

# NBC-R4AC/20,0-93E/R4AC - Network cable



1412090

<https://www.phoenixcontact.com/us/products/1412090>

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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: 20 m

## Your advantages

- Perfect for industrial applications
- Perfect for office, building, and protected industrial applications (e.g., in control cabinets)
- Compact angle

## Commercial data

Item number	1412090
Packing unit	1 pc
Minimum order quantity	20 pc
Note	Made to order (non-returnable)
Product key	ABNABD
GTIN	4046356948920
Weight per piece (including packing)	852.88 g
Weight per piece (excluding packing)	852.88 g
Country of origin	PL

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## Technical data

### Product properties

Product family	RJ45 INDUSTRIAL IE4 CAT5
Sensor type	Ethernet
Number of positions	4
Shielded	yes

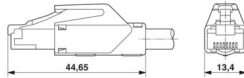
### Electrical properties

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

### Material specifications

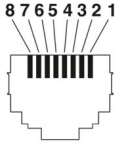
Outer sheath, material	PUR
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### Dimensions

Dimensional drawing	
Width	13.4 mm
Height	12.9 mm
Length	44.7 mm

### Connector

#### Connection 1

Dimensional drawing	 <p>Connector pin assignment plug RJ45</p>
Type	RJ45 Plug, straight, 4-position
Number of positions	4

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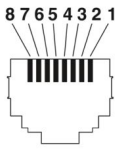


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Signal type/category	Ethernet CAT5 (IEC 11801:2002), 100 Mbps
Insertion/withdrawal cycles	≥ 750
Insertion force	30 N (per signal contact)
Withdrawal force	50 N (per signal contact)
Degree of pollution	2
Material Contact	CuSn
Material Contact surface	Ni/Au
Material Contact carrier	PC
Material Housing	PA
Color (Housing)	gray
Flammability rating according to UL 94	V2
Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 60 °C

## Connection 2

Dimensional drawing	 <p>Connector pin assignment plug RJ45</p>
Type	RJ45 Plug, straight, 4-position
Number of positions	4
Signal type/category	Ethernet CAT5 (IEC 11801:2002), 100 Mbps
Insertion/withdrawal cycles	≥ 750
Insertion force	30 N (per signal contact)
Withdrawal force	50 N (per signal contact)
Degree of pollution	2
Material Contact	CuSn
Material Contact surface	Ni/Au
Material Contact carrier	PC
Material Housing	PA
Color (Housing)	gray
Flammability rating according to UL 94	V2
Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 60 °C

## Cable/line

Cable length	20.00 m
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Ethernet flexible CAT5, 2-pair [93E]

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Dimensional drawing	
UL AWM Style	21238 (80 °C / 600 V)
Number of positions	4
Shielded	yes
Cable type	Ethernet flexible CAT5, 2-pair [93E]
Conductor structure	2x2xAWG26/7, SF/UTP
AWG signal line	26
Conductor cross-section	2x 2x 0.14 mm <sup>2</sup>
Wire diameter incl. insulation	0.95 mm ±0.05 mm
External cable diameter	6.40 mm ±0.2 mm
Outer sheath, material	PUR
External sheath, color	water blue RAL 5021
Conductor material	Bare Cu litz wires
Material wire insulation	Foamed PE
Single wire, color	white/orange-orange, white/green-green
Twisted pairs	2 cores to the pair
Overall twist	Two pairs with two fillers to the core
Optical shield covering	70 %
Insulation resistance	≥ 5 GΩ*km
Loop resistance	≤ 280.00 Ω/km
Wave impedance	100 Ω ±5 Ω (at 100 MHz)
Nominal voltage, cable	≤ 100 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
Smallest bending radius, fixed installation	26 mm
Smallest bending radius, movable installation	51 mm
Halogen-free	according to IEC 60754-1
Flame resistance	according to IEC 60332-1-2 in accordance with UN ECE-R 118.03 UL 1581, Section 1060 and UL 2556, Section 9.3 (FT1) UL 1581, Section 1100 and UL 2556, Section 9.1 (HFT/FT2)
Resistance to oil	in accordance with IEC 60811-404
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation) -30 °C ... 70 °C (Cable, flexible installation)

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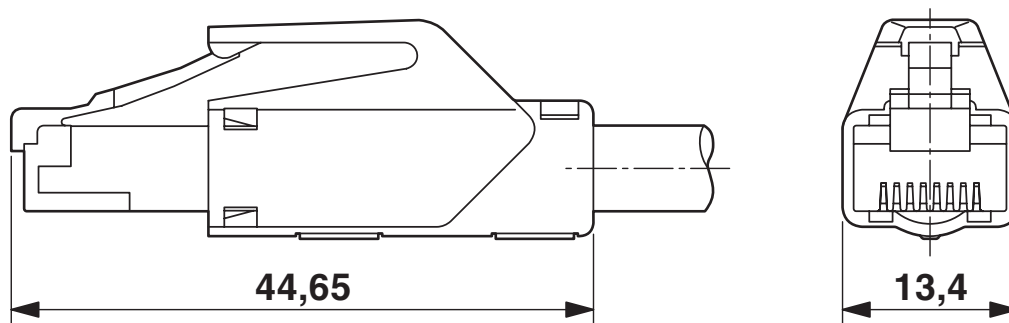


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## Drawings

Dimensional drawing



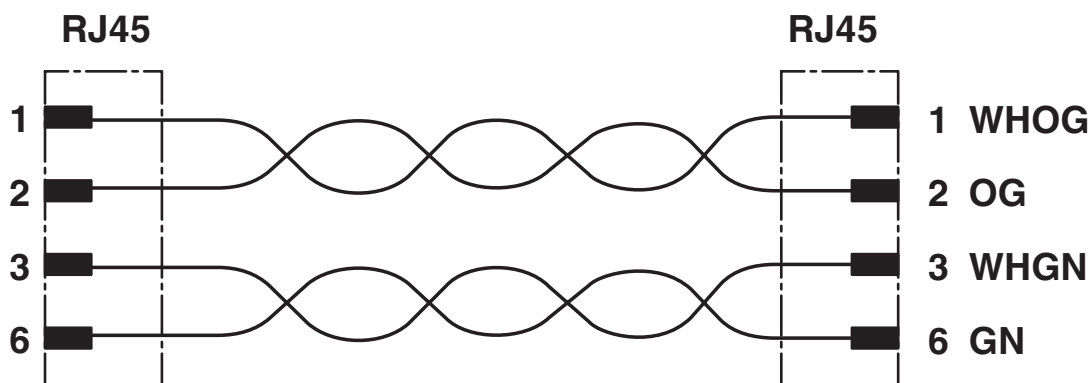
RJ45 connector, IP20

Schematic diagram



Connector pin assignment plug RJ45

Circuit diagram



Contact assignment of RJ45 plugs

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## Approvals

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**EAC**

Approval ID: 19060508

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## Classifications

### ECLASS

ECLASS-13.0	27060307
ECLASS-15.0	27060307

### ETIM

ETIM 10.0	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.)	No substance above 0.1 wt%
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