chanhvinh.com

Network cable - NBC-MS/ 1,0-94B/FS SCO

1407463

https://www.phoenixcontact.com/gb/products/1407463

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 documentation. Our General Terms of Use for Downloads are valid.



Network cable, Ethernet CAT5 (1 Gbps), 8-position, shielded, Plug straight M12 SPEEDCON / IP67, coding: A, on Socket straight M12 SPEEDCON / IP67, coding: A, cable length: 1 m

Commercial Data

Item number	1407463
Packing unit	1 pc
Minimum order quantity	1 pc
Sales Key	BF1CMI
Product Key	BF1CMI
Catalog Page	Page 401 (C-2-2019)
GTIN	4046356775847
Weight per Piece (including packing)	87.6 g
Weight per Piece (excluding packing)	72.99 g
Customs tariff number	85444210
Country of origin	PL

chanhvinh.com

Network cable - NBC-MS/ 1,0-94B/FS SCO

1407463

https://www.phoenixcontact.com/gb/products/1407463

Technical Data

Notes

General	Further products with variable cable type and variable cable length can be found in the accessories section

Product properties

Product type	Data cable preassembled
Number of positions	8
Application	Standard
No. of cable outlets	1
Shielded	yes
Coding	A - standard

Interfaces

Bus system	Ethernet
Signal type/category	Ethernet CAT5 (on the basis of IEC 11801), 1 Gbps

LED signaling

Status display	No
Status display present	No

Electrical properties

Nominal voltage U_N	48 V AC
	60 V DC
Nominal current I_N	2 A
Transmission medium	Copper

Material specifications

Color Handle area	black
Sealing material	NBR
Material of grip body	TPU, hardly inflammable, self-extinguishing
Contact material	CuSn
Contact surface material	Ni/Au
Contact carrier material	TPU GF
Cable gland material	Zinc die-cast, nickel-plated

Connector

Header 1

Type	Plug straight M12 SPEEDCON / IP67
Number of positions	8
Coding type	A (Standard)
Handle color	black
	CuZn (Contact)

chanhvinh.com

Network cable - NBC-MS/ 1,0-94B/FS SCO

1407463

https://www.phoenixcontact.com/gb/products/1407463

Material	Ni/Au (Contact surface)
	TPU GF (Contact carriers)
	TPU, hardly inflammable, self-extinguishing (Grip)
	Zinc die-cast, nickel-plated (Screw connection)
Insertion/withdrawal cycles	≥ 100
Contact resistance	≤ 5 mΩ
Insulation resistance	≥ 100 MΩ
Tightening torque	0.4 Nm
Degree of protection	IP67
Ambient temperature (operation)	-25 °C ... 90 °C

Head 2

Type	Socket straight M12 SPEEDCON / IP67
Number of positions	8
Coding type	A (Standard)
Handle color	black
Material	CuZn (Contact)
	Ni/Au (Contact surface)
	TPU GF (Contact carriers)
	TPU, hardly inflammable, self-extinguishing (Grip)
	Zinc die-cast, nickel-plated (Screw connection)
Insertion/withdrawal cycles	≥ 100
Contact resistance	≤ 5 mΩ
Insulation resistance	≥ 100 MΩ
Tightening torque	0.4 Nm
Ambient temperature (operation)	-25 °C ... 90 °C

Cable / line

Cable length	1 m
Cable weight	47 kg/km
UL AWM Style	20963 (80°C/30 V)
Number of positions	8
Shielded	yes
Cable type	Ethernet flexible CAT5, 4-pair [94B]
Signal runtime	5.3 ns/m
Conductor structure signal line	7x 0.16 mm
AWG signal line	26
Conductor cross section	4x 2x 0.14 mm²
Wire diameter incl. insulation	0.96 mm
External cable diameter	6.4 mm ±0.2 mm
Outer sheath, material	PUR
External sheath, color	water blue RAL 5021
Conductor material	Bare Cu litz wires
Material wire insulation	Foamed PE

