

# Patch panel - PP-RJ-SC-F - 2703021



<https://www.phoenixcontact.com/il/products/2703021>

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Patch panel, RJ45 jack on screw terminal blocks, 10/100/1000 Mbps, DIN rail adapter, IP20, shield contacting with strain relief, shield current monitoring, surge protection

## Product Description

Ethernet patch panels enable quick and easy connection between the field cabling and control cabinet cabling. The passive termination panels are a convenient alternative to the on-site assembly of RJ45 connectors.

## Your advantages

- 10/100/1000 Mbps
- Extended temperature range of -40°C to +75°C
- Fast connection of the field cable
- Wiring space covered with front panel cover
- Tool-free shield contacting with strain relief
- Integrated surge protection to ensure high system availability
- Shield current monitoring with visual display
- Shipbuilding approval in accordance with DNV GL
- PoE-capable in accordance with IEEE 802.3bt, type 4

# Patch panel - PP-RJ-SC-F - 2703021



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## Commercial Data

Order Key	2703021
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to Order (non-returnable)
Catalog Page	Page 361 (C-6-2019)
GTIN	4055626463339
Weight per Piece (including packing)	149.6 GRM
Weight per Piece (excluding packing)	124.2 GRM
Customs tariff number	85369010
Country of origin	DE

## Patch panel - PP-RJ-SC-F - 2703021



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## Technical Data

### Cable / line

#### Cable structure

External cable diameter	5.5 mm ... 6.5 mm
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### Environmental and real-life conditions

#### Ambient conditions

Ambient temperature (operation)	-40 °C ... 75 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Degree of protection	IP20 (Manufacturer's declaration)
Permissible humidity (operation)	10 % ... 95 % (non-condensing)
Altitude	≤ 5000 m (For restrictions, see the manufacturer's declaration for altitude operation)
	≤ 2000 m (Restrictions for ATEX applications)

### Notes

#### Utilization restriction

EMC note	EMC: class A product, see manufacturer's declaration in the download area
CCCex note	Use in potentially explosive areas is not permitted in China.

#### Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

### Electrical properties

Rated insulation voltage	85 V DC
Electrical isolation	FE // Ethernet

#### Function

Designation	Shield current monitoring
Power consumption	270 mW (Shield current monitoring)
Response time	3 s
Precision	± 5 %
Voltage	≤ 10 V
Switch-on threshold	≥ 30 mA
Impedance	≤ 1 Ω
Current	≤ 1.5 A
Local diagnostics	Yellow LED

#### Supply

Supply voltage range	36 V DC ... 52 V DC □ 10 % (via PoE)
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42 V DC ... 57 V DC (in acc. with UL)

## Dimensions

Dimensional drawing	
Height	101.3 mm
Width	23.8 mm
Depth	86 mm

## LED signaling

Optical representation	Yellow LED
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## Material specifications

Color	gray
Housing material	Plastic
Flammability rating according to UL 94	V0

## Interfaces

Data: Ethernet interface, 10/100/1000Base-T(X) in accordance with IEEE 802.3

Conductor cross section AWG min.	28
Torque	0.22 Nm ... 0.25 Nm
Frequency range	125 MHz
Serial transmission speed	10/100/1000 Mbps
Stripping length	5 mm
Maximum output current	725 mA (PoE)
Connection method	Screw terminal block RJ45 jack
Conductor cross section flexible min.	0.14 mm <sup>2</sup>
Conductor cross section solid min.	0.14 mm <sup>2</sup>
Conductor cross section AWG max.	16
Transmission length	100 m (including patch cables)
Maximum output power	60 W
Current carrying capacity	≤ 1.5 A (≤ 60 W (PoE+))
Conductor cross section solid max.	1.5 mm <sup>2</sup>
Conductor cross section flexible max.	1.5 mm <sup>2</sup>
Pin assignment	1:1

## Mounting

Mounting type	DIN rail mounting, stationary
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## Approval data

## Patch panel - PP-RJ-SC-F - 2703021



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## Corrosive gas test

Identification	ISA-S71.04-1985 G3 Harsh Group A
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## CE

Identification	CE-compliant
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## UL, Canada

