

## Network cable - NBC-R4AC/5.0-93E/R4AC - 1408935

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Assembled Ethernet cable, CAT5e, shielded, 2-pair, 26\* AWG stranded (7-wire), RAL 5021 (water blue), RJ45 plug/IP20 to RJ45 plug/IP20, line, length: 5 m



### Key Commercial Data

Packing unit	1 pc
GTIN	
GTIN	4046356856645
Weight per Piece (excluding packing)	235.000 g
Custom tariff number	85444210
Country of origin	Poland

### Technical data

#### Dimensions

Length of cable	5.00 m
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#### Ambient conditions

Degree of protection	IP20 (RJ45 connector)
Ambient temperature (operation)	-20 °C ... 70 °C (RJ45 connector)

#### General data

Rated current at 40°C	1 A
Rated voltage	50 V
Number of positions	4
Alternative short product description	Ethernet cable
Rated voltage (III/3)	72 V (DC)

#### Characteristics head 1

Color	gray
Material (component)	CuSn (Contact)

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## Technical data

### Characteristics head 1

	Ni/Au (Contact surface)
	PC (Contact carriers)
	PA (Housing)
Insertion/withdrawal cycles	≥ 750
Ambient temperature (operation)	-40 °C ... 60 °C

### Characteristics head 2

Color	gray
Material (component)	CuSn (Contact)
	Ni/Au (Contact surface)
	PC (Contact carriers)
	PA (Housing)
Insertion/withdrawal cycles	≥ 750
Ambient temperature (operation)	-40 °C ... 60 °C

### Standards and Regulations

Flammability rating according to UL 94	V2
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### Cable

Cable type	PUR ETHERNET 2x2 FLEX
Cable type (abbreviation)	93E
UL AWM style	20963 (80°C/30 V)
Signal type/category	Ethernet CAT5 (IEC 11801), 100 Mbps
Cable structure	2x2xAWG26/7; SF/UTP
Conductor cross section	2x 2x 0.14 mm <sup>2</sup>
AWG signal line	26
Conductor structure signal line	7x 0.16 mm
Core diameter including insulation	0.98 mm
Wire colors	white/orange-orange, white/green-green
Twisted pairs	2 cores to the pair
Overall twist	Two pairs with two fillers to the core
Shielding	Aluminum-coated foil, tinned copper braided shield
Optical shield covering	70 %
External sheath, color	water blue RAL 5021
Outer sheath thickness	1.2 mm
External cable diameter D	6.4 mm ±0.2 mm
Minimum bending radius, fixed installation	4 x D
Minimum bending radius, flexible installation	8 x D
Tensile strength GRP	≤ 80 N
Cable weight	42 kg/km
Outer sheath, material	PUR
Material conductor insulation	Foamed PE

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### Technical data

#### Cable

Conductor material	Bare Cu litz wires
Standards/specifications	Electrical requirements EN 50288-2-2
Insulation resistance	$\geq 500 \text{ M}\Omega \cdot \text{km}$
Loop resistance	$\leq 290.00 \text{ }\Omega/\text{km}$
Cable capacity	approx. 45 nF/km (at 1 kHz)
Wave impedance	100 $\Omega \pm 5 \text{ }\Omega$ (at 100 MHz)
Near end crosstalk attenuation (NEXT)	65.3 dB (with 1 MHz)
	56.3 dB (at 4 MHz)
	50.3 dB (at 10 MHz)
	47.2 dB (at 16 MHz)
	45.8 dB (at 20 MHz)
	42.9 dB (at 31.25 MHz)
	38.4 dB (at 62.5 MHz)
	35.3 dB (at 100 MHz)
	Power-summated near end crosstalk attenuation (PSNEXT)
53.3 dB (at 4 MHz)	
47.3 dB (at 10 MHz)	
44.2 dB (at 16 MHz)	
42.8 dB (at 20 MHz)	
39.9 dB (at 31.25 MHz)	
35.4 dB (at 62.5 MHz)	
32.3 dB (at 100 MHz)	
Attenuation	
	6 dB (at 4 MHz)
	9.5 dB (at 10 MHz)
	12.1 dB (at 16 MHz)
	13.6 dB (at 20 MHz)
	17.1 dB (at 31.25 MHz)
	24.8 dB (at 62.5 MHz)
	32 dB (at 100 MHz)
	Return loss (RL)
24.1 dB (at 8 MHz)	
25 dB (at 10 MHz)	
25 dB (at 16 MHz)	
25 dB (at 20 MHz)	
23.6 dB (at 31.25 MHz)	
21.5 dB (at 62.5 MHz)	
20.1 dB (at 100 MHz)	
Signal runtime	5.3 ns/m
Coupling resistance	$\leq 100.00 \text{ m}\Omega/\text{m}$ (at 10 MHz)

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## Technical data

### Cable

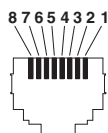
Nominal voltage, cable	≤ 100 V (Peak value, not for high-power applications)
Test voltage Core/Core	700 V (50 Hz, 1 min.)
Test voltage Core/Shield	700 V (50 Hz, 1 min.)
Current carrying capacity of cable	2 A (according to DIN VDE 0891-1)
Flame resistance	according to IEC 60332-1-2
	in acc. to UL VW1
Halogen-free	according to IEC 60754-1
Resistance to oil	according to EN 60811-2-1
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation)
	-20 °C ... 80 °C (cable, flexible installation)
Ambient temperature (installation)	-20 °C ... 80 °C
Ambient temperature (storage/transport)	-20 °C ... 80 °C

### Environmental Product Compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

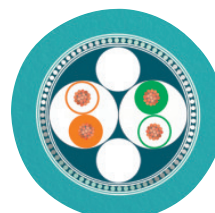
## Drawings

Schematic diagram



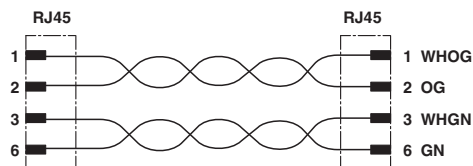
Connector pin assignment plug RJ45

Cable cross section



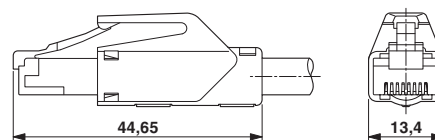
PUR ETHERNET 2x2 FLEX [93E]

Circuit diagram



Contact assignment of RJ45 plugs

Dimensional drawing



RJ45 connector, IP20

## Classifications

eCl@ss

eCl@ss 4.0	272607xx
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## Classifications

### eCl@ss

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	EC001262
ETIM 4.0	EC002599
ETIM 5.0	EC002599

### 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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