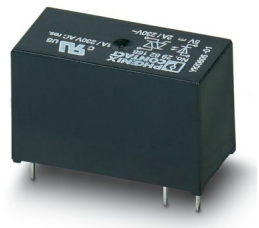
OPT- 5DC/230AC/ 2 - Miniature solid-state relay

2982168

https://www.phoenixcontact.com/us/products/2982168

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The figure shows the 24 V design

Plug-in miniature solid-state relay, power solid-state relay, 1 N/O contact, input: 5 V DC, output: 24 - 253 V AC/2 A

Your advantages

- Vibration and shock resistant
- RT III-proof (wash-proof)
- Wear-free and durable
- Switching power of up to 24 V DC/5 A
- Can be soldered on PCB
- Zero voltage switch at AC output

Commercial data

Item number	2982168
Packing unit	10 pc
Minimum order quantity	10 pc
Note	Made to order (non-returnable)
Sales key	C460
Product key	DK69L2
GTIN	4017918996963
Weight per piece (including packing)	10.93 g
Weight per piece (excluding packing)	10.93 g
Customs tariff number	85364190
Country of origin	HU

Technical data

Product properties

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

Insulation characteristics: Standards/regulations

Insulation	Basic insulation
Overvoltage category	III
Pollution degree	2

Data management status

Date of last data management	01.04.2026

Electrical properties

Maximum power dissipation for nominal condition	0.08 W
Test voltage (Input/output)	2.5 kV (50 Hz, 1 min., input/output)

Standards/regulations

Rated insulation voltage	250 V AC

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	15 mA
Typical response time	10 ms
Typical turn-off time	10 ms
Protective circuit	Reverse polarity protection; Polarity protection diode
Transmission frequency	10 Hz

Output data

Contact switching type	1 N/O contact
Design of digital output	electronic
Output nominal voltage	230 V AC
Output voltage range	24 V AC ... 253 V AC
Limiting continuous current	2 A (see derating curve)
Maximum inrush current	30 A (10 ms)
Min. load current	25 mA
Leakage current	< 1 mA
Surge current	30 A (10 ms)
Max. load value	4 A^2s (tp = 10 ms, at 25 °C)
Voltage drop at max. limiting continuous current	≤ 1 V

Output circuit	2-conductor floating, zero voltage switch
Protective circuit	Surge protection; RC element

Dimensions

Item dimensions

Width	12.7 mm
Height	29 mm
Depth	15.7 mm

Material specifications

Color	black (RAL 9005)
Flammability rating according to UL 94 (Housing)	V0 (Housing)

Environmental and real-life conditions

Ambient conditions

Degree of protection	RT III
Ambient temperature (operation)	-25 °C ... 60 °C
Ambient temperature (storage/transport)	-25 °C ... 70 °C

Approvals

Corrosive gas test

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

Standards and regulations

Standards/regulations

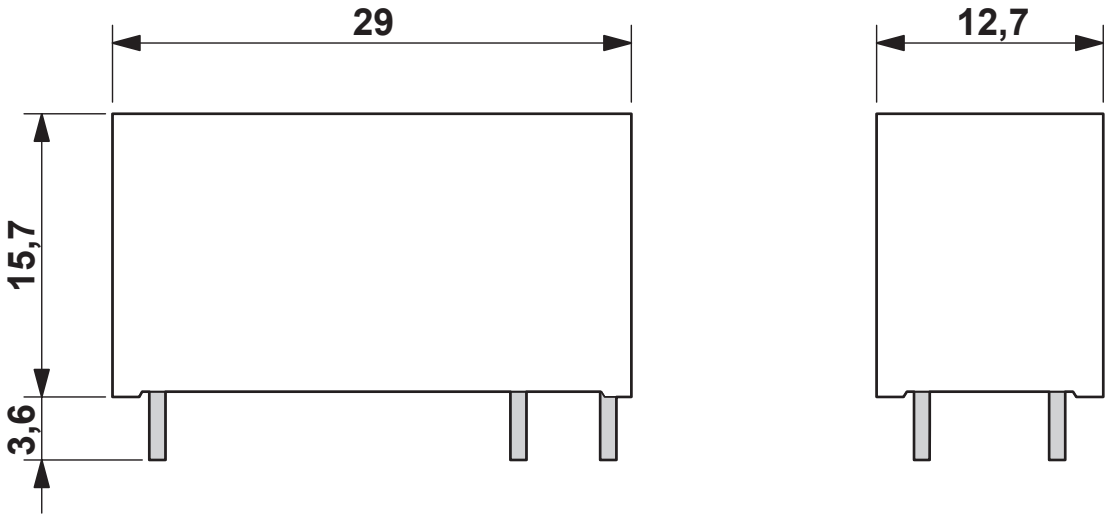
Standards/regulations	IEC 60664
	EN 50178

