

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



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	CK61F3
Product key	CK61F3
Catalog page	Page 287 (C-5-2019)
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

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Technical data

Product properties

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

Insulation characteristics

Insulation	Basic insulation
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Insulation characteristics: Standards/regulations

Insulation	Basic insulation
Overvoltage category	III
Pollution degree	2

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, voltage	≤ 8.4 V
Switching threshold "1" signal voltage	≥ 18 V
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	$4.5 \text{ A}^2\text{s}$
Voltage drop at max. limiting continuous current	< 1 V
Output circuit	2-conductor floating, zero voltage switch
Protective circuit	RCV circuit; RCV circuit

Dimensions

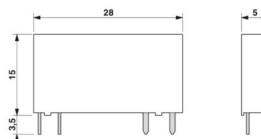
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Dimensional drawing



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

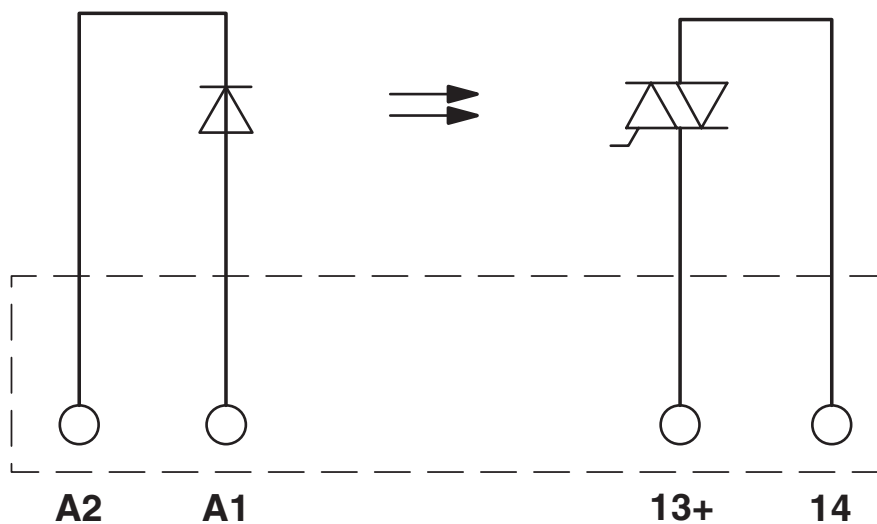
Standards/regulations	IEC 60664
	EN 50178

Mounting

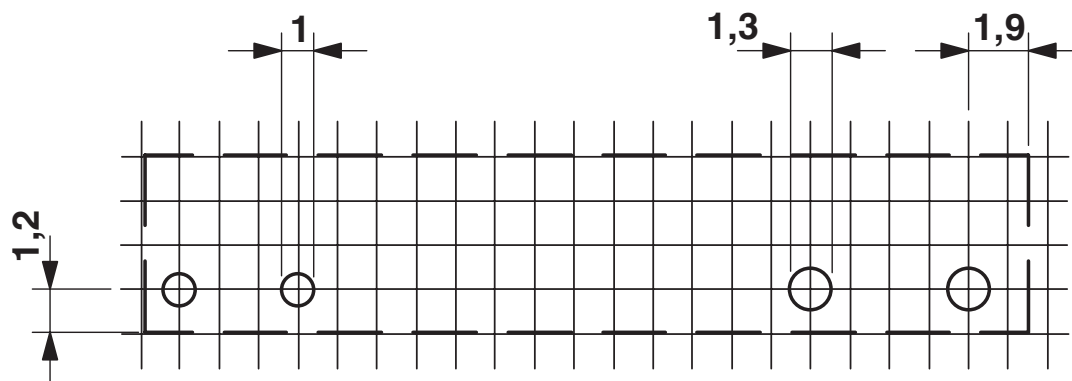
Assembly instructions	in rows with zero spacing
Mounting position	any