Certificate	CSA 22.2 No. 60079-0 Ed. 3 / CSA 22.2 No. 60079-15:16
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## UL, USA

Certificate	UL 60079-0 Ed. 6 / UL 60079-15 Ed. 4
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## ATEX

Note	Please follow the special installation instructions in the documentation!
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Identification	<input type="checkbox"/> II 3 G Ex nA nC IIC T4 Gc X
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## Shipbuilding

Identification	DNV GL
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## DNV GL data

Temperature	D
Vibration	B
Humidity	B
EMC	B

## UL, USA/Canada

Identification	Class I, Zone 2, AEx nA IIC T4, Ex nA IIC Gc X T4
	Class I, Div. 2, Groups A, B, C, D

## EMC data

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
	FCC Part 15B Class A
	CISPR 22

## Surge current load (surge)

Signal	$\pm 1$ kV (Data line, asymmetrical)
Input	$\pm 0.5$ kV
Standards/regulations	EN 61000-4-5

## Fast transients (burst)

Signal	$\pm 2.2$ kV (1 minute)
Input	$\pm 2.2$ kV (1 minute)
Comments	Criterion B
Standards/regulations	EN 61000-4-4

## Conducted interference

Frequency range	0.15 MHz ... 80 MHz
Comments	Criterion A

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Voltage	10 V
Standards/regulations	EN 61000-4-6

## Electromagnetic HF field

Frequency range	80 MHz ... 3 GHz (Test Level 3)
Comments	Criterion A
Standards/regulations	EN 61000-4-3
Field intensity	10 V/m

## Electrostatic discharge

Indirect discharge	± 6 kV
Comments	Criterion B
Standards/regulations	EN 61000-4-2
Discharge in air	± 8 kV (Test Level 3)
Contact discharge	± 6 kV (Test Level 3)

## Emitted interference

Comments	Class A, industrial applications
	Class B, domain of use: residential and small commercial
Standards/regulations	EN 61000-6-4
	EN 61000-6-3

## Standards and regulations

Standards/regulations	DIN EN 61643-21
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## Product properties

MTTF	3268 Years (SN 29500 standard, temperature 25°C, operating cycle 21%)
	1238 Years (SN 29500 standard, temperature 40°C, operating cycle 34.25%)
	468 Years (SN 29500 standard, temperature 40°C, operating cycle 100%)
IEC test classification	C2

