

SIM-EI-120AC/TTL/100 - Miniature solid-state relay



2271196

<https://www.phoenixcontact.com/us/products/2271196>

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Input solid-state relay, with protective circuit in input and output circuits, input: 120 V AC, output: TTL logic level, max. 100 mA

The figure shows version SIM-EI-5DC/TTL/100

Commercial data

Item number	2271196
Packing unit	10 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Product key	DK61F1
GTIN	4017918054236
Weight per piece (including packing)	20.3 g
Weight per piece (excluding packing)	20.3 g
Country of origin	DE

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Technical data

Product properties

Product type	Single solid-state relay
Data management status	
Date of last data management	01.04.2026

Electrical properties

Test voltage (Input/output)	2.5 kV (50 Hz, 1 min., 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	2.1 mA
Protective circuit	Reverse polarity protection; Polarity protection diode Surge protection; Varistor
Transmission frequency	3 Hz

Output data

Design of digital output	electronic
Output voltage range	3 V DC ... 5.25 V DC
Limiting continuous current	100 mA
Fan out	1
Voltage drop at max. limiting continuous current	0.3 V
Output circuit	3-conductor, ground-referenced
Protective circuit	Reverse polarity protection; Polarity protection diode Free running; Freewheeling diode
Output resistor	approx. 390 Ω

Dimensions

Dimensional drawing	
Width	13 mm
Height	29 mm
Depth	25 mm

Environmental and real-life conditions

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Ambient conditions

Ambient temperature (operation)	-20 °C ... 50 °C
Ambient temperature (storage/transport)	-20 °C ... 70 °C

Standards and regulations

Standards/regulations	DIN VDE 0110
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Mounting

Assembly note	can be aligned with spacing ≥ 2 mm
Mounting position	any

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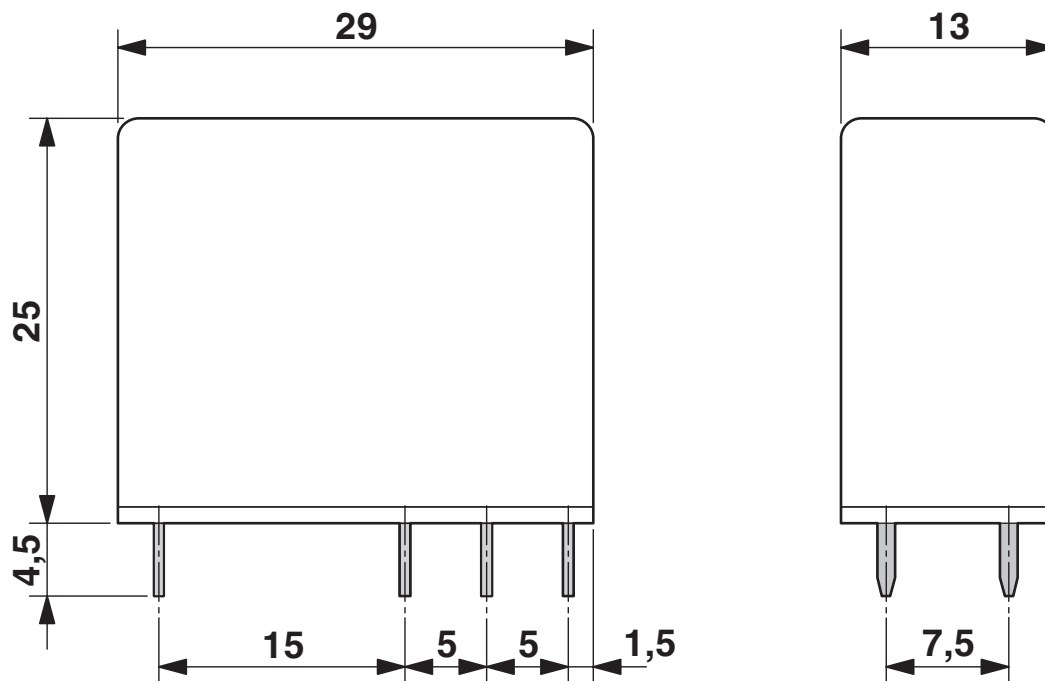


