chanhvinh.com

Network cable - NBC-FSD/ 5,0-93E/R4MC SCO

1407390

https://www.phoenixcontact.com/gb/products/1407390

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 (100 Mbps), 4-position, shielded, Plug straight RJ45 Clip locking / IP67, on Socket straight M12 SPEEDCON / IP67, coding: D, cable length: 5 m

Commercial Data

Item number	1407390
Packing unit	1 pc
Minimum order quantity	1 pc
Sales Key	BF1CJI
Product Key	BF1CJI
Catalog Page	Page 399 (C-2-2019)
GTIN	4046356775182
Weight per Piece (including packing)	265 g
Weight per Piece (excluding packing)	265 g
Customs tariff number	85444210
Country of origin	PL

chanhvinh.com

Network cable - NBC-FSD/ 5,0-93E/R4MC SCO

1407390

https://www.phoenixcontact.com/gb/products/1407390

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	4
Application	Standard
Shielded	yes
Coding	D - data

Interfaces

Bus system	Ethernet
Signal type/category	Ethernet CAT5 (IEC 11801), 100 Mbps

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	1 A
Transmission medium	Copper

Material specifications

Color Handle area	gray / 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
Housing material	Plastic

Connector

Connection 1

Type	Plug straight RJ45 Clip locking / IP67
Number of positions	4 (8)
Handle color	gray
Material	CuSn (Contact)
	Ni/Au (Contact surface)

chanhvinh.com

Network cable - NBC-FSD/ 5,0-93E/R4MC SCO

1407390

https://www.phoenixcontact.com/gb/products/1407390

	PC (Contact carriers)
	PA (Housing)
Insertion/withdrawal cycles	≥ 750
Degree of protection	IP67
Ambient temperature (operation)	-20 °C ... 70 °C

Connection 2

Type	Socket straight M12 SPEEDCON / IP67
Number of positions	4
Coding type	D (Data)
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	5 m
Cable weight	42 kg/km
UL AWM Style	20963 (80°C/30 V)
Number of positions	4
Shielded	yes
Cable type	Ethernet flexible CAT5, 2-pair [93E]
Signal runtime	5.3 ns/m
Conductor structure signal line	7x 0.16 mm
AWG signal line	26
Conductor cross section	2x 2x 0.14 mm²
Wire diameter incl. insulation	0.98 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
Single wire, color	white/orange-orange, white/green-green
Thickness, outer sheath	1.2 mm
Twisted pairs	2 cores to the pair
Overall twist	Two pairs with two fillers to the core
Optical shield covering	70 %

chanhvinh.com

Network cable - NBC-FSD/ 5,0-93E/R4MC SCO

1407390

https://www.phoenixcontact.com/gb/products/1407390

Insulation resistance	≥ 500 MΩ*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	approx. 45 nF/km (at 1 kHz)
Nominal voltage, cable	≤ 100 V (Peak value, not for high-power applications)
Test voltage Core/Core	700 V (50 Hz, 1 min.)
Test voltage Core/Shield	700 V (50 Hz, 1 min.)
Current carrying capacity of cable	2 A (according to DIN VDE 0891-1)
Minimum bending radius, fixed installation	4 x D
Minimum bending radius, flexible installation	8 x D
Tensile strength	≤ 80 N
Near end crosstalk attenuation (NEXT)	65.3 dB (with 1 MHz)
	56.3 dB (at 4 MHz)
	50.3 dB (at 10 MHz)
	47.2 dB (at 16 MHz)
	45.8 dB (at 20 MHz)
	42.9 dB (at 31.25 MHz)
	38.4 dB (at 62.5 MHz)
	35.3 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)
	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)

chanhvinh.com

Network cable - NBC-FSD/ 5,0-93E/R4MC SCO

1407390

https://www.phoenixcontact.com/gb/products/1407390

Halogen-free	according to IEC 60754-1
Flame resistance	according to IEC 60332-1-2
	in acc. to UL VW1
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
Signal type/category	Ethernet CAT5 (IEC 11801), 100 Mbps