chanhvinh.com

Network cable - NBC-MS/ 1,0-94B/FS SCO

1407463

https://www.phoenixcontact.com/gb/products/1407463

Single wire, color	white/blue-blue, white/orange-orange, white/green-green, white/brown-brown
Thickness, outer sheath	1.05 mm
Twisted pairs	2 cores to the pair
Overall twist	4 pairs for core
Optical shield covering	70 %
Insulation resistance	≥ 5 GΩ*km
Coupling resistance	≤ 100.00 mΩ/m (at 10 MHz)
Loop resistance	≤ 290.00 Ω/km
Wave impedance	100 Ω ±5 Ω (at 100 MHz)
Cable capacity	48 nF/km (at 1 kHz)
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.)
Minimum bending radius, fixed installation	4 x D
Minimum bending radius, flexible installation	8 x D
Tensile strength	≤ 100 N
Near end crosstalk attenuation (NEXT)	71.3 dB (with 1 MHz)
	62.3 dB (at 4 MHz)
	56.3 dB (at 10 MHz)
	53.2 dB (at 16 MHz)
	51.8 dB (at 20 MHz)
	48.9 dB (at 31.25 MHz)
	44.4 dB (at 62.5 MHz)
	41.3 dB (at 100 MHz)
Power-summated near end crosstalk attenuation (PSNEXT)	62.3 dB (with 1 MHz)
	53.3 dB (at 4 MHz)
	47.3 dB (at 10 MHz)
	44.2 dB (at 16 MHz)
	42.8 dB (at 20 MHz)
	39.9 dB (at 31.25 MHz)
	35.4 dB (at 62.5 MHz)
	32.3 dB (at 100 MHz)
Return loss (RL)	23 dB (at 4 MHz)
	24.1 dB (at 8 MHz)
	25 dB (at 10 MHz)
	25 dB (at 16 MHz)
	25 dB (at 20 MHz)
	23.6 dB (at 31.25 MHz)
	21.5 dB (at 62.5 MHz)
	20.1 dB (at 100 MHz)
Shield attenuation	3.2 dB (with 1 MHz)
	6 dB (at 4 MHz)
	9.5 dB (at 10 MHz)

chanhvinh.com

Network cable - NBC-MS/ 1,0-94B/FS SCO

1407463

https://www.phoenixcontact.com/gb/products/1407463

	12.1 dB (at 16 MHz)
	13.6 dB (at 20 MHz)
	17.1 dB (at 31.25 MHz)
	24.8 dB (at 62.5 MHz)
	32 dB (at 100 MHz)
Halogen-free	according to IEC 60754-1
Flame resistance	according to IEC 60332-1-2
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

Cable structure

Signal type/category	Ethernet CAT5 (on the basis of IEC 11801), 1 Gbps

Ambient conditions

Degree of protection	IP65
	IP67
Degree of protection	IP65/IP67
Ambient temperature (operation)	-25 °C ... 90 °C (M12 connector)

