

OPT-60DC/230AC/ 1 - Miniature solid-state relay



2967963

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Plug-in miniature solid-state relay, power solid-state relay, 1 N/O contact, input: 60 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
- Switching power of up to 24 V DC/5 A
- Zero voltage switch at AC output
- Can be soldered on PCB

Commercial data

Item number	2967963
Packing unit	10 pc
Minimum order quantity	10 pc
Note	Made to order (non-returnable)
Sales key	C460
Product key	CK61F3
Catalog page	Page 397 (C-5-2019)
GTIN	4017918190521
Weight per piece (including packing)	4.11 g
Weight per piece (excluding packing)	4 g
Customs tariff number	85364190
Country of origin	DE

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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	0.18 W
Test voltage (Input/output)	2.5 kV (50 Hz, 1 min., input/output)

Input data

Nominal input voltage U_N	60 V DC
Input voltage range in reference to U_N	0.9 ... 1.1
Input voltage range	54 V DC ... 66 V DC
Switching threshold "0" signal, voltage	≤ 15 V
Switching threshold "1" signal voltage	≥ 50 V
Typical input current at U_N	3 mA
Typical response time	9 ms (at U_N)
Typical turn-off time	700 μ s (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 (in off state)
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

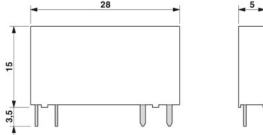
Dimensions

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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 instructions	in rows with zero spacing
Mounting position	any

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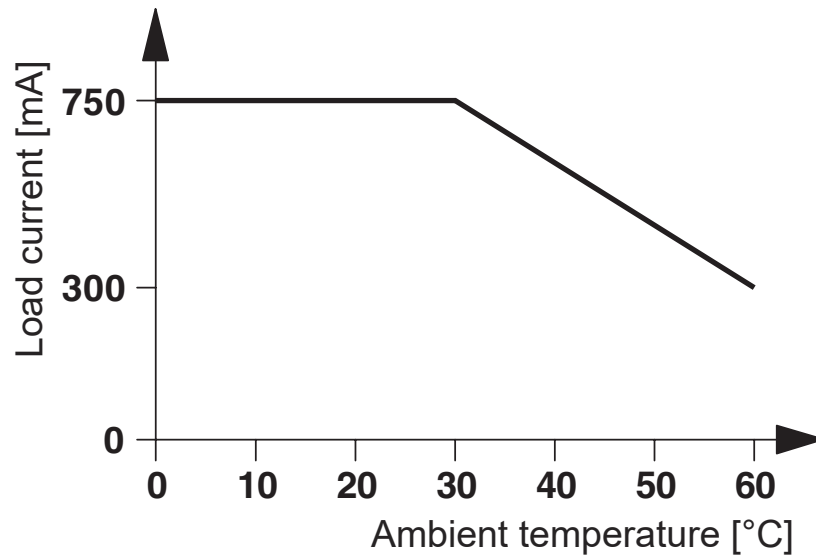


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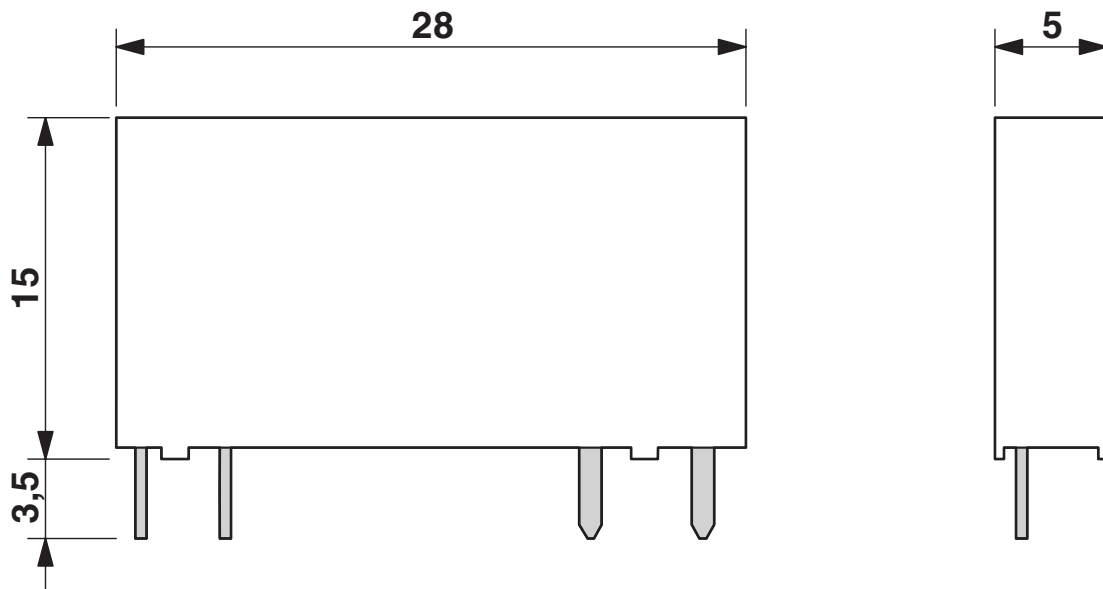
<https://www.phoenixcontact.com/us/products/2967963>