## Insulation characteristics

Overvoltage category	II
Degree of pollution	2

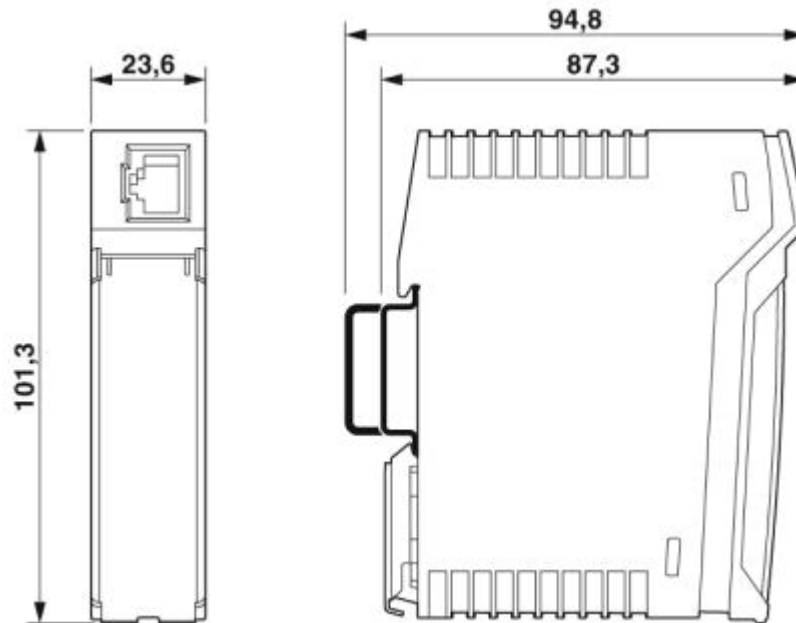
# Patch panel - PP-RJ-SC-F - 2703021



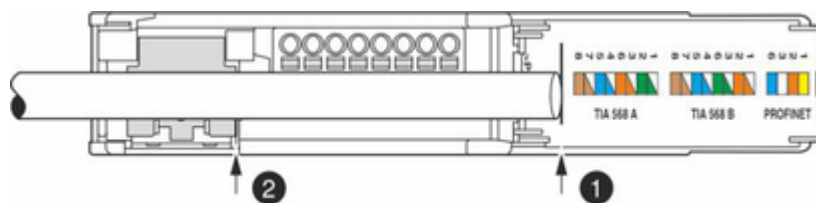
<https://www.phoenixcontact.com/il/products/2703021>

## Drawings

Dimensional drawing



Schematic diagram

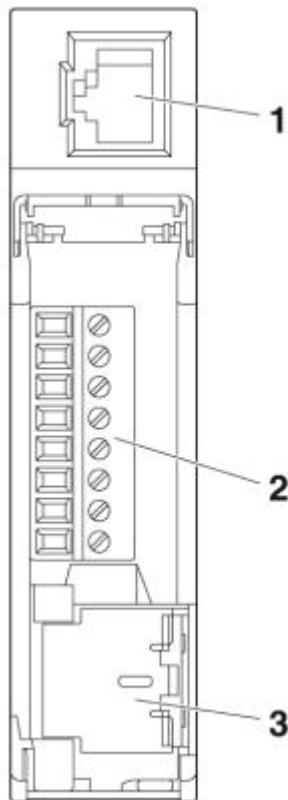


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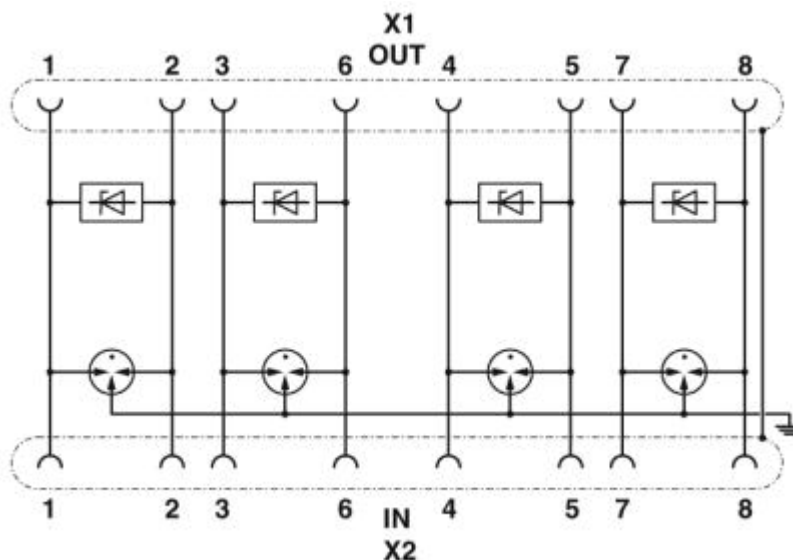


