

NBC-M12FS/10,0-971/R4AQ VR - Network cable



1412808

<https://www.phoenixcontact.com/us/products/1412808>

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: 10 m, number of positions: 6, 100 Mbps, CAT5, color: black, VARAN, 1x2x24/32+2x2x24/19, SF/UTP, black

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	1412808
Packing unit	1 pc
Minimum order quantity	10 pc
Product key	ABNPAA
GTIN	4055626017419
Weight per piece (including packing)	737.212 g
Weight per piece (excluding packing)	737.212 g
Country of origin	PL

Technical data

Product properties

Product type	Data cable preassembled
Type	M12
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

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
Transmission characteristics (category)	CAT5 (IEC 11801:2002)
Transmission speed	100 Mbps

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

Connector

Connection 1

Type	Socket straight M12
Locking type	SPEEDCON
Coding type	A

NBC-M12FS/10,0-971/R4AQ VR - Network cable



1412808

<https://www.phoenixcontact.com/us/products/1412808>

Insertion/withdrawal cycles	≥ 100
Degree of protection	IP65/IP67

Connection 2

Type	Plug straight RJ45
Insertion/withdrawal cycles	≥ 750
Degree of protection	IP20

Cable/line

Cable length	10.00 m
--------------	---------

VARAN PVC [971]

UL AWM Style	2461 (80°C/300 V)
Number of positions	6
Shielded	yes
Cable type	VARAN PVC [971]
Conductor structure	1x2x24/32+2x2x24/19, SF/UTP
Signal runtime	5.3 ns/m
Conductor structure signal line	19x 0.13 mm
AWG signal line	24
Conductor structure, voltage supply	32x 0.10 mm
AWG power supply	24
Conductor cross section	2x 2x 0.25 mm ² (Signal line)
	2x 0.25 mm ² (Power supply)
Wire diameter incl. insulation	1.25 mm (Signal line)
	1.4 mm (Power supply)
External cable diameter	7.00 mm ±0.2 mm
Outer sheath, material	PVC
External sheath, color	black
Conductor material	Bare Cu litz wires
Material wire insulation	PE
Single wire, color	blue-yellow, green-orange, red-blue
Thickness, outer sheath	0.90 mm
Twisted pairs	2 cores to the pair
Overall twist	3 pairs with filler elements to the core
Optical shield covering	85 %
Max. conductor resistance	78 Ω/km (at 20 °C)
Insulation resistance	≥ 500 MΩ*km (at 20 °C)
Working capacitance	approx. 57 nF (at 1 kHz)
Nominal voltage, cable	≤ 80 V
Test voltage Core/Core	1000 V
Test voltage Core/Shield	1000.00 V
Minimum bending radius, fixed installation	4 x D
Minimum bending radius, flexible installation	8 x D
Smallest bending radius, fixed installation	28 mm

NBC-M12FS/10,0-971/R4AQ VR - Network cable



1412808

<https://www.phoenixcontact.com/us/products/1412808>

Smallest bending radius, movable installation	56 mm
Dynamic load capacity (bending)	Max. bending cycles: 200000, Bending radius: 5 x D
Flame resistance	according to IEC 60332-1-2
Resistance to oil	According to DIN EN 60811-2-1, 168 h at 100°C
Ambient temperature (operation)	-40 °C ... 80 °C
Ambient temperature (installation)	-40 °C ... 80 °C

