

NBC-M12FS/1,5-971/R4AQ VR - Network cable



1412401

<https://www.phoenixcontact.com/us/products/1412401>

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Network cable, degree of protection: IP20, cable length: 1.5 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	1412401
Packing unit	1 pc
Minimum order quantity	50 pc
Note	Made to order (non-returnable)
Product key	ABNPAA
GTIN	4046356962384
Weight per piece (including packing)	142.9 g
Weight per piece (excluding packing)	261.574 g
Country of origin	PL

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Technical data

Mounting

Mounting type	Screw mounting
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Product properties

Product type	Circular connectors (device side)
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

Material specifications

Color	black
Material	PC PA
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)
Nominal voltage U_N	30 V
Nominal current I_N	2 A
Transmission medium	Copper
Transmission speed	100 Mbps

Connector

Connection 1

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

Connection 2

Type	Plug straight RJ45
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Degree of protection	IP20
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Cable/line

Cable length	1.50 m
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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	7.00 mm ±0.2 mm
Outer sheath, material	PVC
External sheath, color	black
Thickness, outer sheath	0.90 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	1000.00 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)
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

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Ambient temperature (operation)	-40 °C ... 80 °C
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Environmental and real-life conditions

Ambient conditions

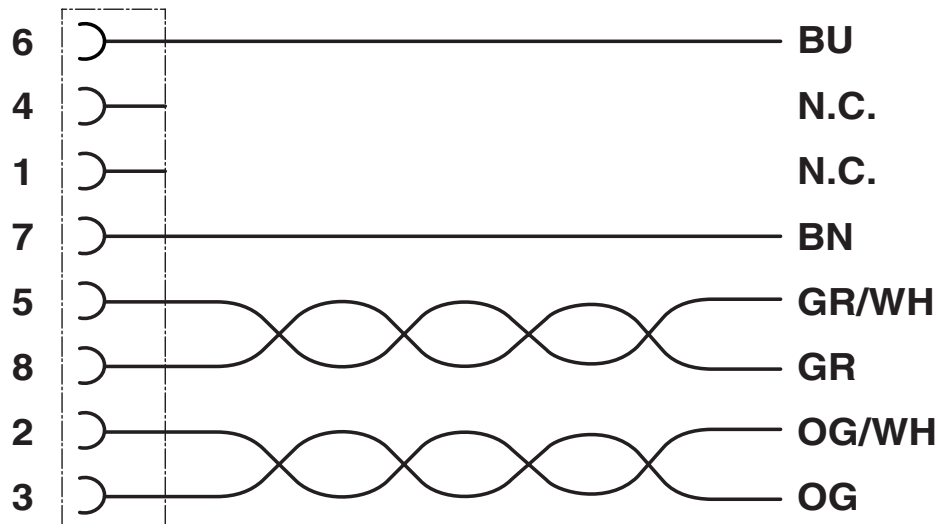
Degree of protection	IP20
	IP20
Ambient temperature (operation)	0 °C ... 50 °C (for installation)
	-20 °C ... 80 °C (cable, fixed installation)
	-25 °C ... 90 °C (Plug / socket)

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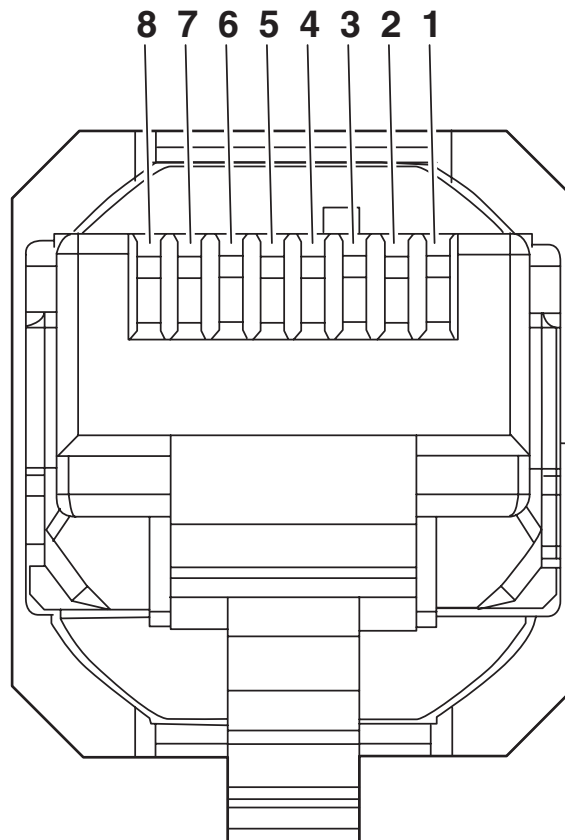
<https://www.phoenixcontact.com/us/products/1412401>

Drawings

Circuit diagram



Schematic diagram

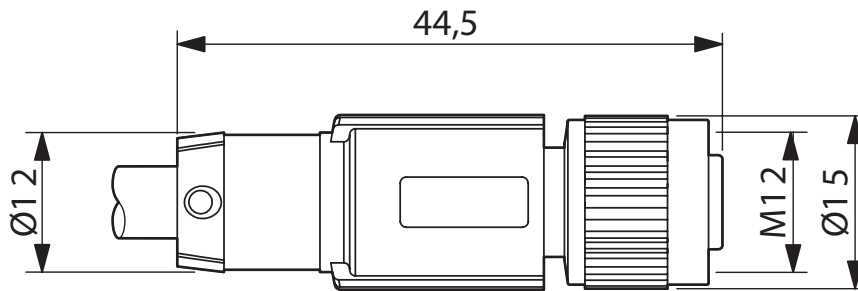


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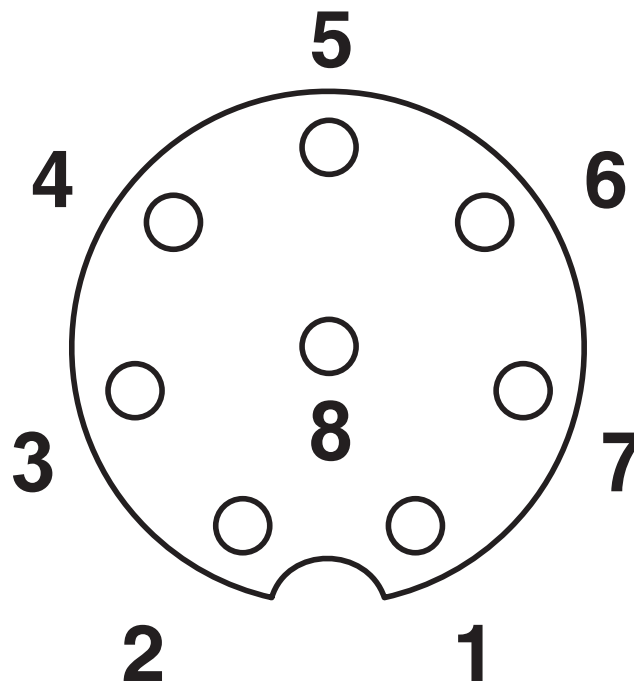
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Dimensional drawing



M12 x 1 socket, straight, shielded

Schematic diagram



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

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1412401>



EAC

Approval ID: 19060508

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Classifications

ECLASS

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

ETIM

ETIM 9.0	EC002599
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UNSPSC

UNSPSC 21.0	26121600
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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	6(c)

China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	12fcb16a-2f9d-4f0b-a70e-d17671504236

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