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Schematic diagram



Circuit diagram

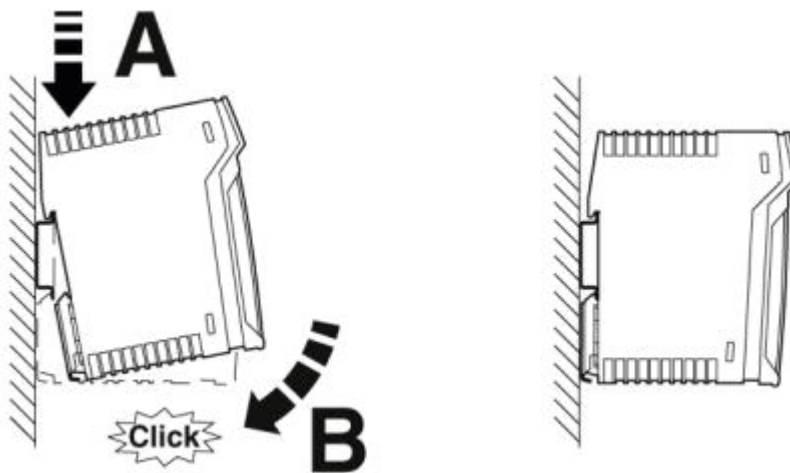


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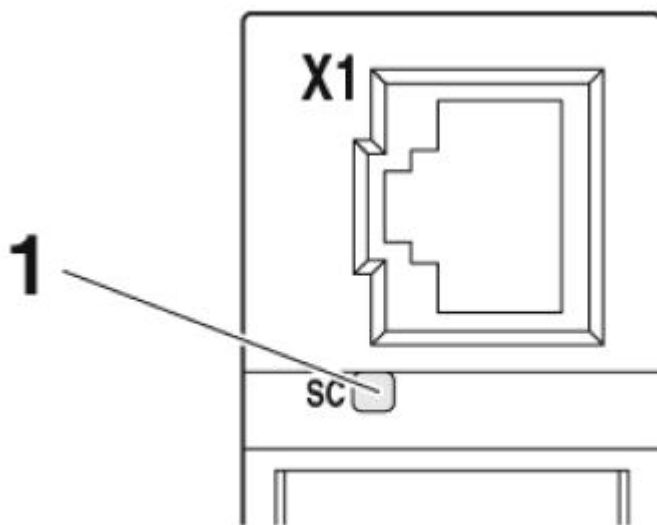


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Schematic diagram



Schematic diagram

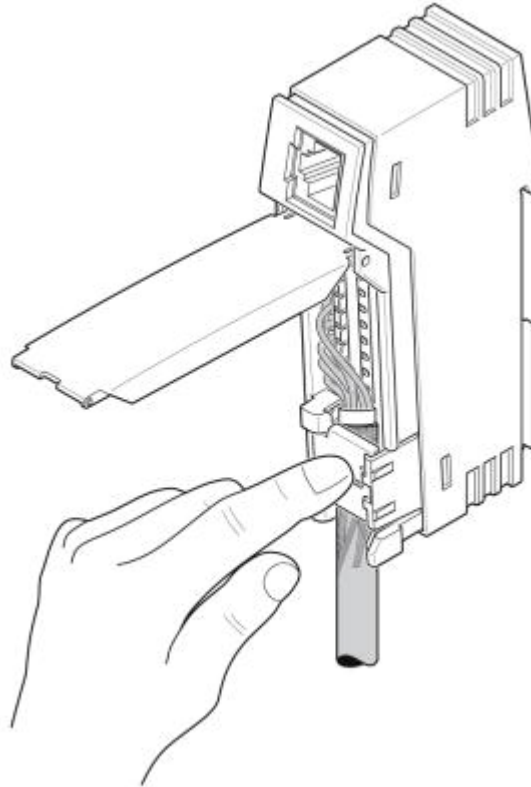


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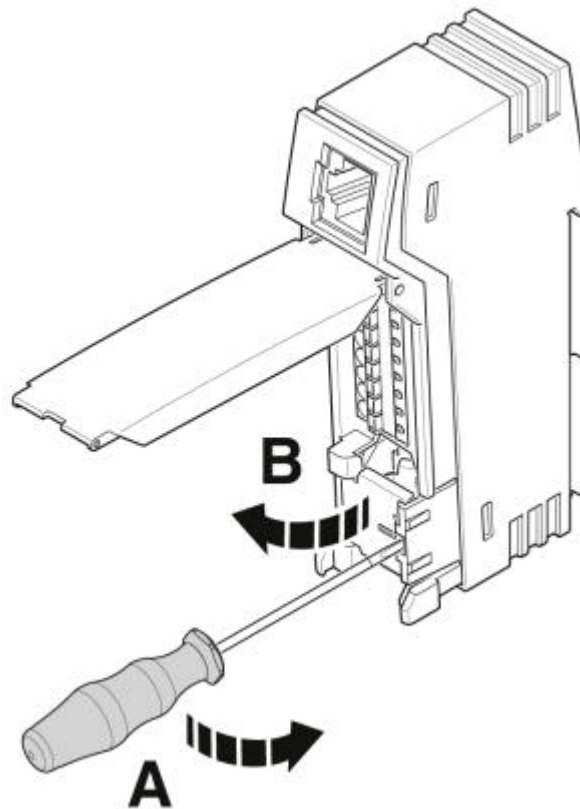
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Schematic diagram



