

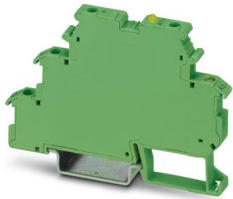
DEK-OV- 12DC/ 24DC/ 10 - Solid-state relay terminal block



2961749

<https://www.phoenixcontact.com/us/products/2961749>

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Power solid-state relay terminal block, input: DC voltage, output: DC voltage, input voltage: 12 V DC

Your advantages

- EB-DIK insertion bridges
- Actuator version available
- 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
- Zero voltage switch at AC output
- Integrated input circuit
- Status indicator

Commercial data

Item number	2961749
Packing unit	10 pc
Minimum order quantity	1 pc
Sales key	C460
Product key	DK61A1
GTIN	4017918927943
Weight per piece (including packing)	24.8 g
Weight per piece (excluding packing)	25.34 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 type	Solid-state relay module
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	01.04.2026
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Electrical properties

Test voltage (Input/output)	2.5 kV AC (Input/output)
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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	12 V DC
Input voltage range in reference to U_N	0.8 ... 1.2
Input voltage range	9.6 V DC ... 14.4 V DC
Switching threshold "0" signal in reference to U_N	≤ 0.4
Switching threshold "1" signal in reference to U_N	≥ 0.8
Typical input current at U_N	4.7 mA
Typical response time	100 μ s
Typical turn-off time	500 μ 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 ² ... 2.5 mm ²
Conductor cross-section flexible	0.2 mm ² ... 2.5 mm ²
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)
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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
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Assembly note	in rows with zero spacing
Mounting position	any

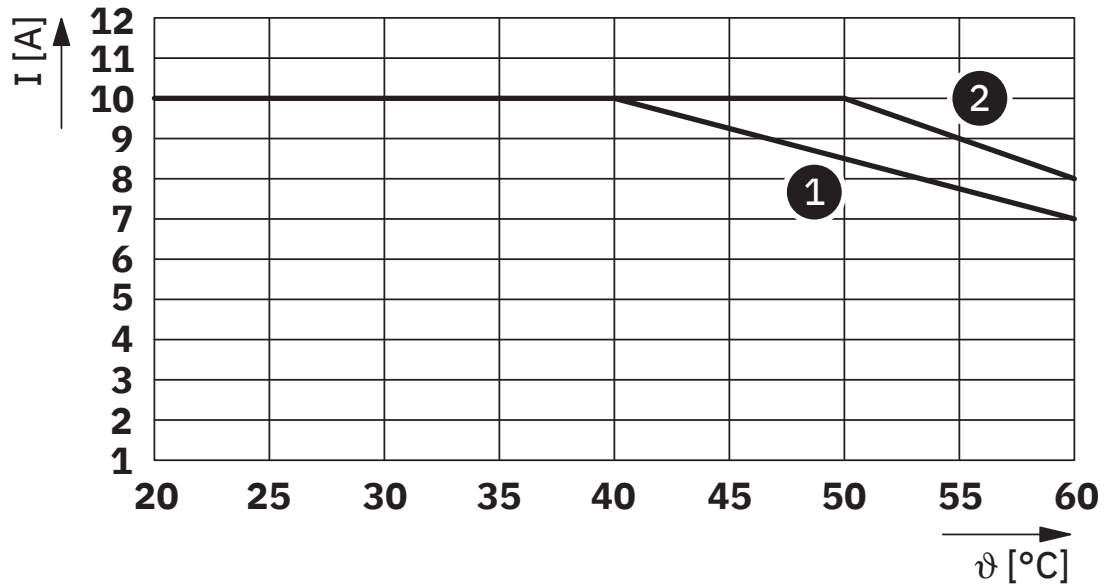
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Drawings

Diagram

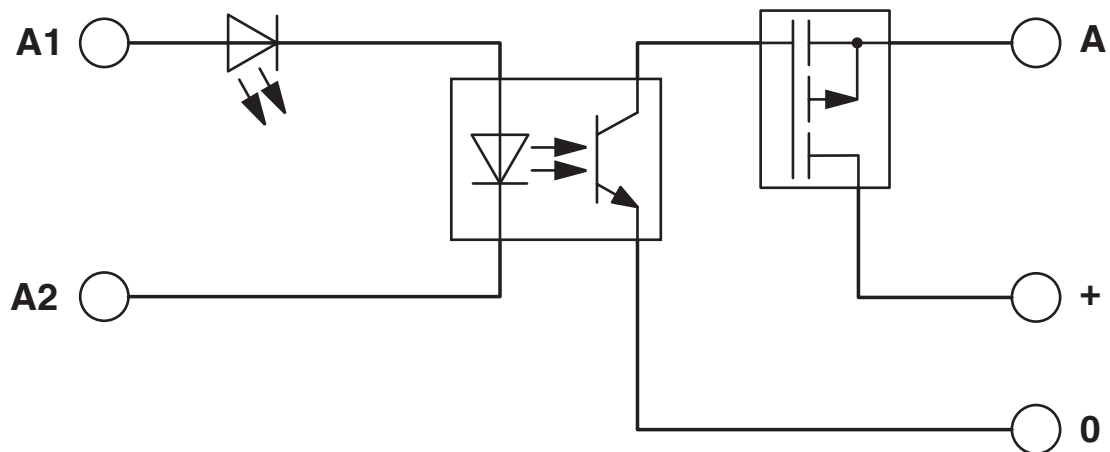


Derating curve for the continuous load current

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

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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	fe824b56-36ce-43c2-9b5c-5f83cdccbba6

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