

2966595

<https://www.phoenixcontact.com/us/products/2966595>

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Plug-in miniature solid-state relay, power solid-state relay, 1 N/O contact, input: 24 V DC, output: 3 ... 33 V DC/3 A

Your advantages

- Vibration and shock resistant
- RT III-proof (wash-proof)
- Wear-free and durable
- Can be soldered on PCB
- Switching power of up to 24 V DC/3 A

Commercial data

Item number	2966595
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	C460
Product key	DK69K1
GTIN	4017918130947
Weight per piece (including packing)	5.24 g
Weight per piece (excluding packing)	5.2 g
Customs tariff number	85364190
Country of origin	HU

OPT-24DC/ 24DC/ 2 - Miniature solid-state relay



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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	13.10.2025
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Electrical properties

Maximum power dissipation for nominal condition	0.17 W
Test voltage (Input/output)	2.5 kV (50 Hz, 1 min., input/output)

Input data

Nominal input voltage U_N	24 V DC
Input voltage range in reference to U_N	0.8 ... 1.2
Input voltage range	19.2 V DC ... 28.8 V DC
Switching threshold "0" signal in reference to U_N	0.4
Switching threshold "1" signal in reference to U_N	0.7
Typical input current at U_N	7 mA
Typical response time	20 μ s (at U_N)
Typical turn-off time	300 μ s (at U_N)
Transmission frequency	300 Hz

Output data

Contact switching type	1 N/O contact
Design of digital output	electronic
Output voltage range	3 V DC ... 33 V DC
Limiting continuous current	3 A (see derating curve)
Maximum inrush current	15 A (10 ms)
Voltage drop at max. limiting continuous current	$\leq$ 150 mV
Output circuit	2-conductor, floating
Protective circuit	Reverse polarity protection
	Surge protection

Dimensions

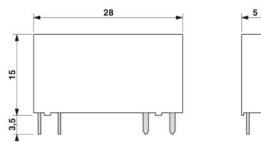
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Dimensional drawing



Width	5 mm
Height	28 mm
Depth	15 mm

Material specifications

Color	black (RAL 9005)
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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	in rows with zero spacing
Mounting position	any

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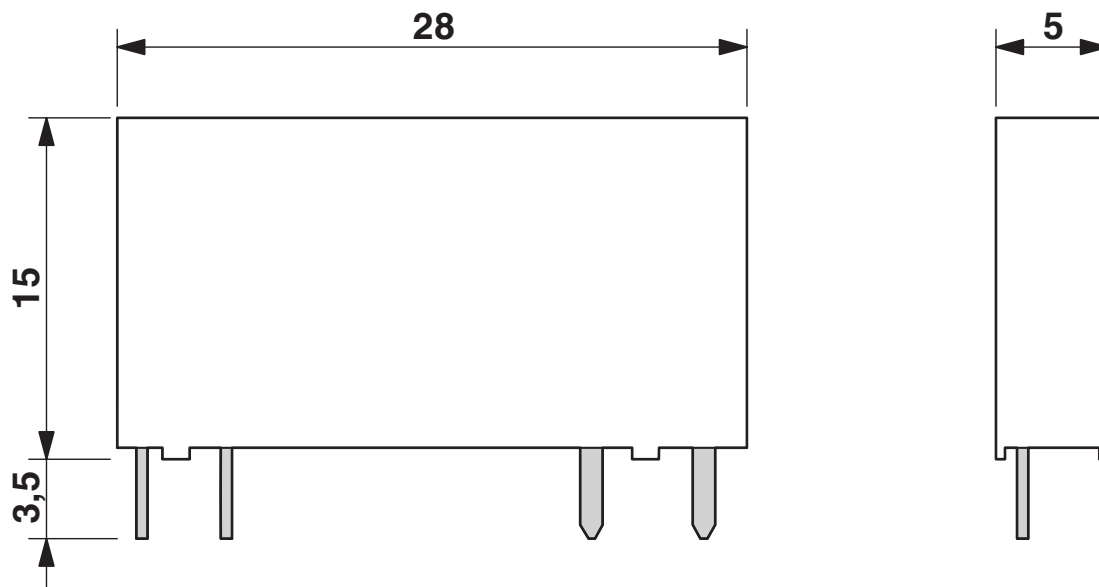
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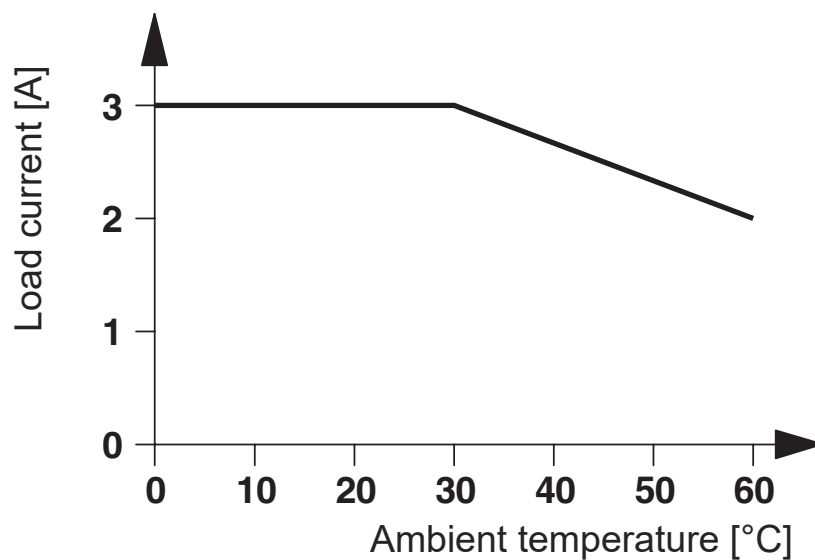


