

2964623

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Power solid-state relay terminal block, input: 5 V DC, output: 10 - 253 V AC/800 mA, terminal block width: 6.2 mm

# Your advantages

- EB-DIK insertion bridges
- · Actuator version available
- · Labeling and mounting with user-friendly modular terminal blocks
- Wear-free switching of up to 24 V DC/10 A or 240 V AC/800 mA
- · Integrated output protective circuit
- · Zero voltage switch at AC output
- · Status indicator
- · Integrated input circuit
- Electrical isolation between input and output at up to 2.5 kVrms

### Commercial data

| Item number                          | 2964623             |
|--------------------------------------|---------------------|
| Packing unit                         | 10 pc               |
| Minimum order quantity               | 10 pc               |
| Sales key                            | C460                |
| Product key                          | CK61A1              |
| Catalog page                         | Page 443 (C-5-2019) |
| GTIN                                 | 4017918130909       |
| Weight per piece (including packing) | 21.071 g            |
| Weight per piece (excluding packing) | 21.071 g            |
| Customs tariff number                | 85364190            |
| Country of origin                    | CN                  |



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# Technical data

### Notes

| Order information:  | The housing is open on one side. The appropriate cover is D-DEK 1,5 GN (2716949).   |
|---------------------|---|
| Note on application | Use of EB 80-DIK bridges in the DEK terminal blocks: Absorption of humidity from the ambient air as well as an unfavorable tolerance between a larger number of DEK terminal blocks and the EB 80-DIK bridge may cause (minor) expansion of the DEK housing. When the EB 80-DIK bridges are used, therefore, it is recommended that these be disconnected after about 10 to 12 DEK terminal blocks and a wire bridge to the next DEK terminal block be inserted in their place. |

# Product properties

| Product type   | Solid-state relay module |
|----------------|--------------------------|
| Product family | DEK                      |
| Application    | Output function          |
| Operating mode | 100% operating factor    |
|                |                          |

### Insulation characteristics

| Insulation | Basic insulation |
|------------|------------------|
|------------|------------------|

### Insulation characteristics: Standards/regulations

| Insulation           | Basic insulation |
|----------------------|------------------|
| Overvoltage category | III              |
| Pollution degree     | 2                |

# Electrical properties

| Test voltage (Input/output)  2.5 kV AC (50 Hz, 1 min., input/output) |  |
|--|--|
|--|--|

### Input data

| Nominal input voltage U <sub>N</sub>                          | 5 V DC   |
|---|--|
| Input voltage range in reference to $\mathbf{U}_{\mathrm{N}}$ | 0.8 1.2  |
| Input voltage range   | 4 V DC 6 V DC  |
| Switching threshold "0" signal in reference to $U_N$          | ≤ 0.4  |
| Switching threshold "1" signal in reference to $U_N$          | ≥ 0.8  |
| Typical input current at U <sub>N</sub>                       | 10.2 mA  |
| Typical response time   | < 10 ms  |
| Typical turn-off time   | < 10 ms  |
| Operating voltage display                                     | Yellow LED   |
| Protective circuit  | Reverse polarity protection; Polarity protection diode |
|   | Surge protection                                       |
| Transmission frequency  | 10 Hz  |

### Output data

| Contact switching type | 1 N/O contact |
|------------------------|---------------|



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| Design of digital output                         | electronic                                |
|--|---|
| Output voltage range                             | 10 V AC 253 V AC (50/60 Hz)               |
| Limiting continuous current                      | 0.8 A (see derating curve)                |
| Maximum inrush current                           | 30 A (t = 10 ms)                          |
| Min. load current                                | 10 mA                                     |
| Leakage current                                  | 1.2 mA                                    |
| Surge current                                    | 30 A (t = 10 ms)                          |
| Phase angle cos phi min                          | 0.5                                       |
| Max. load value                                  | $4.5 \text{ A}^2 \text{s}$                |
| Peak offstate voltage                            | 600 V (Periodic peak reverse voltage)     |
| Voltage drop at max. limiting continuous current | ≤ 1 V                                     |
| Output circuit                                   | 2-conductor floating, zero voltage switch |
| Protective circuit                               | RCV circuit; RCV circuit                  |

#### Connection data

| Connection method                | Screw connection |
|----------------------------------|------------------|
| Stripping length                 | 8 mm             |
| Screw thread                     | M3               |
| Conductor cross section rigid    | 0.2 mm² 2.5 mm²  |
| Conductor cross section flexible | 0.2 mm² 2.5 mm²  |
| Conductor cross section AWG      | 24 14            |
| Tightening torque                | 0.5 Nm           |

### **Dimensions**

| Width  | 6.2 mm |
|--------|--------|
| Height | 80 mm  |
| Depth  | 56 mm  |

# Material specifications

| Color | green (RAL 6021) |
|-------|------------------|
|       |                  |

# Environmental and real-life conditions

#### Ambient conditions

| Ambient temperature (operation)         | -20 °C 60 °C |
|---|--------------|
| Ambient temperature (storage/transport) | -20 °C 70 °C |

