PLC-BSP-230UC/ 1/SEN/SO46 - Relay base

2980380

https://www.phoenixcontact.com/us/products/2980380

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.

6.2 mm PLC basic terminal block with interference current and interference voltage protection on the control side, with spring-cage connection, without relay or solid-state relay, with sensor supply voltage distribution (BB), 1 N/O contact, input voltage 230 V AC

Your advantages

- Resistant to interference currents
- High relay release voltage

Commercial data

Item number	2980380
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	C461
Product key	CK6221
Catalog page	Page 335 (C-7-2013)
GTIN	4017918895730
Weight per piece (including packing)	28.66 g
Weight per piece (excluding packing)	26.82 g
Customs tariff number	85366990
Country of origin	DE

Technical data

Notes

Utilization restriction

EMC note	EMC: class A product, see manufacturer's declaration in the download area

Product properties

Product family	PLC-INTERFACE
Application	Filter to prevent interference
Operating mode	100% operating factor
Compatible components	Miniature relay, REL-MR-60DC/21AU, REL-MR-60DC/21; miniature optocoupler, OPT-60DC/48DC/100, OPT-60DC/24DC/2, OPT-60DC/230AC/1

Electrical properties

Protective circuit	Bridge rectifier; Bridge rectifier
	RCZ filter; RCZ filter

Input data

Nominal input voltage U_N	230 V AC

Relay assembly

Nominal input voltage U_N	230 V AC
Input voltage range in reference to U_N	0.78 ... 1.14
Typical input current at U_N	8.8 mA (50 Hz)
	10 mA (60 Hz)
Typical response time	7 ms
Typical release time	20 ms
Typical release voltage	80 V AC
Operating voltage display	Yellow LED
Protective circuit	Bridge rectifier; Bridge rectifier
	Filter; Filter

Optocoupler assembly

Nominal input voltage U_N	230 V AC
Input voltage range in reference to U_N	0.8 ... 1.1
Typical input current at U_N	8.8 mA
	10 mA
Switching threshold "0" signal in reference to U_N	≤ 0.4
Typical response time	6 ms
Typical release time	10 ms
Operating voltage display	Yellow LED
Protective circuit	Bridge rectifier; Bridge rectifier
	Filter; Filter

Output data

Compatible components	Miniature relay, REL-MR-60DC/21AU, REL-MR-60DC/21; miniature optocoupler, OPT-60DC/48DC/100, OPT-60DC/24DC/2, OPT-60DC/230AC/1
Maximum switching voltage	48 V DC
Minimum switching voltage	3 V DC
Limiting continuous current	100 mA
Voltage drop at max. limiting continuous current	< 1 V DC
Output circuit	2-conductor, floating
Protective circuit	Reverse polarity protection
	Surge protection
Maximum switching voltage	30 V DC
Minimum switching voltage	3 V DC
Limiting continuous current	3 A
Voltage drop at max. limiting continuous current	< 200 mV
Maximum inrush current	15 A (10 ms)
Output circuit	2-conductor, floating
Protective circuit	Reverse polarity protection
	Surge protection
Maximum switching voltage	253 V AC (Partition plate PLC-ATP must be installed for voltages larger than 250 V (L1, L2, L3) between identical terminal points in adjacent modules. Potential bridging is then carried out with FBST 8-PLC... or ...FBST 500...)
Minimum switching voltage	24 V AC
Limiting continuous current	0.75 A
Voltage drop at max. limiting continuous current	< 1 V AC
Maximum inrush current	30 A (10 ms)
Output circuit	2-conductor, floating
Protective circuit	RCV circuit
Leakage current	< 1 mA
Phase angle cos phi min	0.5
Max. load value	4.5 A^2s

Connection data

Input side

Connection method	Spring-cage connection
Stripping length	8 mm
Conductor cross section rigid	0.14 mm² ... 2.5 mm²
Conductor cross section flexible	0.14 mm² ... 2.5 mm²
Conductor cross section AWG	26 ... 14

Output side

Connection method	Spring-cage connection
Stripping length	8 mm
Conductor cross section rigid	0.14 mm² ... 2.5 mm²

Conductor cross section flexible	0.14 mm² ... 2.5 mm²
Conductor cross section AWG	26 ... 14

Signaling

Status display	LED

Dimensions

Width	6.2 mm
Height	80 mm
Depth	94 mm

Material specifications

Flammability rating according to UL 94	V0 (Housing)