Standards and regulations

M12

Standards/specifications	IEC 61076-2-101

chanhvinh.com

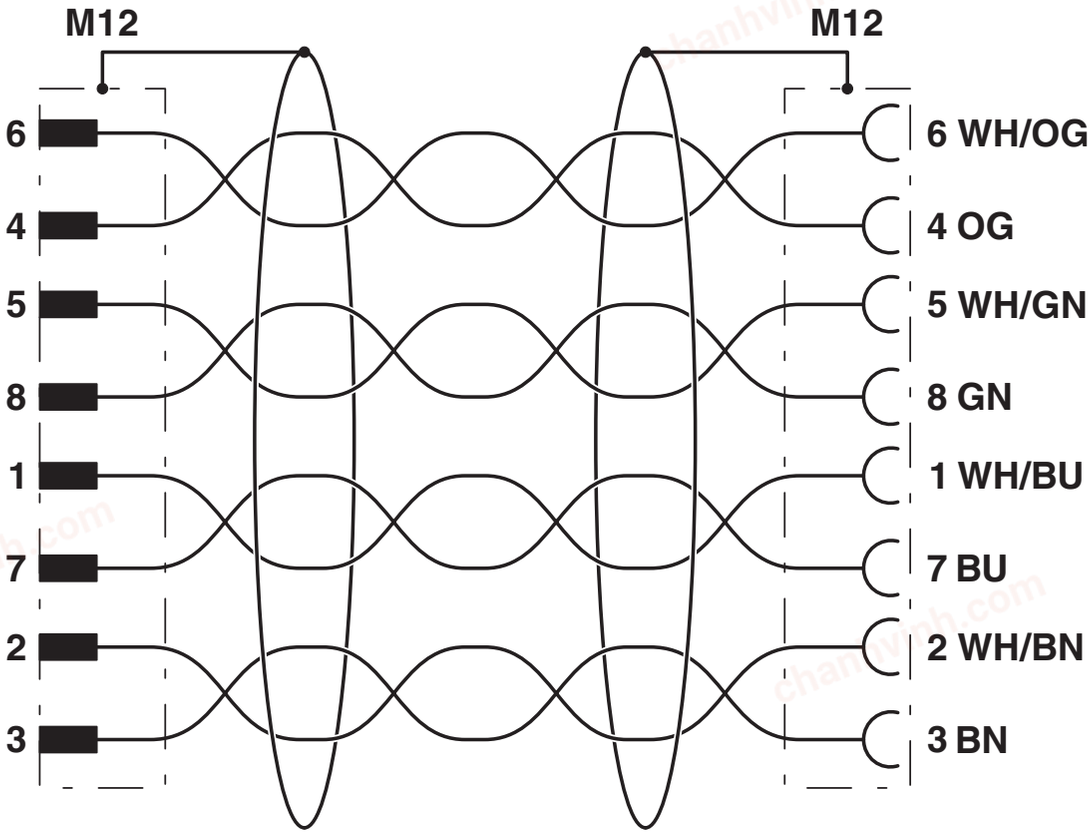
Network cable - NBC-MS/ 1,0-94B/FS SCO

1407463

https://www.phoenixcontact.com/gb/products/1407463

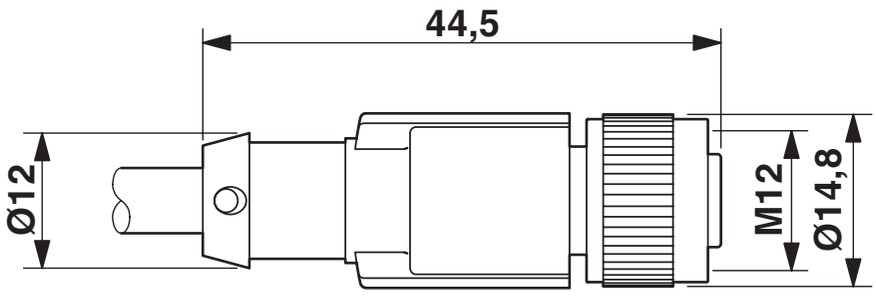
Drawings

Circuit diagram



Contact assignment of the M12 connector and the M12 socket

Dimensional drawing



M12 x 1 socket, straight, shielded

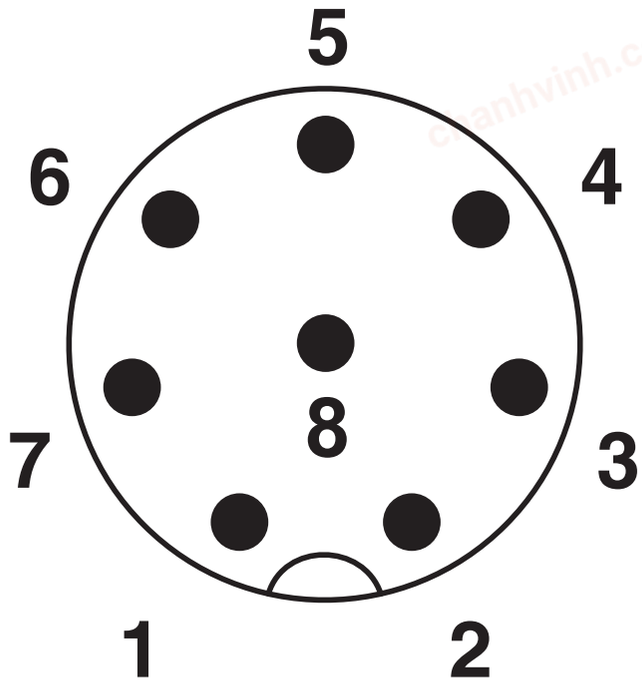
chanhvinh.com

Network cable - NBC-MS/ 1,0-94B/FS SCO

1407463

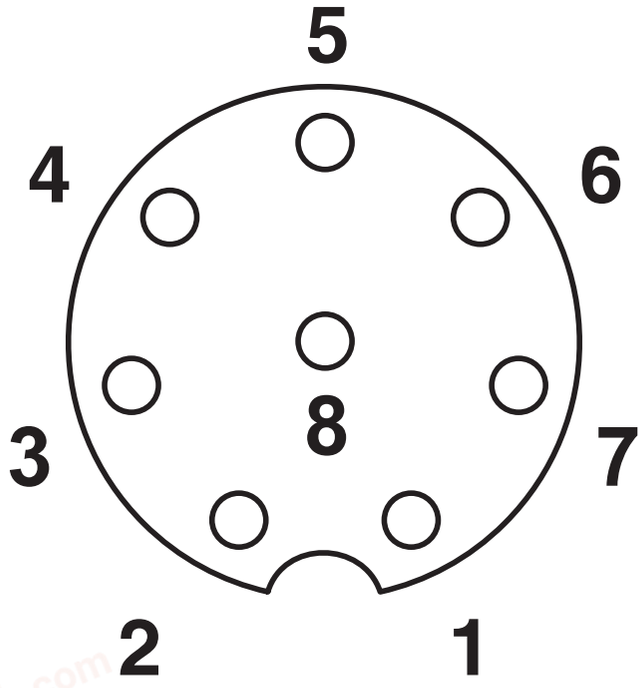
https://www.phoenixcontact.com/gb/products/1407463

