

DEK-OV- 5DC/ 24DC/ 10 - Solid-state relay terminal block

2961752

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Power solid-state relay terminal block, input: DC voltage, output: DC voltage, input voltage: 5 V DC

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 or 240 V AC/800 mA
- Integrated output protective circuit
- Zero voltage switch at AC output
- Electrical isolation between input and output at up to 2.5 kVrms
- Status indicator
- Integrated input circuit

Commercial data

Item number	2961752
Packing unit	10 pc
Minimum order quantity	1 pc
Sales key	C460
Product key	CK61A1
Catalog page	Page 443 (C-5-2019)
GTIN	4017918927950
Weight per piece (including packing)	25.38 g
Weight per piece (excluding packing)	25 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

Data management status

Date of last data management	17.05.2024
Article revision	11

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

Insulation	Basic insulation
Overvoltage category	II
Pollution degree	2

Electrical properties

Test voltage (Input/output)	2.5 kV AC (50 Hz, 1 min., 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	5 V DC
Input voltage range in reference to U_N	0.8 ... 1.2
Input voltage range	4 V DC ... 6 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	5.1 mA
Typical response time	100 μ s
Typical turn-off time	500 μ s
Operating voltage display	Yellow LED
Protective circuit	Reverse polarity protection

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	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 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
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

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Mounting position	any
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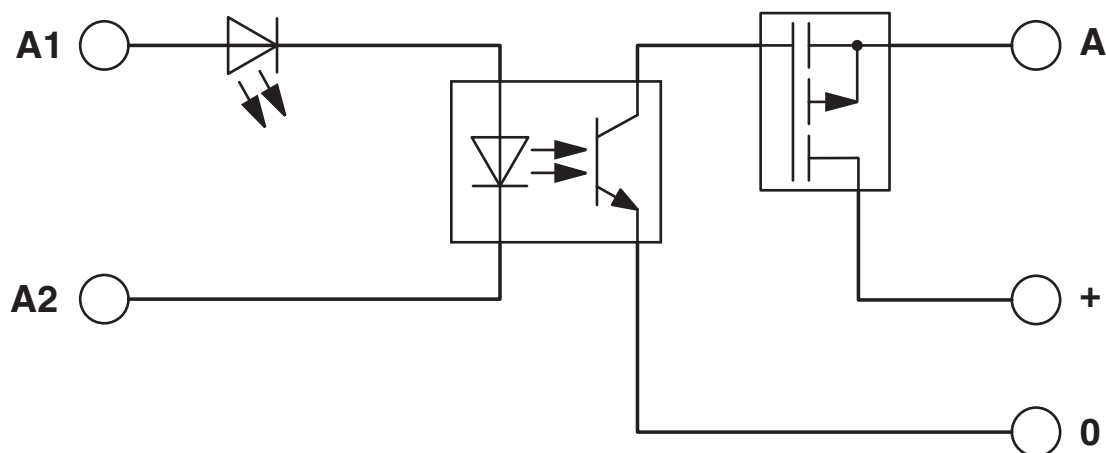
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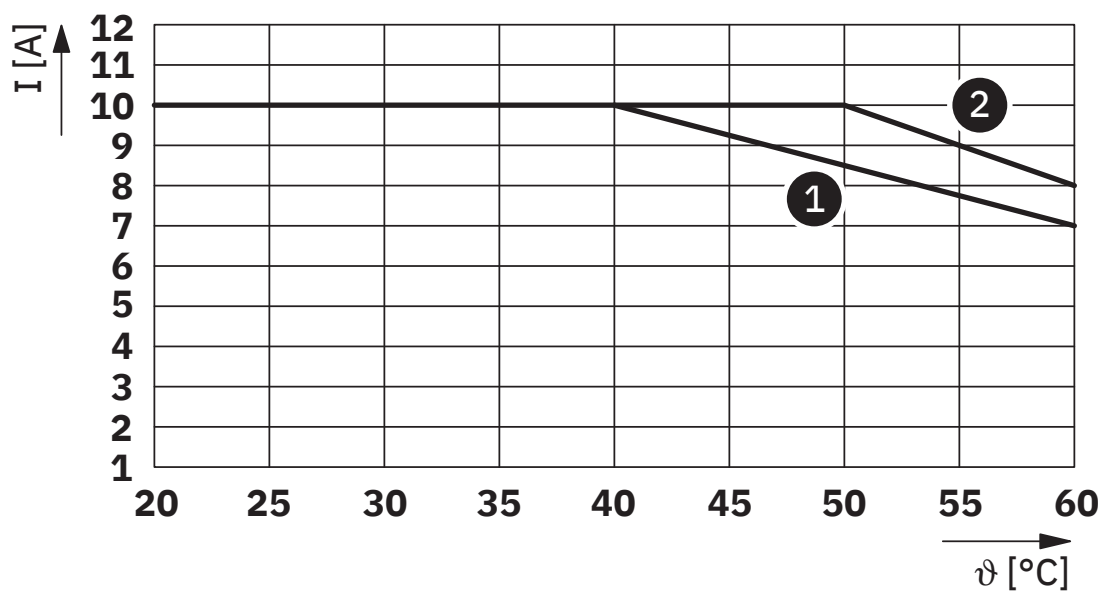
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Drawings

