

2909664

https://www.phoenixcontact.com/us/products/2909664

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 documentation. Our general terms of use for downloads are valid.



PLC-INTERFACE for input functions, consisting of PLC-BSC.../SEN basic terminal block with screw connection and plug-in miniature relay with multi-layer gold contact and manual operation,  $1\ N/O\ contact$ ,  $120\ V\ AC/110\ V\ DC\ input\ voltage$ 

# Commercial data

Item number	2909664
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	C461
Product key	CK622B
Catalog page	Page 381 (C-5-2019)
GTIN	4055626377971
Weight per piece (including packing)	39.77 g
Weight per piece (excluding packing)	31.06 g
Customs tariff number	85364900
Country of origin	DE



2909664

https://www.phoenixcontact.com/us/products/2909664

# Technical data

# Product properties

Product type	Relay Module
Product family	PLC-INTERFACE
Application	Palm switch
Operating mode	100% operating factor
Mechanical service life	1x 10 <sup>7</sup> cycles
Data management status	
Date of last data management	01 08 2024

Date of last data management	01.08.2024
Article revision	03

# Electrical properties

Maximum power dissipation for nominal condition	0.42 W
Test voltage (Winding/contact)	4 kV AC (50 Hz, 1 min., winding/contact)

### Insulation characteristics: Coil/contact

Rated insulation voltage	250 V
Rated impulse withstand voltage	6 kV
Overvoltage category	III
Degree of pollution	3

# Input data

### Coil side

Nominal input voltage U <sub>N</sub>	120 V AC
	110 V DC
Input voltage range	93.6 V AC/DC 168 V AC/DC (20 °C)
Nominal voltage (plugged-in electromechanical relay)	60 V DC
Drive and function	monostable
Drive (polarity)	polarized
Typical input current at U <sub>N</sub>	3.5 mA
Typical response time	6 ms
Typical release time	15 ms
Protective circuit	Bridge rectifier; Bridge rectifier
Operating voltage display	Yellow LED

# Output data

#### Switching

•	
Contact switching type	1 N/O contact
Type of switch contact	Single contact
Contact material	AgSnO, hard gold-plated
Maximum switching voltage	30 V AC



2909664

https://www.phoenixcontact.com/us/products/2909664

	36 V DC
Minimum switching voltage	100 mV (at 10 mA)
Limiting continuous current	50 mA
Maximum inrush current	50 mA
Min. switching current	1 mA (at 24 V)
Short-circuit current	200 A (conditional short-circuit current)
Interrupting rating (ohmic load) max.	1.2 W (at 24 V DC)
Output fuse	4 A gL/gG NEOZED

# Switching: when the gold layer is destroyed

Note	the following values are applicable if a gold layer is destroyed
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	5 V (at 100 mA)
Limiting continuous current	6 A
Min. switching current	10 mA (at 12 V)
Interrupting rating (ohmic load) max.	140 W (at 24 V DC)
	20 W (at 48 V DC)
	18 W (at 60 V DC)
	23 W (at 110 V DC)
	40 W (at 220 V DC)
	1500 VA (for 250 V AC)
Switching capacity	2 A (at 24 V, DC13)
	0.2 A (at 110 V, DC13)
	0.1 A (at 220 V, DC13)
	3 A (at 24 V, AC15)
	3 A (at 120 V, AC15)
	3 A (at 230 V, AC15)

### Connection data

Connection method	Screw connection
Stripping length	8 mm
Screw thread	M3
Conductor cross section rigid	0.14 mm² 2.5 mm²
Conductor cross section flexible	0.14 mm² 2.5 mm²
	0.2 mm² 2.5 mm² (Single ferrule)
	2x 0.5 mm² 1.5 mm² (TWIN ferrule)
Conductor cross section AWG	26 14
Tightening torque	0.6 Nm 0.8 Nm

# **Dimensions**

Width	6.2 mm
Height	80 mm
Depth	94 mm



2909664

https://www.phoenixcontact.com/us/products/2909664

# Material specifications

Color	gray (RAL 7042)
Flammability rating according to UL 94	V0 (Housing)

# Environmental and real-life conditions

# Ambient conditions

Degree of protection (Relay)	RT II (Relay)
Degree of protection (Relay base)	IP20 (Relay base)
Ambient temperature (operation)	-40 °C 60 °C
Ambient temperature (storage/transport)	-40 °C 85 °C

