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PLC-OSC-125DC/ 24DC/ 2 - Solid-state relay module

2980050

https://www.phoenixcontact.com/in/products/2980050

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PLC-INTERFACE, consisting of PLC-BSP.../21 basic terminal block with screw connection and plug-in miniature solid-state relay, for mounting on NS 35/7,5, 1 N/O contact, input: 125 V DC, output: 3 - 33 V DC/3 A

Your advantages

- Slim design
- Efficient connection to system cabling using V8 adapter
- RT III sealed solid-state relay
- Integrated input circuit
- Functional plug-in bridges
- High switching power
- Zero voltage switch at AC output

Commercial data

Item number	2980050
Packing unit	10 pc
Minimum order quantity	1 pc
Sales key	CK6
Product key	DK6223
Catalog page	Page 373 (C-5-2019)
GTIN	4017918619053
Weight per piece (including packing)	38.75 g
Weight per piece (excluding packing)	32 g
Customs tariff number	85364900
Country of origin	DE

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PLC-OSC-125DC/ 24DC/ 2 - Solid-state relay module

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Technical data

Product properties

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

Insulation characteristics: Standards/regulations

Insulation	Basic insulation
Overvoltage category	III
Pollution degree	2

Data management status

Date of last data management	13.11.2024

Electrical properties

Maximum power dissipation for nominal condition	0.38 W
Test voltage (Input/output)	2.5 kV (50 Hz, 1 min., input/output)

Input data

Nominal input voltage U_N	125 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	100 V DC ... 137.5 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 mA
Typical response time	40 µs (at U_N)
Typical turn-off time	600 µs (at U_N)
Operating voltage display	Yellow LED
Protective circuit	Reverse polarity protection; Polarity protection diode
Transmission frequency	100 Hz

Output data

Contact switching type	1 N/O contact
Design of digital output	electronic
Output voltage range	3 V DC ... 33 V DC
Limiting continuous current	3 A (see derating curve)
Maximum inrush current	15 A (10 ms)
Voltage drop at max. limiting continuous current	≤ 200 mV
Output circuit	2-conductor, floating
Protective circuit	Reverse polarity protection; Polarity protection diode
	Surge protection

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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

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

Shipbuilding data

Temperature	D
Humidity	A
Vibration	B/C
EMC	B

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PLC-OSC-125DC/ 24DC/ 2 - Solid-state relay module

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

EMC data

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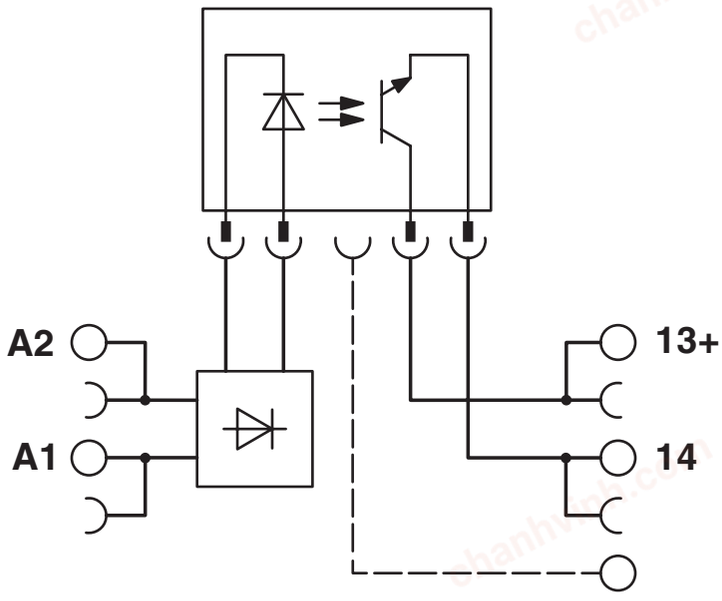
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Drawings

Circuit diagram



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Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/in/products/2980050

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

DNV GL
Approval ID: TAE0000196

cULus Listed
Approval ID: E140324

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Classifications

ECLASS

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

ETIM

ETIM 9.0	EC001504

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	15cabe07-c630-4130-b035-c5bcb88185da

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Accessories

Note: Applying some accessories below might limit this product.

FBST 500-PLC RD - Continuous plug-in bridge

2966786

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



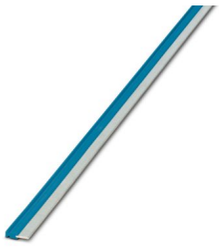
Continuous plug-in bridge, length: 500 mm, color: red

Max. current carrying capacity: 32 A

FBST 500-PLC BU - Continuous plug-in bridge

2966692

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



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

Max. current carrying capacity: 32 A

PLC-OSC-125DC/ 24DC/ 2 - Solid-state relay module

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FBST 500-PLC GY - Continuous plug-in bridge

2966838

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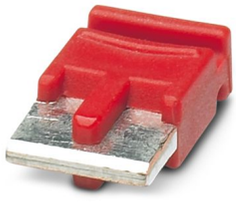
Continuous plug-in bridge, length: 500 mm, color: gray

Max. current carrying capacity: 32 A

FBST 6-PLC RD - Single plug-in bridge

2966236

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



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

Max. current carrying capacity: 6 A

PLC-OSC-125DC/ 24DC/ 2 - Solid-state relay module

2980050

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FBST 6-PLC BU - Single plug-in bridge

2966812

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

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



Max. current carrying capacity: 6 A

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PLC-OSC-125DC/ 24DC/ 2 - Solid-state relay module

2980050

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FBST 8-PLC GY - Single plug-in bridge

2967688

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

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



Max. current carrying capacity: 6 A

PLC-FA-5X20 - Fuse adapter

1186510

https://www.phoenixcontact.com/in/products/1186510

Safety plug adapter for use on a 6.2 mm PLC basic terminal block. For 5 x 20 mm fuses. Operating voltage: Universal. Without fuse failure indication.