Schematic diagram

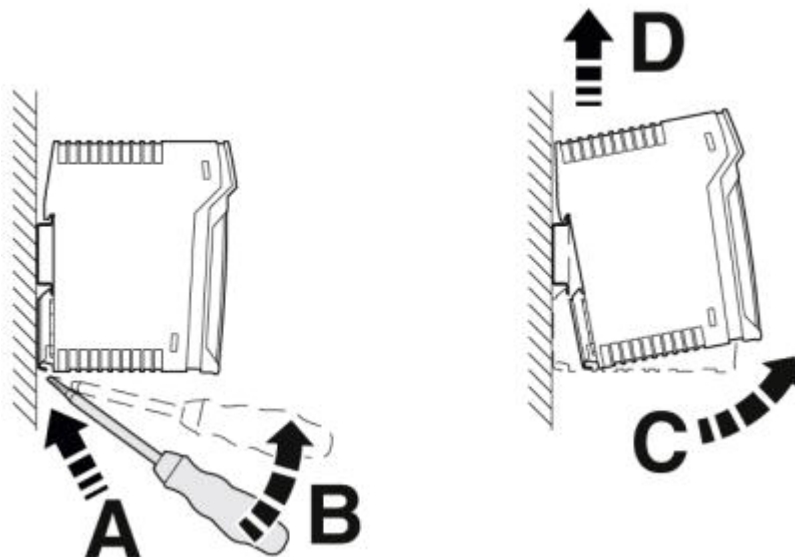


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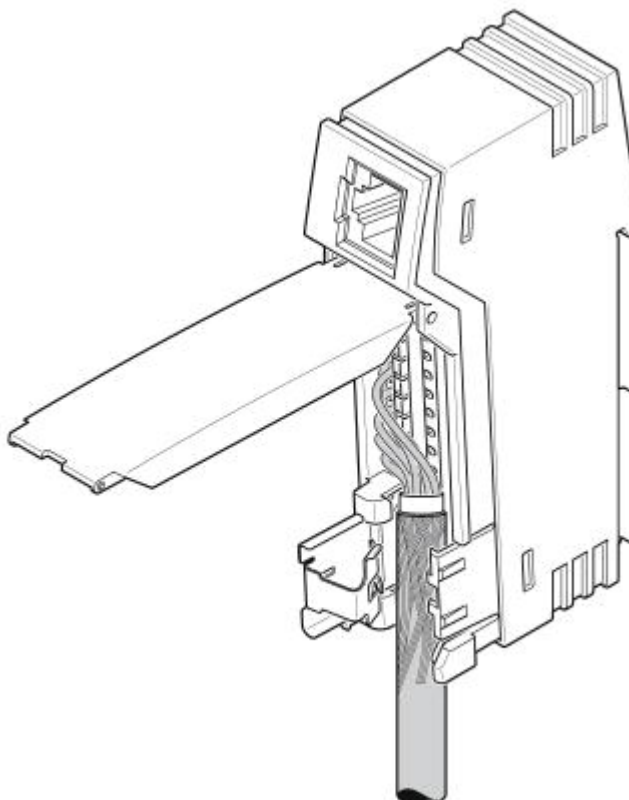


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Schematic diagram



Schematic diagram



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## Approvals

UL Listed 

cUL Listed 

DNV GL 

cULus Listed

ATEX 

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## Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
China RoHS	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

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## Accessories

### Data cable by the meter

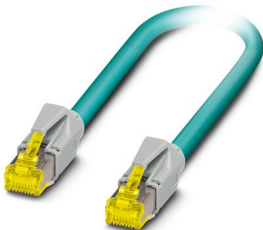
Data cable by the meter - VS-OE-OE-94F/... - 1417359



Network cable, Ethernet CAT6<sub>A</sub> (10 Gbps), 8-position, PUR halogen-free, water blue RAL 5021, shielded, free cable end, on free cable end, cable length: Free entry (0.5 ... 400 m)