Schematic diagram



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

Schematic diagram



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

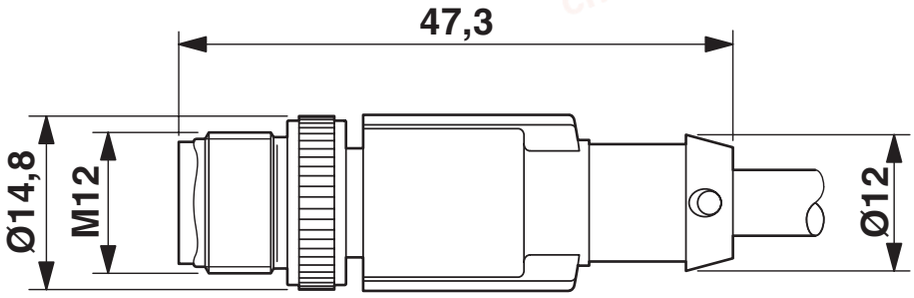
chanhvinh.com

Network cable - NBC-MS/ 1,0-94B/FS SCO

1407463

https://www.phoenixcontact.com/gb/products/1407463

Dimensional drawing



Plug, M12 x 1, straight, shielded

chanhvinh.com

Network cable - NBC-MS/ 1,0-94B/FS SCO

1407463

https://www.phoenixcontact.com/gb/products/1407463

Approvals

UL Listed
Approval ID: FILE E 335024

	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	30 V	1.5 A	-	-

cUL Listed
Approval ID: FILE E 335024

	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	30 V	1.5 A	-	-

EAC
Approval ID: RU D-DE.HB35.B.00387

cULus Listed

chanhvinh.com

Network cable - NBC-MS/ 1,0-94B/FS SCO

1407463

https://www.phoenixcontact.com/gb/products/1407463

Classifications

ECLASS

ECLASS-9.0	27060308
ECLASS-10.0.1	27060308
ECLASS-11.0	27060307

ETIM

ETIM 8.0	EC001855

UNSPSC

UNSPSC 21.0	26121600

chanhvinh.com

Network cable - NBC-MS/ 1,0-94B/FS SCO

1407463

https://www.phoenixcontact.com/gb/products/1407463

Environmental Product Compliance

REACh SVHC	Lead 7439-92-1

China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer’s declaration available under “Downloads”

chanhvinh.com

Network cable - NBC-MS/ 1,0-94B/FS SCO

1407463

https://www.phoenixcontact.com/gb/products/1407463

Accessories

Network cable

Network cable - NBC-MS-MS SCO-IE/.../... - 1408676

https://www.phoenixcontact.com/gb/products/1408676



Network cable, Ethernet CAT5 (1 Gbps), 8-position, Variable cable type, shielded, Plug straight M12 SPEEDCON / IP67, coding: A, on Plug straight M12 SPEEDCON / IP67, coding: A, cable length: Free input (0.2 ... 40.0 m)

Torque screwdriver

Torque screwdriver - TSD 04 SAC - 1208429

https://www.phoenixcontact.com/gb/products/1208429



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

chanhvinh.com

Network cable - NBC-MS/ 1,0-94B/FS SCO

1407463

https://www.phoenixcontact.com/gb/products/1407463

Network cable

Network cable - NBC-MS-MR SCO-IE/.../... - 1408667

https://www.phoenixcontact.com/gb/products/1408667



Network cable, Ethernet CAT5 (1 Gbps), 8-position, Variable cable type, shielded, Plug straight M12 SPEEDCON / IP67, coding: A, on Plug angled M12 SPEEDCON / IP67, coding: A, cable length: Free input (0.2 ... 40.0 m)

