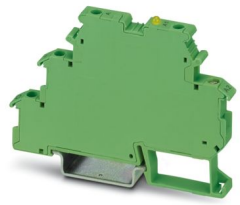
# DEK-OE-120AC/ 48DC/100 - Solid-state relay terminal block

2941659

https://www.phoenixcontact.com/us/products/2941659

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Input solid-state relay terminal block, input: 120 V DC, output: 3 - 48 V DC/100 mA, 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
- Electrical isolation between input and output at up to 2.5 kVrms
- Integrated input circuit
- Status indicator
- Zero voltage switch at AC output

## Commercial data

| | |
|---|---|
| Item number | 2941659 |
| Packing unit | 10 pc |
| Minimum order quantity | 1 pc |
| Sales key | C460 |
| Product key | DK61A1 |
| GTIN | 4017918080563 |
| Weight per piece (including packing) | 20.93 g |
| Weight per piece (excluding packing) | 20.72 g |
| Customs tariff number | 85364900 |
| Country of origin | CN |

## 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: Standards/regulations

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

Data management status

| | |
|---|---|
| Date of last data management | 01.04.2026 |

### Electrical properties

| | |
|---|---|
| Test voltage (Input/output) | 2.5 kV AC (Input/output) |

### Input data

| | |
|---|---|
| Nominal input voltage $U_N$ | 120 V AC |
| Input voltage range in reference to $U_N$ | 0.9 ... 1.1 |
| Input voltage range | 108 V AC ... 132 V AC |
| 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 $U_N$ | 3.2 mA |
| Typical response time | 10 ms |
| Typical turn-off time | 20 ms |
| Operating voltage display | Yellow LED |
| Protective circuit | Reverse polarity protection |
| | Surge protection |
| Transmission frequency | 3 Hz |

### Output data

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

| | |
|---|---|
| Design of digital output | electronic |
| Output voltage range | 3 V DC ... 48 V DC |
| Limiting continuous current | 100 mA |
| Voltage drop at max. limiting continuous current | ≤ 0.9 V |
| Output circuit | 2-conductor floating, 3-conductor ground-referenced |
| Protective circuit | Reverse polarity protection; Polarity protection diode |
| | Freewheeling diode; Freewheeling diode |
| Output resistor | approx. 22 kΩ (for 3-conductor operation) |

## 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 | 0.4 Nm ... 0.5 Nm |

## Dimensions

Item 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

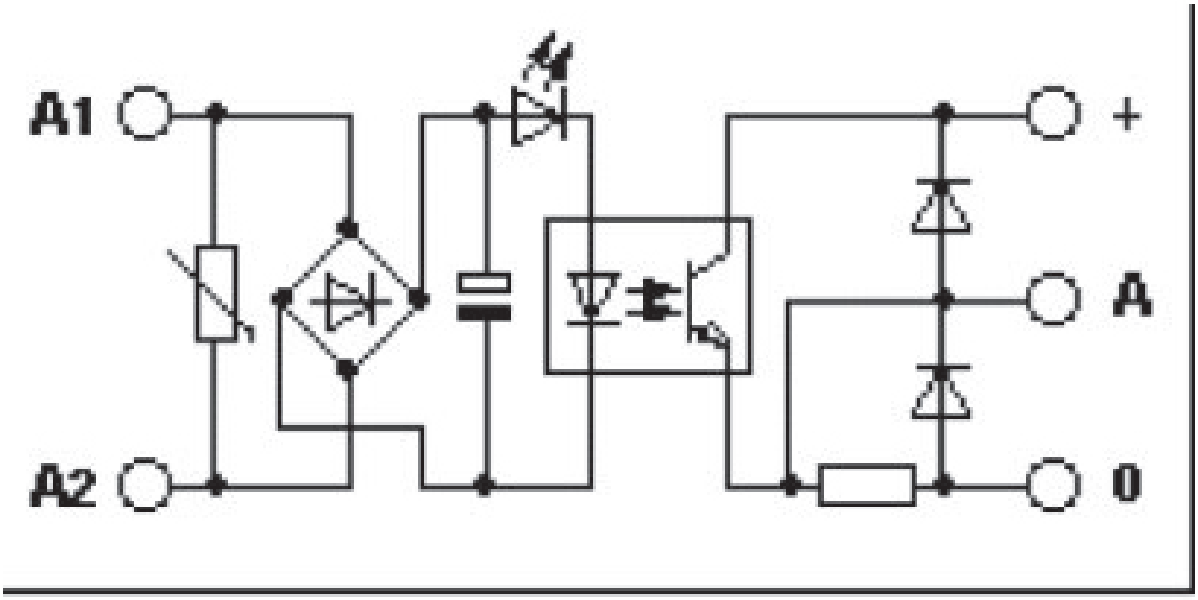
| | |
|---|---|
| Standards/regulations | IEC 60947-5-1 |

## Mounting

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

## Drawings

Circuit diagram



## Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/2941659

**cUL Recognized**
Approval ID: E238705

**UL Recognized**
Approval ID: E238705

## Classifications

### ECLASS

| | |
|---|---|
| ECLASS-13.0 | 27371604 |
| ECLASS-15.0 | 27371604 |

### ETIM

| | |
|---|---|
| ETIM 10.0 | EC001504 |

### UNSPSC

| | |
|---|---|
| UNSPSC 21.0 | 39122300 |

## 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 | d8befbd5-b846-43d8-939d-a921d79066f9 |


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