

NBC-R4ACR/10,0-93G/R4ACR - Patch cable



1409015

<https://www.phoenixcontact.com/us/products/1409015>

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EtherCAT® patch cable, shielded, star quad, 22 AWG stranded (7-wire), green, angled RJ45 plug/IP20 to angled RJ45 plug/IP20, length: 10 m

Commercial data

Item number	1409015
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	NULL
Product key	ABNABA
Catalog page	Page 384 (C-4-2015)
GTIN	4046356857369
Weight per piece (including packing)	695.6 g
Weight per piece (excluding packing)	695 g
Customs tariff number	85444210
Country of origin	PL

Technical data

Product properties

Product type	Data cable preassembled
Product family	RJ45 INDUSTRIAL PN4 CAT5
Sensor type	EtherCAT®
Number of positions	4
Number of slots	1

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 characteristics (category)	CAT5 (IEC 11801:2002)

Material specifications

Outer sheath, material	PVC
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Connector

Connection 1

Type	Plug angled RJ45
Handle color	black
Material	CuSn (Contact)
	Ni/Au (Contact surface)
	PA (Contact carrier)
	PA (Housing)
Insertion/withdrawal cycles	≥ 750
Degree of protection	IP20
Ambient temperature (operation)	-25 °C ... 80 °C

Connection 2

Type	Plug angled RJ45
Handle color	black
Material	CuSn (Contact)
	Ni/Au (Contact surface)
	PA (Contact carrier)
	PA (Housing)
Insertion/withdrawal cycles	≥ 750
Degree of protection	IP20

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Ambient temperature (operation)

-25 °C ... 80 °C

Cable/line

EtherCAT® [93G]

Dimensional drawing



Shielded

yes

UL AWM Style

21694

Cable weight

67 kg/km

Cable type

EtherCAT®

Short symbol

2YY(ST)CY

Cable type (abbreviation)

93G

Signal type/category

EtherCAT® CAT5 (IEC 11801), 100 Mbps

Cable structure

1x4xAWG22/7, SF/TQ

External cable diameter

6.50 mm ±0.2 mm

Outer sheath, material

PVC

External sheath, color

green RAL 6018

Thickness, outer sheath

approx. 0.90 mm

Material, inner sheath

PVC

Conductor material

Tin-plated Cu litz wires

Conductor structure signal line

7x 0.25 mm

AWG signal line

22

Conductor cross section

4x 0.34 mm²

Material wire insulation

PE

Wire diameter incl. insulation

1.55 mm

Single wire, color

white, yellow, blue, orange

Overall twist

Star quad

Shielding

Aluminum-coated foil, tinned copper braided shield

Optical shield covering

85 %

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.)

Cable insulation resistance

≥ 500 MΩ*km

Coupling resistance

≤ 20.00 mΩ/m (at 10 MHz)

Wave impedance

100 Ω ±15 Ω (at 100 MHz)

Loop resistance

≤ (per km)

Signal runtime

5.3 ns/m

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Signal speed	0.66 c
Minimum bending radius, fixed installation	3 x D
Minimum bending radius, flexible installation	7 x D
Resistance to oil	Resistant to oil to a limited extent
Flame resistance	according to UL 1685 (CSA FT 4)
Other resistance	UV resistant (according to UL 1581, Section 1200)
Ambient temperature (operation)	-40 °C ... 70 °C (Cable, flexible installation)
	-40 °C ... 70 °C (cable, fixed installation)

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20 (RJ45 connector)
	IP20
Ambient temperature (operation)	-25 °C ... 80 °C (RJ45 connector)

