

DEK-OV- 5DC/ 24DC/ 10 - Solid-state relay terminal block



2961752

<https://www.phoenixcontact.com/au/products/2961752>

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Power solid-state relay terminal block, input: DC voltage, output: DC voltage, input voltage: 5 V DC

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
- Zero voltage switch at AC output
- Electrical isolation between input and output at up to 2.5 kVrms
- Status indicator
- Integrated input circuit

Commercial data

| | |
|--------------------------------------|---------------------|
| Item number | 2961752 |
| Packing unit | 10 pc |
| Minimum order quantity | 1 pc |
| Sales key | DK61A1 |
| Product key | DK61A1 |
| Catalog page | Page 443 (C-5-2019) |
| GTIN | 4017918927950 |
| Weight per piece (including packing) | 25.38 g |
| Weight per piece (excluding packing) | 25 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: Air clearances and creepage distances between the power circuits

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

Data management status

| | |
|------------------------------|------------|
| Date of last data management | 19.03.2025 |
|------------------------------|------------|

Electrical properties

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

Air clearances and creepage distances between the power circuits

| | |
|--------------------------|---------|
| Rated insulation voltage | 50 V DC |
| Rated surge voltage | 0.5 kV |

Input data

| | |
|--|-----------------------------|
| Nominal input voltage U_N | 5 V DC |
| Input voltage range in reference to U_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_N | 5.1 mA |
| Typical response time | 100 μ s |
| Typical turn-off time | 500 μ s |
| Operating voltage display | Yellow LED |
| Protective circuit | Reverse polarity protection |
| | Surge protection |

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| | |
|------------------------|--------|
| Transmission frequency | 100 Hz |
|------------------------|--------|

Output data

| | |
|--|--------------------------------|
| Contact switching type | 1 N/O contact |
| Design of digital output | electronic |
| Output voltage range | 8 V DC ... 33 V DC |
| Limiting continuous current | 10 A (see derating curve) |
| Surge current | 100 A (t = 20 ms) |
| Voltage drop at max. limiting continuous current | < 50 mV |
| Output circuit | 3-conductor, ground-referenced |
| 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 ² ... 2.5 mm ² |
| Conductor cross section flexible | 0.2 mm ² ... 2.5 mm ² |
| 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 |
| Altitude | ≤ 2000 m |

Standards and regulations

Air clearances and creepage distances between the power circuits

| | |
|-----------------------|------------------|
| Standards/regulations | DIN EN 60947-5-1 |
|-----------------------|------------------|

Mounting

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

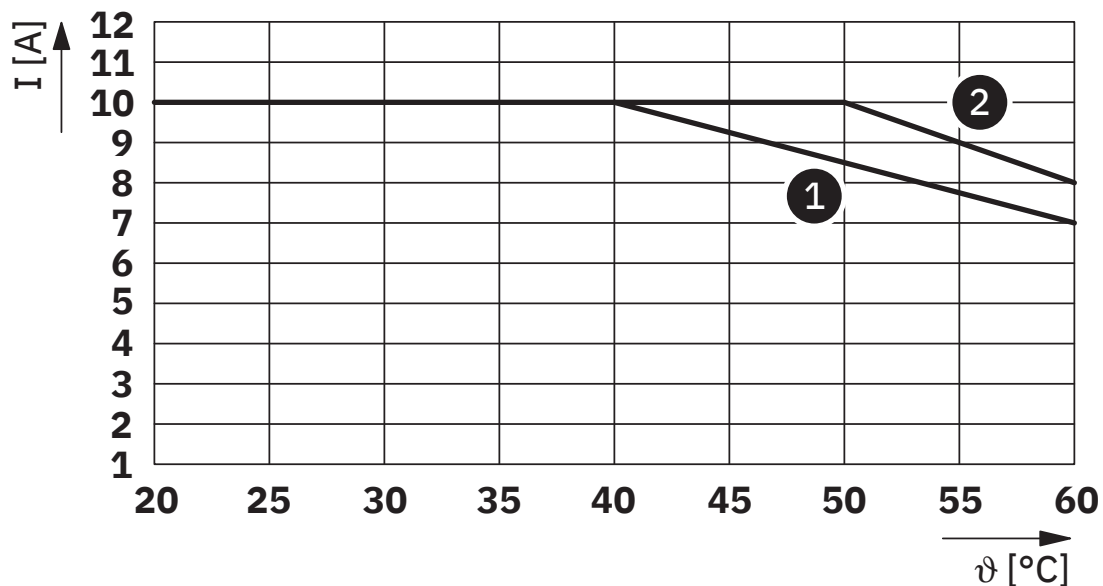
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Drawings

Diagram

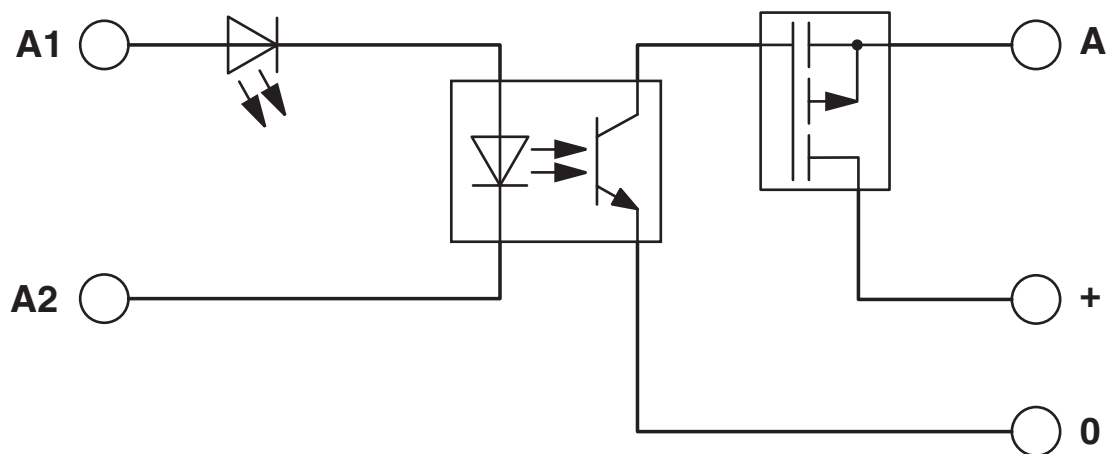


Derating curve for the continuous load current

Curve 1: Arranged in a row without spacing

Curve 2: Arranged in a row with spacing > 6 mm

Circuit diagram




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Approvals

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cUL Recognized

Approval ID: E238705



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Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-13.0 | 27371604 |
|-------------|----------|

ETIM

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| ETIM 9.0 | EC001504 |
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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.) | Lead(CAS: 7439-92-1) |
| SCIP | fbdeff63-4cea-4ea2-afb1-8ec2e6389803 |

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