

# VS-PNRJ45R-PNRJ45R-93K-1,0 - Patch cable



1402515

<https://www.phoenixcontact.com/us/products/1402515>

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Sercos III patch cable, shielded, star quad, AWG 22 stranded (7-wire), RAL 3020 (traffic red), RJ45 connector/IP 20, angled, to RJ45 connector/IP20, angled, length: 1.0 m

## Commercial data

Item number	1402515
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	AB11
Product key	ABNABA
GTIN	4046356622547
Weight per piece (including packing)	97.1 g
Weight per piece (excluding packing)	91.871 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
Application	Standard
Sensor type	Sercos
Number of positions	4
Shielded	yes

### Insulation characteristics

Overvoltage category	I
Degree of pollution	1

### Signaling

Status display	no
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### Electrical properties

Rated voltage (I/II/3)	72 V (DC)
Transmission medium	Copper
Transmission speed	100 Mbps
Transmission characteristics (category)	CAT5
Transmission speed	100 Mbps

### Mechanical properties

Mechanical data	
Insertion force per signal contact	30.00 N
Extraction force per signal contact	50 N

### Material specifications

Flammability rating according to UL 94	V0
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### Connector

Connection 1	
Type	Plug angled RJ45
Shielded	yes
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
Connection 2	
Type	Plug straight RJ45
Shielded	yes
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

## Cable/line

Cable length	1.00 m
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Sercos III [93K]

Dimensional drawing



Cable weight	68 kg/km
UL AWM Style	21694 (60 °C / 600 V)
Number of positions	4
Shielded	yes
Cable type	Sercos III [93K]
Conductor structure	1x4xAWG22/7, SF/TQ
Signal runtime	5.3 ns/m
Conductor structure signal line	7x 0.25 mm
AWG signal line	22
Conductor cross section	4x 0.34 mm <sup>2</sup>
Wire diameter incl. insulation	approx. 1.55 mm
External cable diameter	6.50 mm ±0.2 mm
Outer sheath, material	PVC
External sheath, color	signal red RAL 3020
Conductor material	Tin-plated Cu litz wires
Material wire insulation	PE
Single wire, color	white, yellow, blue, orange
Thickness, outer sheath	approx. 0.90 mm
Type of pair shielding	Aluminum-lined polyester foil

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Overall twist	Star quad
Max. conductor resistance	$\leq 120 \Omega/\text{km}$
Insulation resistance	$\geq 0.5 \text{ G}\Omega\text{-km}$
Coupling resistance	$\leq 20.00 \text{ m}\Omega/\text{m}$ (at 10 Hz)
Wave impedance	$100 \Omega \pm 15 \Omega$ (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	3 x D
Minimum bending radius, flexible installation	7 x D
Smallest bending radius, fixed installation	20 mm
Smallest bending radius, movable installation	46 mm
Flame resistance	according to UL 1685 (CSA FT 4)
Resistance to oil	Resistant to oil to a limited extent
Other resistance	UV resistant (according to UL 1581, Section 1200)
Ambient temperature (operation)	-40 °C ... 70 °C (cable, fixed installation)
	-40 °C ... 70 °C (Cable, flexible installation)
Ambient temperature (installation)	-20 °C ... 60 °C

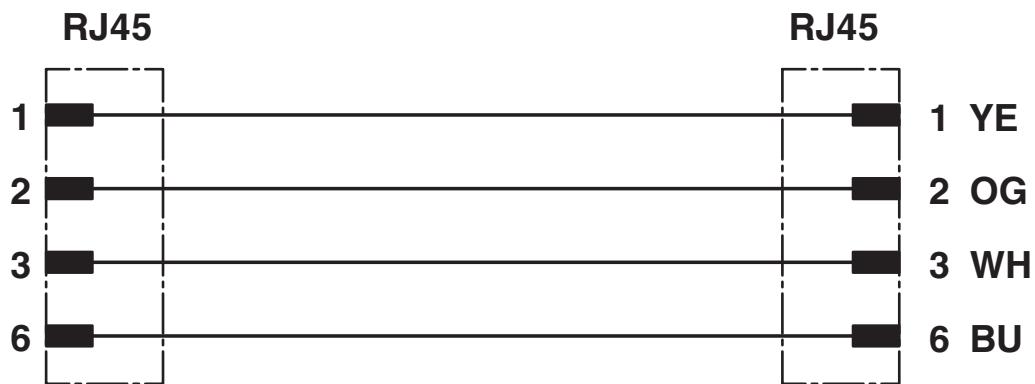
## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP20
	IP20

Drawings

Circuit diagram



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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 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.)	No substance above 0.1 wt%
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