Torque screwdriver

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

https://www.phoenixcontact.com/gb/products/1212224



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

chanhvinh.com

Network cable - NBC-MS/ 1,0-94B/FS SCO

1407463

https://www.phoenixcontact.com/gb/products/1407463

Network cable

Network cable - NBC-MS-FS SCO-IE/.../... - 1408659

https://www.phoenixcontact.com/gb/products/1408659



Network cable, Ethernet CAT5 (1 Gbps), 8-position, Variable cable type, shielded, Plug straight M12 SPEEDCON / IP67, coding: A, on Socket straight M12 SPEEDCON / IP67, coding: A, cable length: Free input (0.2 ... 40.0 m)

Adapter insert

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

https://www.phoenixcontact.com/gb/products/1212600



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

chanhvinh.com

Network cable - NBC-MS/ 1,0-94B/FS SCO

1407463

https://www.phoenixcontact.com/gb/products/1407463

Network cable

Network cable - NBC-MS-FR SCO-IE/.../... - 1408650

https://www.phoenixcontact.com/gb/products/1408650



Network cable, Ethernet CAT5 (1 Gbps), 8-position, Variable cable type, shielded, Plug straight M12 SPEEDCON / IP67, coding: A, on Socket angled M12 SPEEDCON / IP67, coding: A, cable length: Free input (0.2 ... 40.0 m)

Tool

Tool - SAC BIT M12-D15 - 1208432

https://www.phoenixcontact.com/gb/products/1208432



Nut for assembling sensor/actuator cables with M12 connector and M12 connectors for assembly, with a knurl diameter of 15 mm, for 4 mm hexagonal drive

chanhvinh.com

Network cable - NBC-MS/ 1,0-94B/FS SCO

1407463

https://www.phoenixcontact.com/gb/products/1407463

Network cable

Network cable - NBC-MR-MR SCO-IE/.../... - 1408666

https://www.phoenixcontact.com/gb/products/1408666



Network cable, Ethernet CAT5 (1 Gbps), 8-position, Variable cable type, shielded, Plug angled M12 SPEEDCON / IP67, coding: A, on Plug angled M12 SPEEDCON / IP67, coding: A, cable length: Free input (0.2 ... 40.0 m)

Sealing cap

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

https://www.phoenixcontact.com/gb/products/1430873

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



chanhvinh.com

Network cable - NBC-MS/ 1,0-94B/FS SCO

1407463

https://www.phoenixcontact.com/gb/products/1407463

Network cable

Network cable - NBC-MR-FS SCO-IE/.../... - 1408658

https://www.phoenixcontact.com/gb/products/1408658



Network cable, Ethernet CAT5 (1 Gbps), 8-position, Variable cable type, shielded, Plug angled M12 SPEEDCON / IP67, coding: A, on Socket straight M12 SPEEDCON / IP67, coding: A, cable length: Free input (0.2 ... 40.0 m)

Locking clip

Locking clip - SAC-M12-EXCLIP-M - 1558988

https://www.phoenixcontact.com/gb/products/1558988



Locking clip for the pin side of sensor/actuator cables with M12 connector and M12 connectors for assembly, for knurl diameter: 15 mm or for Allen key with a wrench size of 14 mm, prevents the disconnection of plug-in connections without tools

chanhvinh.com

Network cable - NBC-MS/ 1,0-94B/FS SCO

1407463

https://www.phoenixcontact.com/gb/products/1407463

Network cable

Network cable - NBC-MR-FR SCO-IE/.../... - 1408649

https://www.phoenixcontact.com/gb/products/1408649



Network cable, Ethernet CAT5 (1 Gbps), 8-position, Variable cable type, shielded, Plug angled M12 SPEEDCON / IP67, coding: A, on Socket angled M12 SPEEDCON / IP67, coding: A, cable length: Free input (0.2 ... 40.0 m)

Screw plug

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

https://www.phoenixcontact.com/gb/products/1430899

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



chanhvinh.com

Network cable - NBC-MS/ 1,0-94B/FS SCO

1407463

https://www.phoenixcontact.com/gb/products/1407463

Locking clip

Locking clip - SAC-M12-EXCLIP-F - 1558991

https://www.phoenixcontact.com/gb/products/1558991



Locking clip for the socket side of sensor/actuator cables with M12 connector and M12 connectors for assembly, for knurl diameter: 15 mm or for Allen key with a wrench size of 14 mm, prevents the disconnection of plug-in connections without tools

Phoenix Contact 2022 © - all rights reserved
https://www.phoenixcontact.com

PHOENIX CONTACT Ltd
Halesfield 13, Telford
Shropshire, TF7 4PG
01952 681700
info@phoenixcontact.co.uk