Key Commercial Data**

Packing unit	1 STK
Weight per Piece (excluding packing)	47.000 g
Custom tariff number	85444210
Country of origin	United States

#### Technical data

### **Dimensions**

Length of cable	0.5 m
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#### Ambient conditions

Degree of protection	IP65 (M12 connector)
	IP67 (M12 connector)
	IP20 (RJ45 connector)
Ambient temperature (operation)	-25 °C 85 °C (M12 connector)

#### General data

Rated current at 40°C	1 A
Rated voltage	50 V
Number of positions	4
Signal type/category	Ethernet CAT5 (IEC 11801), 100 Mbps
Standards/regulations	M12 connector IEC 61076-2-101

#### Characteristics head 1

Head type	Plug straight M12 SPEEDCON / IP67



# Technical data

Characteristics head 1	ı
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Standards/specifications

Insulation resistance

Loop resistance

Cable capacity

Wave impedance

Coding	D (Data)
Characteristics head 2	
Head type	Plug straight RJ45 / IP20
Standards and Regulations	
Standard designation	M12 connector
Standards/regulations	IEC 61076-2-101
Cable	
Cable type	PUR ETHERNET 2x2 FLEX
Cable type (abbreviation)	93E
UL AWM style	20963 (80°C/30 V)
Signal type/category	Ethernet CAT5 (IEC 11801), 100 Mbps
Cable structure	2x2xAWG26/7; SF/UTP
Conductor cross section	2x 2x 0.14 mm²
AWG signal line	26
Conductor structure signal line	7x 0.16 mm
Core diameter including insulation	0.98 mm
Wire colors	white/orange-orange, white/green-green
Twisted pairs	2 cores to the pair
Overall twist	Two pairs with two fillers to the core
Shielding	Aluminum-coated foil, tinned copper braided shield
Optical shield covering	70 %
External sheath, color	water blue RAL 5021
Outer sheath thickness	1.2 mm
External cable diameter D	6.4 mm ±0.2 mm
Minimum bending radius, fixed installation	4 x D
Minimum bending radius, flexible installation	8 x D
Tensile strength short-term/long-term	≤ 80N
Cable weight	42 kg/km
Outer sheath, material	PUR
Material conductor insulation	Foamed PE
Conductor material	Bare Cu litz wires

Electrical requirements EN 50288-2-2

 $\geq 500~M\Omega^*km$ 

 $\leq 290~\Omega$  (per km)

approx. 45 nF/km (at 1 kHz) 100  $\Omega$  ±5  $\Omega$  (at 100 MHz)



## Technical data

#### Cable

Signal runtime	5.3 ns/m
Coupling resistance	≤ 100.00 mΩ/m (At 10 MHz)
Nominal voltage, cable	≤ 100 V (Peak value, not for high-power applications)
Test voltage Core/Core	700 V (50 Hz, 1 min.)
Test voltage Core/Shield	700 V (50 Hz, 1 min.)
Flame resistance	According to IEC 60332-1-2
	in acc. to UL VW1
Halogen-free	According to IEC 60754-1
Resistance to oil	according to 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
Ambient temperature (storage/transport)	-20 °C 80 °C

# **Drawings**

#### Schematic diagram



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

## Schematic diagram



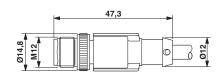
Connector pin assignment plug RJ45

## Dimensional drawing



Cable cross section

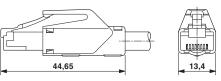
PUR ETHERNET 2x2 FLEX [93E]



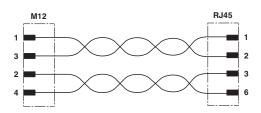
Plug, M12 x 1, straight, shielded



### Dimensional drawing



### Circuit diagram



RJ45 connector, IP20

Contact assignment of the M12 and RJ45 plug

# Approvals

Approvals

Approvals

**UL** Listed

Ex Approvals

## Approval details

UL Listed http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm FILE E 335024	
Nominal current IN	1.5 A
Nominal voltage UN	30 V

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