# Standards and regulations

### Standards/regulations

|  | EC 60947-5-1 |
|--|--------------|
|--|--------------|

# Mounting

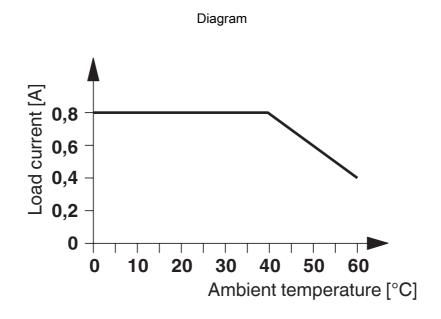
| Mounting type     | DIN rail mounting         |
|-------------------|---------------------------|
| Assembly note     | in rows with zero spacing |
| Mounting position | any                       |



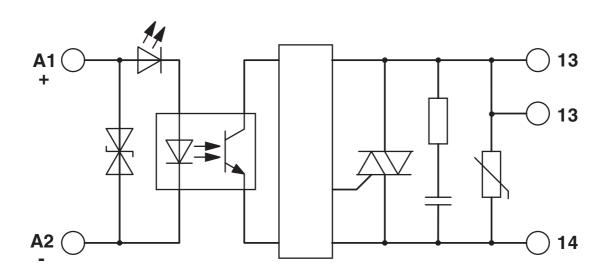
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# **Drawings**



# Circuit diagram





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# **Approvals**

🌣 To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/2964623



EAC

Approval ID: TR\_TS\_D\_00573\_c



**EAC** 

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



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# Classifications

UNSPSC 21.0

### **ECLASS**

| ECLASS-11.0 | 27371604 |
|-------------|----------|
| ECLASS-12.0 | 27371604 |
| ECLASS-13.0 | 27371604 |
| ETIM        |          |
| ETIM 9.0    | EC001504 |
| UNSPSC      |          |

39122300



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# Environmental product compliance

### EU RoHS

| Yes   |
|---|
| 7(a), 7(c)-l  |
|   |
| 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. |
|   |
| Hexahydromethylphthalic anhydride(CAS: n/a)   |
| Lead(CAS: 7439-92-1)  |
| 863305d9-1fdf-4ae6-9ef3-1fc182b01e9e  |
|   |



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### Accessories



Note: Applying some accessories below might limit this product.

# EB 2- DIK RD - Insertion bridge

2716693

https://www.phoenixcontact.com/us/products/2716693



Insertion bridge, pitch: 6.15 mm, number of positions: 2, color: red

Max. current carrying capacity: 26 A

### EB 3- DIK RD - Insertion bridge

2716745

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Insertion bridge, pitch: 6.15 mm, number of positions: 3, color: red



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# EB 4- DIK RD - Insertion bridge

2716758

https://www.phoenixcontact.com/us/products/2716758



Insertion bridge, pitch: 6.15 mm, number of positions: 4, color: red

1 Max. current carrying capacity: 26 A

### EB 5- DIK RD - Insertion bridge

2716761

https://www.phoenixcontact.com/us/products/2716761



Insertion bridge, pitch: 6.15 mm, number of positions: 5, color: red



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# EB 10- DIK RD - Insertion bridge

2716774

https://www.phoenixcontact.com/us/products/2716774



Insertion bridge, pitch: 6.15 mm, number of positions: 10, color: red

1 Max. current carrying capacity: 26 A

### EB 80- DIK RD - Insertion bridge

2715953

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Insertion bridge, pitch: 6.2 mm, number of positions: 80, color: red



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# EB 5- DIK BU - Insertion bridge

2716677

https://www.phoenixcontact.com/us/products/2716677



Insertion bridge, pitch: 6.15 mm, number of positions: 5, color: blue

1 Max. current carrying capacity: 26 A

### EB 10- DIK BU - Insertion bridge

2716680

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Insertion bridge, pitch: 6.15 mm, number of positions: 10, color: blue



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# EB 80- DIK BU - Insertion bridge

2715940

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Insertion bridge, pitch: 6.2 mm, number of positions: 80, color: blue

Max. current carrying capacity: 26 A

### D-DEK 1,5 GN - Separating plate

2716949

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Cover for setting the end of a terminal row, color: green





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### ZB 6:UNBEDRUCKT - Zack marker strip

1051003

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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:  $6.15 \times 10.5 \text{ mm}$ , Number of individual labels:  $10 \times 10.5 \text{ mm}$ 

### 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  $\dots$  10, 11  $\dots$  20, etc. up to 491  $\dots$  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/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:  $6.15 \times 10.5 \text{ mm}$ , Number of individual labels: 1000 mm

#### DIKD 1,5 - Initiator/actuator terminal block

2715979

https://www.phoenixcontact.com/us/products/2715979



Initiator/actuator terminal block, nom. voltage: 250 V, nominal current: 24 A, connection method: Screw connection, 1st, 2nd and 3rd level, Rated cross section: 2.5 mm², cross section: 0.2 mm² - 4 mm², mounting type: NS 35/7,5, NS 35/15, color: gray

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