

# DEK-OV- 24DC/ 24DC/ 3/AKT - Solid-state relay terminal block



2964296

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Power solid-state relay terminal block for actuator, input: 24 V DC, output: 3 - 30 V DC/3 A, terminal block width: 6.2 mm

## Your advantages

- Actuator version available
- EB-DIK insertion bridges
- 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
- Integrated input circuit
- Status indicator
- Zero voltage switch at AC output
- Electrical isolation between input and output at up to 2.5 kVrms

## Commercial data

|                                      |                     |
|--------------------------------------|---------------------|
| Item number                          | 2964296             |
| Packing unit                         | 10 pc               |
| Minimum order quantity               | 1 pc                |
| Sales key                            | CK6                 |
| Product key                          | CK61A1              |
| Catalog page                         | Page 443 (C-5-2019) |
| GTIN                                 | 4017918104191       |
| Weight per piece (including packing) | 22.27 g             |
| Weight per piece (excluding packing) | 21.33 g             |
| Customs tariff number                | 85364190            |
| Country of origin                    | CN                  |

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## Technical data

### Notes

|                     |  |
|---------------------|--|
| 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    |

### Data management status

|                              |            |
|------------------------------|------------|
| Date of last data management | 03.05.2024 |
|------------------------------|------------|

### Insulation characteristics

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

### Insulation characteristics: Standards/regulations

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

### Electrical properties

|   |                          |
|---|--------------------------|
| Maximum power dissipation for nominal condition | 0.17 W                   |
| Test voltage (Input/output)                     | 2.5 kV AC (Input/output) |

### Input data

|  |                             |
|--|-----------------------------|
| Nominal input voltage $U_N$                          | 24 V DC                     |
| Input voltage range in reference to $U_N$            | 0.8 ... 1.2                 |
| Input voltage range                                  | 19.2 V DC ... 28.8 V DC     |
| Switching threshold "0" signal in reference to $U_N$ | $\leq 0.4$                  |
| Switching threshold "1" signal in reference to $U_N$ | $\geq 0.8$                  |
| Typical input current at $U_N$                       | 7 mA                        |
| Typical response time                                | 40 $\mu$ s                  |
| Typical turn-off time                                | 200 $\mu$ s                 |
| Operating voltage display                            | Yellow LED                  |
| Protective circuit                                   | Reverse polarity protection |
| Transmission frequency                               | 300 Hz                      |

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## Output data

|  |                             |
|--|-----------------------------|
| Contact switching type                           | 1 N/O contact               |
| Design of digital output                         | electronic                  |
| Output voltage range                             | 3 V DC ... 30 V DC          |
| Limiting continuous current                      | 3 A (see derating curve)    |
| Voltage drop at max. limiting continuous current | ≤ 0.2 V                     |
| Output circuit                                   | 2-conductor, floating       |
| Protective circuit                               | Reverse polarity protection |
|  | Surge protection            |

## Connection data

|                                  |   |
|----------------------------------|---|
| Connection method                | Screw connection                            |
| Stripping length                 | 8 mm  |
| Screw thread                     | M3  |
| Conductor cross section rigid    | 0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> |
| Conductor cross section flexible | 0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> |
| 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

|                       |               |
|-----------------------|---------------|
| Standards/regulations | IEC 60947-5-1 |
|-----------------------|---------------|

## Mounting

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

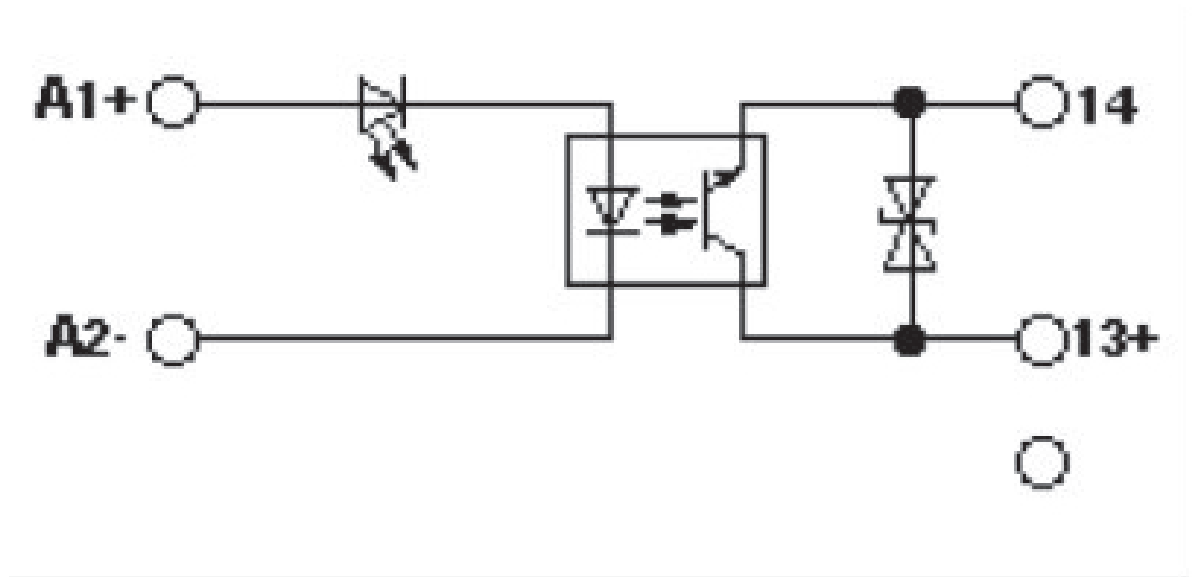
# DEK-OV- 24DC/ 24DC/ 3/AKT - Solid-state relay terminal block

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## Drawings

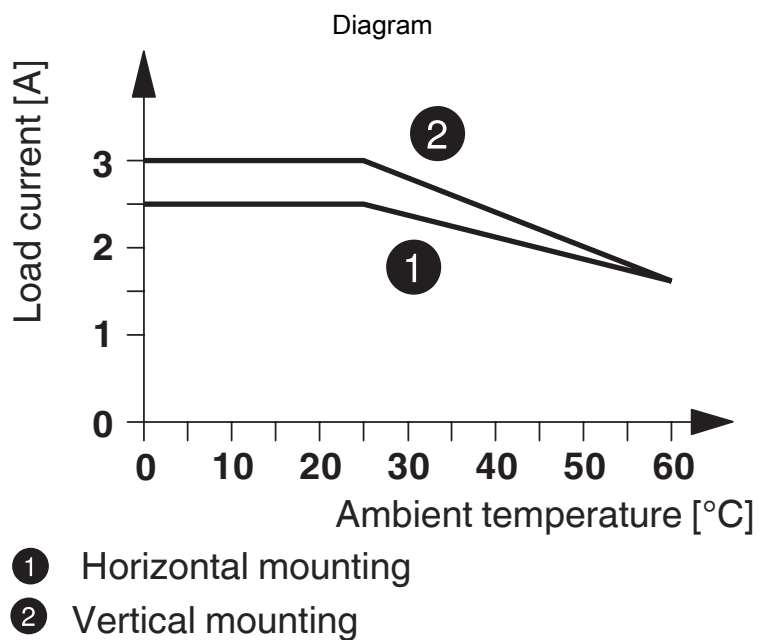
### Circuit diagram



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## Approvals

🔗 To download certificates, visit the product detail page: <https://www.phoenixcontact.com/ae/products/2964296>



**EAC**

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

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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                                | 8dfa4aad-40af-4b9d-8f7f-0dc8702eae91        |

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