

## Network cable - NBC-MRD/ 2,0-93E/R4AC SCO US - 1406122


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Network cable, Ethernet, 4-position, PUR halogen-free, water blue RAL 5021, shielded, Plug angled M12 SPEEDCON / IP67, Coding: D, on Plug Straight RJ45 / IP20, Cable length: 2 m



### Key commercial data

Packing unit	1 PCE
GTIN	 4 046356 799270
Custom tariff number	85444210
Country of origin	GERMANY

### Technical data

#### Dimensions

Length of cable	2 m
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#### Ambient conditions

Degree of protection	IP65 (M12 plug-in connector)
	IP67 (M12 plug-in connector)
	IP20 (RJ45 plug-in connector)

#### General data

Rated current at 40°C	1 A
Rated voltage	50 V
Number of positions	4
Signal type/category	Ethernet CAT5 (IEC 11801:2002)
	Ethernet CAT5e (TIA 568B:2001)
Standards/regulations	M12 plug-in connector IEC 61076-2-101

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## Technical data

### Characteristics head 1

Head design	Plug angled M12 SPEEDCON / IP67
Coding	D (Data)

### Characteristics head 2

Head design	Plug Straight RJ45 / IP20
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### Line characteristics

Cable type	Ethernet
Cable type (abbreviation)	93E
UL AWM style	20963 (80°C/30 V)
Signal type/category	Ethernet CAT5 (IEC 11801:2002)
	Ethernet CAT5e (TIA 568B:2001)
Cable structure	2x2xAWG26/7; SF/UTP
Conductor cross section	2x 2x 0.14 mm <sup>2</sup>
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
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
Insulation resistance	≥ 500 MΩ*km (at 20 °C)
Conductor resistance	≤ 290 Ω/km (at 20 °C)
Working capacitance	45 nF (At 1 kHz)
Wave impedance	100 Ω ± 5 Ω (At 100 MHz)
Signal runtime	5.3 ns/m
Nominal voltage, cabel	≤ 100 V
	300 V (Outer cable sheath)

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### Technical data

#### Line characteristics

Test voltage Core/Core	700 V (50 Hz, 1 min.)
Test voltage Core/Shield	700 V (50 Hz, 1 min.)
Flame resistance	IEC 60332-1-2
Halogen-free	According to IEC 60754-1
Resistance to oil	in accordance with DIN 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

### Classifications

#### ETIM

ETIM 3.0	EC001855
ETIM 4.0	EC001855
ETIM 5.0	EC001855

#### UNSPSC

UNSPSC 11	31251501
UNSPSC 12.01	31251501
UNSPSC 13.2	31251501
UNSPSC 6.01	31251501
UNSPSC 7.0901	31251501

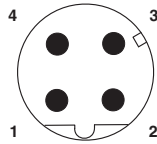
#### eCl@ss

eCl@ss 4.0	27060306
eCl@ss 4.1	27060306
eCl@ss 5.0	27061801
eCl@ss 5.1	27061801
eCl@ss 6.0	27061801
eCl@ss 7.0	27061801

### Drawings

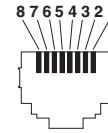
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Schematic diagram



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

Schematic diagram



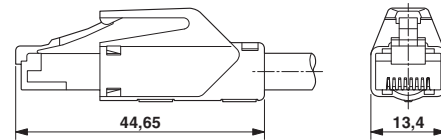
Connector pin assignment plug RJ45

Cable cross section



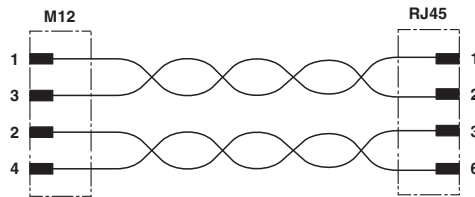
Ethernet [93E]

Dimensioned drawing



RJ45 plug-in connector, IP20

Circuit diagram



Contact assignment of the M12 and RJ45 plug