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## Network cable - NBC-FS/ 5,0-94B/R4AC SCO - 1407445

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Network cable, Ethernet CAT5 (0.1 Gbps), Ethernet CAT5e (0.1 Gbps), 8-position, PUR, water blue RAL 5021, shielded, Plug Straight RJ45 / IP20, on Socket Straight M12 SPEEDCON / IP67, Coding: A, Cable length: 5 m



### Key commercial data

Packing unit	1 pc
Custom tariff number	85444210
Country of origin	Germany

### Technical data

#### Dimensions

Length of cable	5 m
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#### Ambient conditions

Degree of protection	IP65 (M12 connector)
	IP67 (M12 connector)
	IP20 (RJ45 connector)

#### General data

Rated current at 40°C	1 A
Rated voltage	30 V
Number of positions	8
Signal type/category	Ethernet CAT5 (IEC 11801:2002), 0.1 Gbps
	Ethernet CAT5e (TIA 568B:2001), 0.1 Gbps
Standards/regulations	M12 connector IEC 61076-2-101

#### Characteristics head 1

Head type	Plug Straight RJ45 / IP20
No. of positions (pin connector pattern)	8 (8)

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### Technical data

#### Characteristics head 1

Color	Gray
Material (component)	CuSn (Contact)
	Ni/Au (Contact surface)
	PC (Contact carriers)
	PA (Housing)
Insertion/withdrawal cycles	≥ 750
Ambient temperature (operation)	-40 °C ... 60 °C

#### Characteristics head 2

Head type	Socket Straight M12 SPEEDCON / IP67
No. of positions (pin connector pattern)	8
Coding	A (Standard)
Color	black
Material (component)	CuZn (Contact)
	Ni/Au (Contact surface)
	TPU GF (Contact carriers)
	TPU, hardly inflammable, self-extinguishing (Grip)
	Zinc die-cast, nickel-plated (Screw connection)
Contact resistance	≤ 5 mΩ
Insulation resistance	≥ 100 MΩ
Insertion/withdrawal cycles	≥ 100
Torque	0.4 Nm
Ambient temperature (operation)	-25 °C ... 90 °C

#### Cable

Cable type	Ethernet, flexible, CAT5e
Cable type (abbreviation)	94B
UL AWM style	20963 (80°C/30 V)
Signal type/category	Ethernet CAT5 (IEC 11801:2002), 0.1 Gbps
	Ethernet CAT5e (TIA 568B:2001), 0.1 Gbps
Cable structure	4x2xAWG26/7; SF/UTP
Conductor cross section	4x 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
Thickness, insulation	0.25 mm
Wire colors	white/blue-blue, white/orange-orange, white/green-green, white/brown-brown
Twisted pairs	2 cores to the pair

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### Technical data

#### Cable

Overall twist	4 pairs
Shielding	Aluminum-coated foil, tinned copper braided shield
Optical shield covering	70 %
External sheath, color	water blue RAL 5021
Outer sheath thickness	1 mm
External cable diameter D	6.4 mm ±0.2 mm
Smallest bending radius, fixed installation	25.6 mm
Smallest bending radius, movable installation	51.2 mm
Tensile strength short-term/long-term	≤ 100 N
Cable weight	47 kg/km
Outer sheath, material	PUR
Material conductor insulation	PE
Conductor material	Bare Cu litz wires
Insulation resistance	≥ 500 MΩ*km
Loop resistance	≤ 290 Ω (per kilometer)
Working capacitance	48 nF (At 1 kHz)
Wave impedance	100 Ω ±5 Ω (at 100 MHz)
Signal runtime	5.3 ns/m
Coupling resistance	≤ 100.00 mΩ/m (At 10 MHz)
Nominal voltage, cable	≤ 100 V
	300 V (Outer cable sheath)
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

#### eCl@ss

eCl@ss 4.0	27060306
eCl@ss 4.1	27060306
eCl@ss 5.0	27061801



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## Classifications

### eCl@ss

eCl@ss 5.1	27061801
eCl@ss 6.0	27061801
eCl@ss 7.0	27061801
eCl@ss 8.0	27061801

### ETIM

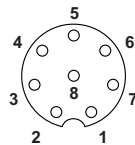
ETIM 3.0	EC001855
ETIM 4.0	EC001855
ETIM 5.0	EC001855

### UNSPSC

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

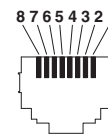
## Drawings

Schematic diagram



Pin assignment M12 socket, 8-pos., A-coded, view female side

Schematic diagram



Connector pin assignment plug RJ45

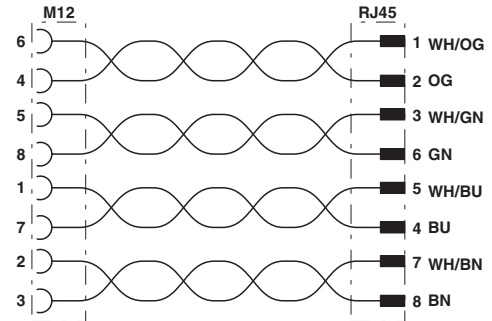
# Network cable - NBC-FS/ 5,0-94B/R4AC SCO - 1407445

Cable cross section



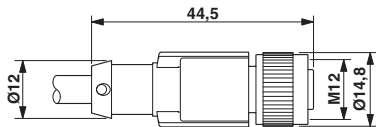
Ethernet, flexible, CAT5e [94B]

Circuit diagram



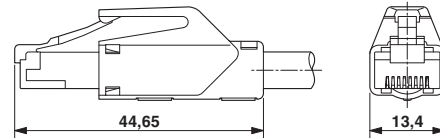
Contact assignment of the M12 and RJ45 plug

Dimensioned drawing



M12 x 1 socket, straight, shielded

Dimensioned drawing



RJ45 connector, IP20