

OPT-24DC/230AC/ 1 - Miniature solid-state relay



2967950

<https://www.phoenixcontact.com/us/products/2967950>

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Plug-in miniature solid-state relay, power solid-state relay, 1 N/O contact, input: 24 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
- Zero voltage switch at AC output

Commercial data

Item number	2967950
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	C460
Product key	DK69K2
GTIN	4017918190538
Weight per piece (including packing)	5.75 g
Weight per piece (excluding packing)	5.75 g
Customs tariff number	85364110
Country of origin	JP

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	0.07 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	0.35
Switching threshold "1" signal in reference to U_N	0.8
Typical input current at U_N	6.6 mA
Typical response time	10 ms (at U_N)
Typical turn-off time	10 ms (at U_N)
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
Phase angle $\cos \phi$ min	0.5
Max. load value	4.5 A ² s
Voltage drop at max. limiting continuous current	< 1 V
Output circuit	2-conductor floating, zero voltage switch
Protective circuit	RCV circuit; RCV circuit

Dimensions

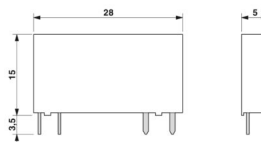
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Dimensional drawing



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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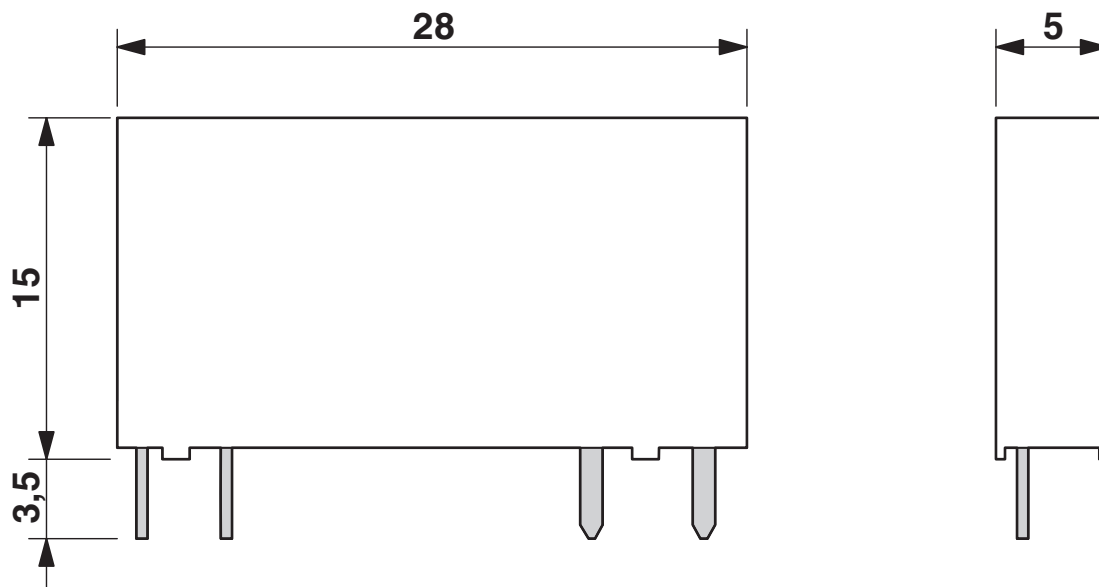
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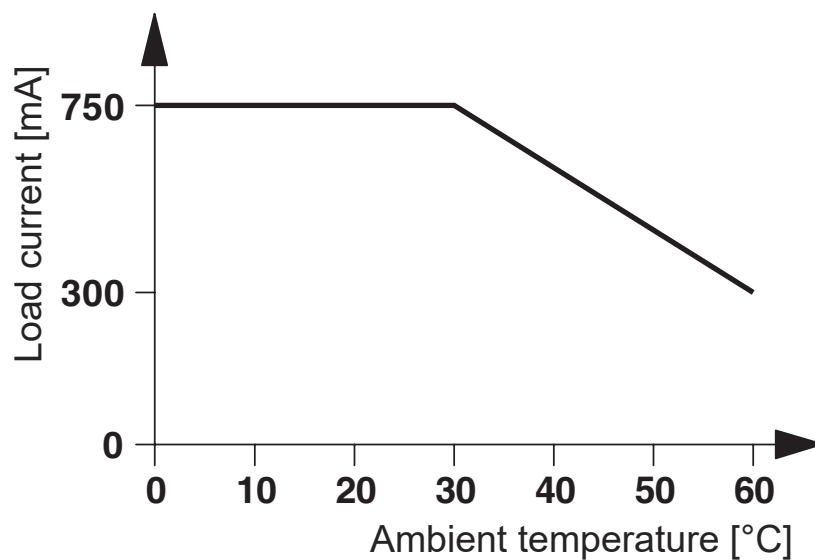


