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PLC-INTERFACE, consisting of PLC-BSP.../21 basic terminal block with spring-cage connection and plug-in miniature relay with multi-layer gold contact, for mounting on DIN rail NS 35/7,5, 1 PDT, input voltage 24 V DC

#### Your advantages

- Slim design
- Efficient connection to system cabling using V8 adapter
- RT III sealed relay
- ☑ Safe isolation according to DIN EN 50178 between coil and contact
- Functional plug-in bridges
- Integrated input circuit and interference suppression circuit



## Key Commercial Data

| Packing unit                         | 1 pc                      |
|--------------------------------------|---------------------------|
| GTIN                                 | 4 0 1 7 9 1 8 1 6 4 8 0 5 |
| GTIN                                 | 4017918164805             |
| Weight per Piece (excluding packing) | 32.170 g                  |
| Custom tariff number                 | 85364190                  |
| Country of origin                    | Germany                   |

### Technical data

#### Note

| Utilization restriction | EMC: class A product, see manufacturer's declaration in the download area |
|-------------------------|---|
| Dimensions              |   |
| Width                   | 6.2 mm  |



# 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 |

#### Coil side

| Nominal input voltage U <sub>N</sub>    | 24 V DC   |
|---|---|
| Typical input current at $U_N$          | 9 mA  |
| Typical response time                   | 5 ms  |
| Typical release time                    | 8 ms  |
| Protective circuit                      | Reverse polarity protection Polarity protection diode |
|   | Free-wheeling diode Damping diode                     |
| Operating voltage display               | Yellow LED  |
| Power dissipation for nominal condition | 0.22 W  |

#### Contact side

| Contact type                          | 1 PDT                   |
|---------------------------------------|-------------------------|
| Type of switch contact                | Single contact          |
| Contact material                      | AgSnO, hard gold-plated |
| Maximum switching voltage             | 30 V AC                 |
|                                       | 36 V DC                 |
| Minimum switching voltage             | 100 mV (at 10 mA)       |
| Min. switching current                | 1 mA (at 24 V)          |
| Maximum inrush current                | 50 mA                   |
| Limiting continuous current           | 50 mA                   |
| Interrupting rating (ohmic load) max. | 1.2 W (at 24 V DC)      |

# Contact side (with destroyed gold layer)

| 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)   |



# Technical data

## Contact side (with destroyed gold layer)

|                    | 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 input side

| Connection name                  | Coil side                                |
|----------------------------------|--|
| Connection method                | Spring-cage connection                   |
| Stripping length                 | 8 mm                                     |
| Conductor cross section solid    | 0.14 mm <sup>2</sup> 2.5 mm <sup>2</sup> |
| Conductor cross section flexible | 0.14 mm <sup>2</sup> 2.5 mm <sup>2</sup> |
| Conductor cross section AWG      | 26 14                                    |

### Connection data output side

| Connection name                  | Contact side                             |
|----------------------------------|--|
| Connection method                | Spring-cage connection                   |
| Stripping length                 | 8 mm                                     |
| Conductor cross section solid    | 0.14 mm <sup>2</sup> 2.5 mm <sup>2</sup> |
| Conductor cross section flexible | 0.14 mm <sup>2</sup> 2.5 mm <sup>2</sup> |
| Conductor cross section AWG      | 26 14                                    |

#### General

| Test voltage relay winding/relay contact | 4 kV AC (50 Hz, 1 min.)   |
|--|---------------------------|
| Operating mode                           | 100% operating factor     |
| Mechanical service life                  | 2x 10 <sup>7</sup> cycles |
| Mounting position                        | any                       |
| Assembly instructions                    | In rows with zero spacing |

# Standards and Regulations

| Connection in acc. with standard | CUL                   |
|----------------------------------|-----------------------|
| Designation                      | Standards/regulations |
| Standards/regulations            | IEC 60664             |
|                                  | EN 50178              |
| Pollution degree                 | 3                     |
| Overvoltage category             | III                   |

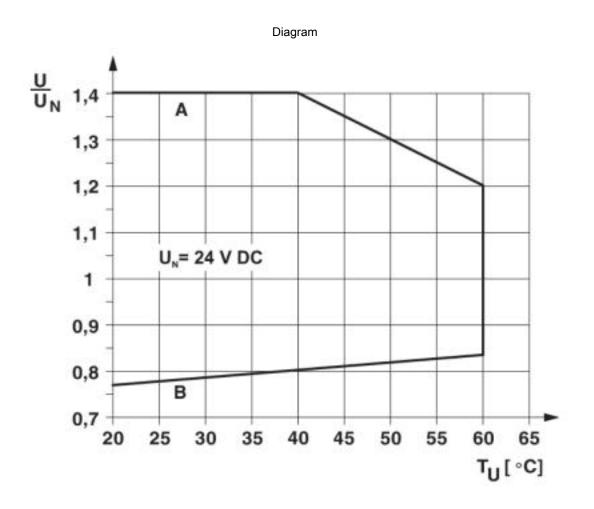


### Technical data

#### **Environmental Product Compliance**

| REACh SVHC | Lead 7439-92-1  |
|------------|---|
| China RoHS | Environmentally Friendly Use Period = 50  |
|            | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |

