

# VS-PN-RJ45-5-Q/IP20 - RJ45 connector



1658435

<https://www.phoenixcontact.com/us/products/1658435>

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RJ45 connector, design: RJ45, degree of protection: IP20, number of positions: 4, 100 Mbps, CAT5, material: Plastic, connection method: Insulation displacement connection, cable outlet: straight, color: traffic grey A RAL 7042, PROFINET

## Your advantages

- Easy and time-saving assembly with IDC fast connection technology
- Can be used internationally due to EAC, UL 1863, and CAN/CSA C22.2
- Ideal companion for servicing or repairs in the field: no special tools required for mounting

## Commercial data

Item number	1658435
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	AB10
Product key	ABNAAD
Catalog page	Page 372 (C-2-2019)
GTIN	4046356163118
Weight per piece (including packing)	10.225 g
Weight per piece (excluding packing)	10.225 g
Customs tariff number	85366990
Country of origin	CH

# VS-PN-RJ45-5-Q/IP20 - RJ45 connector



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## Technical data

### Notes

General	This product corresponds to the PROFINET Cabling and Interconnection Technology Guideline for PROFINET regulations, version 2.00, order no: 2.252, Chapter 8.1 Connectors for Outside Environment (Balanced cabling)
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### Product properties

Product type	Data connector (cable side)
Type	RJ45
Sensor type	PROFINET
Number of positions	4
Connection profile	RJ45
No. of cable outlets	1
Type	RJ45
Shielded	yes
Cable outlet	straight
Positions/contacts	8P4C

### Insulation characteristics

Overvoltage category	I
Degree of pollution	2

### Electrical properties

Rated voltage (III/3)	72 V (DC)
Rated surge voltage	330 kV
Rated current	1.75 A
Contact resistance	< 20 m $\Omega$ (Contact) < 100 m $\Omega$ (shield)
Frequency range	100 MHz
Insulation resistance	> 500 M $\Omega$ (100 V)
Nominal voltage $U_N$	48 V
Nominal current $I_N$	1.75 A
Dielectric strength	1000 V DC (Conductor-Conductor) 1500 V DC (Wire/shield)
Contact resistance per contact pair	< 20 $\Omega$
Contact resistance	> 10 m $\Omega$ (Wire – IDC) < 0.005 $\Omega$ (Litz wires – IDC)
Transmission medium	Copper
Transmission characteristics (category)	CAT5
Transmission speed	100 Mbps
Power transmission	PoE+

### Connection data

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## Connection technology

Connection method	Insulation displacement connection
Connection cross section AWG	22 (solid) 22 (flexible)
Conductor cross section	0.34 mm <sup>2</sup> ... 0.36 mm <sup>2</sup> (solid) 0.34 mm <sup>2</sup> ... 0.36 mm <sup>2</sup> (flexible)
Cable outlet, angle	180

## Dimensions

Width	14 mm
Height	14.6 mm
Length	56 mm

## Material specifications

Color	traffic grey A RAL 7042
Material	Plastic
Flammability rating according to UL 94	V0
Housing material	Plastic
Cable seal material	NBR
Contact material	CuSn
Contact surface material	Au/Ni
Contact carrier material	PC
O-ring material	FPM
Locking latch material	PC
Material for screw connection	PA

## Cable/line

External cable diameter	4.5 mm ... 8 mm
External cable diameter	4.5 mm ... 8 mm
Wire diameter	1.6 mm
Test voltage Core/Core	1000 V
Test voltage Core/Shield	1500.00 V
Halogen-free	no

## Mechanical properties

### Mechanical data

Insertion/withdrawal cycles	≥ 750
Insertion force per signal contact	< 20.00 N
Extraction force per signal contact	< 20 N

## Environmental and real-life conditions

### Test specification

Type of test	Vibration test
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Specification	IEC 60068-2-6
Frequency	10-500 Hz
Sweep speed	1 octave/min
Amplitude	0.35 mm
Acceleration	50.00 m/s <sup>2</sup>
Test duration	20.00 s

## Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-20 °C ... 70 °C
Ambient temperature (storage/transport)	-40 °C ... 70 °C

## Mounting

Mounting type	For field assembly
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# VS-PN-RJ45-5-Q/IP20 - RJ45 connector

