

PLC-OPT-230UC/ 48DC/100/SEN - Solid-state relay module



2900361

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PLC-INTERFACE for input functions, consisting of PLC-BPT.../SEN basic terminal block with push-in connection and plug-in miniature solid-state relay, for mounting on DIN rail NS 35/7,5, 1 N/O contact, input: 230 V AC/220 V DC, output: 3 - 48 V DC/100 mA

Your advantages

- No need for additional modular terminal blocks
- Efficient connection to system cabling using V8 adapter
- Time savings of up to 60 %
- Relay modules with safe isolation according to DIN EN 50178 between coil and contact
- Space savings of up to 80 %
- Functional plug-in bridges
- Sensor connected directly to relay module

Commercial data

Item number	2900361
Packing unit	10 pc
Minimum order quantity	1 pc
Product key	CK62A3
Catalog page	Page 381 (C-5-2019)
GTIN	4046356508803
Weight per piece (including packing)	34.57 g
Weight per piece (excluding packing)	33.57 g
Customs tariff number	85364900
Country of origin	DE

PLC-OPT-230UC/ 48DC/100/SEN - Solid-state relay module



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Technical data

Product properties

Product type	Solid-state relay module
Product family	PLC-INTERFACE
Application	Input function
Operating mode	100% operating factor

Data management status

Date of last data management	07.05.2024
Article revision	05

Insulation characteristics: Standards/regulations

Insulation	Basic insulation
Overvoltage category	III
Pollution degree	2

Electrical properties

Maximum power dissipation for nominal condition	0.81 W
Test voltage (Input/output)	2.5 kV (50 Hz, 1 min., input/output)

Input data

Nominal input voltage U_N	230 V AC
	220 V DC
Nominal voltage (plugged-in solid-state relay)	60 V DC
Input voltage range in reference to U_N	0.8 ... 1.1
Input voltage range	184 V AC ... 253 V AC
	176 V DC ... 242 V DC
Switching threshold "0" signal in reference to U_N	≤ 0.3
Switching threshold "1" signal in reference to U_N	≥ 0.8
Typical input current at U_N	3.5 mA
Typical response time	3 ms (at U_N)
Typical turn-off time	5 ms (at U_N)
Operating voltage display	Yellow LED
Protective circuit	Bridge rectifier; Bridge rectifier
Transmission frequency	10 Hz

Output data

Contact switching type	1 N/O contact
Design of digital output	electronic
Output voltage range	3 V DC ... 48 V DC
Limiting continuous current	100 mA
Voltage drop at max. limiting continuous current	≤ 1 V
Output circuit	2-conductor, floating

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Protective circuit	Reverse polarity protection; Polarity protection diode
	Surge protection

Connection data

Connection method	Push-in connection
Stripping length	10 mm
Conductor cross section rigid	0.14 mm ² ... 2.5 mm ²
Conductor cross section flexible	0.14 mm ² ... 2.5 mm ²
	0.2 mm ² ... 2.5 mm ² (Single ferrule)
	2x 0.5 mm ² ... 1 mm ² (TWIN ferrule)
Conductor cross section AWG	26 ... 14

Dimensions

Width	6.2 mm
Height	80 mm
Depth	94 mm

Material specifications

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

Environmental and real-life conditions

Ambient conditions	
Ambient temperature (operation)	-25 °C ... 60 °C
Ambient temperature (storage/transport)	-25 °C ... 70 °C

Approvals

CE	
Certificate	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	B

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Enclosure	Required protection according to the Rules shall be provided upon installation on board
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EMC data

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

Standards and regulations

Standards/regulations	
Standards/regulations	IEC 60947-5-1

Mounting

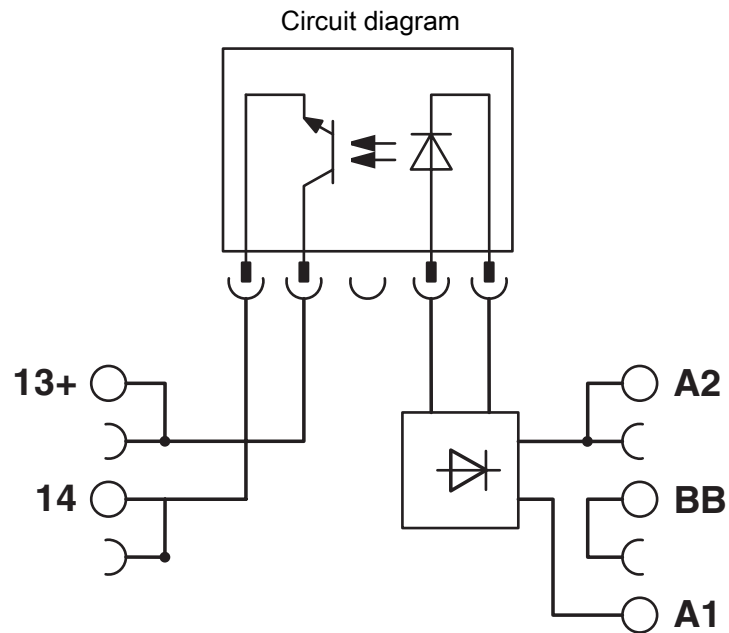
Mounting type	DIN rail mounting
Assembly note	in rows with zero spacing
Mounting position	any

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Drawings



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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/pc/products/2900361>

	cUL Recognized Approval ID: FILE E 238705
	UL Recognized Approval ID: FILE E 238705
	EAC Approval ID: TR_TS_D_00573_c
	DNV GL Approval ID: TAE0000196
	EAC 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	

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Classifications

ECLASS

ECLASS-11.0	27371604
ECLASS-12.0	27371604
ECLASS-13.0	27371604

ETIM

ETIM 9.0	EC001504
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UNSPSC

UNSPSC 21.0	39122300
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Environmental product compliance

EU RoHS	
Fulfills EU RoHS substance requirements	Yes
Exemption	7(a), 7(c)-I
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	54cb8b45-0a20-478b-b8b0-57fc55eb2825

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Accessories

i Note: Applying some accessories below might limit this product.

