

# NBC-FS/10,0-94B/R4AC SCO

Order No.: 1407446



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Network cable, Ethernet CAT5 (1 Gbps), Ethernet CAT5e (1 Gbps), 8-position, PUR, water blue RAL 5021, shielded, Plug Straight RJ45 / IP20, on Socket Straight M12 SPEEDCON / IP67, Coding: A, Cable length: 10 m

Ethernet




### Product notes

WEEE/RoHS-compliant since:  
07/03/2012



### Commercial data

EAN	 4 046356 775670
Note	Made-to-order
sales group	D117
Pack	1 Pcs.
Customs tariff	85444210
Gross weight in pieces	0.5086 KG
Net weight per piece	0.4729 KG
Catalog page information	Page 247 (C-4-2013)

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### Technical data

#### Dimensions

Length of cable	10 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), 1 Gbps Ethernet CAT5e (TIA 568B:2001), 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)
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
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Cable type (abbreviation)	94B
UL AWM style	20963 (80°C/30 V)
Signal type/category	Ethernet CAT5 (IEC 11801), 1 Gbps Ethernet CAT5e (TIA 568B), 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	0.96 mm
Wire colors	white/blue-blue, white/orange-orange, white/green-green, white/ brown-brown
Twisted pairs	2 cores to the pair
Overall twist	4 pairs for core
Shielding	Aluminum-coated foil, tinned copper braided shield
Optical shield covering	70 %
External sheath, color	water blue RAL 5021
Outer sheath thickness	1.05 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	≤ 100 N
Cable weight	47 kg/km
Outer sheath, material	PUR
Material conductor insulation	Foamed PE
Conductor material	Bare Cu litz wires
Insulation resistance	≥ 500 MΩ*km
Conductor resistance	≤ 290 Ω/km
Cable capacity	48 nF/km (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
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
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

### Certificates / Approvals



Certification UL Listed

Certifications applied for:

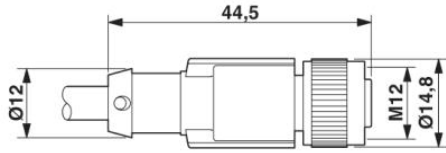
Certification Ex:

### Accessories

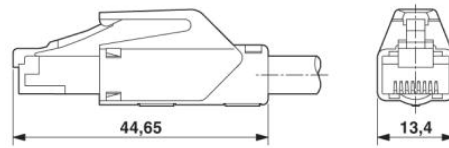
Item	Designation	Description
<b>Fuse</b>		
1558991	SAC-M12-EXCLIP-F	Fuse clip for the socket side of sensor/actuator cables with M12 connector and M12 connectors which can be assembled with QUICKON fast connection technology, prevents the disconnection of plug-in connections without tools
<b>Protection and sealing elements</b>		
1430899	PROT-M12 MS-PA-CHAIN	M12 sealing cap with fixing band, for sensor cables, for free M12 sockets
<b>Tools</b>		
1208432	SAC BIT M12-D15	Nut for assembling sensor/actuator cables with M12 connector and for M12 connectors with QUICKON fast connection technology, for 4 mm hexagonal drive
1208429	TSD 04 SAC	Torque screwdriver, with preset torque of 0.4 Nm and 4 mm hexagonal drive for M12 connectors
1212224	TSD-M 1,2NM	Torque screw driver, accuracy as per EN ISO 6789 standard, adjustable from 0.3 - 1.2 Nm
1212600	TSD-M SAC-BIT ADAPTER	Adapter bit for TSD-M...torque tools, E6.3-1/4" drive with 4 mm hexagon to accommodate SAC bits

**Drawings**

Dimensioned drawing

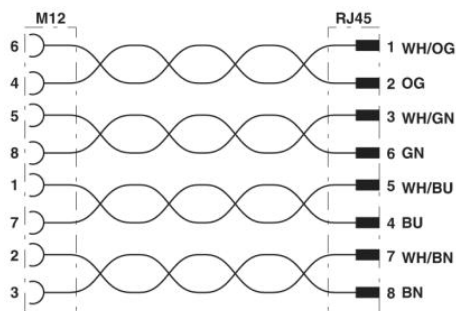


M12 x 1 socket, straight, shielded



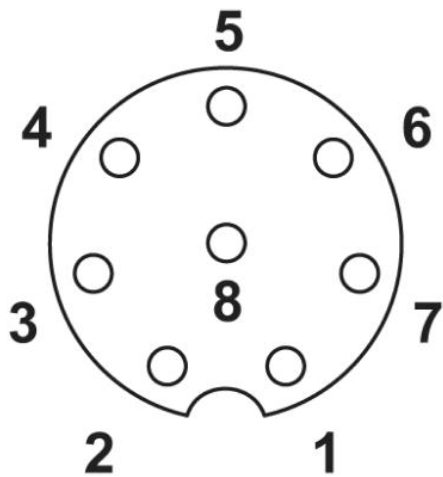
RJ45 connector, IP20

Circuit diagram

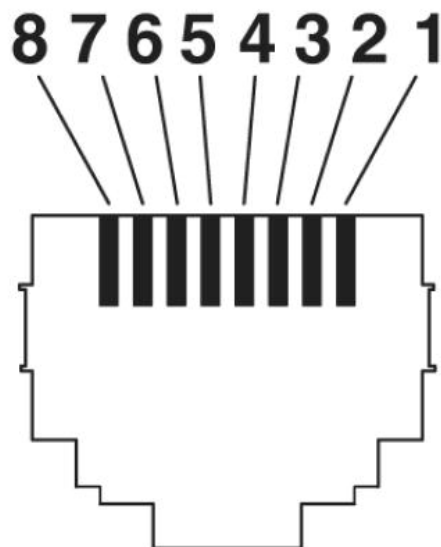


Contact assignment of the M12 and RJ45 plug

Schematic diagram



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



Connector pin assignment plug RJ45

Ethernet, flexible, CAT5e [94B]



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