

NBC-M12FS/7,0-971/R4AQ VR - Network cable



1412807

<https://www.phoenixcontact.com/us/products/1412807>

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, degree of protection: IP20, cable length: 7 m, number of positions: 6, CAT5, color: black, VARAN

Your advantages

- Perfect for industrial applications
- Perfect for office, building, and protected industrial applications (e.g., in control cabinets)
- Compact angle

Commercial data

Item number	1412807
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	AB18
Product key	ABNPAA
GTIN	4055626017457
Weight per piece (including packing)	519.4 g
Weight per piece (excluding packing)	1,024.341 g
Customs tariff number	85444290
Country of origin	PL

NBC-M12FS/7,0-971/R4AQ VR - Network cable



1412807

<https://www.phoenixcontact.com/us/products/1412807>

Technical data

Mounting

Mounting type	Screw mounting
---------------	----------------

Product properties

Type	M12
Product type	Circular connectors (device side)
Sensor type	VARAN
Number of positions	6
No. of cable outlets	1
Shielded	yes
Coding	A

Insulation characteristics

Overvoltage category	I
Degree of pollution	1

Material specifications

Color	black
Material	PC PA
Flammability rating according to UL 94	V0
Material of grip body	TPU, hardly inflammable, self-extinguishing
Contact material	CuZn
Contact surface material	Ni/Au
Contact carrier material	TPU GF
Material for screw connection	Zinc die-cast, nickel-plated
Outer sheath, material	SANTOPRENE halogen-free

Electrical properties

Rated voltage (III/3)	72 V (DC)
Contact resistance	$\leq 5 \text{ m}\Omega$
Insulation resistance	$\geq 100 \text{ M}\Omega$
Nominal voltage U_N	30 V
Nominal current I_N	2 A
Transmission medium	Copper
Transmission speed	100 Mbps

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	≥ 100
-----------------------------	------------

Connector

NBC-M12FS/7,0-971/R4AQ VR - Network cable



1412807

<https://www.phoenixcontact.com/us/products/1412807>

Connection 1

Type	Socket straight M12
Locking type	SPEEDCON
Degree of protection	IP65/IP67

Connection 2

Type	Plug straight RJ45
Degree of protection	IP20

Cable/line

Cable length	7.00 m
--------------	--------

VARAN PVC [971]

Shielded	yes
UL AWM Style	2461 (80°C/300 V)
Cable type	VARAN PVC
Short symbol	2YLI2Y(ST)CY
Cable type (abbreviation)	971
Signal type/category	VARAN CAT5 (IEC 11801), 100 Mbps
Cable structure	1x2x24/32+2x2x24/19, SF/UTP
External cable diameter	7 mm ±0.2 mm
Outer sheath, material	PVC
External sheath, color	black
Thickness, outer sheath	0.9 mm
Conductor material	Bare Cu litz wires
Conductor structure signal line	19x 0.13 mm
AWG signal line	24
Conductor structure, voltage supply	32x 0.10 mm
Conductor cross section	2x 2x 0.25 mm ² (Signal line)
AWG power supply	24
Material wire insulation	PE
Wire diameter incl. insulation	1.25 mm (Signal line) 1.4 mm (Power supply)
Single wire, color	blue-yellow, green-orange, red-blue
Twisted pairs	2 cores to the pair
Overall twist	3 pairs with filler elements to the core
Shielding	Aluminum-coated foil, tinned copper braided shield
Optical shield covering	85 %
Nominal voltage, cable	≤ 80 V
Test voltage Core/Core	1000 V
Test voltage Core/Shield	1000 V
Cable resistance	78 Ω/km (at 20 °C)
Cable insulation resistance	≥ 500 MΩ*km (at 20 °C)
Working capacitance	approx. 57 nF (at 1 kHz)

NBC-M12FS/7,0-971/R4AQ VR - Network cable



1412807

<https://www.phoenixcontact.com/us/products/1412807>

Signal runtime	5.3 ns/m
Minimum bending radius, fixed installation	4 x D
Minimum bending radius, flexible installation	8 x D
Number of bending cycles	200000
Minimum bending radius, drag chain applications	5 x D
Resistance to oil	According to DIN EN 60811-2-1, 168 h at 100°C
Flame resistance	according to IEC 60332-1-2
Ambient temperature (operation)	-40 °C ... 80 °C

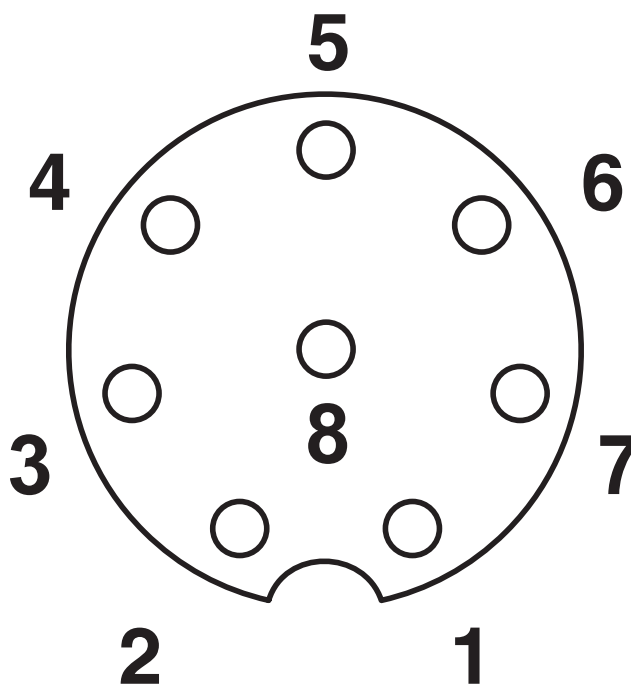
Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
	IP20
Ambient temperature (operation)	0 °C ... 50 °C (for installation)
	-20 °C ... 80 °C (cable, fixed installation)
	-25 °C ... 90 °C (Plug / socket)