Ambient conditions

Degree of protection	IP65 (M12 connector)
	IP67 (M12 connector)
	IP67 (RJ45 connector)
Degree of protection	IP65/IP67
Ambient temperature (operation)	-25 °C ... 85 °C (M12 connector)
	-25 °C ... 60 °C (RJ45 connector)

Standards and regulations

M12

Standards/specifications	IEC 61076-2-101

chanhvinh.com

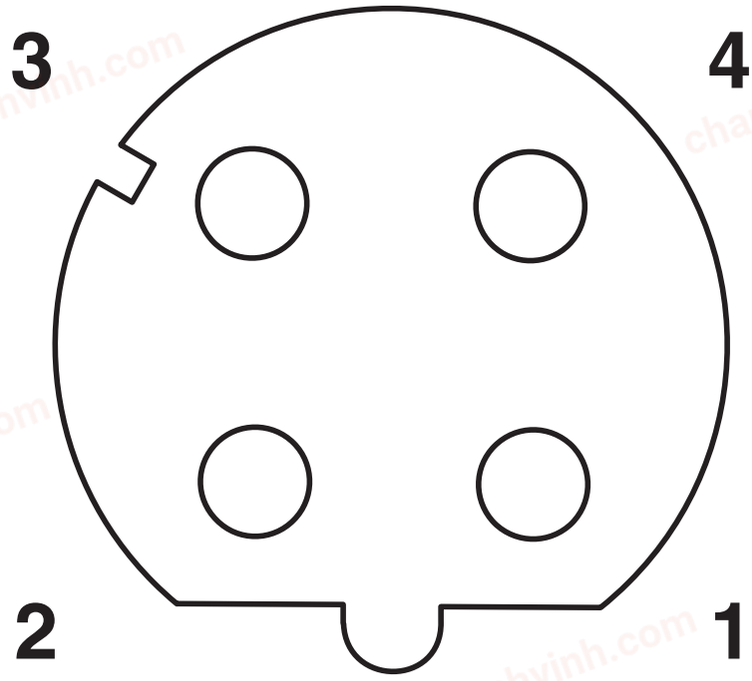
Network cable - NBC-FSD/ 5,0-93E/R4MC SCO

