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NBC-M12FS/4,0-971/R4AQ VR - Network cable

1412805

https://www.phoenixcontact.com/gb/products/1412805

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Network cable, degree of protection: IP20, cable length: 4 m, number of positions: 6, 100 Mbps, 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	1412805
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	ABNPAA
Product key	ABNPAA
GTIN	4055626017402
Weight per piece (including packing)	320.032 g
Weight per piece (excluding packing)	320.032 g
Customs tariff number	85444290
Country of origin	PL

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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	≤ 5 mΩ
Insulation resistance	≥ 100 MΩ
Nominal voltage U_N	30 V
Nominal current I_N	2 A
Transmission medium	Copper
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
Insertion/withdrawal cycles	≥ 100

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Degree of protection	IP65/IP67

Connection 2

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

Cable/line

Cable length	4.00 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 mm² (Signal line)
	2x 0.25 mm² (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

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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)	0 °C ... 50 °C (for installation)
	-20 °C ... 80 °C (cable, fixed installation)
	-25 °C ... 90 °C (Plug / socket)

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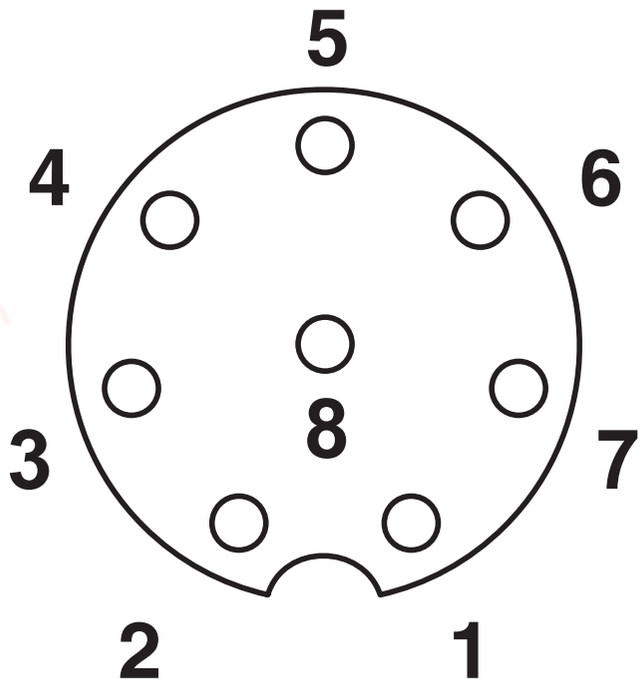
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Drawings

Schematic diagram



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

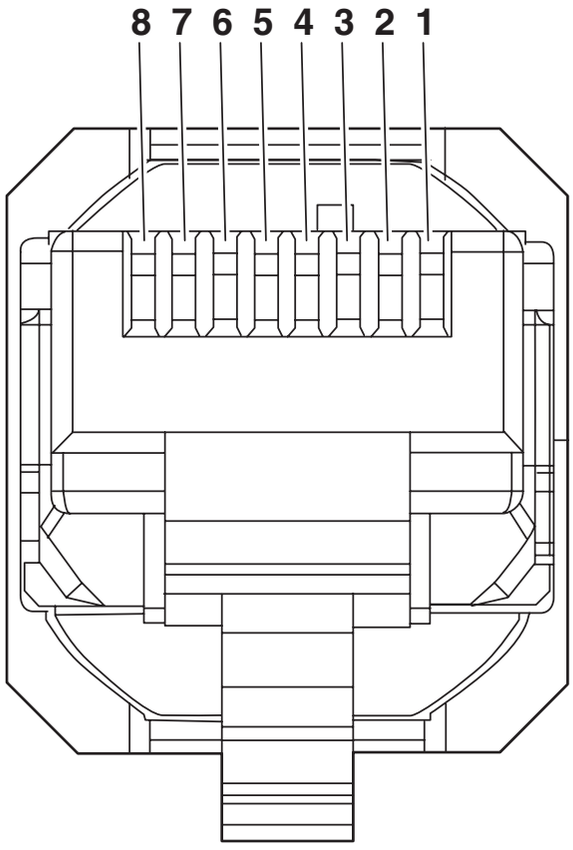
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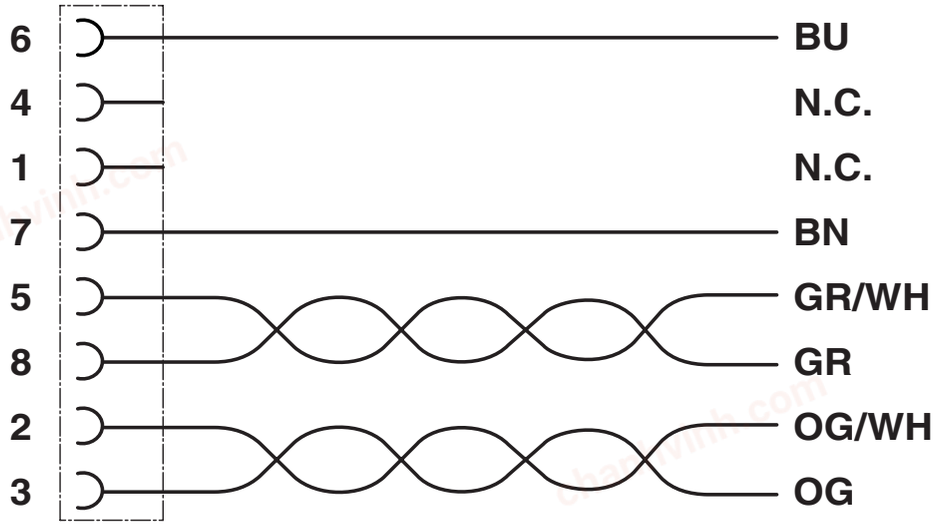
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Schematic diagram



Circuit diagram



Contact assignment of the M12 socket

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Approvals

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EAC
Approval ID: 19060508

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Classifications

ECLASS

ECLASS-13.0	27060307

ETIM

ETIM 9.0	EC001855

UNSPSC

UNSPSC 21.0	26121600

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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%

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