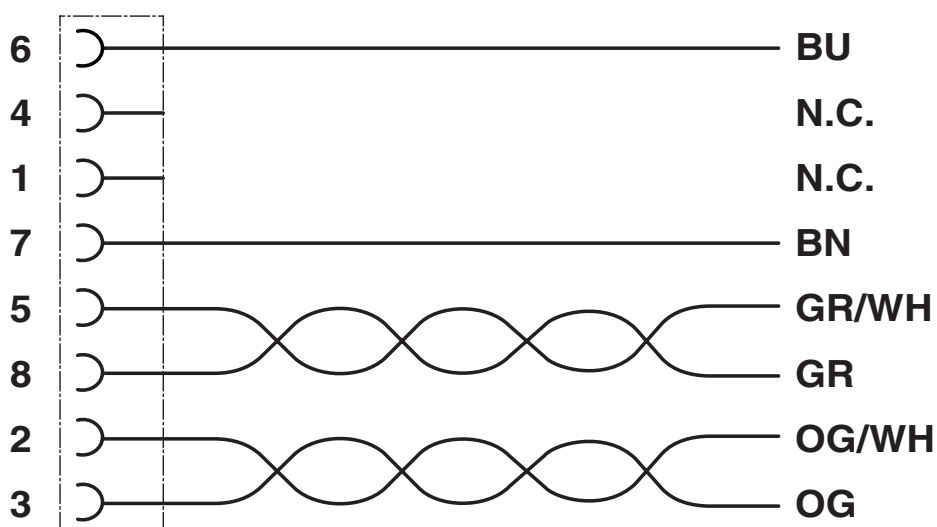
Drawings

Schematic diagram



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

Circuit diagram



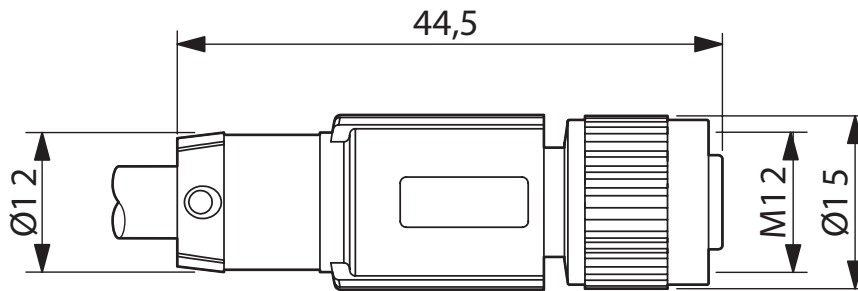
NBC-M12FS/7,0-971/R4AQ VR - Network cable



1412807

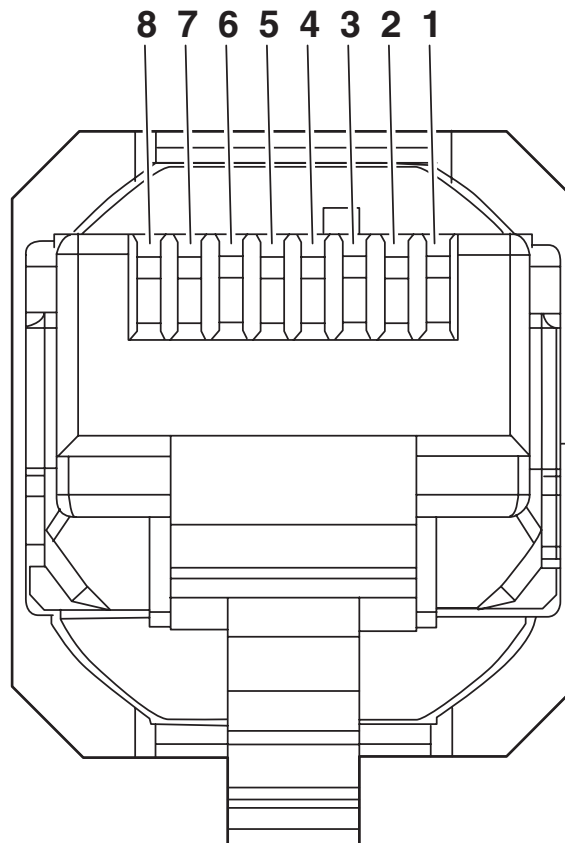
<https://www.phoenixcontact.com/us/products/1412807>

Dimensional drawing



M12 x 1 socket, straight, shielded

Schematic diagram



NBC-M12FS/7,0-971/R4AQ VR - Network cable



1412807

<https://www.phoenixcontact.com/us/products/1412807>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1412807>



EAC

Approval ID: 19060508

NBC-M12FS/7,0-971/R4AQ VR - Network cable



1412807

<https://www.phoenixcontact.com/us/products/1412807>

Classifications

ECLASS

ECLASS-11.0	27060308
ECLASS-12.0	27060308
ECLASS-13.0	27060307

ETIM

ETIM 8.0	EC002599
----------	----------

UNSPSC

UNSPSC 21.0	26121600
-------------	----------

NBC-M12FS/7,0-971/R4AQ VR - Network cable



1412807

<https://www.phoenixcontact.com/us/products/1412807>

Environmental product compliance

REACH SVHC

Lead 7439-92-1

Phoenix Contact 2024 © - all rights reserved

<https://www.phoenixcontact.com>

Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com