FBST 500-PLC RD - Continuous plug-in bridge

2966786

<https://www.phoenixcontact.com/pc/products/2966786>



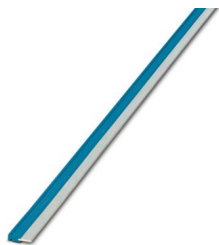
Continuous plug-in bridge, length: 500 mm, color: red

i Max. current carrying capacity: 32 A

FBST 500-PLC BU - Continuous plug-in bridge

2966692

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

i Max. current carrying capacity: 32 A

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FBST 500-PLC GY - Continuous plug-in bridge

2966838

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

 Max. current carrying capacity: 32 A

FBST 6-PLC RD - Single plug-in bridge

2966236

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

 Max. current carrying capacity: 6 A

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FBST 6-PLC BU - Single plug-in bridge

2966812

<https://www.phoenixcontact.com/pc/products/2966812>



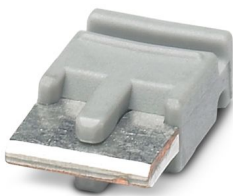
Single plug-in bridge, number of positions: 2, length: 6 mm, color: blue

 Max. current carrying capacity: 6 A

FBST 6-PLC GY - Single plug-in bridge

2966825

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

 Max. current carrying capacity: 6 A

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FBST 8-PLC GY - Single plug-in bridge

2967688

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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/pc/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

PLC-OPT-230UC/ 48DC/100/SEN - Solid-state relay module



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

2304115

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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/pc/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

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PLC-V8/D15B/IN - System connection

2296087

<https://www.phoenixcontact.com/pc/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: 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

ZB 6:UNBEDRUCKT - Zack marker strip

1051003

<https://www.phoenixcontact.com/pc/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

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ZB 6 CUS - Zack marker strip

0824992

<https://www.phoenixcontact.com/pc/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/pc/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 x 10.5 mm, Number of individual labels: 10

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

1051029

<https://www.phoenixcontact.com/pc/products/1051029>



Zack marker strip, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, Printed vertically: 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 x 10.5 mm, Number of individual labels: 10

ZB 6,LGS:GLEICHE ZAHLEN - Zack marker strip

1051032

<https://www.phoenixcontact.com/pc/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

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

1051414

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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/pc/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 x 10.5 mm, Number of individual labels: 10

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UC-TM 6 - Marker for terminal blocks

0818085

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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/pc/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

PLC-OPT-230UC/ 48DC/100/SEN - Solid-state relay module



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UCT-TM 6 - Marker for terminal blocks

0828736

<https://www.phoenixcontact.com/pc/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/pc/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

PLC-OPT-230UC/ 48DC/100/SEN - Solid-state relay module



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

0801733

<https://www.phoenixcontact.com/pc/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/pc/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

PLC-OPT-230UC/ 48DC/100/SEN - Solid-state relay module



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

1204119

<https://www.phoenixcontact.com/pc/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/pc/products/1204122>



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

PLC-OPT-230UC/ 48DC/100/SEN - Solid-state relay module



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

0801704

<https://www.phoenixcontact.com/pc/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/pc/products/1206421>



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

PLC-OPT-230UC/ 48DC/100/SEN - Solid-state relay module



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

1206434

<https://www.phoenixcontact.com/pc/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/pc/products/0801762>



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

PLC-OPT-230UC/ 48DC/100/SEN - Solid-state relay module



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NS 35/ 7,5 CAP - End cap

1206560

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



NS 35/15 PERF 2000MM - DIN rail perforated

1201730

<https://www.phoenixcontact.com/pc/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

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

1201714

<https://www.phoenixcontact.com/pc/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/pc/products/0806602>



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

PLC-OPT-230UC/ 48DC/100/SEN - Solid-state relay module



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

1204135

<https://www.phoenixcontact.com/pc/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/pc/products/1201756>



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

PLC-OPT-230UC/ 48DC/100/SEN - Solid-state relay module



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

1206599

<https://www.phoenixcontact.com/pc/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/pc/products/1206586>



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

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

1201895

<https://www.phoenixcontact.com/pc/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/pc/products/1206573>



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

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

1201798

<https://www.phoenixcontact.com/pc/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/pc/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

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PLC-ESK GY - Power terminal block

2966508

<https://www.phoenixcontact.com/pc/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

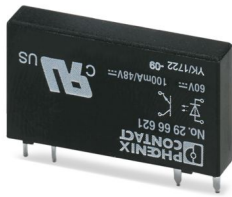
<https://www.phoenixcontact.com/pc/products/1204517>



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

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<https://www.phoenixcontact.com/pc/products/2966621>



Plug-in miniature solid-state relay, input solid-state relay, 1 N/O contact, input: 60 V DC, output: 3 - 48 V DC/100 mA

<https://www.phoenixcontact.com>

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