

## Solid-state relay terminal block - DEK-OE- 24DC/ 24DC/100KHZ - 2964283

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's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)



Input solid-state relay, transmission frequency: 100 kHz, with LED and protective circuit in input and output circuits, input: 24 V DC, output: 4 - 30 V DC/50 mA

The illustration shows version DEK-OE- 5 DC/ 24 DC/100 KHZ

### Why buy this product

- ✓ With capacitor on the input side for interference suppression
- ✓ Limit frequency of up to 100 kHz
- ✓ Includes signal inputs on PLC counter boards



### Key Commercial Data

|                                      |                                                                                                         |
|--------------------------------------|---------------------------------------------------------------------------------------------------------|
| Packing unit                         | 10 STK                                                                                                  |
| GTIN                                 | <br>4 017918 107413 |
| GTIN                                 | 4017918107413                                                                                           |
| Weight per Piece (excluding packing) | 20.980 g                                                                                                |
| Custom tariff number                 | 85364190                                                                                                |
| Country of origin                    | China                                                                                                   |

### Technical data

#### Note

|                         |                                                                           |
|-------------------------|---------------------------------------------------------------------------|
| Utilization restriction | EMC: class A product, see manufacturer's declaration in the download area |
|-------------------------|---------------------------------------------------------------------------|

#### Dimensions

|        |        |
|--------|--------|
| Width  | 6.2 mm |
| Height | 80 mm  |
| Depth  | 56 mm  |

#### Ambient conditions

# Solid-state relay terminal block - DEK-OE- 24DC/ 24DC/100KHZ - 2964283

## Technical data

### Ambient conditions

|                                         |                  |
|-----------------------------------------|------------------|
| Ambient temperature (operation)         | -20 °C ... 60 °C |
| Ambient temperature (storage/transport) | -20 °C ... 70 °C |

### 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 $U_N$                       | 6 mA                        |
| Typical response time                                | 1.5 $\mu$ s                 |
| Typical turn-off time                                | 2 $\mu$ s                   |
| Operating voltage display                            | Yellow LED                  |
| Type of protection                                   | Reverse polarity protection |
|                                                      | Surge protection            |
| Protective circuit/component                         | Polarity protection diode   |
| Transmission frequency                               | 100 kHz                     |
| Power dissipation for nominal condition              | 3 mW                        |

### Output data

|                                                  |                                |
|--------------------------------------------------|--------------------------------|
| Output voltage range                             | 4 V DC ... 30 V DC             |
| Limiting continuous current                      | 50 mA                          |
| Quiescent current                                | 4.3 mA                         |
| Voltage drop at max. limiting continuous current | $\leq 0.5$ V DC                |
| Output circuit                                   | 3-conductor, ground-referenced |
| Type of protection                               | Surge protection               |
| Protective circuit/component                     | Suppressor diode               |

### Connection data, input side

|                                  |                                             |
|----------------------------------|---------------------------------------------|
| Connection name                  | Input side                                  |
| Connection method                | Screw connection                            |
| Stripping length                 | 8 mm                                        |
| Screw thread                     | M3                                          |
| Conductor cross section solid    | 0.2 mm <sup>2</sup> ... 4 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 ... 12                                   |
| Torque                           | 0.5 Nm                                      |

### Connection data, output side

|                   |                  |
|-------------------|------------------|
| Connection name   | Output side      |
| Connection method | Screw connection |

# Solid-state relay terminal block - DEK-OE- 24DC/ 24DC/100KHZ - 2964283

## Technical data

### Connection data, output side

|                                  |                                             |
|----------------------------------|---------------------------------------------|
| Stripping length                 | 8 mm                                        |
| Screw thread                     | M3                                          |
| Conductor cross section solid    | 0.2 mm <sup>2</sup> ... 4 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 ... 12                                   |
| Torque                           | 0.5 Nm                                      |

### General

|                                |                           |
|--------------------------------|---------------------------|
| Test voltage input/output      | 2.5 kV AC                 |
| Mounting position              | any                       |
| Assembly instructions          | In rows with zero spacing |
| Operating mode                 | 100% operating factor     |
| Standards/regulations          | IEC 60664                 |
|                                | EN 50178                  |
|                                | IEC 62103                 |
| Rated surge voltage/insulation | Basic insulation          |
| Degree of pollution            | 2                         |
| Overvoltage category           | II                        |

### Standards and Regulations

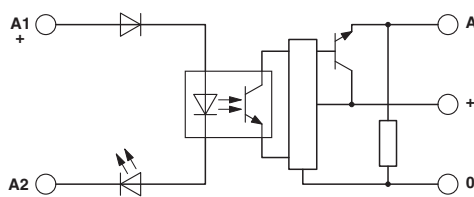
|                                |                  |
|--------------------------------|------------------|
| Standards/regulations          | IEC 60664        |
|                                | EN 50178         |
|                                | IEC 62103        |
| Rated surge voltage/insulation | Basic insulation |
| Degree of pollution            | 2                |
| Overvoltage category           | II               |

### Environmental Product Compliance

|            |                                                                                                     |
|------------|-----------------------------------------------------------------------------------------------------|
| China RoHS | Environmentally Friendly Use Period = 50                                                            |
|            | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |

