

DEK-OV- 24DC/240AC/800 - Solid-state relay terminal block



2964649

<https://www.phoenixcontact.com/us/products/2964649>

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Power solid-state relay terminal block, input: 24 V DC, output: 10 - 253 V AC/800 mA, terminal block width: 6.2 mm

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

Commercial data

Item number	2964649
Packing unit	10 pc
Minimum order quantity	1 pc
Sales key	C460
Product key	DK61A1
GTIN	4017918131043
Weight per piece (including packing)	21 g
Weight per piece (excluding packing)	21 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: Standards/regulations

Insulation	Basic insulation
Overvoltage category	III
Pollution degree	2

Data management status

Date of last data management	19.03.2025
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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	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	≤ 0.4
Switching threshold "1" signal in reference to U_N	≥ 0.8
Typical input current at U_N	10.7 mA
Typical response time	< 10 ms
Typical turn-off time	< 10 ms
Operating voltage display	Yellow LED
Protective circuit	Reverse polarity protection; Polarity protection diode Surge protection
Transmission frequency	10 Hz

Output data

Contact switching type	1 N/O contact
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Design of digital output	electronic
Output voltage range	10 V AC ... 253 V AC (50/60 Hz)
Limiting continuous current	0.8 A (see derating curve)
Maximum inrush current	30 A (t = 10 ms)
Min. load current	10 mA
Leakage current	1.2 mA (in off state)
Phase angle cos phi min	0.5
Max. load value	4.5 A ² s
Peak offstate voltage	600 V (Periodic peak reverse voltage)
Voltage drop at max. limiting continuous current	≤ 1 V
Output circuit	2-conductor floating, zero voltage switch
Protective circuit	RCV circuit; RCV circuit

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	0.5 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

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

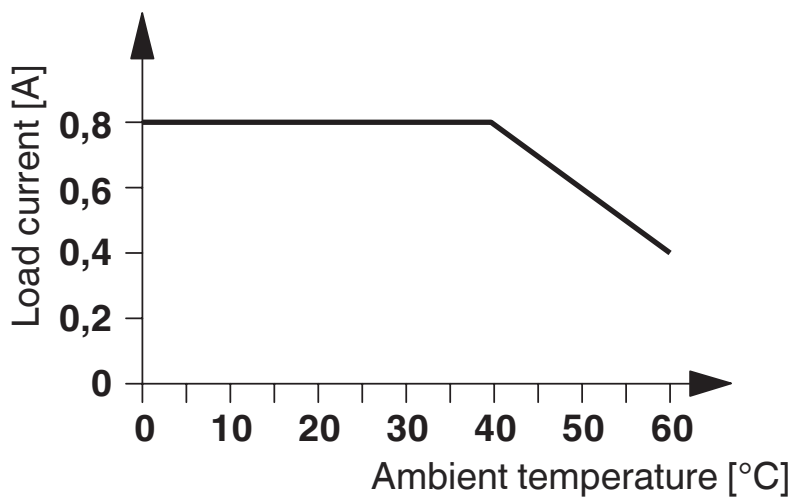
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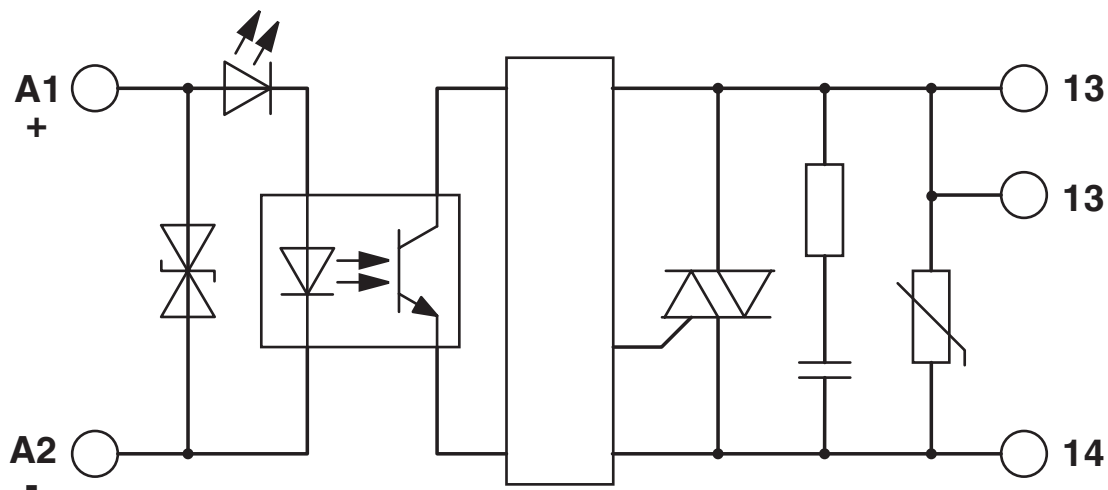
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Drawings

Diagram



Circuit diagram



1 = zero voltage switch

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Approvals

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EAC

Approval ID: RU*C-DE.*08.B.00010

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Classifications

ECLASS

ECLASS-13.0	27371604
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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	7b343808-7acb-455b-b153-3239259532b6

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