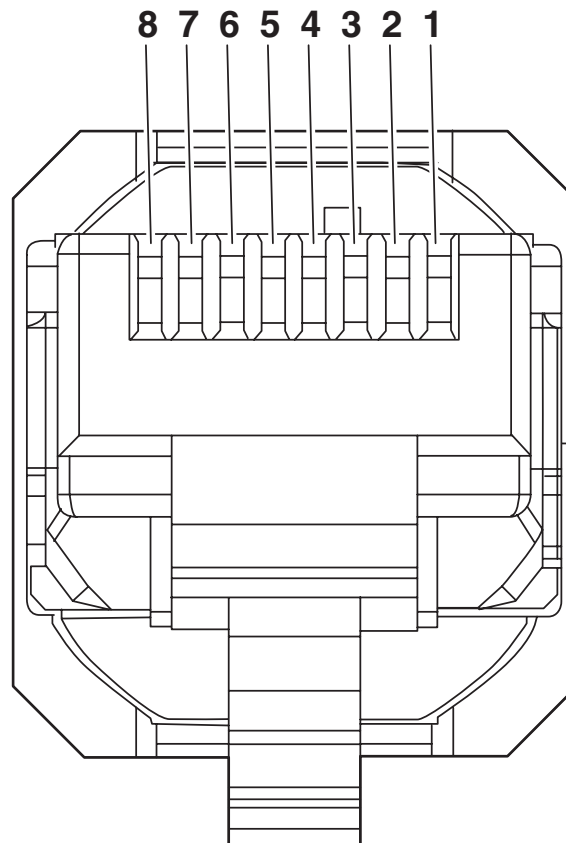
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## Drawings

Schematic diagram

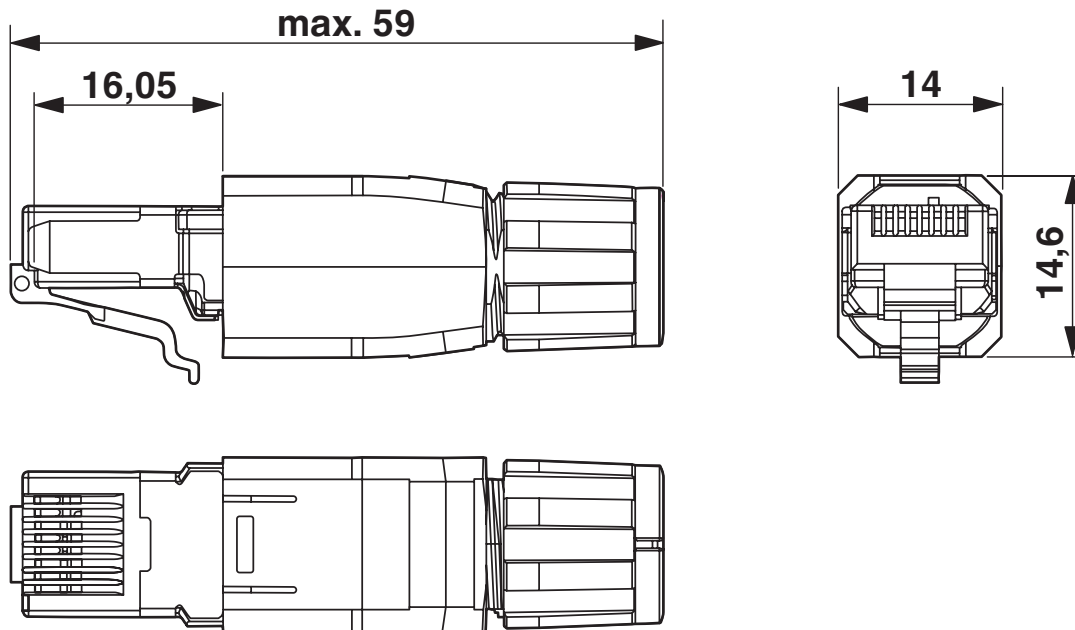


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Dimensional drawing



RJ45 connector, IP20

# VS-PN-RJ45-5-Q/IP20 - RJ45 connector



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1658435>



**UL Listed**

Approval ID: FILE E 335024



**cUL Listed**

Approval ID: FILE E 335024

**cULus Listed**

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## Classifications

### ECLASS

ECLASS-11.0	27440101
ECLASS-12.0	27440113
ECLASS-13.0	27440116

### ETIM

ETIM 9.0	EC002636
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### UNSPSC

UNSPSC 21.0	39121400
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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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## Accessories

### VS-08-RJ45-Q-COD-SET - RJ45 coding rings

1656893

<https://www.phoenixcontact.com/us/products/1656893>

Coding set, for color encoding of the RJ45 QUICKON connector, consisting of 80 color rings, 10 rings each in the colors: white, blue, red, green, yellow, violet, brown, gray



