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PLC-INTERFACE, consisting of PLC-BPT.../21-21 basic terminal block with push-in connection and plug-in miniature relay with power contact, for mounting on NS 35/7,5 DIN rail, 2 PDTs, input voltage 24 V AC/DC

#### Your advantages

- Safe isolation according to DIN EN 50178 between coil and contact
- ☑ RT III sealed relay
- ☑ Integrated input circuit and interference suppression circuit



# **Key Commercial Data**

Packing unit	1 pc
GTIN	4 046356 509909
GTIN	4046356509909
Weight per Piece (excluding packing)	62.000 g
Custom tariff number	85364900
Country of origin	Germany

### Technical data

#### Note

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

#### **Dimensions**

Width	14 mm

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# Technical data

## Dimensions

Height	80 mm
Depth	94 mm

#### Ambient conditions

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

### Coil side

Nominal input voltage U <sub>N</sub>	24 V AC/DC
Typical input current at U <sub>N</sub>	17.5 mA
Typical response time	8 ms
Typical release time	10 ms
Protective circuit	Bridge rectifier Bridge rectifier
Operating voltage display	Yellow LED
Power dissipation for nominal condition	0.42 W

### Contact side

Contact type	2 PDT
Type of switch contact	Single contact
Contact material	AgNi
Maximum switching voltage	250 V AC/DC (The separating plate PLC-ATP should be installed for voltages larger than 250 V (L1, L2, L3) between identical terminal blocks in adjacent modules. Potential bridging is then carried out with FBST 8-PLC orFBST 500)
Minimum switching voltage	5 V AC/DC (at 10 mA)
Min. switching current	10 mA (At 5 V)
Maximum inrush current	15 A (300 ms)
Limiting continuous current	6 A
Interrupting rating (ohmic load) max.	140 W (at 24 V DC)
	85 W (at 48 V DC)
	60 W (at 60 V DC)
	44 W (at 110 V DC)
	60 W (at 220 V DC)
	1500 VA (for 250 V AC)
Switching capacity	2 A (at 24 V, DC13)
	3 A (at 24 V, AC15)
	3 A (at 120 V, AC15)
	3 A (at 250 V, AC15)

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# Technical data

#### Contact side

		0.2 A (at 250 V, DC13)
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### General

Operating mode	100% operating factor
Flammability rating according to UL 94	V0 (Housing)
Mechanical service life	3x 10 <sup>7</sup> cycles
Mounting position	any
Assembly instructions	In rows with zero spacing

#### Connection data

Connection name	Coil side
Connection method	Push-in connection
Stripping length	8 mm
Conductor cross section solid	0.14 mm² 2.5 mm²
Conductor cross section flexible	0.14 mm² 2.5 mm²
	0.2 mm <sup>2</sup> 2.5 mm <sup>2</sup> (Single ferrule)
	2x 0.5 mm <sup>2</sup> 1 mm <sup>2</sup> (TWIN ferrule)
Conductor cross section AWG	26 14

#### Connection data 2

Connection name	Contact side
Connection method	Push-in connection
Stripping length	8 mm
Conductor cross section solid	0.14 mm² 2.5 mm²
Conductor cross section flexible	0.14 mm² 2.5 mm²
	0.2 mm <sup>2</sup> 2.5 mm <sup>2</sup> (Single ferrule)
	2x 0.5 mm² 1 mm² (TWIN ferrule)
Conductor cross section AWG	26 14

## Standards and Regulations

Connection in acc. with standard	CUL
Designation	Standards/regulations
Standards/regulations	IEC 60664
	EN 50178
Rated surge voltage	6 kV
Insulation	Safe isolation of input/output
Pollution degree	2
Overvoltage category	III