Mounting

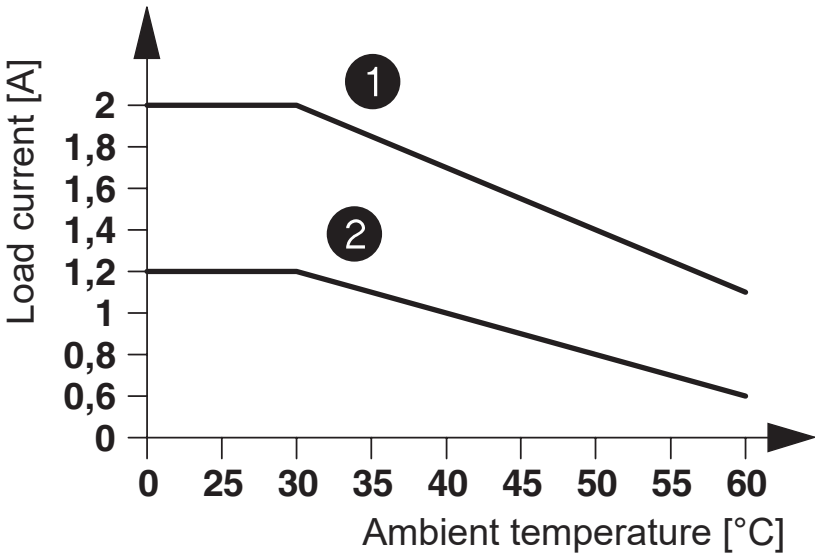
Assembly note	See derating curve
Mounting position	any

Drawings

Dimensional drawing

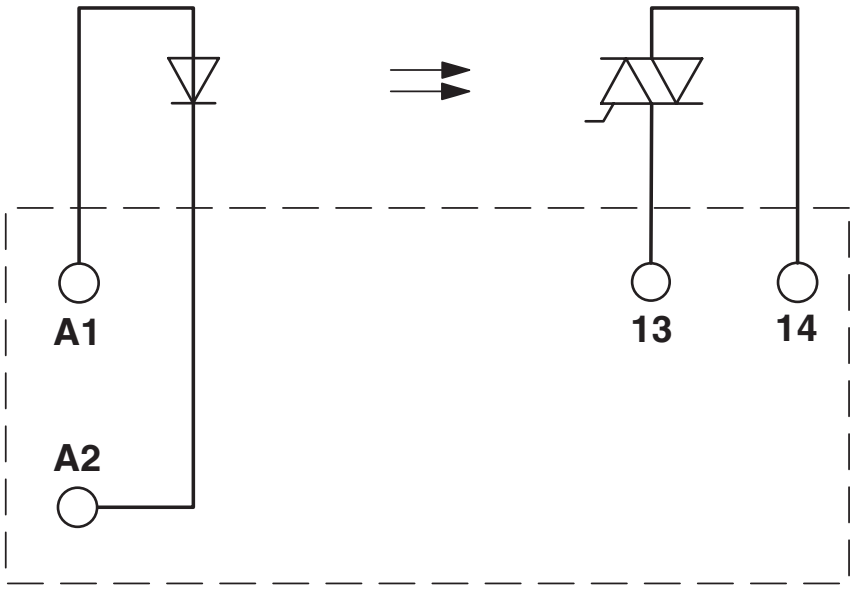


Diagram

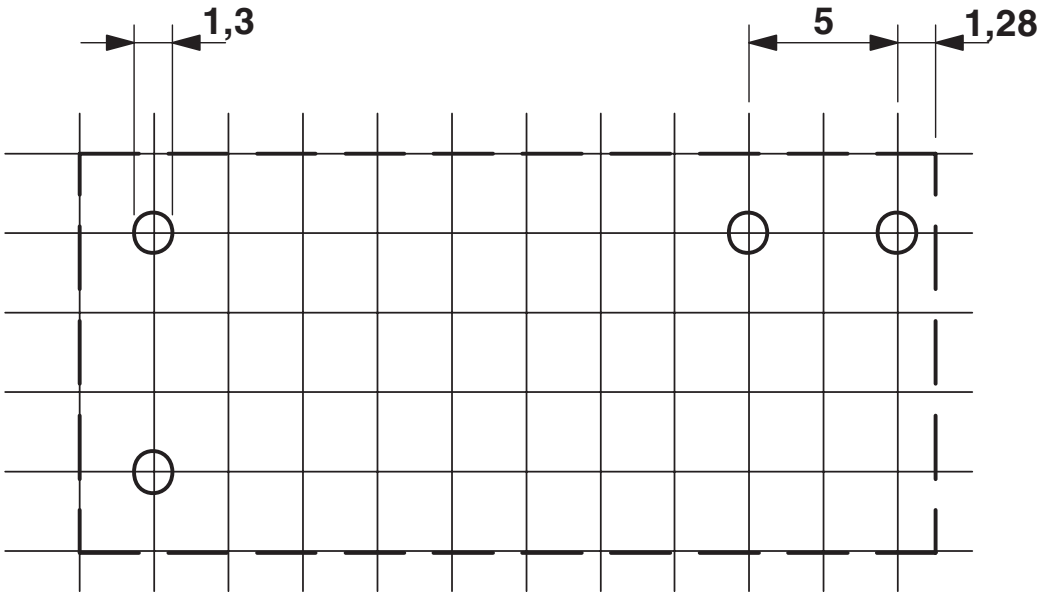


1 In rows with 10 mm spacing
2 In rows with zero spacing

Circuit diagram



Drilling plan/solder pad geometry



Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/2982168

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, No exemptions

China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

EU REACH SVHC

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

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