

## Bus system cable - NBC-R4AC/2,0-93G/R4AC - 1408982

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://download.phoenixcontact.com>)



EtherCAT® patch cable, shielded, star quad, 22 AWG stranded (7-wire), green, straight RJ45 plug/IP20 to straight RJ45 plug/IP20, length: 2 m

EtherCAT® patch cable



### Key commercial data

Packing unit	1 pc
Custom tariff number	85444210
Country of origin	Poland

### Technical data

#### Dimensions

Length of cable	2 m
-----------------	-----

#### Ambient conditions

Degree of protection	IP20 (RJ45 connector)
----------------------	-----------------------

#### General data

Rated current at 40°C	1 A
Rated voltage	50 V
Number of positions	4
Signal type/category	EtherCAT® CAT5 (IEC 11801:2002), 100 Mbps
	EtherCAT® CAT5e (TIA 568B:2001), 100 Mbps

#### Characteristics head 1

Head type	Plug Straight RJ45 / IP20
No. of positions (pin connector pattern)	4 (8)
Color	black
Material (component)	CuSn (Contact)

## Bus system cable - NBC-R4AC/2,0-93G/R4AC - 1408982

### Technical data

#### Characteristics head 1

	Ni/Au (Contact surface)
	PA (Contact carriers)
	PA (Housing)
Insertion/withdrawal cycles	≥ 750
Ambient temperature (operation)	-25 °C ... 80 °C

#### Characteristics head 2

Head type	Plug Straight RJ45 / IP20
No. of positions (pin connector pattern)	4 (8)
Color	black
Material (component)	CuSn (Contact)
	Ni/Au (Contact surface)
	PA (Contact carriers)
	PA (Housing)
Insertion/withdrawal cycles	≥ 750
Ambient temperature (operation)	-25 °C ... 80 °C

#### Cable

Cable type	EtherCAT®
Cable type (abbreviation)	93G
UL AWM style	21694
Signal type/category	EtherCAT® CAT5 (IEC 11801:2002)
	EtherCAT® CAT5e (TIA 568B:2001)
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	approx. 1.5 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

## Bus system cable - NBC-R4AC/2,0-93G/R4AC - 1408982

### 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
Conductor resistance	≤ 120000000 Ω/km
Working capacitance	52 pF
Wave impedance	100 Ω ±15 Ω (at 100 MHz)
Signal runtime	5.3 ns/m
Coupling resistance	≤ 20.00 mΩ/m
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)
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

### Classifications

#### eCl@ss

eCl@ss 4.0	272607xx
eCl@ss 4.1	27260701
eCl@ss 5.0	27260701
eCl@ss 5.1	27060307
eCl@ss 6.0	27061801
eCl@ss 7.0	27061801
eCl@ss 8.0	27061801

#### ETIM

ETIM 4.0	EC002599
ETIM 5.0	EC002599

#### UNSPSC

UNSPSC 6.01	26121616
UNSPSC 7.0901	26121616
UNSPSC 11	26121604

# Bus system cable - NBC-R4AC/2,0-93G/R4AC - 1408982

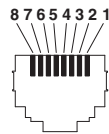
## Classifications

### UNSPSC

UNSPSC 12.01	31261501
UNSPSC 13.2	26121616

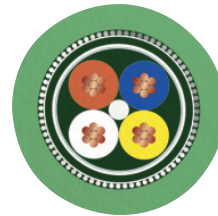
## Drawings

Schematic diagram



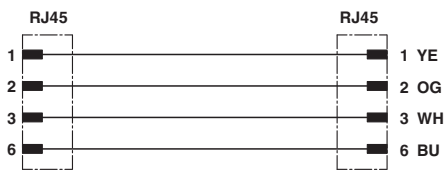
Connector pin assignment plug RJ45

Cable cross section



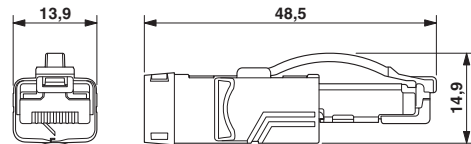
EtherCAT® [93G]

Circuit diagram



Contact assignment of RJ45 plugs

Dimensioned drawing



RJ45 connector, IP20