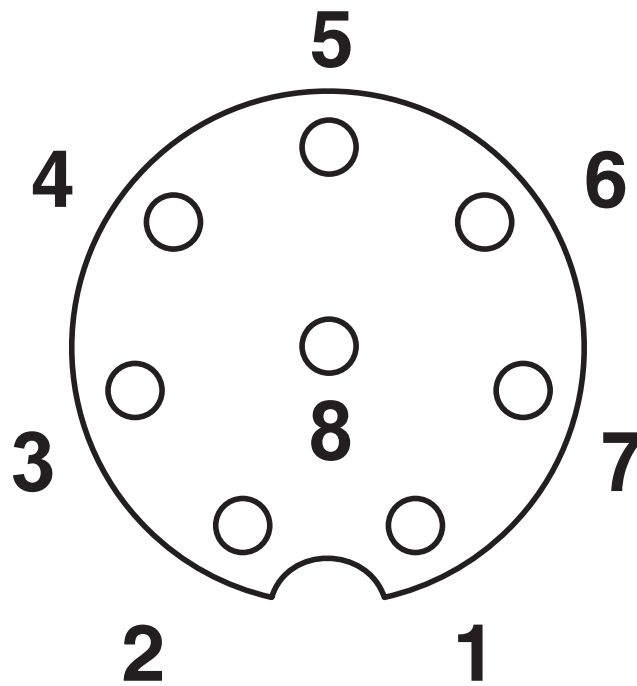
Environmental and real-life conditions

Ambient conditions

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

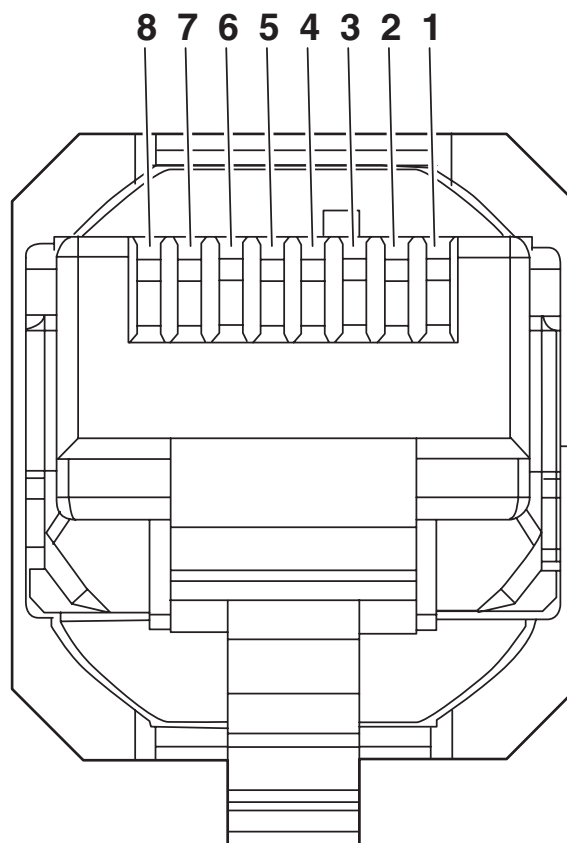
Drawings

Schematic diagram

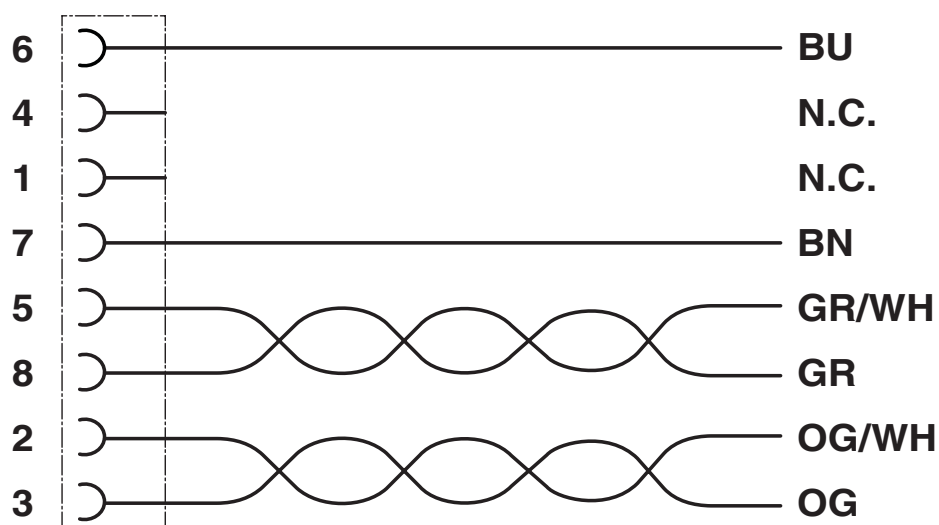


Pin assignment M12 socket, 8-pos., A-coded, view female side

Schematic diagram



Circuit diagram



Contact assignment of the M12 socket

NBC-M12FS/10,0-971/R4AQ VR - Network cable



1412808

<https://www.phoenixcontact.com/us/products/1412808>

Approvals

🔗 To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1412808>



EAC

Approval ID: 19060508

NBC-M12FS/10,0-971/R4AQ VR - Network cable



1412808

<https://www.phoenixcontact.com/us/products/1412808>

Classifications

ECLASS

ECLASS-13.0	27060307
ECLASS-15.0	27060307

ETIM

ETIM 9.0	EC001855
----------	----------

UNSPSC

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

NBC-M12FS/10,0-971/R4AQ VR - Network cable



1412808
<https://www.phoenixcontact.com/us/products/1412808>

Environmental product compliance

EU RoHS	
Fulfills EU RoHS substance requirements	Yes, No exemptions
China RoHS	
Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits
EU REACH SVHC	
REACH candidate substance (CAS No.)	No substance above 0.1 wt%

Phoenix Contact 2025 © - 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