

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



2941659

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

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



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            |

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



2941659

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

## 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:<br>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 $U_N$ | $\leq 0.4$                  |
| Switching threshold "1" signal in reference to $U_N$ | $\geq 0.8$                  |
| 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 |
|------------------------|---------------|

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



2941659

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

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

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

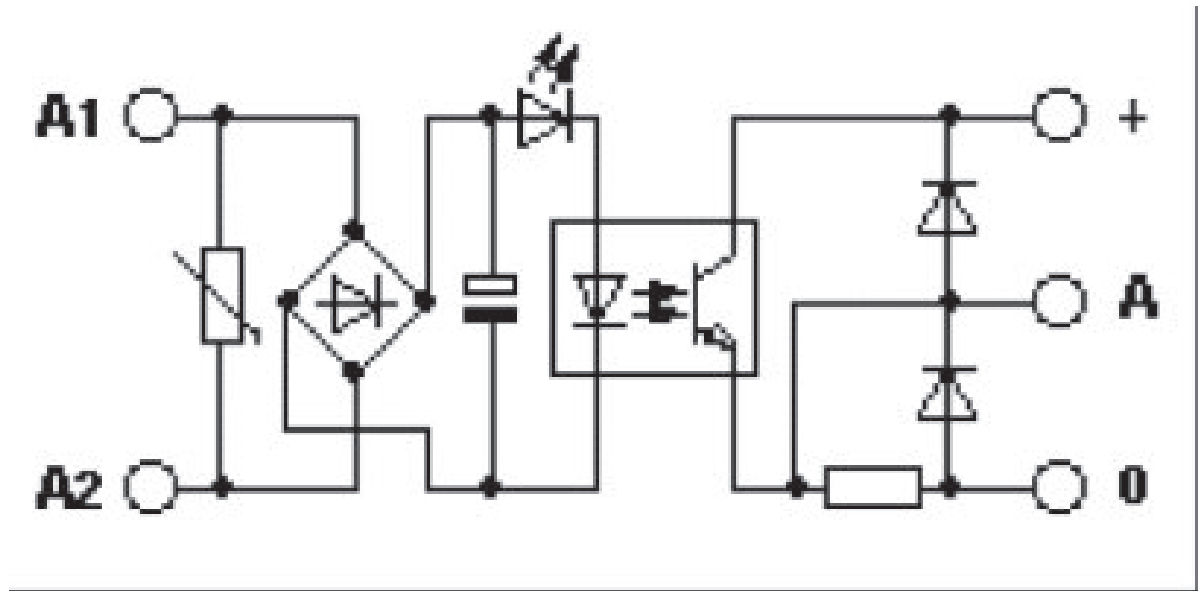


2941659

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

## Drawings

### Circuit diagram



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



2941659

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

## 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

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



2941659

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

## Classifications

### ECLASS

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

### ETIM

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

### UNSPSC

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

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



2941659

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

## 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 |

Phoenix Contact 2026 © - all rights reserved

<https://www.phoenixcontact.com>

Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)