

# NBC-R4QC/2,0-93B/R4QC - Network cable



1408979

<https://www.phoenixcontact.com/us/products/1408979>

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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 plastic housing to RJ45 plug/IP67 push/pull plastic housing, line, length: 2 m

## Your advantages

- Compact angle
- Perfect for industrial applications
- PVC cable for flexible installations
- Worldwide approval with CE, UL, WEEE, and EAC
- Secure connection and disconnection with reliable locking clip protection
- Ideal EMC properties, thanks to 360° shielding
- Simultaneous power transmission with PoE++
- Resistant to shock and vibrations, thanks to robust molding
- High-speed data transmission with up to 1 Gbps (CAT5)

## Commercial data

Item number	1408979
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	AB11
Product key	ABNABA
GTIN	4046356857093
Weight per piece (including packing)	198.9 g
Weight per piece (excluding packing)	180.77 g
Customs tariff number	85444210
Country of origin	PL

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## Technical data

### Product properties

Product type	Data cable preassembled
Product family	RJ45 INDUSTRIAL PN4 CAT5
Sensor type	PROFINET
Number of positions	4
Number of slots	1
Shielded	yes

### Insulation characteristics

Overvoltage category	I
Degree of pollution	2

### Signaling

Status display	no
Status display present	no

### Electrical properties

Rated voltage (III/3)	72 V (DC)
Nominal voltage $U_N$	48 V
Nominal current $I_N$	1 A
Transmission medium	Copper
Transmission speed	100 Mbps
Transmission characteristics (category)	CAT5 (IEC 11801:2002)
Transmission speed	100 Mbps
Wave impedance	100 $\Omega$

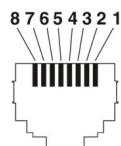
### Material specifications

Color	black
Flammability rating according to UL 94	V0
Outer sheath, material	PVC
Conductor material	Tin-plated Cu litz wires

### Connector

#### Connection 1

Dimensional drawing



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	Connector pin assignment plug RJ45
Type	RJ45 Plug, straight, 4-position, Push Pull
Number of positions	4
Shielded	yes
Signal type/category	Ethernet CAT5 (IEC 11801:2002), 100 Mbps
Insertion/withdrawal cycles	≥ 500
Degree of pollution	2
Material Contact	CuSn
Material Contact surface	Ni/Au
Material Contact carrier	PC
Material Housing	Plastic
Color (Housing)	black
Flammability rating according to UL 94	V2
Degree of protection	IP67
	IP65
Ambient temperature (operation)	-40 °C ... 70 °C

## Connection 2

Dimensional drawing	
	Connector pin assignment plug RJ45
Type	RJ45 Plug, straight, 4-position, Push Pull
Number of positions	4
Shielded	yes
Signal type/category	Ethernet CAT5 (IEC 11801:2002), 100 Mbps
Insertion/withdrawal cycles	≥ 500
Degree of pollution	2
Material Contact	CuSn
Material Contact surface	Ni/Au
Material Contact carrier	PC
Material Housing	Plastic
Color (Housing)	black
Flammability rating according to UL 94	V2
Degree of protection	IP67
	IP65
Ambient temperature (operation)	-40 °C ... 70 °C

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## Cable/line

Cable length	2.00 m
PROFINET PVC stranded CAT5 [93B]	
Dimensional drawing	
UL AWM Style	21695 (80 °C / 600 V)
Number of positions	4
Shielded	yes
Cable type	PROFINET PVC stranded CAT5 [93B]
Conductor structure	1x4xAWG22/7, SF/TQ
AWG signal line	22
Conductor cross section	4x 0.34 mm <sup>2</sup>
Wire diameter incl. insulation	1.5 mm ±0.1 mm
External cable diameter	6.50 mm ±0.2 mm
Outer sheath, material	PVC
External sheath, color	green RAL 6018
Conductor material	Tin-plated Cu litz wires
Material wire insulation	PE
Single wire, color	white, yellow, blue, orange
Overall twist	Star quad
Optical shield covering	85 %
Insulation resistance	≥ 5 GΩ*km
Loop resistance	≤ 120.00 Ω/km
Wave impedance	100 Ω ±5 Ω (at 100 MHz)
Nominal voltage, cable	≤ 600 V
Test voltage Core/Core	2000 V ((50 Hz/1 min))
Test voltage Core/Shield	2000.00 V ((50 Hz/1 min))
Minimum bending radius, fixed installation	4 x D
Minimum bending radius, flexible installation	8 x D
Flame resistance	UL 1581, Section 1060 and UL 2556, Section 9.3 (FT1) UL 1685 (CSA FT 4) UL 1581, Section 1100 and UL 2556, Section 9.1 (HFT/FT2)
Resistance to oil	OIL RES I according to UL 2256
Other resistance	UV resistant (according to UL 1581, Section 1200)
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation) -10 °C ... 70 °C (Cable, flexible installation)