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PLC-OSC-125DC/ 24DC/ 2 - Solid-state relay module

2980050

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PLC-FA-I-5X20-12-24UC - Fuse adapter

1186499

https://www.phoenixcontact.com/in/products/1186499



Safety plug adapter for use on a 6.2 mm PLC basic terminal block. For 5 x 20 mm fuses. Operating voltage: 12 ... 24 V AC/DC. With LED for fuse failure indication.

ZB 6:UNBEDRUCKT - Zack marker strip

1051003

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



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

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PLC-OSC-125DC/ 24DC/ 2 - Solid-state relay module

2980050

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ZB 6 CUS - Zack marker strip

0824992

https://www.phoenixcontact.com/in/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, Number of individual labels: 10, text field height: 10.5 mm, text field width: 6.15 mm

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

1051016

https://www.phoenixcontact.com/in/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: latching, for terminal block width: 6.2 mm, Number of individual labels: 10, text field height: 10.5 mm, text field width: 6.15 mm

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PLC-OSC-125DC/ 24DC/ 2 - Solid-state relay module

2980050

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

1051029

https://www.phoenixcontact.com/in/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: latching, for terminal block width: 6.2 mm, Number of individual labels: 10, text field height: 10.5 mm, text field width: 6.15 mm

ZB 6,LGS:GLEICHE ZAHLEN - Zack marker strip

1051032

https://www.phoenixcontact.com/in/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: latching, for terminal block width: 6.2 mm, Number of individual labels: 10, text field height: 10.5 mm, text field width: 6.15 mm

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PLC-OSC-125DC/ 24DC/ 2 - Solid-state relay module

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

1051414

https://www.phoenixcontact.com/in/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: latching, for terminal block width: 6.2 mm, Number of individual labels: 10, text field height: 10.5 mm, text field width: 6.15 mm

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

1051430

https://www.phoenixcontact.com/in/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: latching, for terminal block width: 6.2 mm, Number of individual labels: 10, text field height: 10.5 mm, text field width: 6.15 mm

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PLC-OSC-125DC/ 24DC/ 2 - Solid-state relay module

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UC-TM 6 - Marker for terminal blocks

0818085

https://www.phoenixcontact.com/in/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: latching, for terminal block width: 6.2 mm, Number of individual labels: 80, text field height: 10.5 mm, text field width: 5.6 mm

UC-TM 6 CUS - Marker for terminal blocks

0824589

https://www.phoenixcontact.com/in/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, Number of individual labels: 80, text field height: 10.5 mm, text field width: 5.6 mm

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PLC-OSC-125DC/ 24DC/ 2 - Solid-state relay module

2980050

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UCT-TM 6 - Marker for terminal blocks

0828736

https://www.phoenixcontact.com/in/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: latching, for terminal block width: 6.2 mm, Number of individual labels: 60, text field height: 10.5 mm, text field width: 5.6 mm

UCT-TM 6 CUS - Marker for terminal blocks

0829602

https://www.phoenixcontact.com/in/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, Number of individual labels: 60, text field height: 10.5 mm, text field width: 5.6 mm

PLC-OSC-125DC/ 24DC/ 2 - Solid-state relay module

2980050

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

0801733

https://www.phoenixcontact.com/in/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/in/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

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PLC-OSC-125DC/ 24DC/ 2 - Solid-state relay module

2980050

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

1204119

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



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

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PLC-OSC-125DC/ 24DC/ 2 - Solid-state relay module

2980050

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

0801704

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



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

PLC-OSC-125DC/ 24DC/ 2 - Solid-state relay module

2980050

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

1206434

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



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

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PLC-OSC-125DC/ 24DC/ 2 - Solid-state relay module

2980050

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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/in/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

PLC-OSC-125DC/ 24DC/ 2 - Solid-state relay module

2980050

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

1201714

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



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

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PLC-OSC-125DC/ 24DC/ 2 - Solid-state relay module

2980050

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

1204135

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



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

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PLC-OSC-125DC/ 24DC/ 2 - Solid-state relay module

2980050

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

1206599

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



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

PLC-OSC-125DC/ 24DC/ 2 - Solid-state relay module

2980050

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

1201895

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

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



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PLC-OSC-125DC/ 24DC/ 2 - Solid-state relay module

2980050

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

1201798

https://www.phoenixcontact.com/in/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/in/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-OSC-125DC/ 24DC/ 2 - Solid-state relay module

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PLC-ESK GY - Power terminal block

2966508

https://www.phoenixcontact.com/in/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/in/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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PLC-OSC-125DC/ 24DC/ 2 - Solid-state relay module

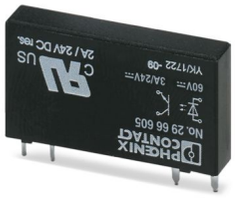
2980050

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OPT-60DC/ 24DC/ 2 - Miniature solid-state relay

2966605

https://www.phoenixcontact.com/in/products/2966605



Plug-in miniature solid-state relay, power solid-state relay, 1 N/O contact, input: 60 V DC, output: 3 ... 33 V DC/3 A

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