Drawings

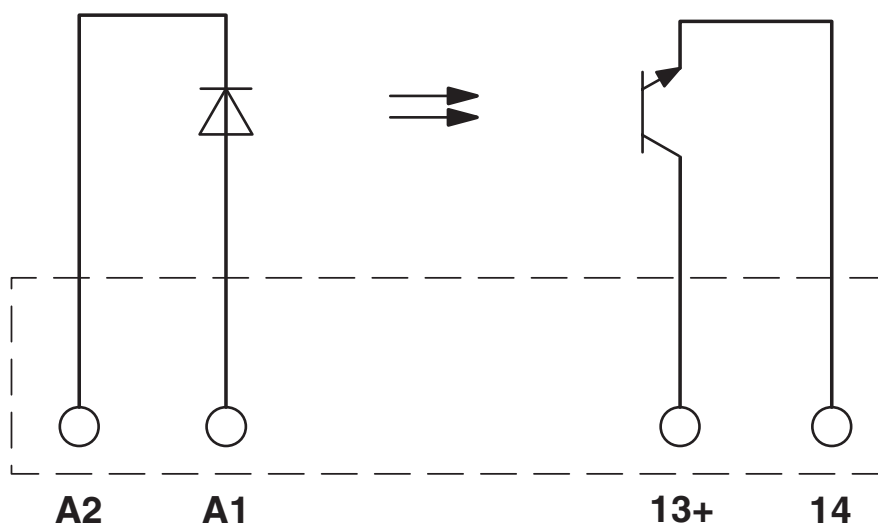
Dimensional drawing



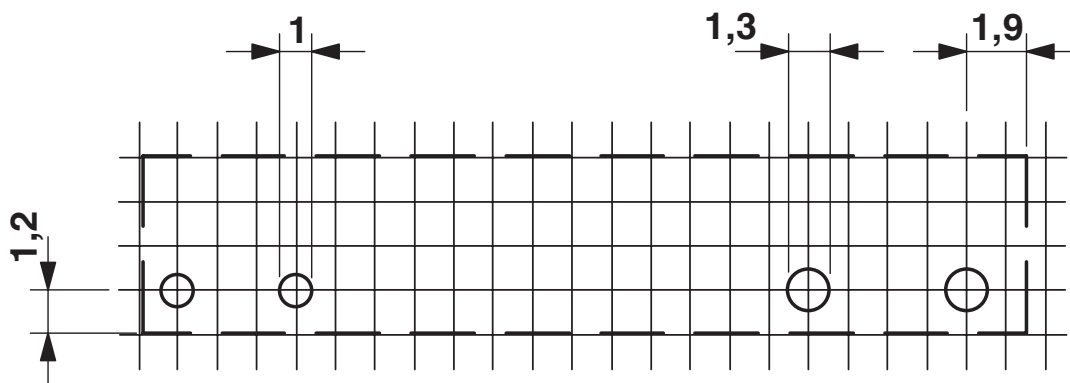
Diagram



Circuit diagram



Drilling plan/solder pad geometry



a = pitch division 1.25 mm and 1.27 mm

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Approvals

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cUL Recognized
Approval ID: FILE E 195083



UL Recognized
Approval ID: FILE E 195083



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GL
Approval ID: 46016-03 HH

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Classifications

ECLASS

ECLASS-13.0	27371604
ECLASS-15.0	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(c)-I

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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