Drawings

Circuit diagram



Drilling plan/solder pad geometry



a = pitch division 1.25 mm and 1.27 mm

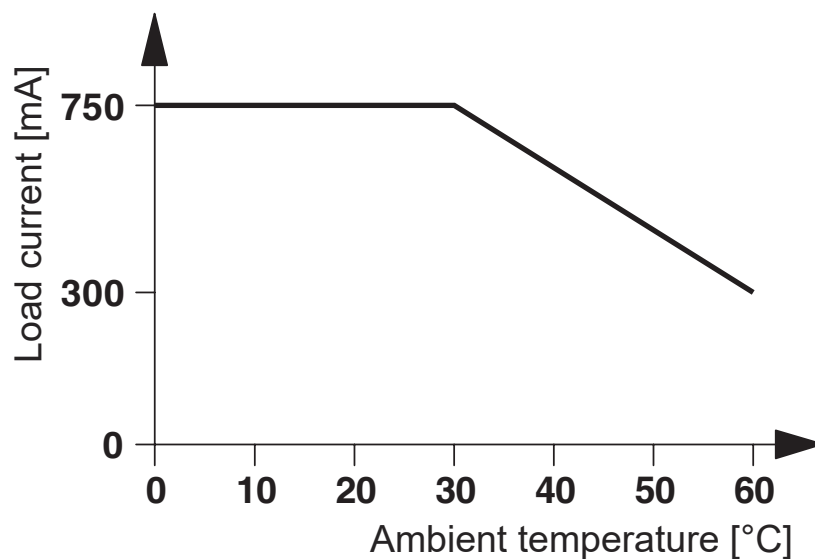
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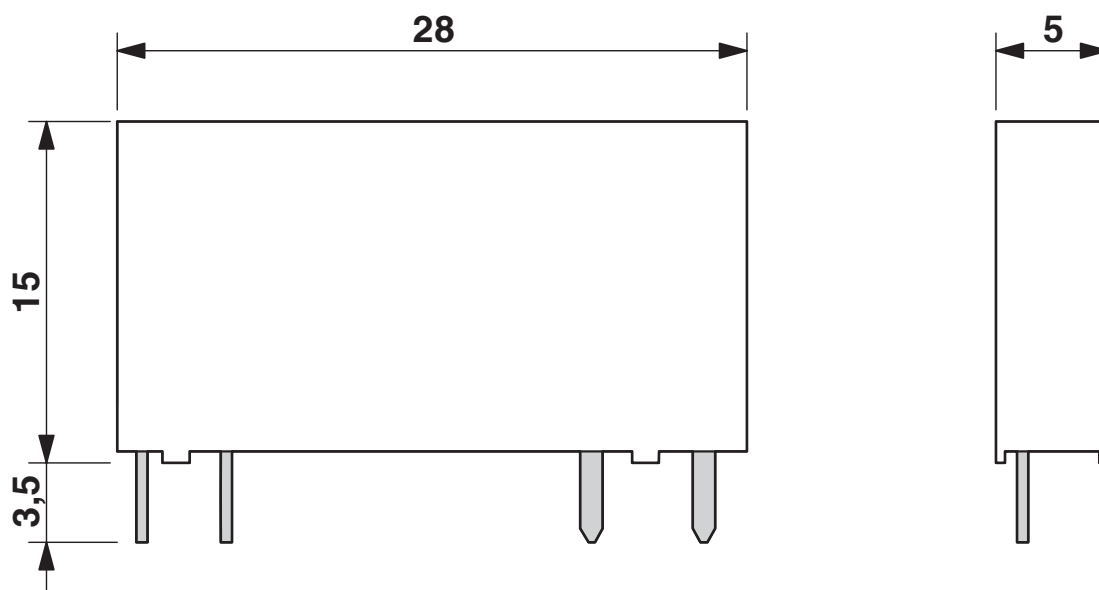
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Diagram



Dimensional drawing



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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/gb/products/2967950>



cUL Recognized
Approval ID: FILE E 195083



UL Recognized
Approval ID: FILE E 195083



EAC
Approval ID: TR_TS_D_00573_c



UL Recognized
Approval ID: FILE E 195083



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



cUL Recognized
Approval ID: FILE E 195083



GL
Approval ID: 46016-03 HH

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Classifications

ECLASS

ECLASS-11.0	27371604
ECLASS-12.0	27371604
ECLASS-13.0	27371604

ETIM

ETIM 9.0	EC001504
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UNSPSC

UNSPSC 21.0	39122300
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Environmental product compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

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Mandatory accessories

PLC-BPT- 24DC/21 - Relay base

2900445

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6.2 mm PLC basic terminal block with Push-in connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, 1 changeover contact, input voltage 24 V DC

PLC-BPT- 24DC/ 1/SEN - Relay base

2900262

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6.2 mm PLC basic terminal block for input functions with push-in connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, with sensor supply voltage distribution (BB), 1 N/O contact, input voltage 24 V DC

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PLC-BSC- 24DC/ 1/SEN - Relay base

2966061

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6.2 mm PLC basic terminal block for input functions with screw connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, with sensor supply voltage distribution (BB), 1 N/O contact, input voltage 24 V DC

PLC-BPT- 24DC/ 1/ACT - Relay base

2900449

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6.2 mm PLC basic terminal block for output functions with push-in connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, with load return line connection (BB), 1 N/O contact, input voltage 24 V DC

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PLC-BSC- 24DC/ 1/ACT - Relay base

2966058

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6.2 mm PLC basic terminal block for output functions with screw connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, with load return line connection (BB), 1 N/O contact, input voltage 24 V DC

PLC-BPT- 24UC/ 1/ACT - Relay base

2900450

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6.2 mm PLC basic terminal block for output functions with push-in connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, with load return line connection (BB), 1 N/O contact, input voltage 24 V AC/DC

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PLC-BSC- 24UC/ 1/ACT - Relay base

2982799

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6.2 mm PLC basic terminal block for output functions with screw connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, with load return line connection (BB), 1 N/O contact, input voltage 24 V AC/DC

PLC-BSC- 24DC/21/SO46 - Relay base

2980458

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6.2 mm PLC basic terminal block with protection against interference currents/voltages on the control side, with screw connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, with increased input current consumption, 1 changeover contact, input voltage 24 V DC

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RIF-0-BPT/1 - Relay base

2901873

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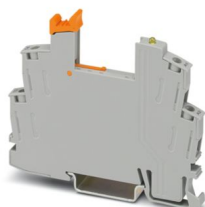


RIF-0... relay base, for miniature power relay with 1 N/O contact or solid-state relays of the same design, push-in connection, for mounting on NS 35/7,5

RIF-0-BSC/ 1 - Relay base

2901872

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RIF-0... relay base, for miniature power relay with 1 N/O contact or identical solid-state relays, screw connection, for mounting on NS 35/7,5

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