

# NBC- 2,0-971/FR SCO VR - Bus system cable



1412084

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Bus system cable, VARAN, 6-position, PVC, black, shielded, free cable end, on Socket angled M12 SPEEDCON, cable length: 2 m, Customer version

## Commercial data

Item number	1412084
Packing unit	1 pc
Minimum order quantity	25 pc
Product key	AF1CMM
GTIN	4046356955317
Weight per piece (including packing)	22.22 g
Weight per piece (excluding packing)	22.22 g
Country of origin	PL

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## Technical data

### Product properties

Product type	Data cable preassembled
Application	Bus system
Number of positions	6
No. of cable outlets	1
Coding	A

### Insulation characteristics

Overvoltage category	II
Degree of pollution	3

### Interfaces

Bus system	VARAN
Signal type/category	VARAN

### Signaling

Status display	no
Status display present	no

### Electrical properties

Insulation resistance	$\geq 100 \text{ M}\Omega$
Nominal voltage $U_N$	30 V AC
	30 V DC
Nominal current $I_N$	2 A
Transmission medium	Copper

### Material specifications

Flammability rating according to UL 94	HB
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### Connector

#### Connection 1

Type	free cable end
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#### Connection 2

Type	Socket angled M12 SPEEDCON
Locking type	SPEEDCON
Material	CuZn
	Ni/Au
	TPU GF
	TPU, hardly inflammable, self-extinguishing
	Zinc die-cast, nickel-plated
	NBR

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## Cable/line

Cable length	2 m
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### VARAN PVC [971]

Dimensional drawing	
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 <sup>2</sup> (Signal line) 2x 0.25 mm <sup>2</sup> (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

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Minimum bending radius, flexible installation	8 x D
Smallest bending radius, fixed installation	28 mm
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	IP65/IP67/IP69K
Ambient temperature (operation) (male connector/female connector)	-25 °C ... 90 °C (Plug / socket)

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## Drawings

Dimensional drawing



M12 x 1 socket, angled, shielded

Schematic diagram



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

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## Classifications

### ECLASS

ECLASS-13.0	27060307
ECLASS-15.0	27060307

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