## Drawings

Circuit diagram



## Solid-state relay terminal block - DEK-OE- 24DC/ 24DC/100KHZ - 2964283

### Classifications

#### eCl@ss

|            |          |
|------------|----------|
| eCl@ss 5.1 | 27371001 |
| eCl@ss 6.0 | 27371604 |
| eCl@ss 7.0 | 27371604 |
| eCl@ss 8.0 | 27371604 |
| eCl@ss 9.0 | 27371604 |

#### ETIM

|          |          |
|----------|----------|
| ETIM 2.0 | EC001504 |
| ETIM 3.0 | EC001504 |
| ETIM 4.0 | EC001504 |
| ETIM 5.0 | EC001504 |
| ETIM 6.0 | EC001504 |

#### UNSPSC

|               |          |
|---------------|----------|
| UNSPSC 6.01   | 30211916 |
| UNSPSC 7.0901 | 39121542 |
| UNSPSC 11     | 39121542 |
| UNSPSC 12.01  | 39121542 |
| UNSPSC 13.2   | 39122326 |

### Approvals

#### Approvals

Approvals

EAC / EAC

Ex Approvals

#### Approval details

|     |                                                                                     |                     |
|-----|-------------------------------------------------------------------------------------|---------------------|
| EAC |  | 7500651.22.01.00244 |
|-----|-------------------------------------------------------------------------------------|---------------------|

|     |                                                                                     |               |
|-----|-------------------------------------------------------------------------------------|---------------|
| EAC |  | EAC-Zulassung |
|-----|-------------------------------------------------------------------------------------|---------------|

## Solid-state relay terminal block - DEK-OE- 24DC/ 24DC/100KHZ - 2964283

### Accessories

#### Accessories

#### Insertion bridge

Insertion bridge - EB 2- DIK RD - 2716693



Insertion bridge, Pitch: 6.15 mm, Number of positions: 2, Color: red

---

Insertion bridge - EB 3- DIK RD - 2716745



Insertion bridge, Pitch: 6.15 mm, Number of positions: 3, Color: red

---

Insertion bridge - EB 4- DIK RD - 2716758



Insertion bridge, Pitch: 6.15 mm, Number of positions: 4, Color: red

---

Insertion bridge - EB 5- DIK RD - 2716761



Insertion bridge, Pitch: 6.15 mm, Number of positions: 5, Color: red

---

Insertion bridge - EB 10- DIK RD - 2716774



Insertion bridge, Pitch: 6.15 mm, Number of positions: 10, Color: red

---

## Solid-state relay terminal block - DEK-OE- 24DC/ 24DC/100KHZ - 2964283

### Accessories

Insertion bridge - EB 2- DIK BU - 2716648



Insertion bridge, Pitch: 6.15 mm, Number of positions: 2, Color: blue

---

Insertion bridge - EB 3- DIK BU - 2716651



Insertion bridge, Pitch: 6.15 mm, Number of positions: 3, Color: blue

---

Insertion bridge - EB 4- DIK BU - 2716664



Insertion bridge, Pitch: 6.15 mm, Number of positions: 4, Color: blue

---

Insertion bridge - EB 5- DIK BU - 2716677



Insertion bridge, Pitch: 6.15 mm, Number of positions: 5, Color: blue

---

Insertion bridge - EB 10- DIK BU - 2716680



Insertion bridge, Pitch: 6.15 mm, Number of positions: 10, Color: blue

---

## Solid-state relay terminal block - DEK-OE- 24DC/ 24DC/100KHZ - 2964283

### Accessories

Insertion bridge - EB 80- DIK BU - 2715940



Insertion bridge, Pitch: 6.2 mm, Number of positions: 80, Color: blue

Insertion bridge - EB 80- DIK RD - 2715953



Insertion bridge, Pitch: 6.2 mm, Number of positions: 80, Color: red

Insertion bridge - EB 80- DIK WH - 2715788



Insertion bridge, Pitch: 6.15 mm, Number of positions: 80, Color: white

### Labeled terminal marker

Zack marker strip - ZB 6,LGS:FORTL.ZAHLEN - 1051016



Zack marker strip, Strip, white, labeled, can be labeled with: Plotter, Printed horizontally: Consecutive numbers 1 - 10, 11 - 20, etc. up to 491 - 500, Mounting type: Snap into tall marker groove, for terminal block width: 6.2 mm, Lettering field: 6.15 x 10.5 mm

### Partition plate

Separating plate - D-DEK 1,5 GN - 2716949



Cover for setting the end of a terminal row, color: green

### Sensor/actuator terminal block

## Solid-state relay terminal block - DEK-OE- 24DC/ 24DC/100KHZ - 2964283

### Accessories

Sensor/actuator terminal block - DIKD 1,5 - 2715979



Sensor/actuator terminal block, Connection type: Screw connection, Cross section: 0.2 mm<sup>2</sup> - 4 mm<sup>2</sup>, AWG: 24 - 12, Width: 6.2 mm, Color: gray, Mounting type: NS 35/7,5, NS 35/15

---

### Terminal marking

Zack marker strip - ZB 6:UNBEDRUCKT - 1051003



Zack marker strip, Strip, white, unlabeled, can be labeled with: Plotter, Mounting type: Snap into tall marker groove, for terminal block width: 6.2 mm, Lettering field: 6.15 x 10.5 mm

---

Zack marker strip - ZB 6/WH-100:UNBEDRUCKT - 5060935



Zack marker strip, Strip, white, unlabeled, can be labeled with: Plotter, Mounting type: Snap into tall marker groove, for terminal block width: 6.2 mm, Lettering field: 6.15 x 10.5 mm