1407390

https://www.phoenixcontact.com/gb/products/1407390

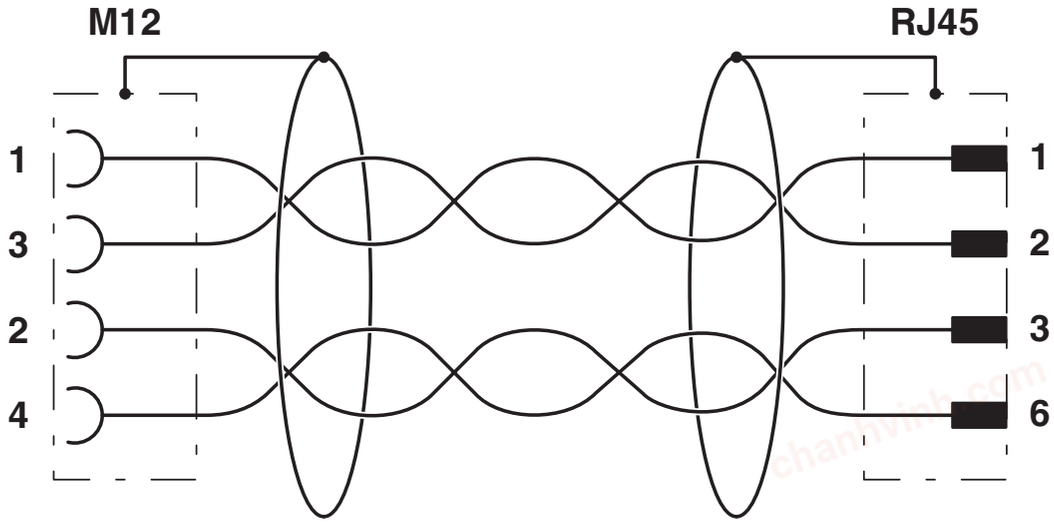
Drawings

Schematic diagram



Pin assignment M12 socket, 4-pos., D-coded, female side

Circuit diagram



Contact assignment of the M12 socket and the RJ45 plug

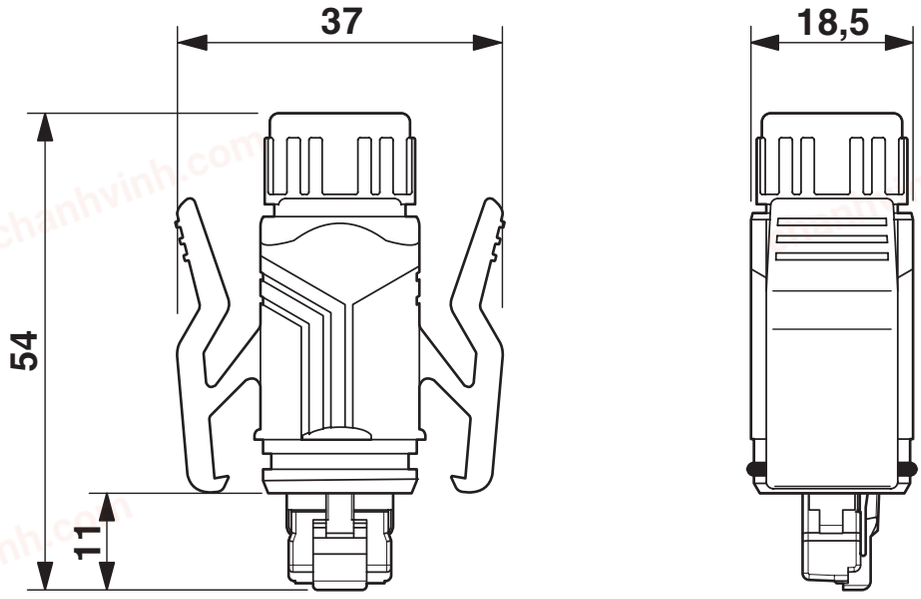
chanhvinh.com

Network cable - NBC-FSD/ 5,0-93E/R4MC SCO

1407390

https://www.phoenixcontact.com/gb/products/1407390

Dimensional drawing



RJ45-connector, IP67

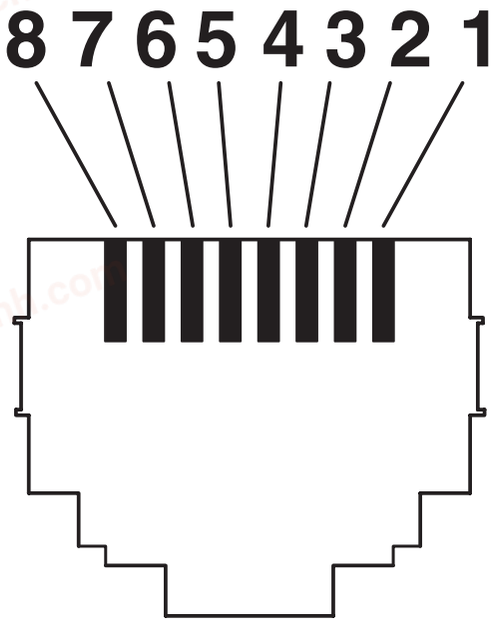
chanhvinh.com

Network cable - NBC-FSD/ 5,0-93E/R4MC SCO

1407390

https://www.phoenixcontact.com/gb/products/1407390

Schematic diagram



Connector pin assignment plug RJ45

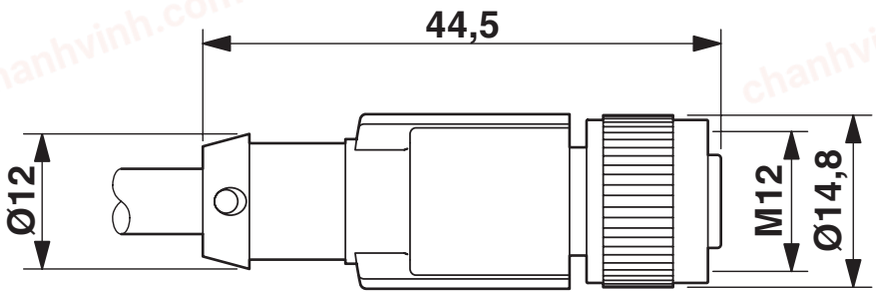
chanhvinh.com

Network cable - NBC-FSD/ 5,0-93E/R4MC SCO

1407390

https://www.phoenixcontact.com/gb/products/1407390

Dimensional drawing



M12 x 1 socket, straight, shielded

chanhvinh.com

Network cable - NBC-FSD/ 5,0-93E/R4MC SCO

1407390

https://www.phoenixcontact.com/gb/products/1407390

Approvals

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

chanhvinh.com

chanhvinh.com

Network cable - NBC-FSD/ 5,0-93E/R4MC SCO

1407390

https://www.phoenixcontact.com/gb/products/1407390

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-FSD/ 5,0-93E/R4MC SCO

1407390

https://www.phoenixcontact.com/gb/products/1407390

Environmental Product Compliance

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-FSD/ 5,0-93E/R4MC SCO

1407390

https://www.phoenixcontact.com/gb/products/1407390

Accessories

Network cable

Network cable - NBC-MSD-R4MC SCO/.../... - 1408710

https://www.phoenixcontact.com/gb/products/1408710

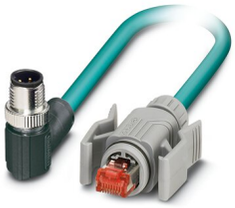