### Data cable preassembled

Data cable preassembled - NBC-R4AC-R4AC-IE8A/.../... - 1411854



Patch cable, degree of protection: IP20, number of positions: 8, 10 Gbps, CAT6<sub>A</sub>, cable outlet: straight, Ethernet

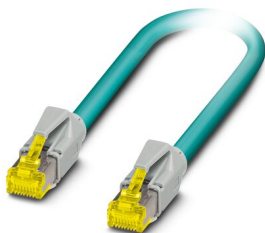
## Patch panel - PP-RJ-SC-F - 2703021

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### Data cable preassembled

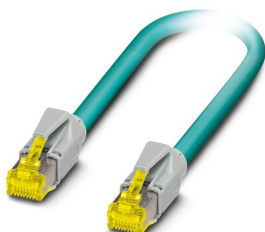
Data cable preassembled - NBC-R4AC/10G-R4AC/10G-94F/2,0 - 1408360



Patch cable, CAT6<sub>A</sub>, 4-pair, shielded, connection not crossed (line), assembled at both ends with RJ45/IP20 connectors, outer sheath material: PUR, length: 2.0 m

### Data cable preassembled

Data cable preassembled - NBC-R4AC/10G-R4AC/10G-94F/3,0 - 1408365



Patch cable, CAT6<sub>A</sub>, 4-pair, shielded, connection not crossed (line), assembled at both ends with RJ45/IP20 connectors, outer sheath material: PUR, length: 3.0 m

### Data cable preassembled

Data cable preassembled - NBC-R4AC/1,0-93B/R4AC - 1408968



Patch cable, degree of protection: IP20, cable length: 1 m, number of positions: 4, 100 Mbps, CAT5, material: PA 6.6, PROFINET

## Patch panel - PP-RJ-SC-F - 2703021

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### Data cable preassembled

Data cable preassembled - NBC-R4AC/2,0-93B/R4AC - 1408969



Patch cable, degree of protection: IP20, cable length: 2 m, number of positions: 4, 100 Mbps, CAT5, material: PA 6.6, PROFINET

### Patch panel

Patch panel - PP-RJ-RJ - 2703015



Patch panel, two RJ45 jacks, 10/100/1000 MBps, DIN rail adapter, IP20

### Patch panel

Patch panel - PP-RJ-SC - 2703016



Patch panel, RJ45 jack on screw terminal blocks, 10/100/1000 Mbps, DIN rail adapter, IP20, shield contacting with strain relief

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### Patch panel

Patch panel - PP-RJ-SCC - 2703018



Patch panel, RJ45 jack on Push-in terminal blocks, 10/100/1000 Mbps, DIN rail adapter, IP20, shield contacting with strain relief

### Patch panel

Patch panel - PP-RJ-IDC - 2703019



Patch panel, RJ45 jack on IDC terminal blocks, 10/100/1000 Mbps, DIN rail adapter, IP20, shield contacting with strain relief

### Patch panel

Patch panel - FL-PP-RJ45-SC - 2901643



Patch panel, one RJ45 jack to 8 screw connection terminal blocks (1:1 assignment), CAT5e, 10/100/1000 Mbps, DIN rail adapter, IP20, option of shield contacting to the DIN rail via jumpers

## Patch panel - PP-RJ-SC-F - 2703021

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### Patch panel

Patch panel - FL-PP-RJ45-LSA - 2901645



Patch panel, one RJ45 jack to 8 LSA connection terminal blocks (1:1 assignment), CAT5e, 10/100/1000 Mbps, DIN rail adapter, IP20, option of shield contacting to the DIN rail via bridges

### Patch panel

Patch panel - FL-PP-RJ45/RJ45 - 2901646



Patch panel, two RJ45 jacks (1:1 assignment), CAT5e, 10/100/1000 Mbps, DIN rail adapter, IP20, option of shield contacting to the DIN rail via jumpers

### Patch cable

Patch cable - FL CAT5 PATCH 0,3 - 2832250



Patch cable, CAT5, assembled, 0.3 m

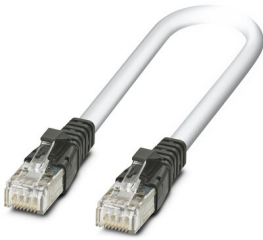
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## Patch cable