Drawings

Diagram



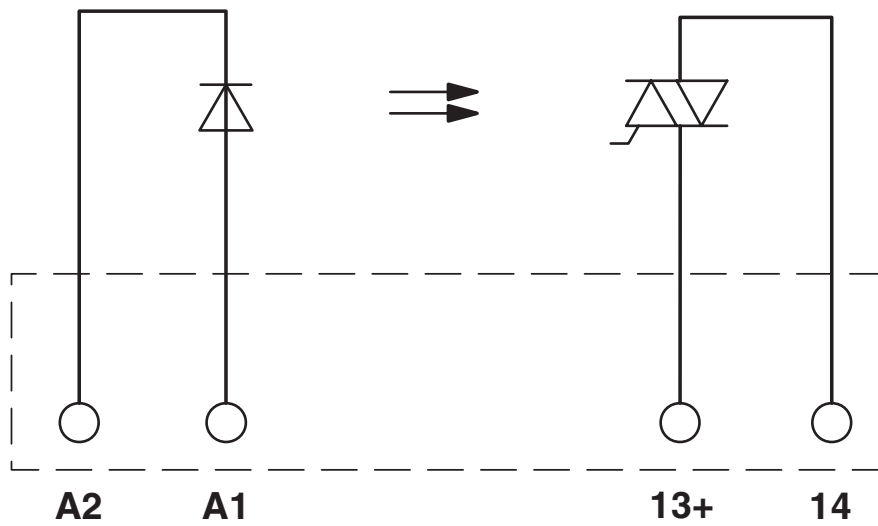
Dimensional drawing



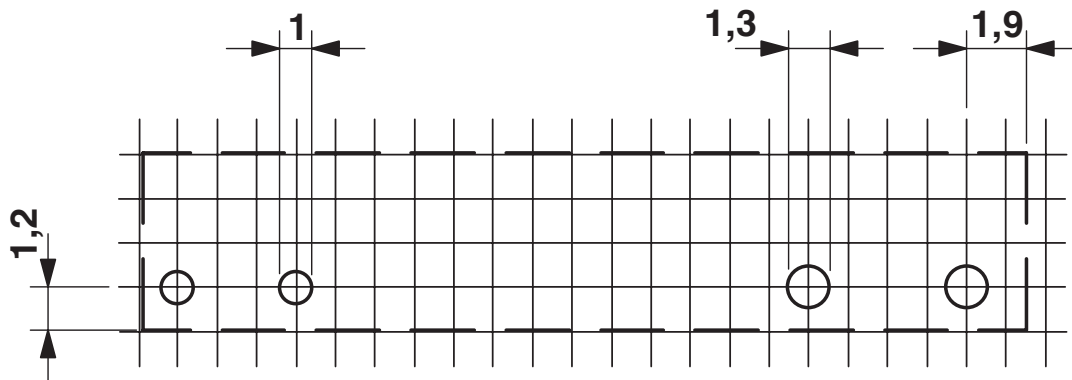
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Circuit diagram



Drilling plan/solder pad geometry



a = pitch division 1.25 mm and 1.27 mm

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2967963>



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

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	7b1088cc-3309-4620-a913-7476772a8ca6

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Mandatory accessories

PLC-BPT-120UC/21 - Relay base

2900280

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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 120 V AC/DC

PLC-BSC-120UC/21 - Relay base

2966032

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6.2 mm PLC basic terminal block with screw connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, 1 changeover contact, input voltage 120 V AC/DC

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PLC-BPT-230UC/21 - Relay base

2900281

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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 230 V AC/DC

PLC-BSC-230UC/21 - Relay base

2966045

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6.2 mm PLC basic terminal block with screw connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, 1 changeover contact, input voltage 230 V AC/DC

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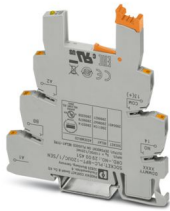
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PLC-BPT-120UC/ 1/SEN - Relay base

2900451

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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 120 V AC/DC

PLC-BSC-120UC/ 1/SEN - Relay base

2966074

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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 120 V AC/DC

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PLC-BPT-230UC/ 1/SEN - Relay base

2900452

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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 230 V AC/DC

PLC-BSC-230UC/ 1/SEN - Relay base

2966087

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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 NS 35/7,5 DIN rail, with sensor supply voltage distribution (BB), 1 N/O contact, input voltage: 230 V AC/DC

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PLC-BPT-120UC/21/SO46 - Relay base

2900453

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6.2 mm PLC basic terminal block against interference currents/voltages on the control side with Push-in connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, with integrated RCZ filter, 1 changeover contact, input voltage 120 V AC

PLC-BSC-120UC/21/SO46 - Relay base

2980319

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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 integrated RCZ filter, 1 changeover contact, input voltage 120 V AC

OPT-60DC/230AC/ 1 - Miniature solid-state relay

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PLC-BPT-230UC/21/SO46 - Relay base

2900455

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6.2 mm PLC basic terminal block against interference currents/voltages on the control side with Push-in connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, with integrated RCZ filter, 1 changeover contact, input voltage 230 V AC

PLC-BSC-230UC/21/SO46 - Relay base

2980335

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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 integrated RCZ filter, 1 changeover contact, input voltage 230 V AC

OPT-60DC/230AC/ 1 - Miniature solid-state relay



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PLC-BSC-120UC/ 1/SEN/SO46 - Relay base

2980322

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6.2 mm PLC basic terminal block with interference current and interference voltage protection on the control side, with screw connection, without relay or solid-state relay, with sensor supply voltage distribution (BB), 1 N/O contact, input voltage 120 V AC

PLC-BPT-230UC/ 1/SEN/SO46 - Relay base

2900457

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6.2 mm PLC basic terminal block with interference current and interference voltage protection on the control side, with push-in connection, without relay or solid-state relay, with sensor supply voltage distribution (BB), 1 N/O contact, input voltage 230 V AC

OPT-60DC/230AC/ 1 - Miniature solid-state relay

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PLC-BSC-230UC/ 1/SEN/SO46 - Relay base

2980348

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6.2 mm PLC basic terminal block with interference current and interference voltage protection on the control side, with screw connection, without relay or solid-state relay, with sensor supply voltage distribution (BB), 1 N/O contact, input voltage 230 V AC

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