

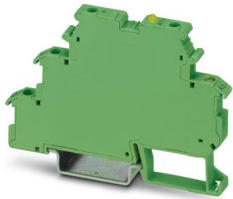
# DEK-OV- 24DC/ 24DC/ 10 - Solid-state relay terminal block



2964322

<https://www.phoenixcontact.com/gb/products/2964322>

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Power solid-state relay terminal block with short-circuit-proof DC voltage output, input: 24 V DC, output: 3 - 33 V DC/10 A

## 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
- Integrated output protective circuit
- Zero voltage switch at AC output
- Status indicator
- Electrical isolation between input and output at up to 2.5 kVrms
- Integrated input circuit

## Commercial data

Item number	2964322
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	DK61A1
Product key	DK61A1
GTIN	4017918893194
Weight per piece (including packing)	25.5 g
Weight per piece (excluding packing)	25.5 g
Customs tariff number	85364190
Country of origin	CN

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## 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 family	DEK
Application	Output function
Operating mode	100% operating factor

Insulation characteristics: Air clearances and creepage distances between the power circuits

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

Maximum power dissipation for nominal condition	0.5 W
Test voltage (Input/output)	2.5 kV AC (Input/output)

Air clearances and creepage distances between the power circuits

Rated insulation voltage	50 V DC
Rated surge voltage	0.5 kV

### 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 $U_N$	3.5 mA
Typical response time	100 $\mu$ s
Typical turn-off time	500 $\mu$ s
Operating voltage display	Yellow LED
Protective circuit	Reverse polarity protection Surge protection

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Transmission frequency	100 Hz
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## Output data

Contact switching type	1 N/O contact
Design of digital output	electronic
Output voltage range	8 V DC ... 33 V DC
Limiting continuous current	10 A (see derating curve)
Surge current	100 A (t = 20 ms)
Voltage drop at max. limiting continuous current	≤ 50 mV
Output circuit	3-conductor, ground-referenced
Protective circuit	Reverse polarity protection Surge protection

## 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
Altitude	≤ 2000 m

## Standards and regulations

### Air clearances and creepage distances between the power circuits

Standards/regulations	DIN EN 60947-5-1
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## Mounting

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

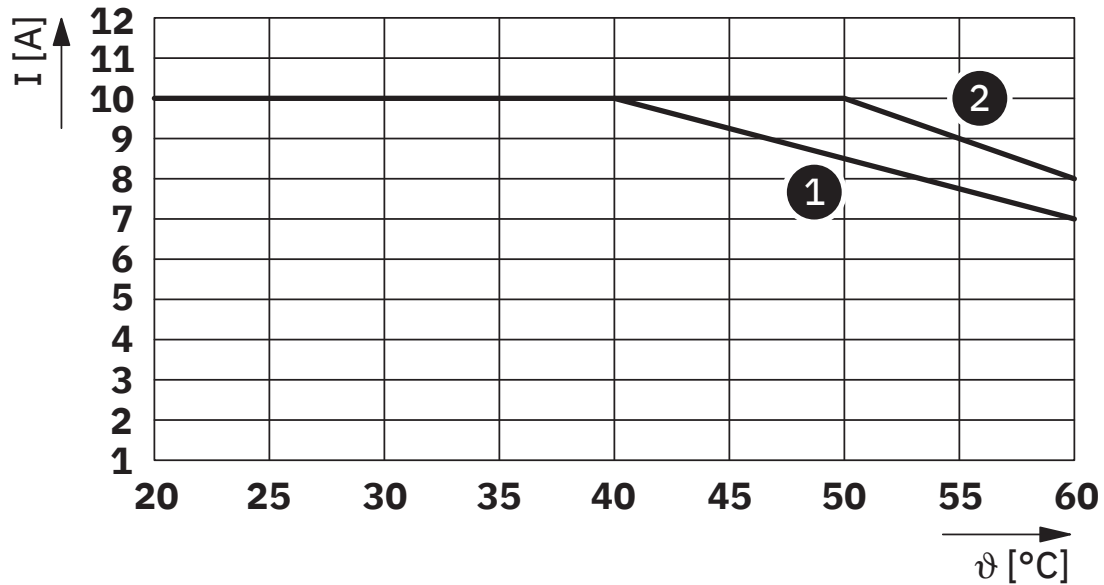
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## Drawings

Diagram

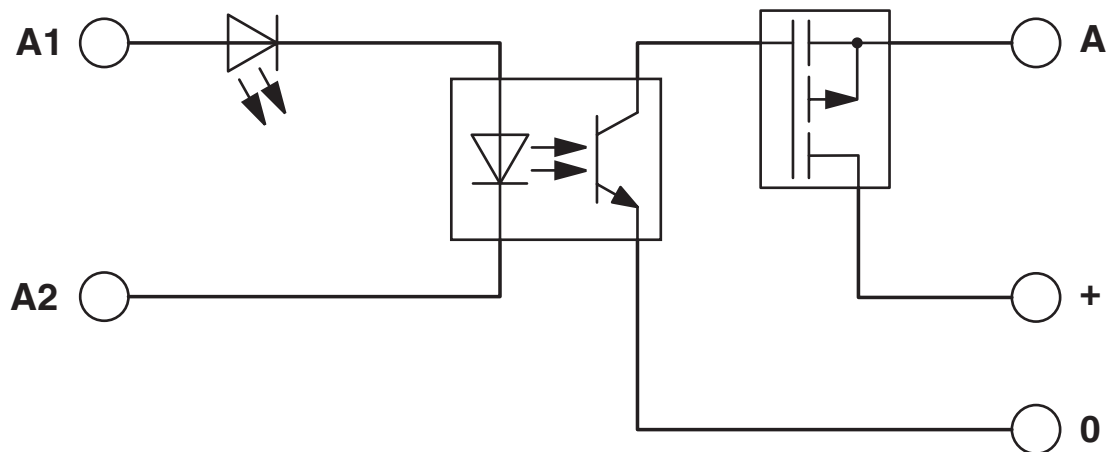


Derating curve for the continuous load current

Curve 1: Arranged in a row without spacing

Curve 2: Arranged in a row with spacing > 6 mm

Circuit diagram



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/gb/products/2964322>



**cUL Recognized**

Approval ID: E238705



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## Classifications

### ECLASS

ECLASS-13.0	27371604
ECLASS-15.0	27371604

### ETIM

ETIM 10.0	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.)	Lead(CAS: 7439-92-1)
SCIP	7a6c560f-fd73-479f-9d04-b53970e8a4c3

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PHOENIX CONTACT Ltd  
Halesfield 13, Telford  
Shropshire, TF7 4PG  
01952 681700  
[info@phoenixcontact.co.uk](mailto:info@phoenixcontact.co.uk)