

# NBC-MSY/10,0-94H SCO

Order No.: 1407490



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Hybrid cable, Ethernet hybrid CAT5 (100 Mbps), Ethernet hybrid CAT5e (100 Mbps), 8-position, PUR halogen-free, Black RAL 9005, shielded, Plug Straight M12 SPEEDCON / IP67, Coding: Y, on free cable end, Cable length: 10 m, Power with Ethernet (PWE)


Ethernet



## Product notes

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



Commercial data	
EAN	4  046356 777896
Note	Made-to-order
sales group	D117
Pack	1 Pcs.
Customs tariff	85444210
Gross weight in pieces	0.8951 KG
Net weight per piece	0.8951 KG
Catalog page information	Page 250 (C-4-2013)

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## Technical data

### Dimensions

Length of cable 10 m

### Ambient conditions

Degree of protection IP65

IP67

**General data**

Rated current at 40°C	6 A (Power)
	0.5 A (Data)
Rated voltage	30 V (Power and data)
Number of positions	8
Signal type/category	Ethernet hybrid CAT5 (IEC 11801:2002), 100 Mbps
	Ethernet hybrid CAT5e (TIA 568B:2001), 100 Mbps

**Characteristics head 1**

Head type	Plug Straight M12 SPEEDCON / IP67
No. of positions (pin connector pattern)	8 (4+4)
Coding	Y (Hybrid)
Color	black
Material (component)	CuZn (Contact)
	Ni/Au (Contact surface)
	PP (Contact carrier, data)
	PA (Contact carrier, power)
	TPU, hardly inflammable, self-extinguishing (Grip)
	Zinc die-cast, nickel-plated (Screw connection)
Shielded	Yes
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 type	free cable end
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**Cable**

Cable type	Ethernet hybrid
Cable type (abbreviation)	94H
UL AWM style	20963 (80°C/30 V)
Signal type/category	Ethernet hybrid CAT5 (IEC 11801:2002), 100 Mbps
	Ethernet hybrid CAT5e (TIA 568B:2001), 100 Mbps
Cable structure	1x4xAWG26+1x4xAWG20

Conductor cross section	4x 0.15 mm <sup>2</sup> (Data)
	4x 0.6 mm <sup>2</sup> (Power)
AWG signal line	26
AWG power supply	20
Conductor structure signal line	19x 0.10 mm
Conductor structure, voltage supply	19x 0.20 mm
Core diameter including insulation	1.05 mm (Data)
	1.4 mm (Power)
Wire colors	White/orange, orange, white/green, green, white, blue, brown, black
Overall twist	1 star quad and 4 wires with 2 fillers
Shielding	Tinned copper braided shield
Optical shield covering	85 %
External sheath, color	Black RAL 9005
External cable diameter D	7.6 mm ±0.2 mm
Minimum bending radius, flexible installation	10 x D
Number of bending cycles	2000000
Minimum bending radius, drag chain applications	10 x D
Traversing path	4.5 m
Traversing rate	3 m/s
Acceleration	3 m/s <sup>2</sup>
Cable weight	87 kg/km
Outer sheath, material	PUR
Material conductor insulation	PP (Data)
	PP (Power)
Conductor material	Bare Cu litz wires
Insulation resistance	≥ 5 GΩ*km
Loop resistance	≥ 280 Ω (Data)
	≥ 34.6 Ω (Power)
Working capacitance	nom. 50 nF (per kilometer)
Wave impedance	100 Ω ±15 Ω (4 MHz ... 100 MHz)
Shield attenuation	≥ 80 dB (30 MHz ... 125 MHz)
Differential impedance	100 Ω ±5 % (at 100 MHz)
Nominal voltage, cable	≤ 30 V (Peak value, not for high-power applications)
Test voltage Core/Core	1500 V (50 Hz, 1 min.)
Test voltage Core/Shield	1500 V (50 Hz, 1 min.)

Special properties	Free of substances which would hinder coating with paint or varnish
	Silicone-free
Flame resistance	In acc. with UL 1581, section 1061
Halogen-free	According to IEC 60754
	in accordance with DIN VDE 0472 part 815
Resistance to oil	According to IEC 60811-2-1
	according to VDE 0282 Part 10
Other resistance	Low adhesion
Ambient temperature (operation)	-40 °C ... 90 °C (cable, fixed installation)
	-30 °C ... 70 °C (cable, flexible installation)

### Certificates / Approvals

Certification

Certifications applied for:

Certification Ex:

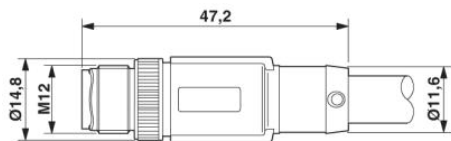
### Accessories

Item	Designation	Description
<b>Fuse</b>		
1558988	SAC-M12-EXCLIP-M	Fuse clip for the pin 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>		
1430873	PROT-M12 FS-PA-CHAIN	M12 sealing cap made of plastic with fixing band, for sensor cables, for free M12 sockets
<b>Tools</b>		
1212207	CUTFOX-S VDE	Diagonal cutter for copper and aluminum conductors, VDE-tested
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
1657407	VS-CABLE-STRIP-VARIO	Stripping tool, for the multi-level stripping of shielded cables
1212150	WIREFOX 10	Stripping tool, for cables and conductors from 0.02 - 10 mm <sup>2</sup> , self-adjusting, stripping length of up to 18 mm, cutting capacity of up to 10 mm <sup>2</sup> stranded/1.5 mm <sup>2</sup> solid, replaceable stripping blade

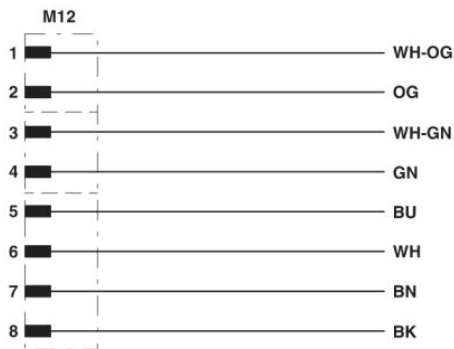
**Drawings**

Dimensioned drawing



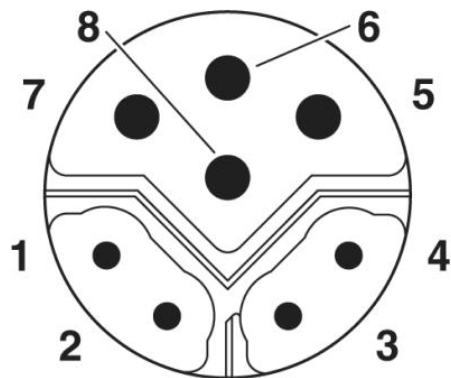
Plug, M12 x 1, straight, shielded

Circuit diagram



Contact assignment of the M12 plug

Schematic diagram



M12 hybrid plug pin assignment, 8-pos., Y-coded, pin side view



Ethernet hybrid [94H]

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