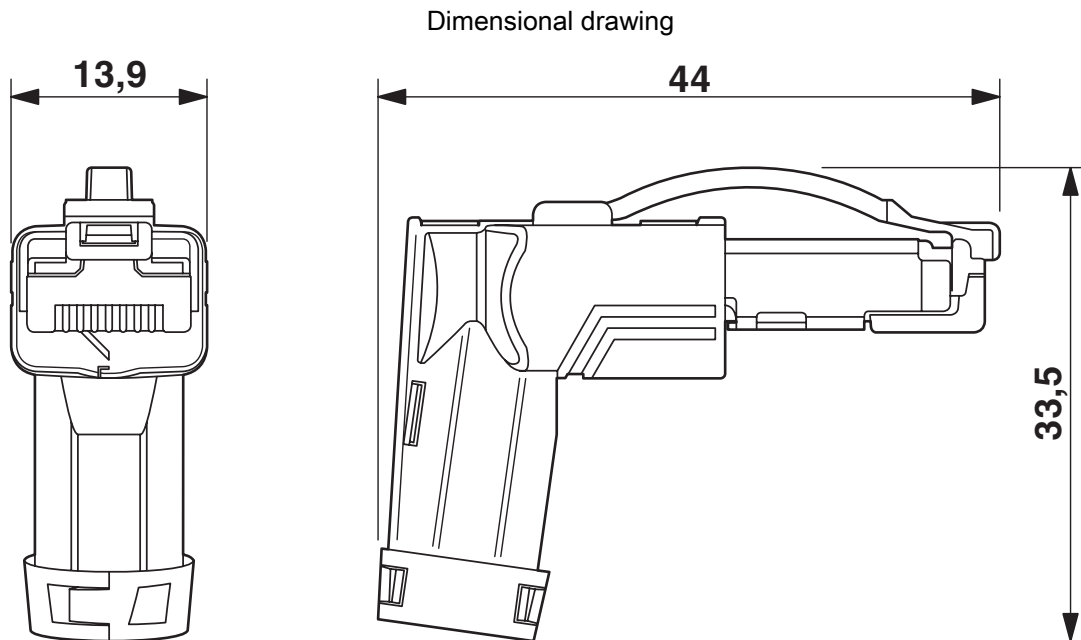
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Drawings

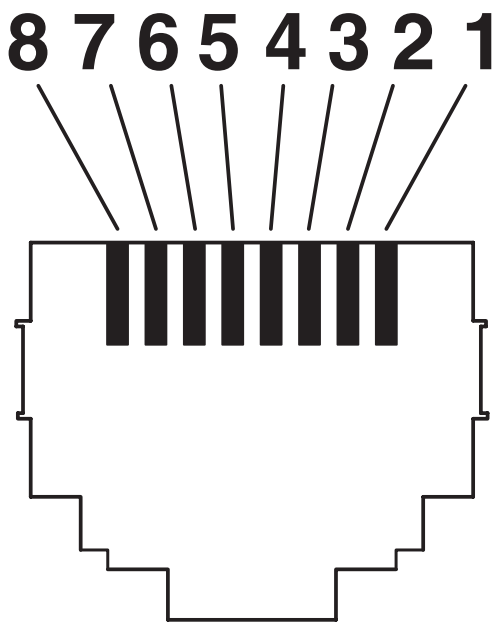


RJ45 connector, IP20, angled

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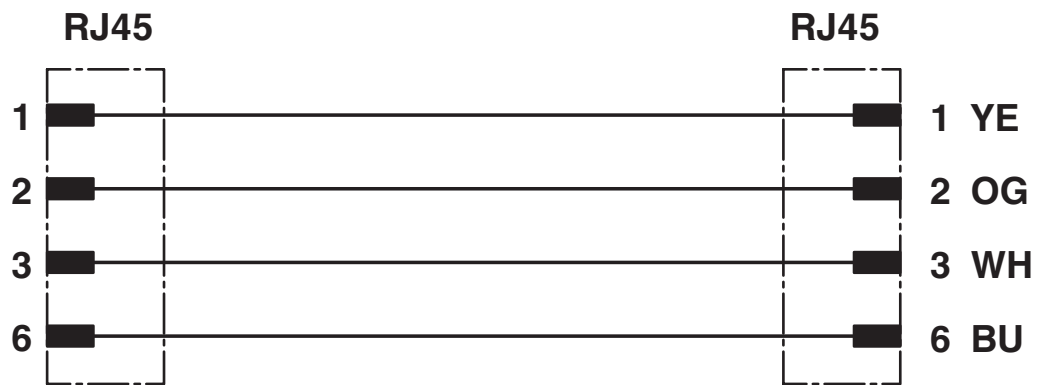
<https://www.phoenixcontact.com/us/products/1409015>

Schematic diagram



Connector pin assignment plug RJ45

Circuit diagram



Contact assignment of RJ45 plugs

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Classifications

ECLASS

ECLASS-13.0	27060307
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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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Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com