

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



2964542

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

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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

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## Technical data

### Notes

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.
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### 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
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### Electrical properties

Test voltage (Input/output)	2.5 kV AC (Input/output)
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### 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
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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)
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## 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
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## Mounting

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

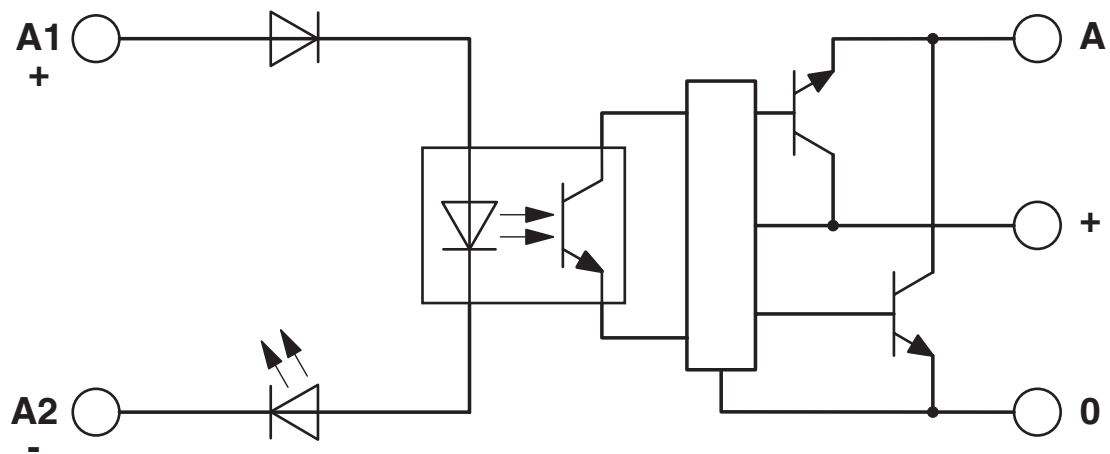
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## Drawings

Circuit diagram



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## Classifications

### ECLASS

ECLASS-13.0	27371604
ECLASS-15.0	27371604

### ETIM

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.)	Hexahydromethylphthalic anhydride(CAS: n/a)
	Lead(CAS: 7439-92-1)
SCIP	fbf510ad-31f9-4e96-bf57-01055a60ca60

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