

# DEK-OE- 5DC/ 5DC/100KHZ-G - Solid-state relay terminal block



2964542

<https://www.phoenixcontact.com/us/products/2964542>

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, with DC voltage output push-pull, transmission frequency: 100 kHz, with light indicator and protective circuit in input and output circuits, input: 5 V DC, output: 4 - 18 V DC/50 mA

## Your advantages

- With capacitor on the input side for interference suppression
- Push/pull stage on output side
- Includes signal inputs on PLC counter boards
- Limit frequency of up to 100 kHz

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 2964542       |
| Packing unit                         | 10 pc         |
| Minimum order quantity               | 1 pc          |
| Sales key                            | C460          |
| Product key                          | DK61A1        |
| GTIN                                 | 4017918131005 |
| Weight per piece (including packing) | 21.9 g        |
| Weight per piece (excluding packing) | 21.9 g        |
| Customs tariff number                | 85364190      |
| Country of origin                    | CN            |

# DEK-OE- 5DC/ 5DC/100KHZ-G - Solid-state relay terminal block



2964542

<https://www.phoenixcontact.com/us/products/2964542>

## Technical data

### Notes

|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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    | 100 kHz input optocoupler |
| Operating mode | 100% operating factor     |

#### Insulation characteristics

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

#### Data management status

|                              |            |
|------------------------------|------------|
| Date of last data management | 15.09.2025 |
|------------------------------|------------|

### Electrical properties

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

### Input data

|                                                      |                                                        |
|------------------------------------------------------|--------------------------------------------------------|
| Nominal input voltage $U_N$                          | 5 V DC                                                 |
| Input voltage range in reference to $U_N$            | 0.5 ... 1.2                                            |
| Input voltage range                                  | 2.5 V DC ... 6 V DC                                    |
| Switching threshold "0" signal in reference to $U_N$ | $\leq 0.3$                                             |
| Switching threshold "1" signal in reference to $U_N$ | $\geq 0.5$                                             |
| Typical input current at $U_N$                       | 8 mA                                                   |
| Typical response time                                | 1 $\mu$ s                                              |
| Typical turn-off time                                | 2 $\mu$ s                                              |
| Operating voltage display                            | Yellow LED                                             |
| Protective circuit                                   | Reverse polarity protection; Polarity protection diode |
|                                                      | Surge protection                                       |
| Transmission frequency                               | 100 kHz                                                |

### Output data

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

# DEK-OE- 5DC/ 5DC/100KHZ-G - Solid-state relay terminal block



2964542

<https://www.phoenixcontact.com/us/products/2964542>

|                                                  |                                          |
|--------------------------------------------------|------------------------------------------|
| Design of digital output                         | electronic                               |
| Output voltage range                             | 4 V DC ... 18 V DC                       |
| Limiting continuous current                      | 50 mA                                    |
| Quiescent current                                | 8.5 mA                                   |
| Voltage drop at max. limiting continuous current | ≤ 1.2 V DC                               |
| Output circuit                                   | 3-conductor push-pull, ground referenced |
| Protective circuit                               | Surge protection; Suppressor diode       |

## 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                | 0.4 Nm ... 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 | IEC 60947-5-1 |
|-----------------------|---------------|

## Mounting

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

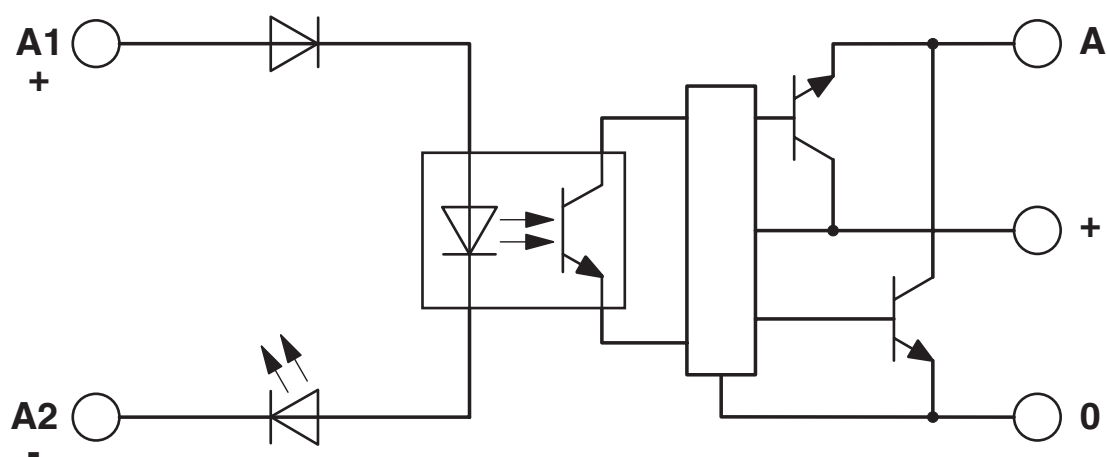
# DEK-OE- 5DC/ 5DC/100KHZ-G - Solid-state relay terminal block

2964542

<https://www.phoenixcontact.com/us/products/2964542>

## Drawings

Circuit diagram



# DEK-OE- 5DC/ 5DC/100KHZ-G - Solid-state relay terminal block



2964542

<https://www.phoenixcontact.com/us/products/2964542>

## Classifications

### ECLASS

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

### ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | EC001504 |
|----------|----------|

### UNSPSC

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

# DEK-OE- 5DC/ 5DC/100KHZ-G - Solid-state relay terminal block



2964542

<https://www.phoenixcontact.com/us/products/2964542>

## 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                                | fbf510ad-31f9-4e96-bf57-01055a60ca60        |

Phoenix Contact 2025 © - 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)