# Approvals

CF

CE		
Certificate	CE-compliant CE-compliant	
UKCA		
Certificate	UKCA-compliant	
Shipbuilding approval		
Certificate	TAE0000196	

# Corrosive gas test

Identification	ISA-S71.04. G3 Harsh Group
	EN 60068-2-60

### DNV GL data

Temperature	D
Humidity	A
Vibration	B/C
EMC	В
Enclosure	Required protection according to the Rules shall be provided upon installation on board

# EMC data

Low Voltage Directive	Conformance with Low Voltage Directive
Electromagnetic compatibility	Conformance with EMC directive

# Standards and regulations

#### Standards/regulations

Standards/regulations	IEC 60664
	IEC 60947-5-1

# Mounting

Mounting type	DIN rail mounting
wounting type	Diri fall mounting



2909664

https://www.phoenixcontact.com/us/products/2909664

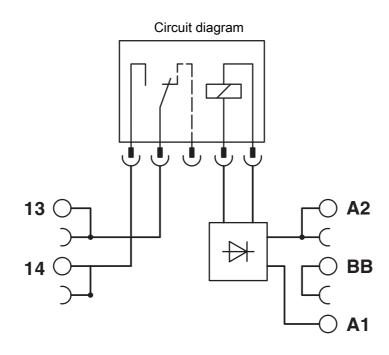
Assembly note	in rows with zero spacing
Mounting position	any



2909664

https://www.phoenixcontact.com/us/products/2909664

# Drawings

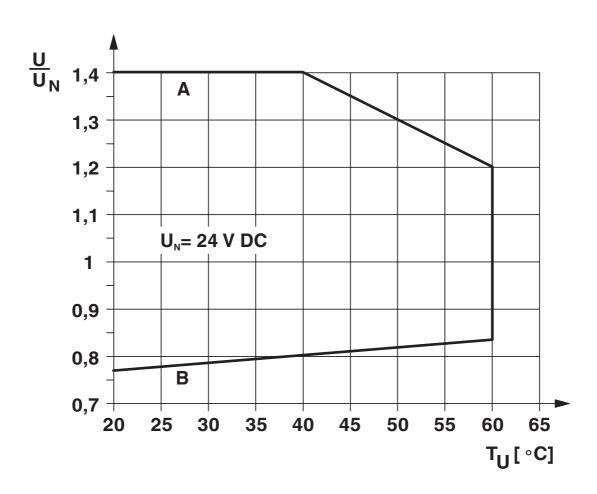




2909664

https://www.phoenixcontact.com/us/products/2909664





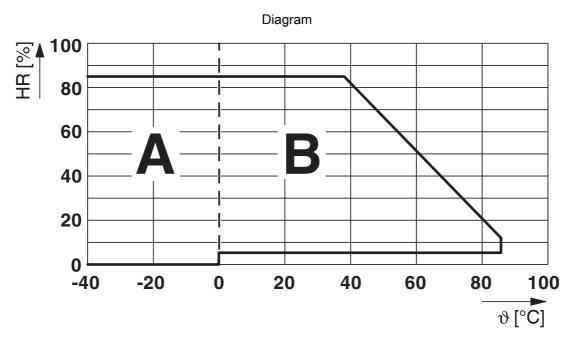
# $\label{eq:curve} Curve\ A$ Maximum permissible continuous voltage $U_{max}$ with limiting continuous current on the contact side (see relevant technical data) $Curve\ B$

Minimum permissible operate voltage  $\mathbf{U}_{\mathrm{op}}$  after pre-excitation (see relevant technical data)



2909664

https://www.phoenixcontact.com/us/products/2909664



Permissible humidity for operation and storage.

The maximum permissible ambient temperature as specified in the data sheet must be observed.

