

DEK-OE-120AC/ 48DC/100 - Solid-state relay terminal block



2941659

<https://www.phoenixcontact.com/us/products/2941659>

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Input solid-state relay terminal block, input: 120 V DC, output: 3 - 48 V DC/100 mA, terminal block width: 6.2 mm

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

Commercial data

Item number	2941659
Packing unit	10 pc
Minimum order quantity	1 pc
Sales key	C460
Product key	CK61A1
Catalog page	Page 442 (C-5-2019)
GTIN	4017918080563
Weight per piece (including packing)	20.93 g
Weight per piece (excluding packing)	20.72 g
Customs tariff number	85364900
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	14

Insulation characteristics: Standards/regulations

Insulation	Basic insulation
Overvoltage category	III
Pollution degree	2

Electrical properties

Test voltage (Input/output)	2.5 kV AC (Input/output)
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Input data

Nominal input voltage U_N	120 V AC
Input voltage range in reference to U_N	0.9 ... 1.1
Input voltage range	108 V AC ... 132 V AC
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	3.2 mA
Typical response time	10 ms
Typical turn-off time	20 ms
Operating voltage display	Yellow LED
Protective circuit	Reverse polarity protection
	Surge protection
Transmission frequency	3 Hz

Output data

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Contact switching type	1 N/O contact
Design of digital output	electronic
Output voltage range	3 V DC ... 48 V DC
Limiting continuous current	100 mA
Voltage drop at max. limiting continuous current	≤ 0.9 V
Output circuit	2-conductor floating, 3-conductor ground-referenced
Protective circuit	Reverse polarity protection; Polarity protection diode Freewheeling diode; Freewheeling diode
Output resistor	approx. 22 kΩ (for 3-conductor operation)

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	0.5 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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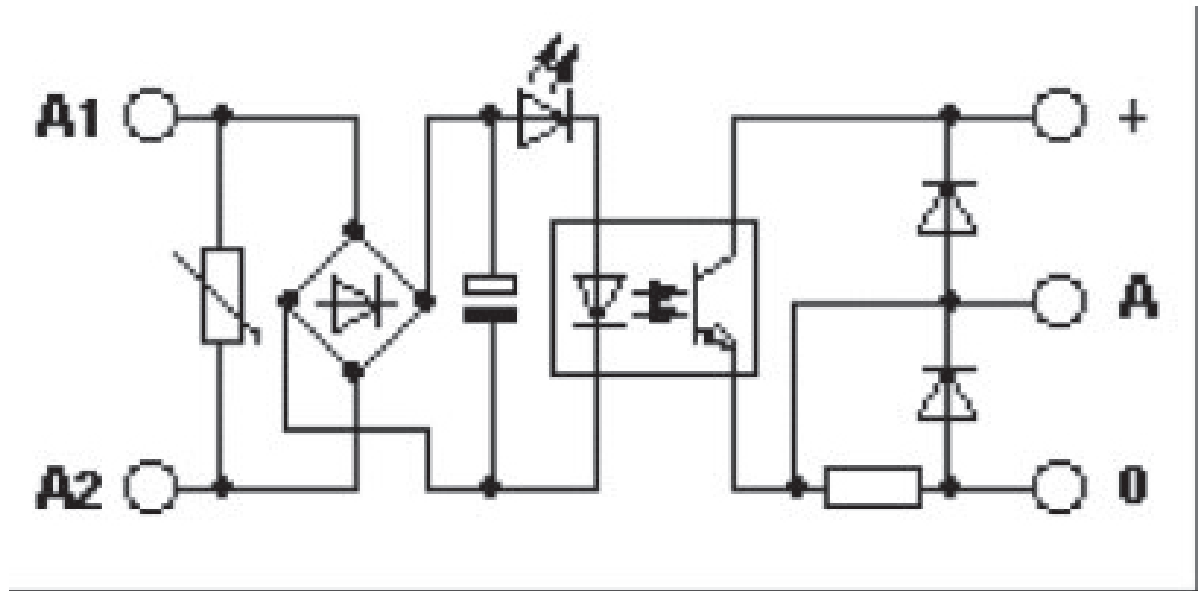


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Drawings

Circuit diagram



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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2941659>



cUL Recognized

Approval ID: E238705



UL Recognized

Approval ID: E238705



EAC

Approval ID: RU C-DE.A*30.B.01742

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	d8befbd5-b846-43d8-939d-a921d79066f9

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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

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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

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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: 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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