Drawings

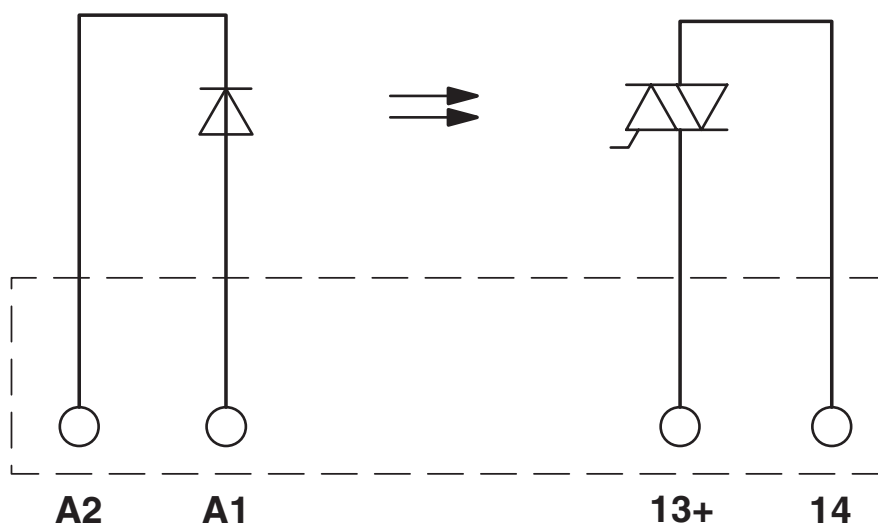
Dimensional drawing



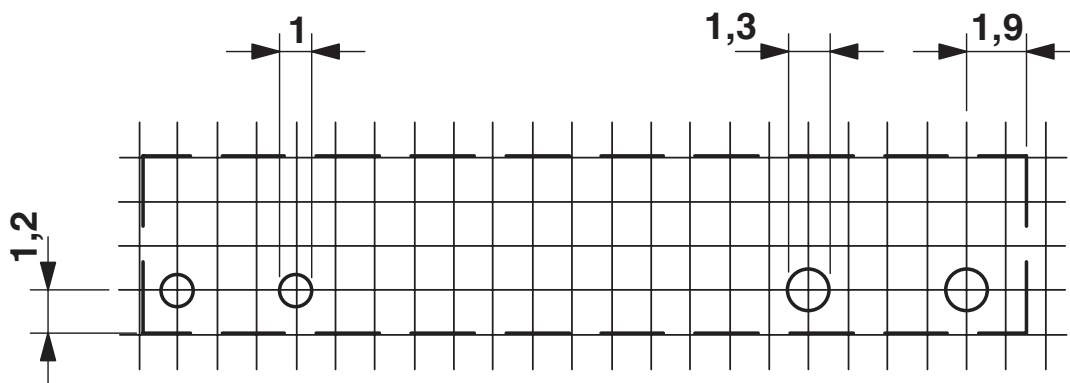
Diagram



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



EAC
Approval ID: RU*C-DE.*08.B.00010



UL Recognized
Approval ID: FILE E 195083



cUL Recognized
Approval ID: FILE E 195083



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(a)

China RoHS

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

EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	a8af46d4-c21c-4cb5-b418-9348cf4fc9a7

EF3.0 Climate Change

CO2e kg	1.317 kg CO2e
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