

## Network cable - NBC-R4RC/2,0-93B/R4RC - 1408975

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Assembled PROFINET cable, CAT5e, shielded, star quad, 22 AWG stranded (7-wire), RAL 6018 (yellow-green), RJ45 plug/IP67 push/pull metal housing to RJ45 plug/IP67 push/pull metal housing, line, length: 2 m



### Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 857031
GTIN	4046356857031
Weight per Piece (excluding packing)	152.780 g
Custom tariff number	85444210
Country of origin	Poland

### Technical data

#### Dimensions

Length of cable	2.00 m
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#### Ambient conditions

Degree of protection	IP67 (RJ45 connector)
Ambient temperature (operation)	-40 °C ... 70 °C (RJ45 connector)

#### General data

Rated current at 40°C	1 A
Rated voltage	50 V
Number of positions	4
Standards/regulations	IEC PAS 61076-3-117
Overvoltage category	I
Degree of pollution	2
Alternative short product description	PROFINET cable
Locking type	Push Pull
Rated voltage (III/3)	72 V (DC)

# Network cable - NBC-R4RC/2,0-93B/R4RC - 1408975

## Technical data

### Characteristics head 1

Color	silver
Material (component)	CuSn (Contact)
	Ni/Au (Contact surface)
	PC (Contact carriers)
	Zinc die-cast, nickel-plated (Housing)
Insertion/withdrawal cycles	≥ 750
Ambient temperature (operation)	-40 °C ... 70 °C

### Characteristics head 2

Color	silver
Material (component)	CuSn (Contact)
	Ni/Au (Contact surface)
	PC (Contact carriers)
	Zinc die-cast, nickel-plated (Housing)
Insertion/withdrawal cycles	≥ 750
Ambient temperature (operation)	-40 °C ... 70 °C

### Standards and Regulations

Standards/regulations	IEC PAS 61076-3-117
Flammability rating according to UL 94	V0

### Cable

Cable type	PROFINET PVC stranded CAT5
Cable type (abbreviation)	93B
UL AWM style	21694
Signal type/category	PROFINET CAT5 (IEC 11801), 100 Mbps
	EtherCAT® CAT5 (IEC 11801), 100 Mbps
Cable structure	1x4xAWG22/7; SF/TQ
Conductor cross section	4x 0.34 mm <sup>2</sup>
AWG signal line	22
Conductor structure signal line	7x 0.25 mm
Core diameter including insulation	1.55 mm
Wire colors	White, yellow, blue, orange
Overall twist	Star quad
Shielding	Aluminum-coated foil, tinned copper braided shield
Optical shield covering	85 %
External sheath, color	green RAL 6018
Outer sheath thickness	approx. 0.9 mm
External cable diameter D	6.5 mm ±0.2 mm
Minimum bending radius, fixed installation	3 x D
Minimum bending radius, flexible installation	7 x D
Cable weight	67 kg/km

## Network cable - NBC-R4RC/2,0-93B/R4RC - 1408975

### Technical data

#### Cable

Outer sheath, material	PVC	
Material, inner sheath	PVC	
Material conductor insulation	PE	
Conductor material	Tin-plated Cu litz wires	
Insulation resistance	≥ 500 MΩ*km	
Loop resistance	≤ 120.00 Ω/km	
Wave impedance	100 Ω ±15 Ω (at 100 MHz)	
Near end crosstalk attenuation (NEXT)	80 dB (with 1 MHz)	
	76 dB (at 4 MHz)	
	70 dB (at 10 MHz)	
	65 dB (at 16 MHz)	
	63 dB (at 20 MHz)	
	60 dB (at 31.25 MHz)	
	55 dB (at 62.5 MHz)	
	50 dB (at 100 MHz)	
	Attenuation	2.1 dB (with 1 MHz)
		4 dB (at 4 MHz)
6.3 dB (at 10 MHz)		
8 dB (at 16 MHz)		
9 dB (at 20 MHz)		
11.4 dB (at 31.25 MHz)		
16.5 dB (at 62.5 MHz)		
21.3 dB (at 100 MHz)		
Signal speed	0.66 c	
Signal runtime	5.3 ns/m	
Coupling resistance	≤ 20.00 mΩ/m (at 10 MHz)	
Nominal voltage, cable	600 V	
Test voltage Core/Core	2000 V (50 Hz, 1 min.)	
Test voltage Core/Shield	2000 V (50 Hz, 1 min.)	
Flame resistance	According to UL 1685 (CSA FT 4)	
Resistance to oil	Resistant to oil to a limited extent	
Other resistance	UV resistant According to UL 1581, Section 1200	
Ambient temperature (operation)	-40 °C ... 70 °C (cable, fixed installation)	
	-40 °C ... 70 °C (cable, flexible installation)	
Ambient temperature (installation)	-20 °C ... 60 °C	
Ambient temperature (storage/transport)	-50 °C ... 70 °C	

#### Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50

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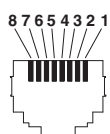
## Technical data

### Environmental Product Compliance

	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"
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## Drawings

Schematic diagram



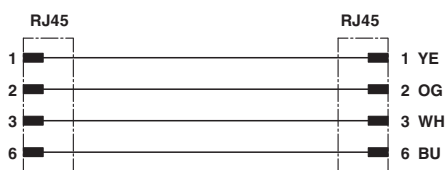
Connector pin assignment plug RJ45

Cable cross section



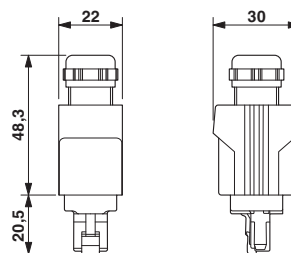
PROFINET PVC stranded CAT5 [93B]

Circuit diagram



Contact assignment of RJ45 plugs

Dimensional drawing



RJ45 Push-Pull connector, IP67

## Classifications

### eCl@ss

eCl@ss 4.0	272607xx
eCl@ss 4.1	27260701
eCl@ss 5.0	27260701
eCl@ss 5.1	19030300
eCl@ss 6.0	27061800
eCl@ss 7.0	27060308
eCl@ss 8.0	27060308
eCl@ss 9.0	27060308

### ETIM

ETIM 3.0	EC000830
ETIM 4.0	EC002599
ETIM 5.0	EC002599

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## Classifications

### UNSPSC

UNSPSC 6.01	26121616
UNSPSC 7.0901	26121616
UNSPSC 11	26121604
UNSPSC 12.01	31261501
UNSPSC 13.2	26121604

## Approvals

### Approvals

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### Approvals

EAC

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### Ex Approvals

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### Approval details

EAC		B.00767
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