PHŒNIX CONTACT

Network cable - NBC-MSD/ 1,0-93E/FSD SCO - 1407400

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 (100 Mbps), Ethernet CAT5e (100 Mbps), 4-position, PUR, water blue RAL 5021, shielded, Plug Straight M12 SPEEDCON / IP67, Coding: D, on Socket Straight M12 SPEEDCON / IP67, Coding: D, Cable length: 1 m

Ethernet   **SPEEDCON** LOCKING

Key commercial data

Packing unit	1 pc
Weight per Piece (excluding packing)	80.0 GRM
Custom tariff number	85444210
Country of origin	Poland

Technical data

Dimensions

Length of cable	1 m

Ambient conditions

Degree of protection	IP65
	IP67

General data

Rated current at 40°C	4 A
Rated voltage	250 V
Number of positions	4
Signal type/category	Ethernet CAT5 (IEC 11801:2002), 100 Mbps
	Ethernet CAT5e (TIA 568B:2001), 100 Mbps
Standards/regulations	M12 connector IEC 61076-2-101

Characteristics head 1

Head design	Plug Straight M12 SPEEDCON / IP67
No. of positions (pin connector pattern)	4

Network cable - NBC-MSD/ 1,0-93E/FSD SCO - 1407400

Technical data

Characteristics head 1

Coding	D (Data)
Color	black
Material (component)	CuZn (Contact)
	Ni/Au (Contact surface)
	PA (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	Socket Straight M12 SPEEDCON / IP67
No. of positions (pin connector pattern)	4
Coding	D (Data)
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	PUR ETHERNET 2x2 FLEX
Cable type (abbreviation)	93E
UL AWM style	20963 (80°C/30 V)
Signal type/category	Ethernet CAT5 (IEC 11801:2002), 100 Mbps
	Ethernet CAT5e (TIA 568B:2001), 100 Mbps
Cable structure	2x2xAWG26/7; SF/UTP
Conductor cross section	2x 2x 0.14 mm²
AWG signal line	26

Network cable - NBC-MSD/ 1,0-93E/FSD SCO - 1407400

Technical data

Cable

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	$\leq$ 80N
Cable weight	42 kg/km
Outer sheath, material	PUR
Material conductor insulation	Foamed PE
Conductor material	Bare Cu litz wires
Insulation resistance	$\geq$ 500 MΩ*km (at 20 °C)
Conductor resistance	$\leq$ 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, cable	$\leq$ 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

Network cable - NBC-MSD/ 1,0-93E/FSD SCO - 1407400

Classifications

eCl@ss

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
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

Network cable - NBC-MSD/ 1,0-93E/FSD SCO - 1407400

Approvals

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

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

Screw plug - PROT-M12 MS-PA-CHAIN - 1430899

M12 sealing cap 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

PHŒNIX CONTACT

Network cable - NBC-MSD/ 1,0-93E/FSD SCO - 1407400

Accessories

Fuse clip - SAC-M12-EXCLIP-F - 1558991

Fuse clip for the socket 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

Torque screwdriver - TSD 04 SAC - 1208429

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

---

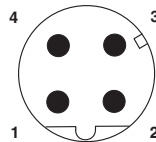Torque screwdriver - TSD-M 1,2NM - 1212224

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

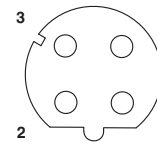# Network cable - NBC-MSD/ 1,0-93E/FSD SCO - 1407400

Accessories

Drawings

Schematic diagram

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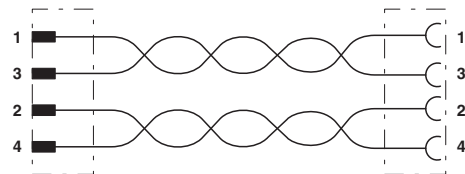
Schematic diagram

Pin assignment M12 socket, 4-pos., D-coded, female side
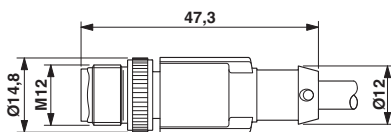
Cable cross section
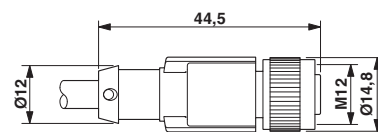
PUR ETHERNET 2x2 FLEX [93E]

Circuit diagram

Contact assignment of the M12 connector and the M12 socket

Dimensioned drawing

47,3

Ø14,8 M12 Ø12

Plug, M12 x 1, straight, shielded

Dimensioned drawing

44,5

Ø12 M12 Ø14,8

M12 x 1 socket, straight, shielded