OPT- 5DC/230AC/ 1 - Miniature solid-state relay

2982139

https://www.phoenixcontact.com/us/products/2982139

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Plug-in miniature solid-state relay, power solid-state relay, 1 N/O contact, input: 5 V DC, output: 24 - 253 V AC/0.75 A

Your advantages

- Vibration and shock resistant
- RT III-proof (wash-proof)
- Wear-free and durable
- Can be soldered on PCB

Commercial data

Item number	2982139
Packing unit	10 pc
Minimum order quantity	10 pc
Note	Made to order (non-returnable)
Sales key	C460
Product key	DK69K2
GTIN	4046356418973
Weight per piece (including packing)	4.12 g
Weight per piece (excluding packing)	4.12 g
Customs tariff number	85364190
Country of origin	DE

Technical data

Product properties

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

Insulation characteristics: Standards/regulations

Overvoltage category	III
Pollution degree	2

Data management status

Date of last data management	01.04.2026

Electrical properties

Standards/regulations

Rated insulation voltage	260 V AC
Rated surge voltage	4 kV (Basic insulation)

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	0.2
Switching threshold "1" signal in reference to U_N	0.6
Typical input current at U_N	7 mA
Typical response time	10 ms
Typical turn-off time	10 ms
Transmission frequency	10 Hz

Output data

Contact switching type	1 N/O contact
Design of digital output	electronic
Output voltage range	24 V AC ... 253 V AC
Limiting continuous current	0.75 A (see derating curve)
Maximum inrush current	30 A (10 ms)
Min. load current	10 mA
Leakage current	< 1 mA (in off state)
Phase angle cos phi min	0.5
Max. load value	4.5 A^2s
Voltage drop at max. limiting continuous current	< 1 V
Output circuit	2-conductor floating, zero voltage switch
Protective circuit	RCV circuit; RCV circuit

Dimensions

Item dimensions

Width	5 mm
Height	28 mm
Depth	15 mm

Material specifications

Color	black (RAL 9005)

Environmental and real-life conditions

Ambient conditions

Degree of protection	RT III
Ambient temperature (operation)	-20 °C ... 60 °C
Ambient temperature (storage/transport)	-25 °C ... 75 °C

Approvals

Corrosive gas test

Identification	ISA-S71.04. G3 Harsh Group
	EN 60068-2-60

Standards and regulations

Standards/regulations

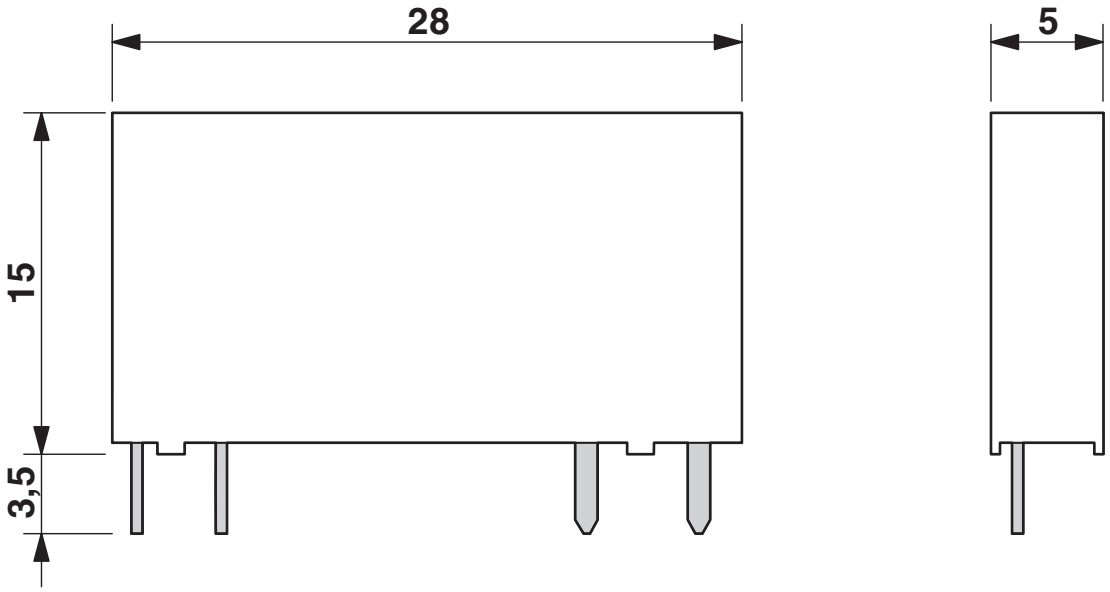
Standards/regulations	IEC 60664
	EN 50178