**Environmental Product Compliance** 



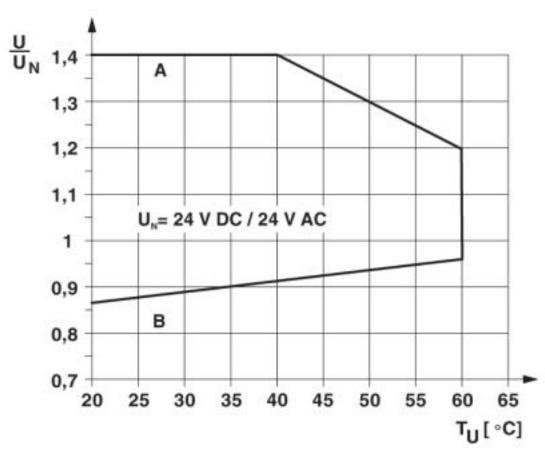
## Technical data

## **Environmental Product Compliance**

China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

## **Drawings**

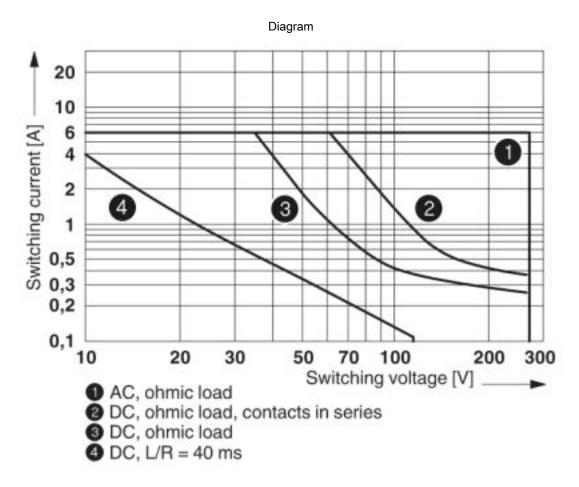
#### Diagram



Curve A
Maximum permissible continuous voltage U<sub>max</sub> with limiting continuous current on the contact side (see relevant technical data)
Curve B

Minimum permissible operate voltage  $U_{\text{op}}$  after pre-excitation (see relevant technical data)

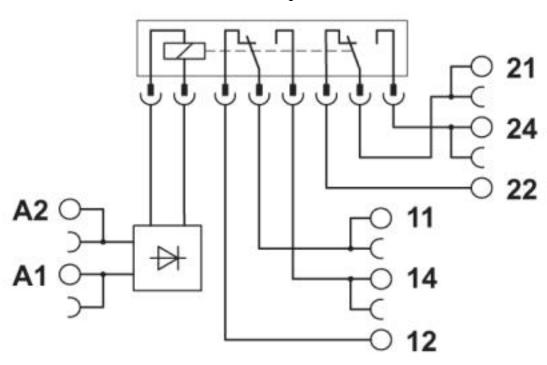




Interrupting rating







### Articles in set

Relay base - PLC-BPT- 24UC/21-21 - 2900284



14 mm PLC basic terminal block with push-in connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, 2 PDTs, input voltage 24 V AC/DC

Single relay - REL-MR- 24DC/21-21 - 2961192



Plug-in miniature power relay, with power contact, 2 PDTs, input voltage 24 V DC

## Classifications

eCl@ss

eCl@ss 4.0	27371000

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# Classifications

## eCl@ss

eCl@ss 4.1	27371000
eCl@ss 5.0	27371600
eCl@ss 5.1	27371600
eCl@ss 6.0	27371600
eCl@ss 7.0	27371601
eCl@ss 8.0	27371601
eCl@ss 9.0	27371601

### **ETIM**

ETIM 2.0	EC001437
ETIM 3.0	EC001437
ETIM 4.0	EC001437
ETIM 5.0	EC001437
ETIM 6.0	EC001437
ETIM 7.0	EC001437

### **UNSPSC**

UNSPSC 6.01	30211916
UNSPSC 7.0901	39121515
UNSPSC 11	39121515
UNSPSC 12.01	39121515
UNSPSC 13.2	39122334
UNSPSC 18.0	39122334
UNSPSC 19.0	39122334
UNSPSC 20.0	39122334
UNSPSC 21.0	39122334

# Approvals

Approvals

Approvals

DNV GL / UL Listed / UL Recognized / cUL Recognized / cUL Listed / RC FRT / EAC / cULus Recognized / cULus Listed

