

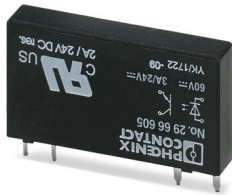
# OPT-60DC/ 24DC/ 2 - Miniature solid-state relay



2966605

<https://www.phoenixcontact.com/pc/products/2966605>

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Plug-in miniature solid-state relay, power solid-state relay, 1 N/O contact, input: 60 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 capacity of up to 24 V DC/3 A

## Commercial Data

Item number	2966605
Packing unit	10 pc
Minimum order quantity	10 pc
Sales Key	08
Product Key	CK61F2
Catalog Page	Page 396 (C-5-2019)
GTIN	4017918130923
Weight per Piece (including packing)	5.42 g
Weight per Piece (excluding packing)	5.42 g
Customs tariff number	85364190
Country of origin	HU

# OPT-60DC/ 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

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 $U_N$	0.8 ... 1.2
Input voltage range	48 V DC ... 72 V DC
Switching threshold "0" signal, voltage	$\leq 20$ V
Switching threshold "1" signal voltage	$\geq 35$ V
Typical input current at $U_N$	3 mA
Typical response time	40 $\mu$ s (at $U_N$ )
Typical turn-off time	500 $\mu$ s (at $U_N$ )
Transmission frequency	300 Hz

### Output data

Contact 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; Polarity protection diode Surge protection

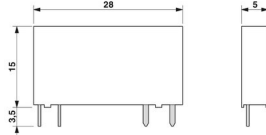
### Dimensions

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Dimensional drawing	
Width	5 mm
Height	28 mm
Depth	15 mm

## 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

# OPT-60DC/ 24DC/ 2 - Miniature solid-state relay

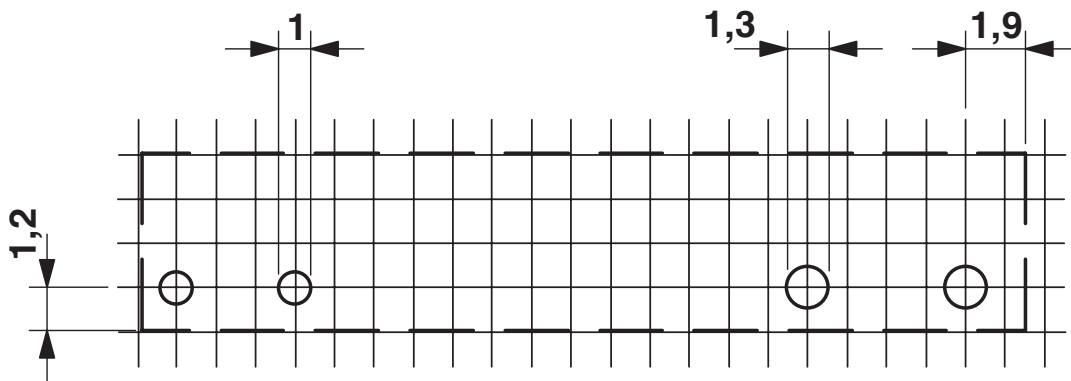


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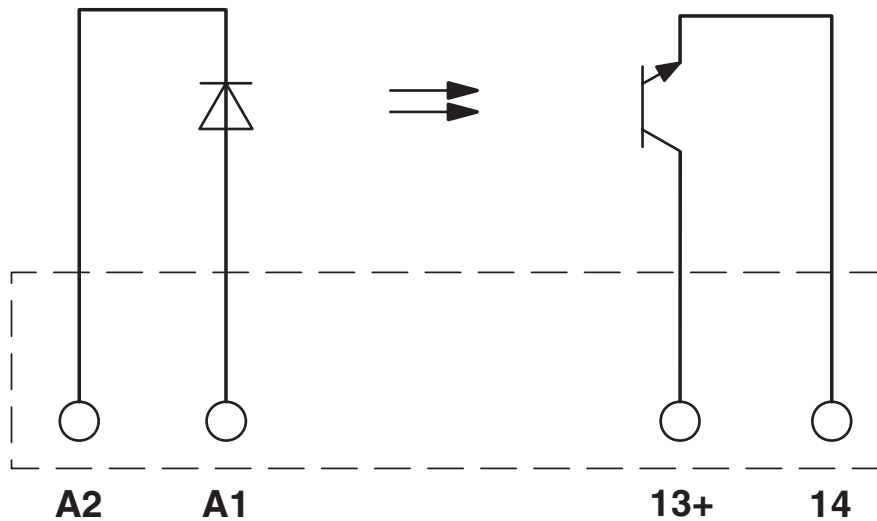
## Drawings