# Drawings



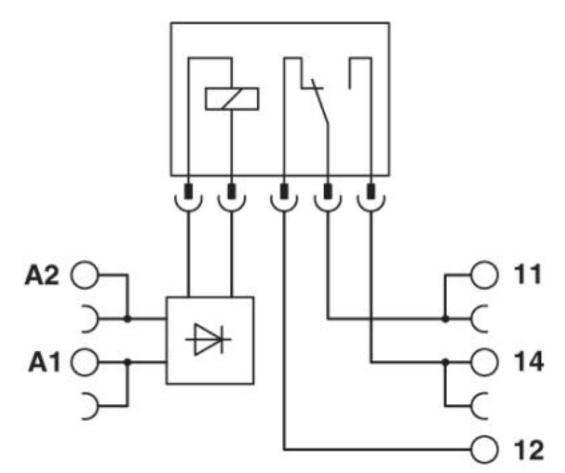
Curve A

Maximum permissible continuous voltage  $U_{max}$  with limiting continuous current on the contact side (see relevant technical data) Curve B

Minimum permissible operate voltage U<sub>op</sub> after pre-excitation (see relevant technical data)



Circuit diagram



# Classifications

#### eCl@ss

| eCl@ss 5.0 | 27371601 |
|------------|----------|
| 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 |

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# Classifications

#### ETIM

| 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 |

# Approvals

#### Approvals

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

#### Ex Approvals

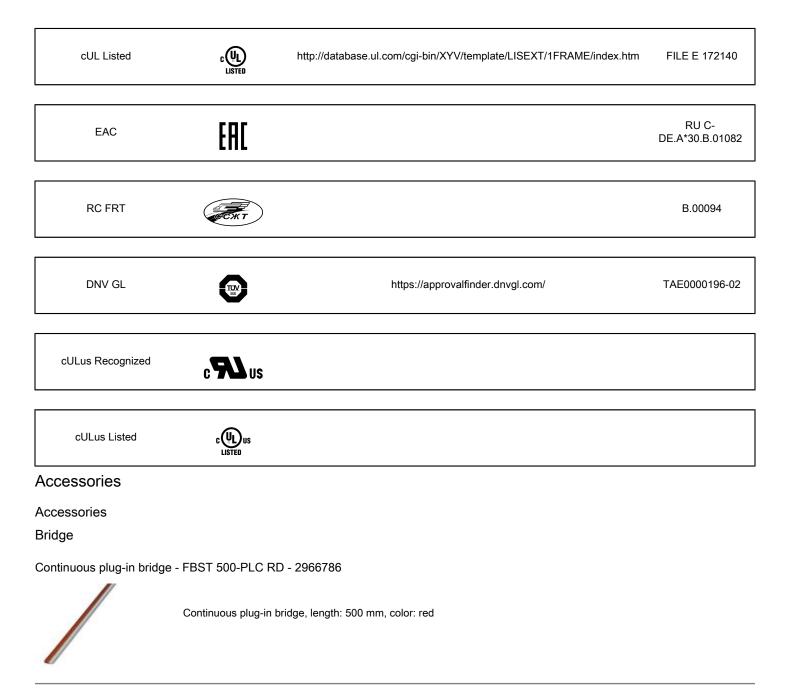
#### Approval details

| PRS            |        | http://www.prs.pl/  | TE/2109/880590/16 |
|----------------|--------|---|-------------------|
|                |        |   |                   |
| UL Listed      | LISTED | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 172140     |
|                |        |   |                   |
| UL Recognized  | 17     | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 238705     |
|                |        |   |                   |
| cUL Recognized |        | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 238705     |

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# Approvals



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### Accessories

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

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



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

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### Accessories

Single plug-in bridge - FBST 8-PLC GY - 2967688



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

#### Controller board

System connection - PLC-V8/FLK14/OUT - 2295554



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

System connection - PLC-V8/FLK14/OUT/M - 2304102



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

#### System connection - PLC-V8/D15S/OUT - 2296058



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

System connection - PLC-V8/D15B/OUT - 2296061



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



### Accessories

System connection - PLC-V8/FLK14/IN - 2296553



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

#### System connection - PLC-V8/FLK14/IN/M - 2304115



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

#### System connection - PLC-V8/D15S/IN - 2296074



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

System connection - PLC-V8/D15B/IN - 2296087



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

### 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



### Accessories

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

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



### Accessories

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

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 - ZB 6,LGS:FORTL.ZAHLEN - 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: 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

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



### Accessories

Power module

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, 2component grip, with non-slip grip

Terminal marking

Zack marker strip - ZB 6:UNBEDRUCKT - 1051003



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: 6.2 mm, lettering field size: 6.15 x 10.5 mm, Number of individual labels: 10

Zack marker strip - ZB 6/WH-100:UNBEDRUCKT - 5060935



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: 6.2 mm, lettering field size: 6.15 x 10.5 mm, Number of individual labels: 10



### Accessories

Marker for terminal blocks - UC-TM 6 - 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: 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

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

#### Spare parts

Relay base - PLC-BSP- 24DC/21 - 2967219



6.2 mm PLC basic terminal block with spring-cage connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, 1 PDT, input voltage 24 V DC

Single relay - REL-MR- 24DC/21AU - 2961121



Plug-in miniature power relay, with multi-layer gold contact, 1 PDT, input voltage 24 V DC

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