Area A: Ice buildup at ambient temperatures ≤ 0°C must be prevented

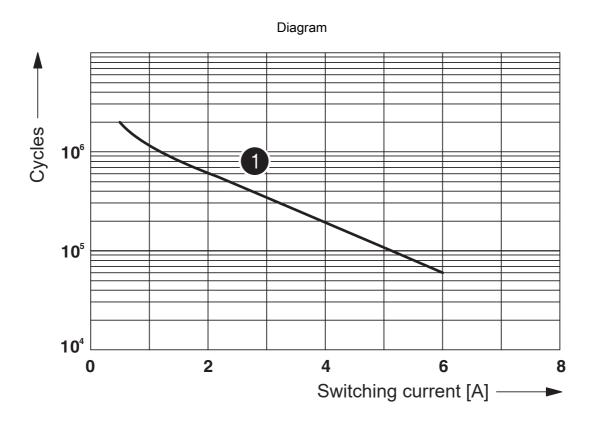
Area B: Condensation at ambient temperatures > 0°C must be prevented

On 30 full days that are naturally distributed across an entire year, a humidity level of 95% is permissible at an ambient temperature  $\leq$  25°C.



2909664

https://www.phoenixcontact.com/us/products/2909664



1 250 V AC, ohmic load

Electrical service life



2909664

https://www.phoenixcontact.com/us/products/2909664

# Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/2909664



cUL Recognized





**UL Recognized**Approval ID: E238705



EAC

Approval ID: TR\_TS\_D\_00573\_c



**DNV GL** 

Approval ID: TAE0000196



AC

Approval ID: RU\*C-DE.\*08.B.00010



**UL Listed** 

Approval ID: FILE E 172140



cUL Listed

Approval ID: FILE E 172140



cULus Listed

Approval ID: E140324

cULus Recognized

**cULus Listed** 



2909664

https://www.phoenixcontact.com/us/products/2909664

# Classifications

UNSPSC 21.0

# **ECLASS**

ECLASS-11.0	27371601
ECLASS-12.0	27371601
ECLASS-13.0	27371601
ETIM	
ETIM 9.0	EC001437
UNSPSC	

39122300



2909664

https://www.phoenixcontact.com/us/products/2909664

# Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	7(a), 7(c)-l
China RoHS	
Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.
EU REACH SVHC	
REACH candidate substance (CAS No.)	Hexahydromethylphthalic anhydride(CAS: n/a)
	Lead(CAS: 7439-92-1)
SCIP	240a56e1-0436-4a8b-910a-17899334bc3b



2909664

https://www.phoenixcontact.com/us/products/2909664

# Accessories



Note: Applying some accessories below might limit this product.

# FBST 500-PLC RD - Continuous plug-in bridge

2966786

https://www.phoenixcontact.com/us/products/2966786



Continuous plug-in bridge, length: 500 mm, color: red

Max. current carrying capacity: 32 A

# FBST 500-PLC BU - Continuous plug-in bridge

2966692

https://www.phoenixcontact.com/us/products/2966692



Continuous plug-in bridge, length: 500 mm, color: blue

1 Max. current carrying capacity: 32 A



2909664

https://www.phoenixcontact.com/us/products/2909664

# FBST 500-PLC GY - Continuous plug-in bridge

2966838

https://www.phoenixcontact.com/us/products/2966838



Continuous plug-in bridge, length: 500 mm, color: gray

1 Max. current carrying capacity: 32 A

# FBST 6-PLC RD - Single plug-in bridge

2966236

https://www.phoenixcontact.com/us/products/2966236

Single plug-in bridge, number of positions: 2, length: 6 mm, color: red



Max. current carrying capacity: 6 A



2909664

https://www.phoenixcontact.com/us/products/2909664

# FBST 6-PLC BU - Single plug-in bridge

2966812

https://www.phoenixcontact.com/us/products/2966812



Single plug-in bridge, number of positions: 2, length: 6 mm, color: blue

Max. current carrying capacity: 6 A

# FBST 6-PLC GY - Single plug-in bridge

2966825

https://www.phoenixcontact.com/us/products/2966825

Single plug-in bridge, number of positions: 2, length: 6 mm, color: gray



Max. current carrying capacity: 6 A



2909664

https://www.phoenixcontact.com/us/products/2909664

# FBST 8-PLC GY - Single plug-in bridge

2967688

https://www.phoenixcontact.com/us/products/2967688

Single plug-in bridge, number of positions: 2, length: 8 mm, color: gray



Max. current carrying capacity: 6 A

# PLC-V8/FLK14/IN - System connection

2296553

https://www.phoenixcontact.com/us/products/2296553



V8 adapter for 8 x PLC-INTERFACE (6.2 mm), controller: PLC system cabling of input cards, connection 1: IDC/FLK pin strip 1x 14-position, connection 2: Plug-in connection (Can be snapped onto 8x PLC-INTERFACE terminals), connection 3: Screw connection 1x 2-position, number of channels: 8, control logic: positive switching