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Drawings

Dimensional drawing



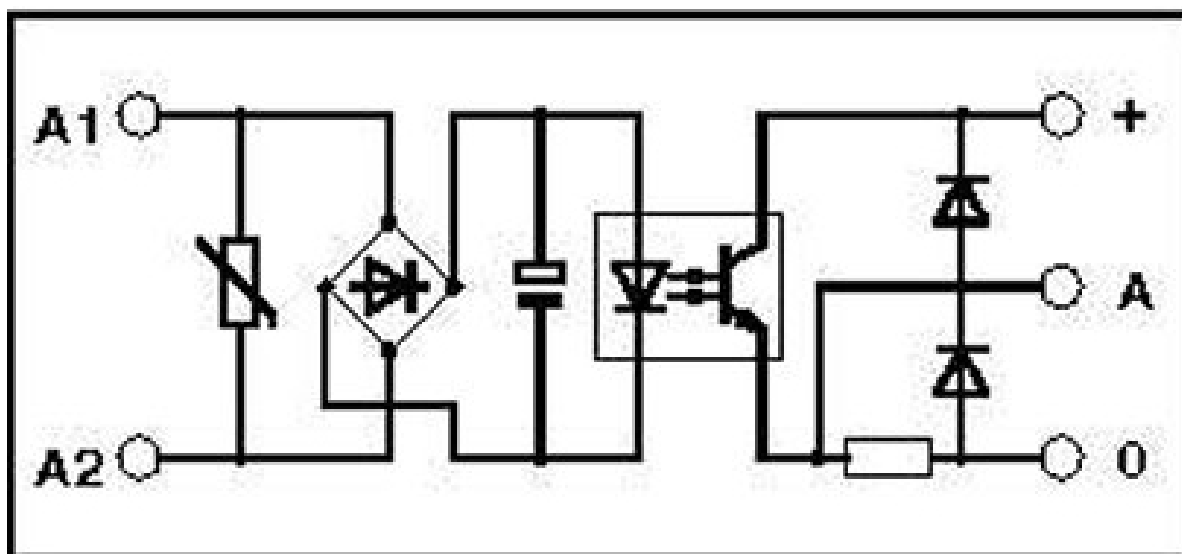
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Schematic diagram



Circuit diagram



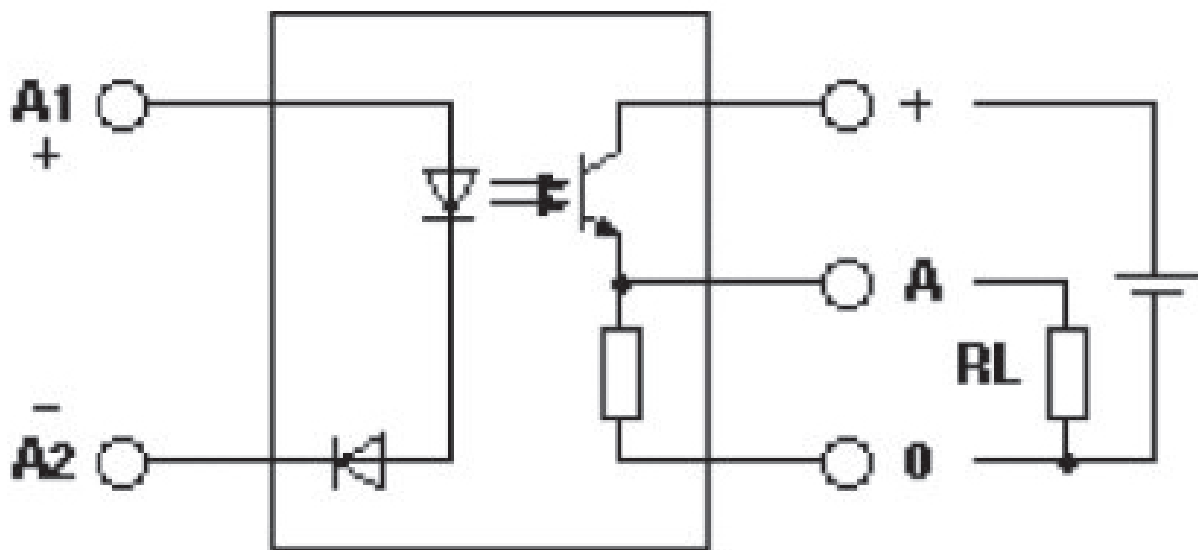
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Circuit diagram



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Environmental product compliance

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.
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EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com