Network cable, Ethernet CAT5 (100 Mbps), 4-position, Variable cable type, shielded, Plug straight M12 SPEEDCON / IP67, coding: D, on Plug straight RJ45 Clip locking / IP67, cable length: Free input (0.2 ... 40.0 m)

Network cable

Network cable - NBC-MRD-R4MC SCO/.../... - 1408703

https://www.phoenixcontact.com/gb/products/1408703



Network cable, Ethernet CAT5 (100 Mbps), 4-position, Variable cable type, shielded, Plug angled M12 SPEEDCON / IP67, coding: D, on Plug straight RJ45 Clip locking / IP67, cable length: Free input (0.2 ... 40.0 m)

chanhvinh.com

Network cable - NBC-FSD/ 5,0-93E/R4MC SCO

1407390

https://www.phoenixcontact.com/gb/products/1407390

Network cable

Network cable - NBC-FSD-R4MC SCO/.../... - 1408695

https://www.phoenixcontact.com/gb/products/1408695

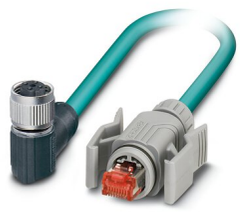


Network cable, Ethernet CAT5 (100 Mbps), 4-position, Variable cable type, shielded, Plug straight RJ45 Clip locking / IP67, on Socket straight M12 SPEEDCON / IP67, coding: D, cable length: Free input (0.2 ... 40.0 m)

Network cable

Network cable - NBC-FRD-R4MC SCO/.../... - 1408688

https://www.phoenixcontact.com/gb/products/1408688



Network cable, Ethernet CAT5 (100 Mbps), 4-position, Variable cable type, shielded, Plug straight RJ45 Clip locking / IP67, on Socket angled M12 SPEEDCON / IP67, coding: D, cable length: Free input (0.2 ... 40.0 m)

chanhvinh.com

Network cable - NBC-FSD/ 5,0-93E/R4MC SCO

1407390

https://www.phoenixcontact.com/gb/products/1407390

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

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

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

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-FSD/ 5,0-93E/R4MC SCO

1407390

https://www.phoenixcontact.com/gb/products/1407390

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



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