2909664

https://www.phoenixcontact.com/us/products/2909664

### PLC-V8/FLK14/IN/M - System connection

2304115

https://www.phoenixcontact.com/us/products/2304115



V8 adapter for 8 x PLC-INTERFACE (6.2 mm), controller: PLC system cabling of input cards, connection 1: IDC/FLK pin strip 1x 14-position, connection 2: Plug-in connection (Can be snapped onto 8x PLC-INTERFACE terminals), connection 3: Screw connection 1x 2-position, number of channels: 8, control logic: minusschaltend

### PLC-V8/D15S/IN - System connection

2296074

https://www.phoenixcontact.com/us/products/2296074



V8 adapter for 8 x PLC-INTERFACE (6.2 mm), controller: PLC system cabling of input cards, connection 1: D-SUB pin strip 1x 15-position, connection 2: Plug-in connection (Can be snapped onto 8x PLC-INTERFACE terminals), connection 3: Screw connection 1x 2-position, number of channels: 8, control logic: positive switching



2909664

https://www.phoenixcontact.com/us/products/2909664

### PLC-V8/D15B/IN - System connection

#### 2296087

https://www.phoenixcontact.com/us/products/2296087



V8 adapter for 8 x PLC-INTERFACE (6.2 mm), controller: PLC system cabling of input cards, connection 1: D-SUB socket strip 1x 15-position, connection 2: Plugin connection (Can be snapped onto 8x PLC-INTERFACE terminals), connection 3: Screw connection 1x 2-position, number of channels: 8, control logic: positive switching

### ZB 6:UNBEDRUCKT - Zack marker strip

#### 1051003

https://www.phoenixcontact.com/us/products/1051003



Zack marker strip, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 6.2 mm, lettering field size: 6.15 x 10.5 mm, Number of individual labels: 10



2909664

https://www.phoenixcontact.com/us/products/2909664

#### ZB 6 CUS - Zack marker strip

0824992

https://www.phoenixcontact.com/us/products/0824992



Zack marker strip, can be ordered: Strip, white, labeled according to customer specifications, mounting type: snap into tall marker groove, for terminal block width: 6.2 mm, lettering field size: 6.15 x 10.5 mm, Number of individual labels: 10

# ZB 6,LGS:FORTL.ZAHLEN - Zack marker strip

1051016

https://www.phoenixcontact.com/us/products/1051016



Zack marker strip, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, printed horizontally: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 491 ... 500, mounting type: snapped, for terminal block width: 6.2 mm, lettering field size: 6.  $15 \times 10.5$  mm, Number of individual labels: 10



2909664

https://www.phoenixcontact.com/us/products/2909664

### ZB 6,QR:FORTL.ZAHLEN - Zack marker strip

1051029

https://www.phoenixcontact.com/us/products/1051029



Zack marker strip, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, Printed vertically: consecutive numbers 1  $\dots$  10, 11  $\dots$  20, etc. up to 491  $\dots$  500, mounting type: snapped, for terminal block width: 6.2 mm, lettering field size: 6. 15 x 10.5 mm, Number of individual labels: 10

### ZB 6,LGS:GLEICHE ZAHLEN - Zack marker strip

1051032

https://www.phoenixcontact.com/us/products/1051032



Zack marker strip, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, printed horizontally: Identical numbers 1 or 2, etc. up to 100, mounting type: snapped, for terminal block width: 6.2 mm, lettering field size: 6.15 x 10.5 mm, Number of individual labels: 10



2909664

https://www.phoenixcontact.com/us/products/2909664

#### ZB 6,LGS:L1-N,PE - Marker for terminal blocks

1051414

https://www.phoenixcontact.com/us/products/1051414



Marker for terminal blocks, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, horizontal: L1, L2, L3, N, PE, L1, L2, L3, N, PE, mounting type: snapped, for terminal block width: 6.2 mm, lettering field size: 6.15 x 10.5 mm, Number of individual labels: 10

