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

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

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

Electrical properties

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	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 µs
Typical turn-off time	500 µs
Operating voltage display	Yellow LED
Protective circuit	Reverse polarity protection
	Surge protection

Transmission frequency	100 Hz

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 mm² ... 2.5 mm²
Conductor cross-section flexible	0.2 mm² ... 2.5 mm²
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)

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

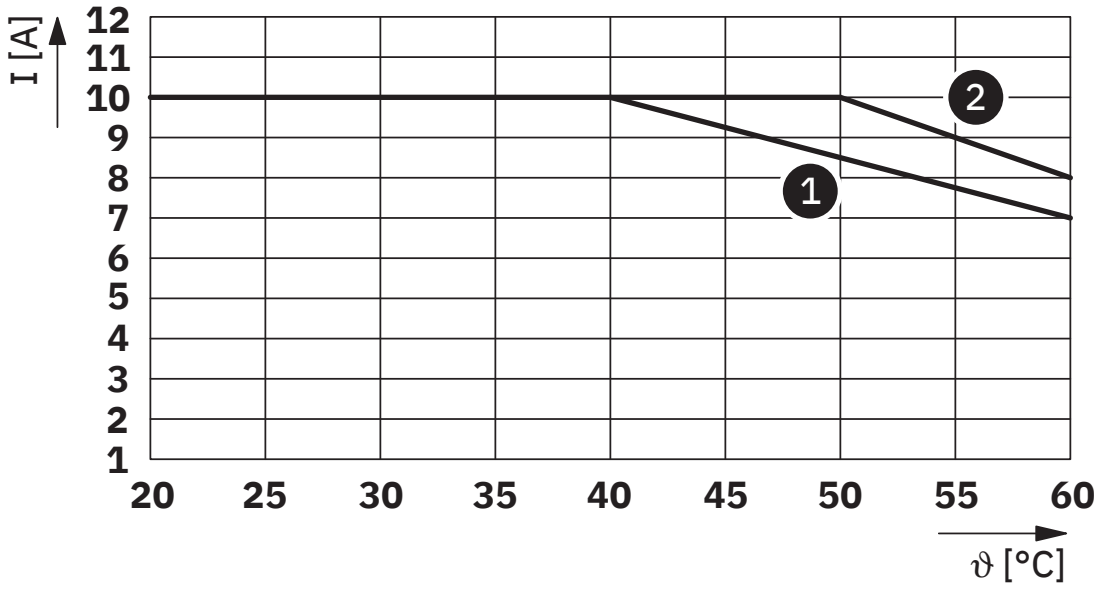
Mounting

Mounting type	DIN rail mounting

Assembly note	in rows with zero spacing
Mounting position	any

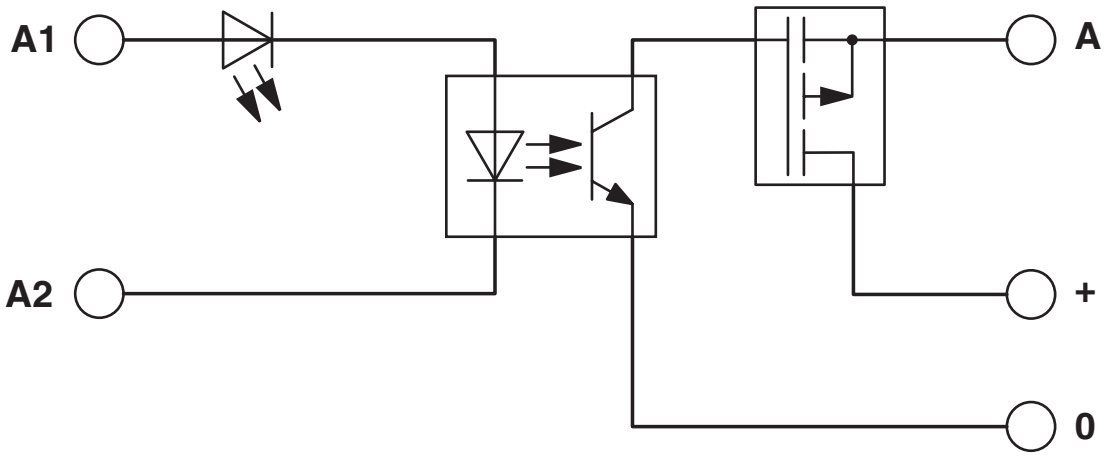
Drawings

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



Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/2961749

cUL Recognized
Approval ID: E238705

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Classifications

ECLASS

ECLASS-13.0	27371604
ECLASS-15.0	27371604

ETIM

ETIM 10.0	EC001504

UNSPSC

UNSPSC 21.0	39122300

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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