Mounting

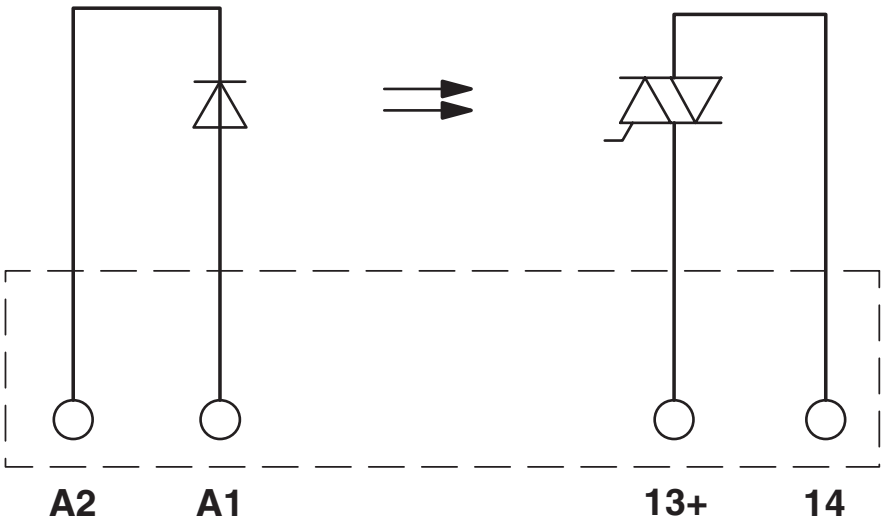
Assembly note	in rows with zero spacing
Mounting position	any

Drawings

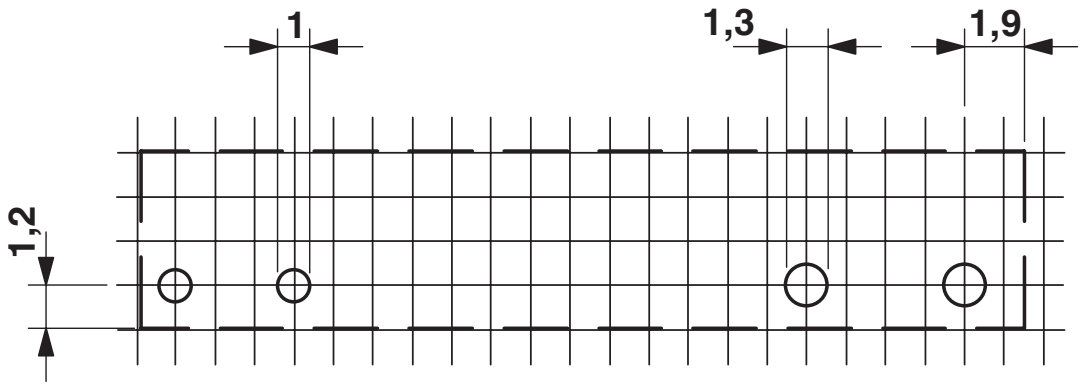
Dimensional drawing



Circuit diagram



Drilling plan/solder pad geometry



View from below

a = grid spacing 1.25 mm and 1.27 mm

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/2982139

cUL Recognized
Approval ID: FILE E 195083

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Classifications

ECLASS

ECLASS-13.0	27371604
ECLASS-15.0	27371604

ETIM

ETIM 10.0	EC001504

UNSPSC

UNSPSC 21.0	39122300

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	3f76c91b-0d07-49f4-9c1d-c08fbe4e4982

EF3.1 Climate Change

CO2e kg	0.309 kg CO2e

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