Drilling plan/solder pad geometry



a = pitch division 1.25 mm and 1.27 mm

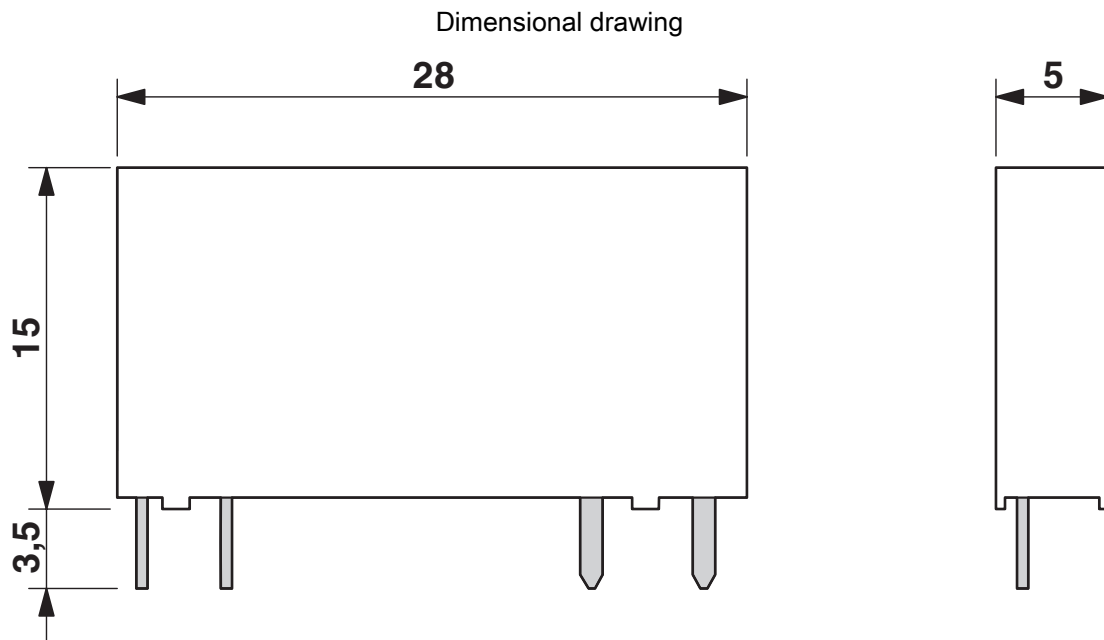
Circuit diagram



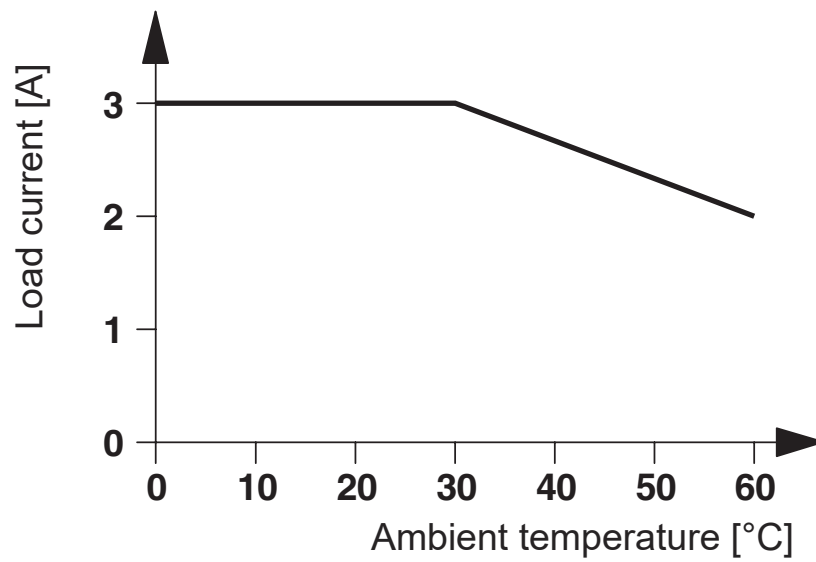
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Diagram



# OPT-60DC/ 24DC/ 2 - Miniature solid-state relay



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/pc/products/2966605>



**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 8.0	EC001504
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### UNSPSC

UNSPSC 21.0	39122300
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## Environmental Product Compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values



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## Accessories

### PLC-BPIT- 60DC/21 - Relay base

2900279

<https://www.phoenixcontact.com/pc/products/2900279>



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 60 V DC

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### PLC-BSC- 60DC/21 - Relay base

2966100

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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 60 V DC

# OPT-60DC/ 24DC/ 2 - Miniature solid-state relay



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## 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

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

2966032

<https://www.phoenixcontact.com/pc/products/2966032>



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

# OPT-60DC/ 24DC/ 2 - Miniature solid-state relay

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

2900281

<https://www.phoenixcontact.com/pc/products/2900281>



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

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## 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

# OPT-60DC/ 24DC/ 2 - Miniature solid-state relay



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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

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

2966074

<https://www.phoenixcontact.com/pc/products/2966074>



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

# OPT-60DC/ 24DC/ 2 - Miniature solid-state relay



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

2900452

<https://www.phoenixcontact.com/pc/products/2900452>



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

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

2966087

<https://www.phoenixcontact.com/pc/products/2966087>



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

# OPT-60DC/ 24DC/ 2 - Miniature solid-state relay



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

2900453

<https://www.phoenixcontact.com/pc/products/2900453>



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

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

2980319

<https://www.phoenixcontact.com/pc/products/2980319>



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/ 24DC/ 2 - Miniature solid-state relay

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

2900455

<https://www.phoenixcontact.com/pc/products/2900455>



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

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



2966605

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## PLC-BPT-120UC/ 1/SEN/SO46 - Relay base

2900456

<https://www.phoenixcontact.com/pc/products/2900456>



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 120 V AC

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

2980322

<https://www.phoenixcontact.com/pc/products/2980322>



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



# OPT-60DC/ 24DC/ 2 - Miniature solid-state relay



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

2900457

<https://www.phoenixcontact.com/pc/products/2900457>



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

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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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PHOENIX CONTACT GmbH & Co. KG  
Flachsmarktstraße 8  
D-32825 Blomberg  
+49 (0) 5235-3 00  
[info@phoenixcontact.com](mailto:info@phoenixcontact.com)