

## Network cable - NBC-MS/ 2,0-94B/R4AC SCO - 1407415

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://download.phoenixcontact.com>)



Network cable, Ethernet CAT5 (1 Gbps), Ethernet CAT5e (1 Gbps), 8-position, PUR, water blue RAL 5021, shielded, Plug Straight M12 SPEEDCON / IP67, Coding: A, on Plug Straight RJ45 / IP20, Cable length: 2 m



### Key commercial data

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

### Technical data

#### Dimensions

Length of cable	2 m
-----------------	-----

#### 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 design	Plug Straight M12 SPEEDCON / IP67
No. of positions (pin connector pattern)	8

## Network cable - NBC-MS/ 2,0-94B/R4AC SCO - 1407415

### Technical data

#### Characteristics head 1

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

#### Characteristics head 2

Head design	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

#### Cable

Cable type	Ethernet, flexible, CAT5e
Cable type (abbreviation)	94B
UL AWM style	20963 (80 °C / 60 V)
Signal type/category	Ethernet CAT5 (IEC 11801:2002), 1 Gbps
	Ethernet CAT5e (TIA 568B:2001), 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

## Network cable - NBC-MS/ 2,0-94B/R4AC SCO - 1407415

### 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

# Network cable - NBC-MS/ 2,0-94B/R4AC SCO - 1407415

## 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

## Approvals

### Approvals

---

Approvals

UL Listed

---

Ex Approvals

---

Approvals submitted

---

### Approval details

UL Listed	
Nominal current IN	0.5 A
Nominal voltage UN	60 V

## Network cable - NBC-MS/ 2,0-94B/R4AC SCO - 1407415

### Accessories

#### Accessories

#### Protective cap

Sealing cap - PROT-M12 FS-PA-CHAIN - 1430873

M12 sealing cap made of plastic with fixing band, for sensor cables, for free M12 sockets



---

#### Safety locking

Fuse clip - SAC-M12-EXCLIP-M - 1558988



Fuse clip for the pin side of various M12 sensor/actuator connectors prevents plug-in connections being interrupted without using a tool

---

#### Screwdriver tools

Adapter insert - TSD-M SAC-BIT ADAPTER - 1212600



Adapter bit for TSD-M...torque tools, E6.3-1/4" drive with 4 mm hexagon to accommodate SAC bits

---

Tool - SAC BIT M12-D15 - 1208432



Nut for assembling sensor/actuator cables with M12 connector and for M12 connectors with QUICKON fast connection technology, for 4 mm hexagonal drive

---

#### Torque tool

# Network cable - NBC-MS/ 2,0-94B/R4AC SCO - 1407415

## Accessories

Torque screwdriver - TSD 04 SAC - 1208429



Torque screwdriver, with preset torque of 0.4 Nm and 4 mm hexagonal drive for M12 connectors

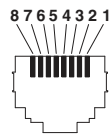
Torque screwdriver - TSD-M 1,2NM - 1212224



Torque screw driver, accuracy as per EN ISO 6789 standard, adjustable from 0.3 - 1.2 Nm

## Drawings

Schematic diagram



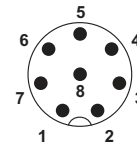
Connector pin assignment plug RJ45

Cable cross section



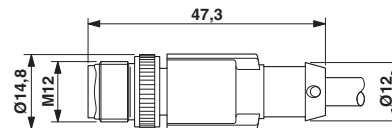
Ethernet, flexible, CAT5e [94B]

Schematic diagram



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

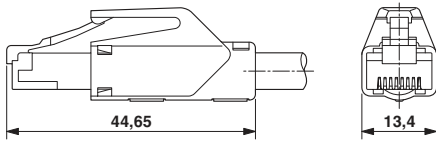
Dimensioned drawing



Plug, M12 x 1, straight, shielded

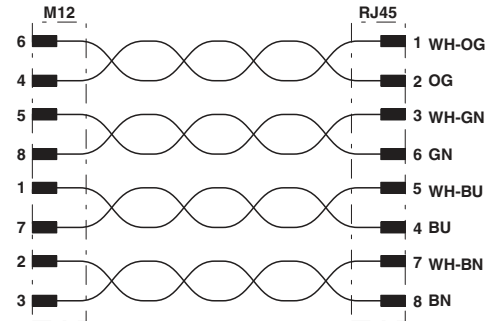
# Network cable - NBC-MS/ 2,0-94B/R4AC SCO - 1407415

Dimensioned drawing



RJ45 connector, IP20

Circuit diagram



Contact assignment of the M12 and RJ45 plug