

# OV-24DC/ 60DC/4 - Semi-conductor relay



2982647

<https://www.phoenixcontact.com/gb/products/2982647>

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Solid-state relay, for signal amplification and isolation of the control and load circuits, can be plugged in the solderable plug-in bases SIM-AMS or with PCB connection for mounting directly onto the PCB, input: 4.25-32 V DC, output: 1-60 V DC/4 A

## Your advantages

- Compact dimensions
- No electromagnetic interference
- No wear, even at high switching frequencies
- High test voltage of up to 4 kV between control and load circuits
- Electrically insulated housing
- No contact bounce – no movable parts
- Switching power of up to 350 V DC/1 A, 60 V DC/4 A or 480 V AC/5 A

## Commercial data

|                                      |                     |
|--------------------------------------|---------------------|
| Item number                          | 2982647             |
| Packing unit                         | 10 pc               |
| Minimum order quantity               | 10 pc               |
| Sales key                            | CK7121              |
| Product key                          | CK7121              |
| Catalog page                         | Page 559 (C-7-2013) |
| GTIN                                 | 4046356131971       |
| Weight per piece (including packing) | 25.6 g              |
| Weight per piece (excluding packing) | 24 g                |
| Customs tariff number                | 85362010            |
| Country of origin                    | CN                  |

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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 | Basic insulation |
|------------|------------------|

### Electrical properties

|                             |                                    |
|-----------------------------|------------------------------------|
| Test voltage (Input/output) | 4 kV (50 Hz, 1 min., input/output) |
|-----------------------------|------------------------------------|

### Input data

|                                         |                       |
|-----------------------------------------|-----------------------|
| Nominal input voltage $U_N$             | 24 V DC               |
| Input voltage range                     | 4.25 V DC ... 32 V DC |
| Switching threshold "0" signal, voltage | < 1 V DC              |
| Switching threshold "1" signal voltage  | > 3.3 V DC            |
| Typical input current at $U_N$          | 15 mA                 |
| Typical response time                   | < 100 $\mu$ s         |
| Typical turn-off time                   | < 250 $\mu$ s         |
| Transmission frequency                  | 100 Hz                |

### Output data

|                                                  |                                                        |
|--------------------------------------------------|--------------------------------------------------------|
| Design of digital output                         | electronic                                             |
| Output voltage range                             | 1 V DC ... 60 V DC                                     |
| Limiting continuous current                      | 4 A (see derating curve)                               |
| Min. load current                                | 1 mA                                                   |
| Leakage current                                  | 100 $\mu$ A                                            |
| Surge current                                    | 25 A ( $t_p = 1$ s)                                    |
| Voltage drop at max. limiting continuous current | 0.5 V                                                  |
| Output circuit                                   | 2-conductor                                            |
| Protective circuit                               | Reverse polarity protection; Polarity protection diode |

### Dimensions

|                     |         |
|---------------------|---------|
| Dimensional drawing |         |
| Width               | 10.5 mm |

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|        |         |
|--------|---------|
| Height | 43 mm   |
| Depth  | 25.4 mm |

## Material specifications

|       |                  |
|-------|------------------|
| Color | black (RAL 9005) |
|-------|------------------|

## Environmental and real-life conditions

### Ambient conditions

|                                         |                  |
|-----------------------------------------|------------------|
| Ambient temperature (operation)         | -20 °C ... 80 °C |
| Ambient temperature (storage/transport) | -20 °C ... 80 °C |

## Approvals

### UKCA

|             |                |
|-------------|----------------|
| Certificate | UKCA-compliant |
|-------------|----------------|

## Standards and regulations

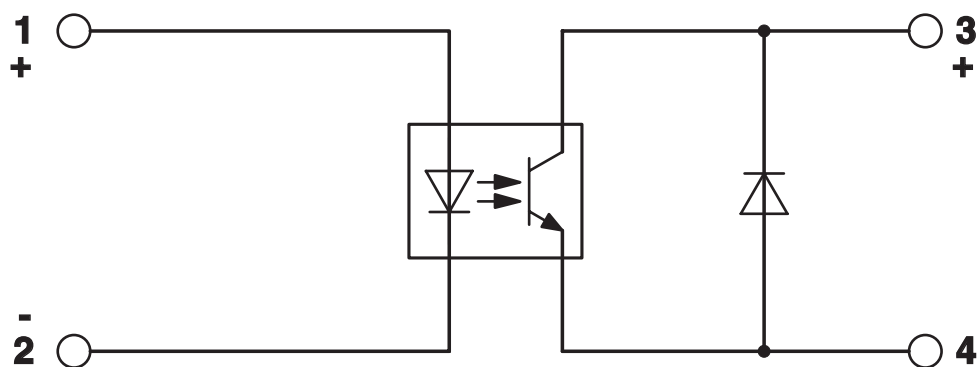
|                       |              |
|-----------------------|--------------|
| Standards/regulations | EN 61000-4-2 |
|                       | EN 61000-4-3 |
|                       | EN 61000-4-4 |
|                       | EN 55011     |