Environmental and real-life conditions

Ambient conditions

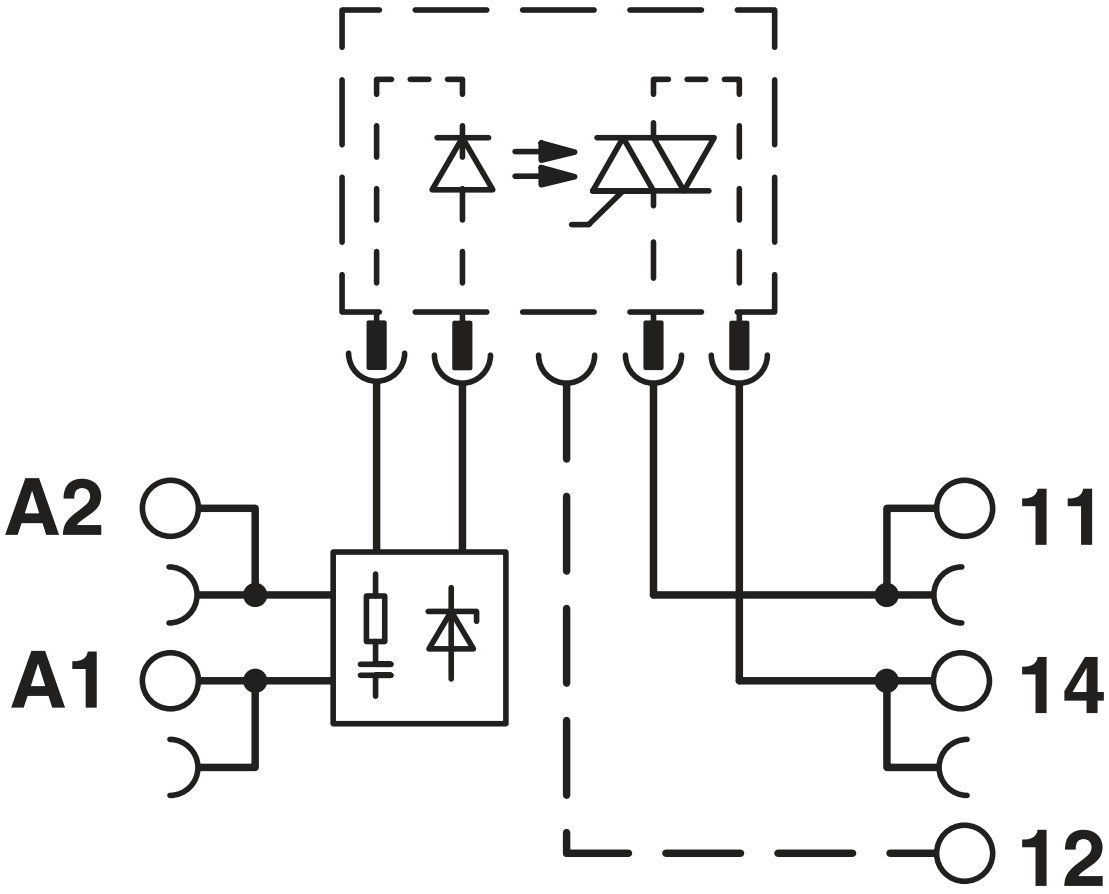
Ambient temperature (operation)	-25 °C ... 55 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C

Mounting

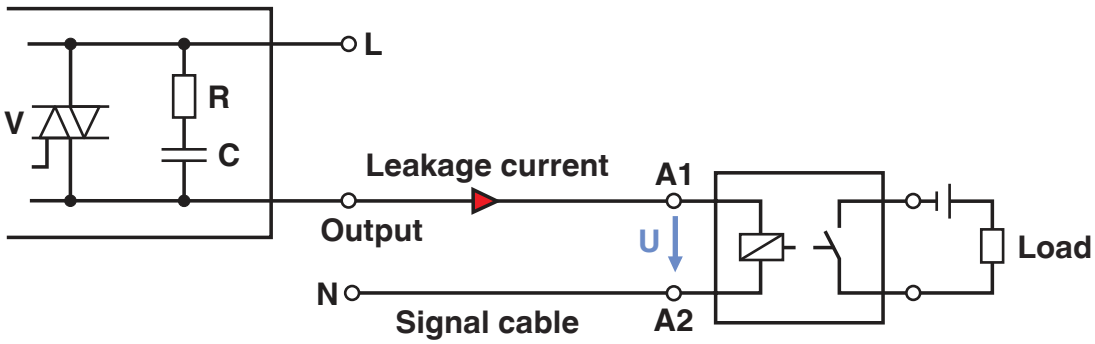
Mounting type	DIN rail mounting
Assembly instructions	in rows with zero spacing
Mounting position	any