#### ZB 6,LGS:U-N - Marker for terminal blocks

1051430

https://www.phoenixcontact.com/us/products/1051430



Marker for terminal blocks, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, printed horizontally: U, V, W, N, GND, U, V, W, N, GND, mounting type: snapped, for terminal block width: 6.2 mm, lettering field size:  $6.15 \times 10$ . 5 mm, Number of individual labels: 10



2909664

https://www.phoenixcontact.com/us/products/2909664

#### UC-TM 6 - Marker for terminal blocks

0818085

https://www.phoenixcontact.com/us/products/0818085



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 6.2 mm, lettering field size: 5.6 x 10.5 mm, Number of individual labels: 80

#### UC-TM 6 CUS - Marker for terminal blocks

0824589

https://www.phoenixcontact.com/us/products/0824589



Marker for terminal blocks, can be ordered: by sheet, white, labeled according to customer specifications, mounting type: snap into tall marker groove, for terminal block width: 6.2 mm, lettering field size: 5.6 x 10.5 mm, Number of individual labels: 80



2909664

https://www.phoenixcontact.com/us/products/2909664

#### UCT-TM 6 - Marker for terminal blocks

0828736

https://www.phoenixcontact.com/us/products/0828736



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: TOPMARK NEO, TOPMARK LASER, BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: snapped, for terminal block width: 6.2 mm, lettering field size: 5.6 x 10.5 mm, Number of individual labels: 60

### UCT-TM 6 CUS - Marker for terminal blocks

0829602

https://www.phoenixcontact.com/us/products/0829602



Marker for terminal blocks, can be ordered: by sheet, white, labeled according to customer specifications, mounting type: snap into tall marker groove, for terminal block width: 6.2 mm, lettering field size: 5.6 x 10.5 mm, Number of individual labels: 60



2909664

https://www.phoenixcontact.com/us/products/2909664

### NS 35/7,5 PERF 2000MM - DIN rail perforated

0801733

https://www.phoenixcontact.com/us/products/0801733



DIN rail perforated, Pack of 25 (50 m), acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver

### NS 35/7,5 UNPERF 2000MM - DIN rail, unperforated

0801681

https://www.phoenixcontact.com/us/products/0801681



DIN rail, unperforated, Pack of 25 (50 m), acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver



2909664

https://www.phoenixcontact.com/us/products/2909664

### NS 35/7,5 WH PERF 2000MM - DIN rail perforated

1204119

https://www.phoenixcontact.com/us/products/1204119



DIN rail perforated, Pack of 25 (50 m), acc. to EN 60715, material: Steel, Galvanized, white passivated, Standard profile, color: silver

### NS 35/7,5 WH UNPERF 2000MM-VPE 10 - DIN rail, unperforated

1204122

https://www.phoenixcontact.com/us/products/1204122



DIN rail, unperforated, Pack of 10 (20 m), acc. to EN 60715, material: Steel, Galvanized, white passivated, Standard profile, color: silver



2909664

https://www.phoenixcontact.com/us/products/2909664

### NS 35/7,5 AL UNPERF 2000MM - DIN rail, unperforated

0801704

https://www.phoenixcontact.com/us/products/0801704



DIN rail, unperforated, Pack of 25 (50 m), acc. to EN 60715, material: Aluminum, uncoated, Standard profile, color: silver

### NS 35/7,5 ZN PERF 2000MM - DIN rail perforated

1206421

https://www.phoenixcontact.com/us/products/1206421



DIN rail perforated, Pack of 25 (50 m), acc. to EN 60715, material: Steel, galvanized, Standard profile, color: silver



2909664

https://www.phoenixcontact.com/us/products/2909664

### NS 35/7,5 ZN UNPERF 2000MM - DIN rail, unperforated

1206434

https://www.phoenixcontact.com/us/products/1206434



DIN rail, unperforated, Pack of 25 (50 m), acc. to EN 60715, material: Steel, galvanized, Standard profile, color: silver

### NS 35/7,5 CU UNPERF 2000MM-VPE 10 - DIN rail, unperforated

0801762

https://www.phoenixcontact.com/us/products/0801762



DIN rail, unperforated, Pack of 10 (20 m), acc. to EN 60715, material: Copper, uncoated, Standard profile, color: copper-colored