Patch cable - FL CAT5 PATCH 0,5 - 2832263

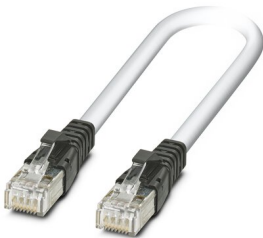


Patch cable, CAT5, assembled, 0.5 m

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## Patch cable

Patch cable - FL CAT5 PATCH 1,0 - 2832276



Patch cable, CAT5, assembled, 1 m

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## Patch cable

Patch cable - FL CAT5 PATCH 1,5 - 2832221



Patch cable, CAT5, assembled, 1.5 m

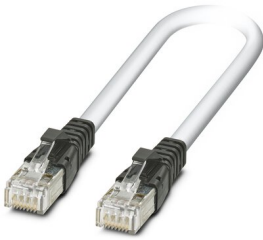
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## Patch cable

Patch cable - FL CAT5 PATCH 2,0 - 2832289



Patch cable, CAT5, assembled, 2 m

## Patch cable

Patch cable - FL CAT5 PATCH 3,0 - 2832292



Patch cable, CAT5, assembled, 3 m

## Network isolator

Network isolator - FL ISOLATOR 100-RJ/SC - 2313928



Passive network isolator for electrical isolation in Ethernet networks. This protects Ethernet devices from potential differences of up to 4 kV. Can be used for transmission speeds of up to 100 Mbps. Connection using RJ45 and COMBICON plug-in screw terminal block.

## Patch panel - PP-RJ-SC-F - 2703021

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### Network isolator

Network isolator - FL ISOLATOR 100-RJ/RJ - 2313931



Passive network isolator for electrical isolation in Ethernet networks. This protects Ethernet devices from potential differences of up to 4 kV. Can be used for transmission speeds of up to 100 Mbps. Possible to connect two RJ45 plugs.

### Network isolator

Network isolator - FL ISOLATOR 1000-RJ/RJ - 2313915



Passive network isolator for electrical isolation in Ethernet networks. This protects Ethernet devices from potential differences of up to 4 kV. Can be used for transmission speeds of up to 1 Gbps. Possible to connect two RJ45 plugs.

### Network isolator

Network isolator - FL ISOLATOR 100-M12 - 2902985



Passive network isolator for electrical isolation in Ethernet networks. For the protection of Ethernet devices against potential differences of up to 4 kV. Can be used for transmission speeds of up to 100 Mbps. Ethernet connection via two M12 sockets (D-coded).

# Patch panel - PP-RJ-SC-F - 2703021

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## Screwdriver tools

Screwdriver tools - SZF 0-0,4X2,5 - 1204504



Actuation tool, for ST terminal blocks, also suitable for use as a bladed screwdriver, size: 0.4 x 2.5 x 75 mm, 2-component grip, with non-slip grip

## Data plug

Data plug - FL CRIMPTOOL - 2744869



Crimping pliers, for assembling the RJ45 plugs FL PLUG RJ45..., for assembly on site

## Data plug

Data plug - VS-08-RJ45-10G/Q - 1419001



RJ45 connector, IP20, CAT6<sub>A</sub>, 8-pos., with QUICKON fast connection technology, for 26 ... 24 AWG 1-wire and 7-wire conductors, color: black

# Patch panel - PP-RJ-SC-F - 2703021

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## Data plug

Data plug - VS-PN-RJ45-5-Q/IP20 - 1658435



RJ45 connector, degree of protection: IP20, number of positions: 4, 100 Mbps, CAT5 (IEC 11801:2002), material: PA, connection method: IDC fast connection, cable outlet: straight, color: traffic grey A RAL 7042, PROFINET

## Data plug

Data plug - VS-08-RJ45-5-Q/IP20 - 1656725



RJ45 connector, degree of protection: IP20, number of positions: 8, 1 Gbps, CAT5 (IEC 11801:2002), material: PA, connection method: IDC fast connection, connection cross section: AWG 26- 23, cable outlet: straight, color: traffic grey A RAL 7042, Ethernet

