

## Bus system cable - NBC-12,5-971/M12FS VR - 1411676


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Bus system cable, VARAN, 6-position, PVC, black, shielded, cable length: 12 m, Customer version



### Key Commercial Data

Packing unit	1 pc
Minimum order quantity	25 pc
GTIN	 4 046356 953993
GTIN	4046356953993

### Technical data

#### Dimensions

Length of cable	12 m
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#### Ambient conditions

Ambient temperature (operation)	-25 °C ... 90 °C (Plug / socket)
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#### General data

Rated current at 40°C	2 A
Rated voltage	30 V AC
	30 V DC
Number of positions	6
Signal type/category	VARAN
Overvoltage category	II
Degree of pollution	3
Contact material	CuZn
Contact carrier material	TPU GF
Contact surface material	Ni/Au

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## Technical data

### Standards and Regulations

Flammability rating according to UL 94	HB
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### Cable

Cable type	VARAN
Cable type (abbreviation)	971
UL AWM style	2461 (80°C/300 V)
Signal type/category	VARAN CAT5 (IEC 11801), 100 Mbps
Cable structure	1X2X24/32+2X2X24/19; SF/UTP
Conductor cross section	2x 2x 0.25 mm <sup>2</sup> (Signal line)
	2x 0.25 mm <sup>2</sup> (Power supply)
AWG signal line	24
AWG power supply	24
Conductor structure signal line	19x 0.13 mm
Conductor structure, voltage supply	32x 0.10 mm
Core diameter including insulation	1.25 mm (Signal line)
	1.4 mm (Power supply)
Wire colors	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 %
External sheath, color	black
Outer sheath thickness	0.9 mm
External cable diameter D	7 mm ±0.2 mm
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
Outer sheath, material	PVC
Material conductor insulation	PE
Conductor material	Bare Cu litz wires
Insulation resistance	≥ 500 MΩ*km (at 20 °C)
Conductor resistance	78 Ω/km (at 20 °C)
Working capacitance	approx. 57 nF (at 1 kHz)
Signal runtime	5.3 ns/m
Nominal voltage, cable	≤ 80 V
Test voltage Core/Core	1000 V
Test voltage Core/Shield	1000 V
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

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## Technical data

### Cable

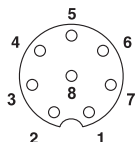
Ambient temperature (installation)	-40 °C ... 80 °C
Ambient temperature (storage/transport)	-40 °C ... 80 °C

### Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

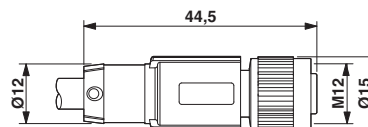
## Drawings

Schematic diagram



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

Dimensional drawing



M12 x 1 socket, straight, shielded

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