2909664

https://www.phoenixcontact.com/us/products/2909664

# NS 35/7,5 CAP - End cap

1206560

https://www.phoenixcontact.com/us/products/1206560

DIN rail end piece, for DIN rail NS 35/7.5



### NS 35/15 PERF 2000MM - DIN rail perforated

1201730

https://www.phoenixcontact.com/us/products/1201730



DIN rail perforated, Pack of 25 (50 m), similar to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver



2909664

https://www.phoenixcontact.com/us/products/2909664

### NS 35/15 UNPERF 2000MM - DIN rail, unperforated

1201714

https://www.phoenixcontact.com/us/products/1201714



DIN rail, unperforated, Pack of 25 (50 m), similar to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver

### NS 35/15 WH PERF 2000MM - DIN rail perforated

0806602

https://www.phoenixcontact.com/us/products/0806602



DIN rail perforated, Pack of 25 (50 m), similar to EN 60715, material: Steel, Galvanized, white passivated, Standard profile, color: white



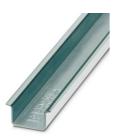
2909664

https://www.phoenixcontact.com/us/products/2909664

### NS 35/15 WH UNPERF 2000MM-VPE 10 - DIN rail, unperforated

1204135

https://www.phoenixcontact.com/us/products/1204135



DIN rail, unperforated, Pack of 10 (20 m), similar to EN 60715, material: Steel, Galvanized, white passivated, Standard profile, color: silver

### NS 35/15 AL UNPERF 2000MM - DIN rail, unperforated

1201756

https://www.phoenixcontact.com/us/products/1201756



DIN rail, unperforated, similar to EN 60715, material: Aluminum, uncoated, Standard profile, color: silver



2909664

https://www.phoenixcontact.com/us/products/2909664

### NS 35/15 ZN PERF 2000MM - DIN rail perforated

1206599

https://www.phoenixcontact.com/us/products/1206599



DIN rail perforated, Pack of 25 (50 m), similar to EN 60715, material: Steel, galvanized, Standard profile, color: silver

### NS 35/15 ZN UNPERF 2000MM - DIN rail, unperforated

1206586

https://www.phoenixcontact.com/us/products/1206586



DIN rail, unperforated, Pack of 25 (50 m), similar to EN 60715, material: Steel, galvanized, Standard profile, color: silver



2909664

https://www.phoenixcontact.com/us/products/2909664

# NS 35/15 CU UNPERF 2000MM-VPE 10 - DIN rail, unperforated

1201895

https://www.phoenixcontact.com/us/products/1201895



DIN rail, unperforated, Pack of 10 (20 m), similar to EN 60715, material: Copper, uncoated, Standard profile, color: copper-colored

### NS 35/15 CAP - End cap

1206573

https://www.phoenixcontact.com/us/products/1206573

DIN rail end piece, for DIN rail NS 35/15





2909664

https://www.phoenixcontact.com/us/products/2909664

### NS 35/15-2,3 UNPERF 2000MM-VPE 10 - DIN rail, unperforated

1201798

https://www.phoenixcontact.com/us/products/1201798



DIN rail, unperforated, Pack of 10 (20 m), acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile 2.3 mm, color: silver

### PLC-ATP BK - Separating plate

2966841

https://www.phoenixcontact.com/us/products/2966841



Separating plate, 2 mm thick, required at the start and end of a PLC terminal strip. Furthermore, it is used for: visual separation of groups, safe isolation of different voltages of neighboring PLC relays in acc. with DIN VDE 0106-101, isolation



2909664

https://www.phoenixcontact.com/us/products/2909664

### PLC-ESK GY - Power terminal block

2966508

https://www.phoenixcontact.com/us/products/2966508



Power terminal block, for the input of up to four potentials, for mounting on NS 35/7.5

# SZF 1-0,6X3,5 - Screwdriver

1204517

https://www.phoenixcontact.com/us/products/1204517



Actuation tool, for ST terminal blocks, also suitable for use as a bladed screwdriver, size:  $0.6 \times 3.5 \times 100$  mm, 2-component grip, with non-slip grip



2909664

https://www.phoenixcontact.com/us/products/2909664

# REL-MR- 60DC/21AU/MS - Single relay

2909647

https://www.phoenixcontact.com/us/products/2909647



Plug-in miniature power relay, with multi-layer gold contact, 1 changeover contact, manual operation, 60 V DC input voltage

Phoenix Contact 2024 © - all rights reserved https://www.phoenixcontact.com

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