Drawings

Circuit diagram

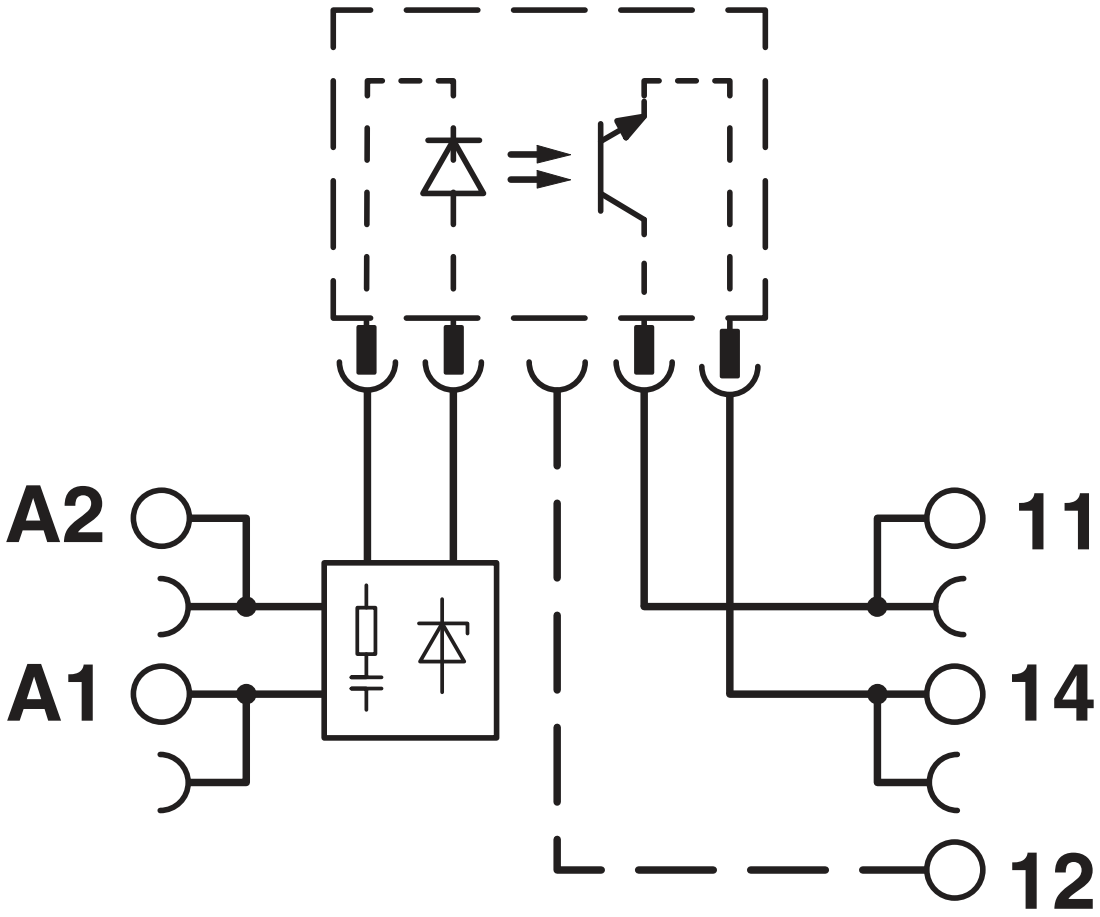


Application drawing

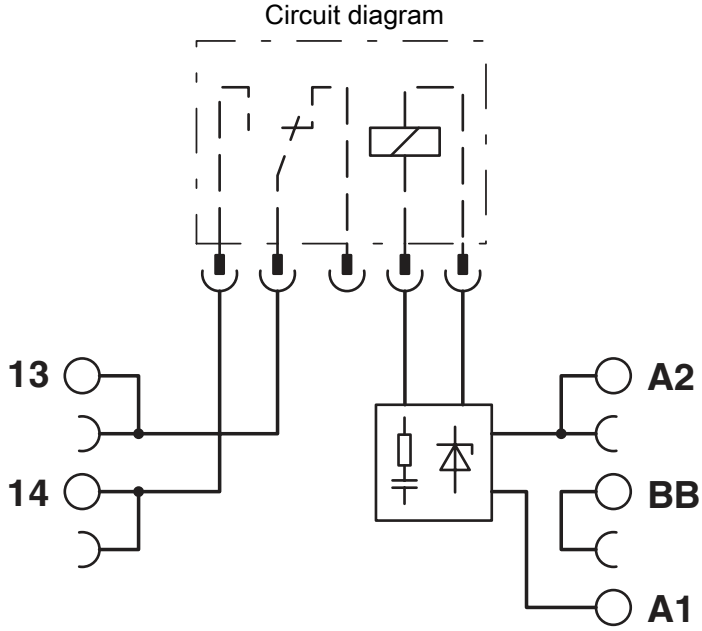


Occurrence of interference signals
Scenario 1: controller - AC output card

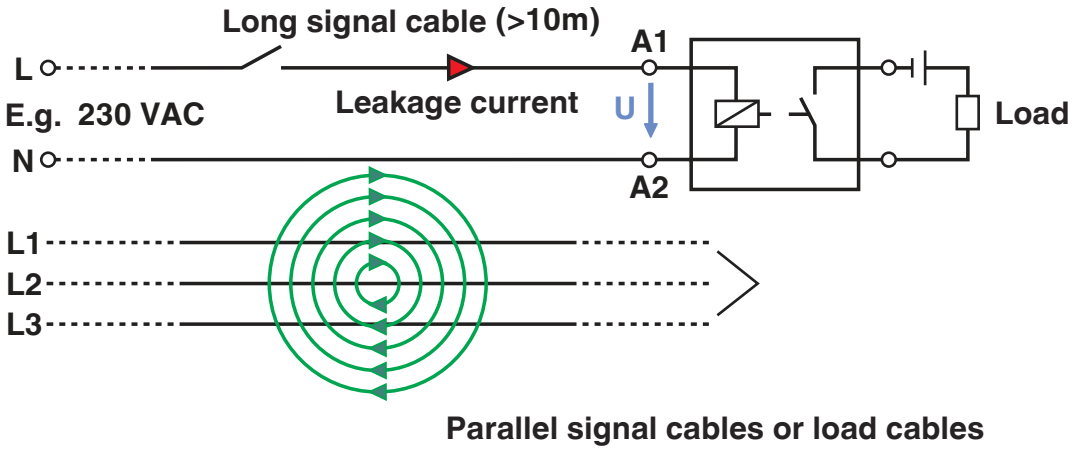
Circuit diagram



Circuit diagram



Application drawing



Occurrence of interference signals
Scenario 2: long signal cables

Classifications

ECLASS

ECLASS-11.0	27371603

ETIM

ETIM 7.0	EC001456

Environmental product compliance

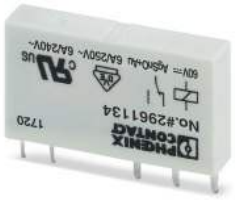
China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer’s declaration available under “Downloads”

Mandatory accessories

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

2961134

https://www.phoenixcontact.com/us/products/2961134

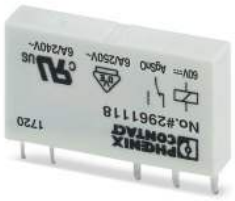


Plug-in miniature power relay, with multi-layer gold contact, 1 changeover contact, input voltage 60 V DC

REL-MR- 60DC/21 - Single relay

2961118

https://www.phoenixcontact.com/us/products/2961118



Plug-in miniature power relay, with power contact, 1 changeover contact, input voltage 60 V DC

OPT-60DC/ 48DC/100 - Miniature solid-state relay

2966621

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

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

2966605

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

OPT-60DC/230AC/ 1 - Miniature solid-state relay

2967963

https://www.phoenixcontact.com/us/products/2967963

Plug-in miniature solid-state relay, power solid-state relay, 1 N/O contact, input: 60 V DC, output: 24 - 253 V AC/0.75 A

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

Max. current carrying capacity: 32 A

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

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

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

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

NS 35/ 7,5 V2A UNPERF 2000MM - DIN rail, unperforated

0801377

https://www.phoenixcontact.com/us/products/0801377

DIN rail, unperforated, acc. to EN 60715, material: Stainless steel V2A, uncoated, Standard profile, color: silver, Pack of 25 (50 m)

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

0801733

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

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

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

0801762

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

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

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

1201714

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

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

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

1201895

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

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

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

1201798

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

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

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

NS 35/15 PERF 2000MM - DIN rail perforated

1201730

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

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

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

0801681

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

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

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

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 x 10.5 mm, Number of individual labels: 10

ZB 6/WH-100:UNBEDRUCKT - Zack marker strip

5060935

https://www.phoenixcontact.com/us/products/5060935

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: 1000

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

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 x 3.5 x 100 mm, 2-component grip, with non-slip grip

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: plusschaltend

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: plusschaltend

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: Plug-in connection (Can be snapped onto 8x PLC-INTERFACE terminals), connection 3: Screw connection 1x 2-position, number of channels: 8, control logic: plusschaltend

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

PLC-BSP-230UC/ 1/SEN/SO46 - Relay base

2980380

https://www.phoenixcontact.com/us/products/2980380

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

Phoenix Contact 2023 © - 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