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### VS-CABLE-STRIP-VARIO - Stripping tool

1657407

<https://www.phoenixcontact.com/us/products/1657407>

Stripping tool, for the multi-level stripping of shielded cables



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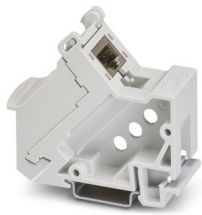
<https://www.phoenixcontact.com/us/products/1658435>



## CUC-PP-D1PGY/R4IDC8 - DIN rail adapter

1419024

<https://www.phoenixcontact.com/us/products/1419024>



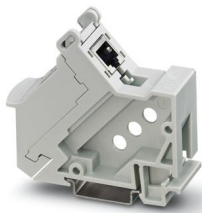
DIN rail adapter, design: RJ45, degree of protection: IP20, number of positions: 8, 10 Gbps, CAT6<sub>A</sub>, material: PC-GF, connection method: IDC connection, connection cross section: AWG 26- 22, color: gray

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## VS-PP-F-RJ45-CAT6 - DIN rail adapter

1658118

<https://www.phoenixcontact.com/us/products/1658118>



DIN rail adapter, degree of protection: IP20, number of positions: 8, 1 Gbps, CAT6, material: PC-GF, connection method: IDC fast connection, connection cross section: AWG 24- 22, color: gray

## VS-PN-RJ45-5-Q/IP20 - RJ45 connector

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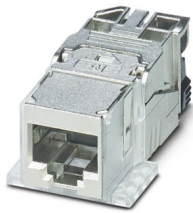
<https://www.phoenixcontact.com/us/products/1658435>



## CUC-F-J1ZNI-S/R4IDC8 - RJ45 jack insert

1418984

<https://www.phoenixcontact.com/us/products/1418984>



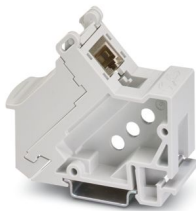
RJ45 jack insert, design: RJ45, degree of protection: IP20, number of positions: 8, 10 Gbps, CAT6<sub>A</sub>, material: Metal, connection method: IDC connection, connection cross section: AWG 26- 22, cable outlet: straight, Freenet design for use with IP67 panel mounting frame and terminal outlets, Ethernet

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## CUC-PP-D1PGY/R4GC8 - DIN rail adapter

1418094

<https://www.phoenixcontact.com/us/products/1418094>



DIN rail adapter, design: RJ45, degree of protection: IP20, number of positions: 8, 1 Gbps, CAT6, material: PC-GF, connection method: Coupling, color: gray

## VS-PN-RJ45-5-Q/IP20 - RJ45 connector

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## CUC-K-J1ZNI-S/R4IDC8 - RJ45 jack insert

1419021

<https://www.phoenixcontact.com/us/products/1419021>



RJ45 jack insert, design: RJ45, degree of protection: IP20, number of positions: 8, 10 Gbps, CAT6<sub>A</sub>, material: Metal, connection method: IDC connection, connection cross section: AWG 26- 22, cable outlet: straight, Keystone design for use with IP20 panel mounting frame or integrated directly into the housing panel, Ethernet

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## VS-OE-OE-93B-100,0 - Data cable

1416389

<https://www.phoenixcontact.com/us/products/1416389>



Data cable, PROFINET CAT5 (100 Mbps), 4-position, PVC/PVC, green RAL 6018, shielded, free cable end, on free cable end, cable length: 100 m

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## VS-OE-OE-93B/... - Data cable

1417362

<https://www.phoenixcontact.com/us/products/1417362>



Data cable, PROFINET CAT5 (100 Mbps), 4-position, PVC/PVC, green RAL 6018, shielded, free cable end, on free cable end, cable length: Free entry (0.5 ... 400 m)

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## VS-OE-OE-93C-100,0 - Data cable

1416376

<https://www.phoenixcontact.com/us/products/1416376>



Data cable, PROFINET CAT5 (100 Mbps), 4-position, PUR/FRNC halogen-free, green RAL 6018, shielded, free cable end, on free cable end, cable length: 100 m

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## VS-OE-OE-93C/... - Data cable

1417491

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Data cable, PROFINET CAT5 (100 Mbps), 4-position, PUR/FRNC halogen-free, green RAL 6018, shielded, free cable end, on free cable end, cable length: Free entry (0.5 ... 400 m)

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