Circuit diagram



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

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Approvals

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cUL Recognized
Approval ID: E238705



UL Recognized
Approval ID: E238705



EAC
Approval ID: TR_TS_D_00573_c

cULus Recognized

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Classifications

ECLASS

ECLASS-11.0	27371604
ECLASS-12.0	27371604
ECLASS-13.0	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.)	Lead(CAS: 7439-92-1)
SCIP	fbdeff63-4cea-4ea2-afb1-8ec2e6389803

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Accessories

i Note: Applying some accessories below might limit this product.

EB 2- DIK RD - Insertion bridge

2716693

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Insertion bridge, pitch: 6.15 mm, number of positions: 2, color: red

i Max. current carrying capacity: 26 A

EB 3- DIK RD - Insertion bridge

2716745

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Insertion bridge, pitch: 6.15 mm, number of positions: 3, color: red

i Max. current carrying capacity: 26 A

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EB 4- DIK RD - Insertion bridge

2716758

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Insertion bridge, pitch: 6.15 mm, number of positions: 4, color: red



 Max. current carrying capacity: 26 A

EB 5- DIK RD - Insertion bridge

2716761

<https://www.phoenixcontact.com/us/products/2716761>

Insertion bridge, pitch: 6.15 mm, number of positions: 5, color: red



 Max. current carrying capacity: 26 A

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EB 10- DIK RD - Insertion bridge

2716774

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Insertion bridge, pitch: 6.15 mm, number of positions: 10, color: red



 Max. current carrying capacity: 26 A

EB 80- DIK RD - Insertion bridge

2715953

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Insertion bridge, pitch: 6.2 mm, number of positions: 80, color: red



 Max. current carrying capacity: 26 A

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EB 5- DIK BU - Insertion bridge

2716677

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Insertion bridge, pitch: 6.15 mm, number of positions: 5, color: blue



 Max. current carrying capacity: 26 A

EB 10- DIK BU - Insertion bridge

2716680

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Insertion bridge, pitch: 6.15 mm, number of positions: 10, color: blue



 Max. current carrying capacity: 26 A

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EB 80- DIK BU - Insertion bridge

2715940

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Insertion bridge, pitch: 6.2 mm, number of positions: 80, color: blue



 Max. current carrying capacity: 26 A

D-DEK 1,5 GN - Separating plate

2716949

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Cover for setting the end of a terminal row, color: green



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ZB 6:UNBEDRUCKT - Zack marker strip

1051003

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Zack marker strip, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 6.2 mm, lettering field size: 6.15 x 10.5 mm, Number of individual labels: 10

ZB 6,LGS:FORTL.ZAHLEN - Zack marker strip

1051016

<https://www.phoenixcontact.com/us/products/1051016>



Zack marker strip, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, printed horizontally: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 491 ... 500, mounting type: snapped, for terminal block width: 6.2 mm, lettering field size: 6.15 x 10.5 mm, Number of individual labels: 10

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ZB 6/WH-100:UNBEDRUCKT - Zack marker strip

5060935

<https://www.phoenixcontact.com/us/products/5060935>



Zack marker strip, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 6.2 mm, lettering field size: 6.15 x 10.5 mm, Number of individual labels: 1000

DIKD 1,5 - Initiator/actuator terminal block

2715979

<https://www.phoenixcontact.com/us/products/2715979>



Initiator/actuator terminal block, nom. voltage: 250 V, nominal current: 24 A, connection method: Screw connection, 1st, 2nd and 3rd level, Rated cross section: 2.5 mm², cross section: 0.2 mm² - 4 mm², mounting type: NS 35/7,5, NS 35/15, color: gray

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