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## Environmental and real-life conditions

### Ambient conditions

Degree of protection

IP65/IP67

## Standards and regulations

Standards/specifications

IEC PAS 61076-3-117

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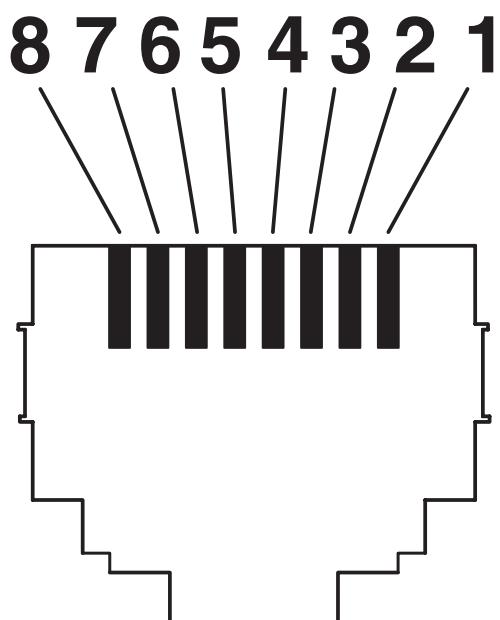
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## Drawings

Schematic diagram



Connector pin assignment plug RJ45

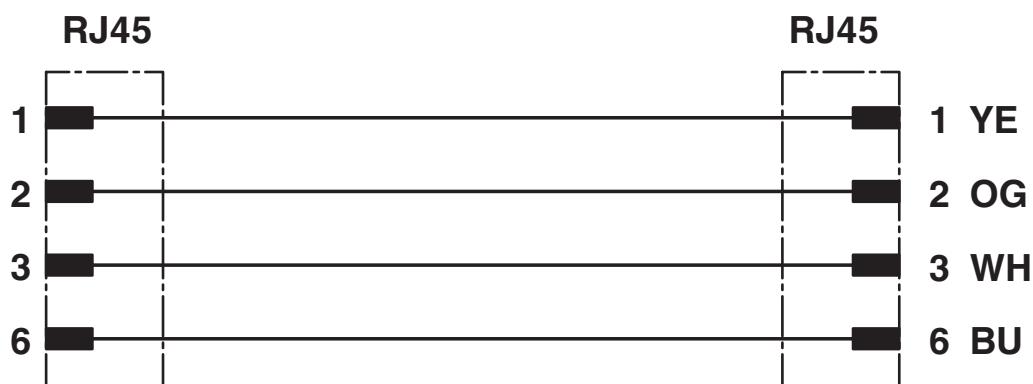
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Circuit diagram



Contact assignment of RJ45 plugs

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## Approvals

ⓘ To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1408979>



**EAC**

Approval ID: 19060508

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## Classifications

### ECLASS

ECLASS-13.0	27060307
ECLASS-15.0	27060307

### ETIM

ETIM 9.0	EC001855
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### UNSPSC

UNSPSC 21.0	26121600
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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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### China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

### EU REACH SVHC

REACH candidate substance (CAS No.)	6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol(CAS: 119-47-1)
	2-(2H-benzotriazol-2-yl)-4-(1,1,3,3-tetramethylbutyl)phenol (UV-329)(CAS: 3147-75-9)
SCIP	18d4f6ac-9d7a-49cf-a506-5e3321d12b61

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