Ex Approvals

Approval details

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# Approvals

DNV GL	NWGL	https://approvalfinder.dnvgl.com/	TAE0000196-02
UL Listed	UL LISTED	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 172140
UL Recognized	<b>7.1</b>	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 238705
cUL Recognized	<b>1?</b> :	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 238705
cUL Listed	C UL	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 172140
RC FRT	CKT)		B.00094
EAC	ERC		TR_TS_D_00573_c
cULus Recognized	c <b>911</b> us		
cULus Listed	C. UL US		

### Accessories

Accessories

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### Accessories

Bridge

Continuous plug-in bridge - FBST 500-PLC RD - 2966786



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

Continuous plug-in bridge - FBST 500-PLC BU - 2966692



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

Continuous plug-in bridge - FBST 500-PLC GY - 2966838



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

Single plug-in bridge - FBST 6-PLC RD - 2966236



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

Single plug-in bridge - FBST 6-PLC BU - 2966812



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



### Accessories

Single plug-in bridge - FBST 6-PLC GY - 2966825



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

Single plug-in bridge - FBST 6-PLC RD - 2966236



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

Single plug-in bridge - FBST 6-PLC RD - 2966236



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

#### DIN rail

DIN rail, unperforated - NS 35/ 7,5 V2A UNPERF 2000MM - 0801377



DIN rail, unperforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Stainless steel V2A, uncoated, length: 2000 mm, color: silver

DIN rail perforated - NS 35/7,5 PERF 2000MM - 0801733



DIN rail perforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

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#### Accessories

DIN rail, unperforated - NS 35/7,5 CU UNPERF 2000MM - 0801762



DIN rail, unperforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Copper, uncoated, length: 2000 mm, color: copper-colored

DIN rail, unperforated - NS 35/15 UNPERF 2000MM - 1201714



DIN rail, unperforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

DIN rail, unperforated - NS 35/15 CU UNPERF 2000MM - 1201895



DIN rail, unperforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715, material: Copper, uncoated, length: 2000 mm, color: copper-colored

DIN rail, unperforated - NS 35/15-2,3 UNPERF 2000MM - 1201798



DIN rail, unperforated, Standard profile 2.3 mm, width: 35 mm, height: 15 mm, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

DIN rail, unperforated - NS 35/15 AL UNPERF 2000MM - 1201756



DIN rail, unperforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715, material: Aluminum, uncoated, length: 2000 mm, color: silver



#### Accessories

DIN rail perforated - NS 35/15 PERF 2000MM - 1201730



DIN rail perforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

DIN rail, unperforated - NS 35/7,5 UNPERF 2000MM - 0801681



DIN rail, unperforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

#### Labeled terminal marker

Zack marker strip - ZB10,LGS:FORTL.ZAHLEN - 1053014



Zack marker strip, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, printed horizontally: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... 100, mounting type: snap into tall marker groove, for terminal block width: 10.2 mm, lettering field size: 10.15 x 10.5 mm, Number of individual labels: 10

#### Partition plate

Separating plate - PLC-ATP BK - 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

Power module



#### Accessories

Power terminal block - PLC-ESK GY - 2966508



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

#### Screwdriver tools

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

#### Terminal marking

Zack marker strip - ZB10/WH-100:UNBEDRUCKT - 5060883



Zack marker strip, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, mounting type: snap into tall marker groove, for terminal block width: 10.2 mm, lettering field size: 10.15 x 10.5 mm, Number of individual labels: 1000

#### Zack marker strip - ZB 10:UNBEDRUCKT - 1053001



Zack marker strip, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into tall marker groove, for terminal block width: 10.2 mm, lettering field size: 10.5 x 10.15 mm, Number of individual labels: 10

#### Marker for terminal blocks - UC-TM 12 - 0819194



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into tall marker groove, for terminal block width: 12 mm, lettering field size: 11.45 x 10.5 mm, Number of individual labels: 40

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#### Accessories

Marker for terminal blocks - UCT-TM 12 - 0829144



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: snap into tall marker groove, for terminal block width: 12 mm, lettering field size: 10.8 x 9.6 mm, Number of individual labels: 30

#### Spare parts

Relay base - PLC-BPT- 24UC/21-21 - 2900284



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