## Data plug

Data plug - VS-08-RJ45-5-Q/IP20 BK - 1658008



RJ45 connector, degree of protection: IP20, number of positions: 8, 1 Gbps, CAT5 (IEC 11801:2002), material: PA, connection method: IDC fast connection, connection cross section: AWG 26- 23, cable outlet: straight, color: black, Ethernet

# Patch panel - PP-RJ-SC-F - 2703021

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## Electronics pliers

Electronics pliers - MICROFOX-SP - 1212488



**Electronic diagonal cutter**, tapered head, angled (21°), without chamfer, with opening spring

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Est.1899

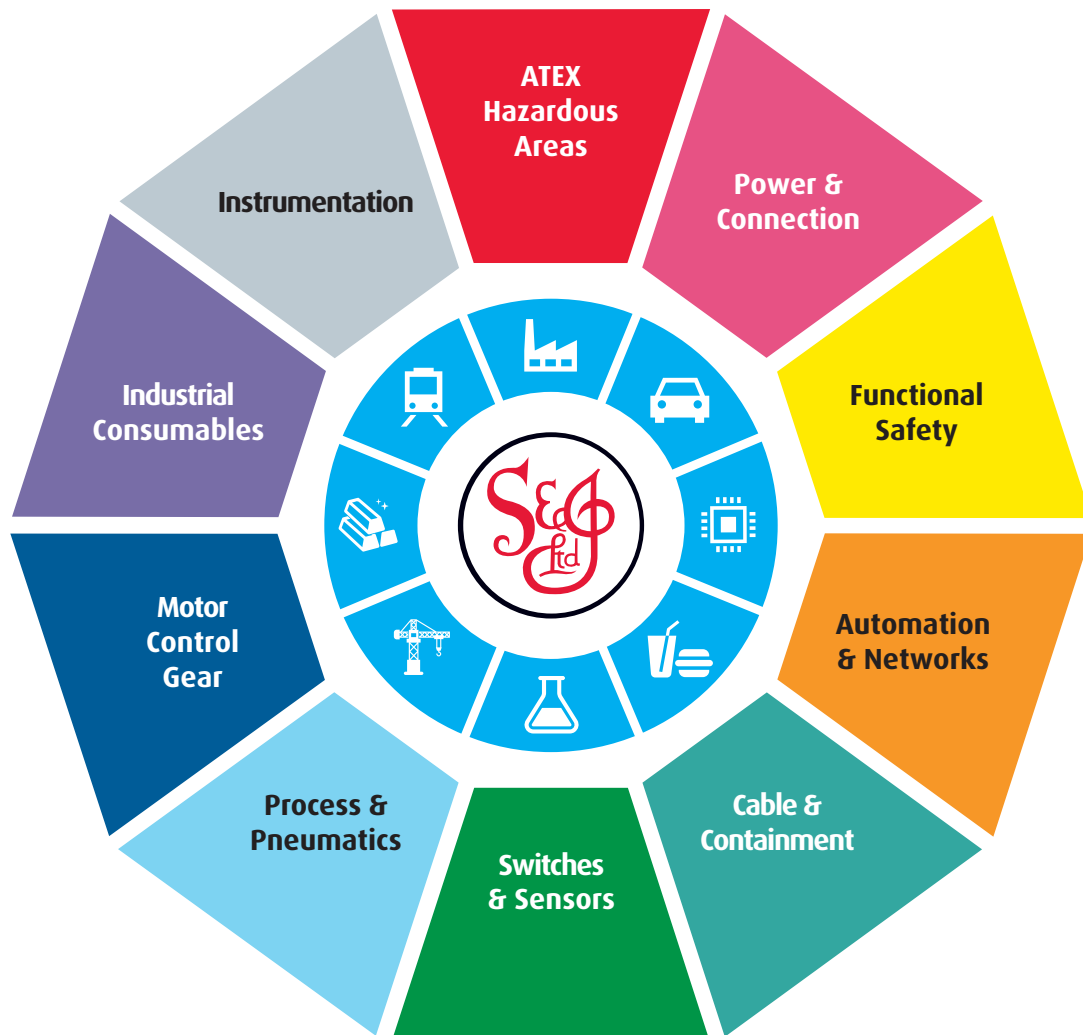
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