## Mounting

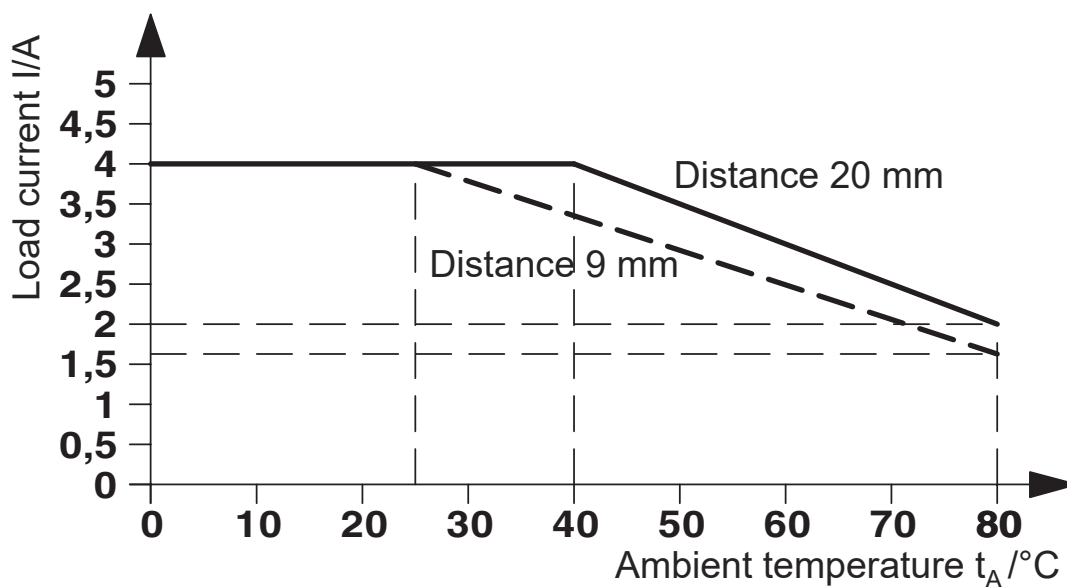
|                       |                                     |
|-----------------------|-------------------------------------|
| Assembly instructions | Can be aligned with > 20 mm spacing |
| Mounting position     | any                                 |

## Drawings

Circuit diagram



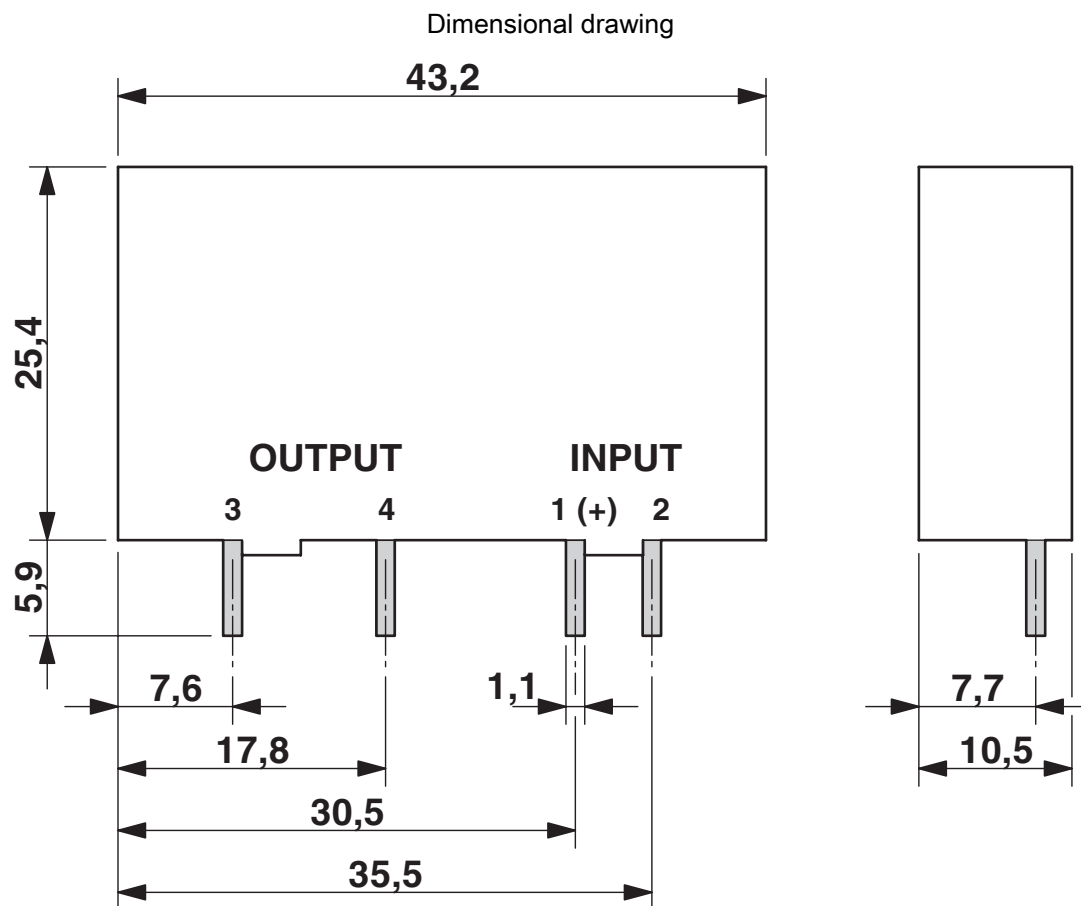
Diagram



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/gb/products/2982647>



**cUL Recognized**  
Approval ID: FILE E 195083



**UL Recognized**  
Approval ID: FILE E 195083



**EAC**  
Approval ID: TR\_TS\_D\_00573\_c



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

**cULus Recognized**

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## Classifications

### ECLASS

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

### ETIM

|          |          |
|----------|----------|
| ETIM 8.0 | EC001504 |
|----------|----------|

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 21.0 | 39122300 |
|-------------|----------|

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## Environmental product compliance

|            |                                                                                                              |
|------------|--------------------------------------------------------------------------------------------------------------|
| REACH SVHC | Lead 7439-92-1                                                                                               |
| China RoHS | Environmentally Friendly Use Period = 50 years                                                               |
|            | For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads" |

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