

SIM-EI-220DC/48DC/100 - Miniature solid-state relay



2271109

<https://www.phoenixcontact.com/us/products/2271109>

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Input solid-state relay, with protective circuit in input and output circuits, input: 220 V DC, output: 8 - 48 V DC/100 mA

The figure shows version SIM-EI-5DC/48DC/100

Commercial data

Item number	2271109
Packing unit	10 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Product key	DK61F1
GTIN	4017918054144
Weight per piece (including packing)	19.53 g
Weight per piece (excluding packing)	19.53 g
Country of origin	DE

Technical data

Product properties

Product type	Single solid-state relay
Operating mode	100% operating factor

Data management status

Date of last data management	05.09.2025
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Electrical properties

Test voltage (Input/output)	2.5 kV (50 Hz, 1 min., input/output)
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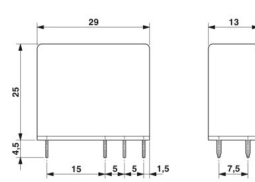
Input data

Nominal input voltage U_N	220 V DC
Input voltage range in reference to U_N	0.9 ... 1.1
Input voltage range	198 V DC ... 242 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	2.6 mA
Protective circuit	Reverse polarity protection; Polarity protection diode
Transmission frequency	300 Hz

Output data

Design of digital output	electronic
Output voltage range	8 V DC ... 48 V DC
Limiting continuous current	100 mA
Voltage drop at max. limiting continuous current	1 V
Output circuit	2-conductor, floating
Protective circuit	Reverse polarity protection; Polarity protection diode

Dimensions

Dimensional drawing	
Width	13 mm
Height	29 mm
Depth	25 mm

Environmental and real-life conditions

Ambient conditions

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

Dimensional drawing



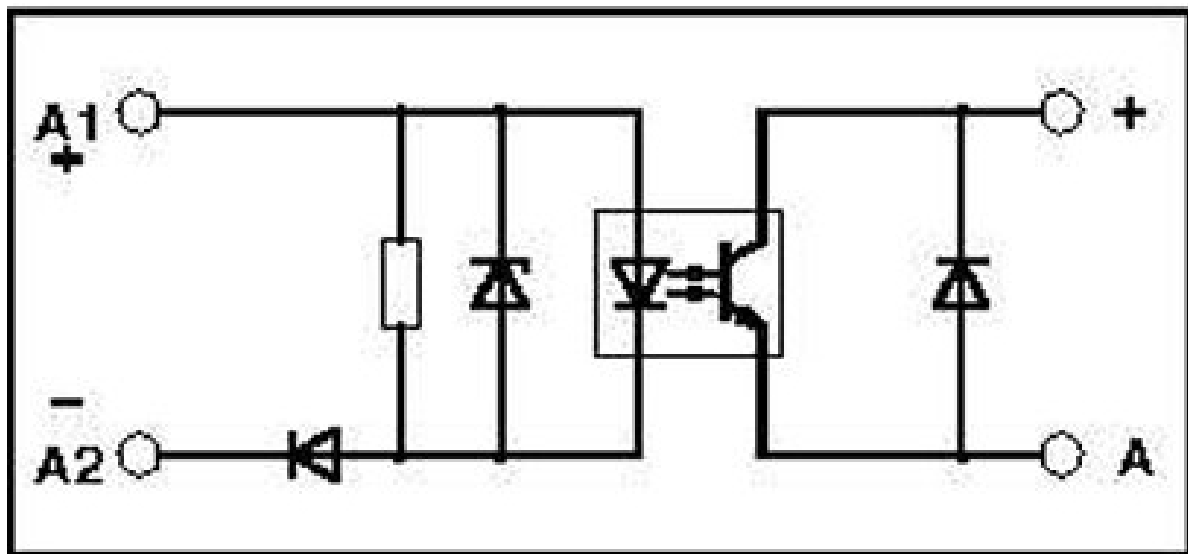
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Schematic diagram



Circuit diagram



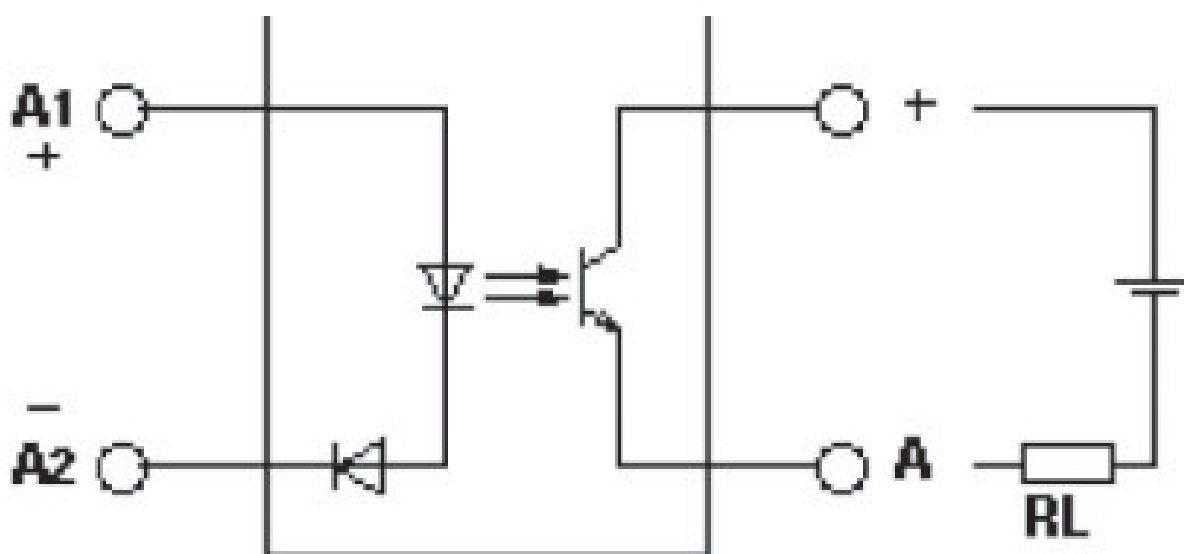
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Circuit diagram



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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.

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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