

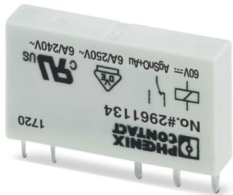
# REL-MR- 60DC/21AU - Single relay



2961134

<https://www.phoenixcontact.com/gb/products/2961134>

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Plug-in miniature power relay, with multi-layer gold contact, 1 changeover contact, input voltage 60 V DC

## Your advantages

- Safe isolation between coil and contact side
- High degree of protection up to RT III depending on type (wash-proof)
- Power contacts up to 6 A

## Commercial data

|                                      |                     |
|--------------------------------------|---------------------|
| Item number                          | 2961134             |
| Packing unit                         | 10 pc               |
| Minimum order quantity               | 10 pc               |
| Sales key                            | CK6195              |
| Product key                          | CK6195              |
| Catalog page                         | Page 394 (C-5-2019) |
| GTIN                                 | 4017918130848       |
| Weight per piece (including packing) | 6.984 g             |
| Weight per piece (excluding packing) | 6.47 g              |
| Customs tariff number                | 85364190            |
| Country of origin                    | CZ                  |

# REL-MR- 60DC/21AU - Single relay



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## Technical data

### Product properties

|                         |                           |
|-------------------------|---------------------------|
| Product type            | Single relay              |
| Operating mode          | 100% operating factor     |
| Mechanical service life | 2x 10 <sup>7</sup> cycles |

### Insulation characteristics

|                      |     |
|----------------------|-----|
| Overvoltage category | III |
| Pollution degree     | 3   |

### Electrical properties

|                                                 |                                          |
|-------------------------------------------------|------------------------------------------|
| Maximum power dissipation for nominal condition | 0.18 W                                   |
| Test voltage (Winding/contact)                  | 4 kV AC (50 Hz, 1 min., winding/contact) |

### Input data

#### Coil side

|                                         |                          |
|-----------------------------------------|--------------------------|
| Nominal input voltage U <sub>N</sub>    | 60 V DC                  |
| Input voltage range                     | 36 V DC ... 165 V DC     |
| Drive and function                      | monostable               |
| Drive (polarity)                        | non-polarized            |
| Typical input current at U <sub>N</sub> | 3 mA                     |
| Typical response time                   | 5 ms                     |
| Typical release time                    | 2.5 ms                   |
| Coil resistance                         | 20500 Ω ±15 % (at 20 °C) |

### Output data

#### Switching

|                                       |                         |
|---------------------------------------|-------------------------|
| Contact switching type                | 1 changeover contact    |
| Type of switch contact                | Single contact          |
| Contact material                      | AgSnO, hard gold-plated |
| Maximum switching voltage             | 30 V AC                 |
|                                       | 36 V DC                 |
| Minimum switching voltage             | 100 mV (at 10 mA)       |
| Limiting continuous current           | 50 mA                   |
| Maximum inrush current                | 50 mA                   |
| Min. switching current                | 1 mA (at 24 V)          |
| Interrupting rating (ohmic load) max. | 1.2 W (at 24 V DC)      |

#### Switching: when the gold layer is destroyed

|                  |                                                                  |
|------------------|------------------------------------------------------------------|
| Note             | the following values are applicable if a gold layer is destroyed |
| Contact material | AgSnO                                                            |

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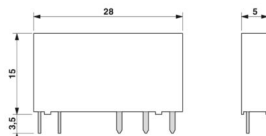
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|                                       |                        |
|---------------------------------------|------------------------|
| Maximum switching voltage             | 250 V AC               |
| Minimum switching voltage             | 5 V (at 100 mA)        |
| Limiting continuous current           | 6 A                    |
| Min. switching current                | 10 mA (at 12 V)        |
| Interrupting rating (ohmic load) max. | 140 W (at 24 V DC)     |
|                                       | 20 W (at 48 V DC)      |
|                                       | 18 W (at 60 V DC)      |
|                                       | 23 W (at 110 V DC)     |
|                                       | 40 W (at 220 V DC)     |
|                                       | 1500 VA (for 250 V AC) |
| Switching capacity                    | 2 A (at 24 V, DC13)    |
|                                       | 0.2 A (at 110 V, DC13) |
|                                       | 0.1 A (at 220 V, DC13) |
|                                       | 3 A (at 24 V, AC15)    |
|                                       | 3 A (at 120 V, AC15)   |
|                                       | 3 A (at 230 V, AC15)   |

## Connection data

|                   |                          |
|-------------------|--------------------------|
| Connection method | Plug / solder connection |
|-------------------|--------------------------|

## Dimensions

|                     |                                                                                      |
|---------------------|--------------------------------------------------------------------------------------|
| Dimensional drawing |  |
| Width               | 5 mm                                                                                 |
| Height              | 28 mm                                                                                |
| Depth               | 15 mm                                                                                |

## Material specifications

|       |                  |
|-------|------------------|
| Color | white (RAL 9010) |
|-------|------------------|

## Environmental and real-life conditions

### Ambient conditions

|                                         |                  |
|-----------------------------------------|------------------|
| Degree of protection                    | RT III           |
| Ambient temperature (operation)         | -40 °C ... 85 °C |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |

## Approvals

### Corrosive gas test

|                |                            |
|----------------|----------------------------|
| Identification | ISA-S71.04. G3 Harsh Group |
|                | EN 60068-2-60              |

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## Standards and regulations

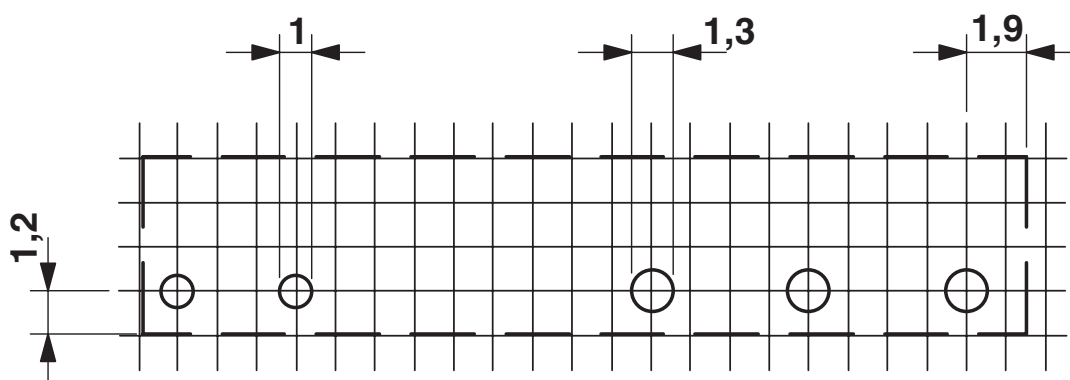
|                       |            |
|-----------------------|------------|
| Standards/regulations | IEC 60664  |
|                       | EN 50178   |
|                       | EN 61810-1 |

## Mounting

|                       |                           |
|-----------------------|---------------------------|
| Assembly instructions | in rows with zero spacing |
| Mounting position     | any                       |

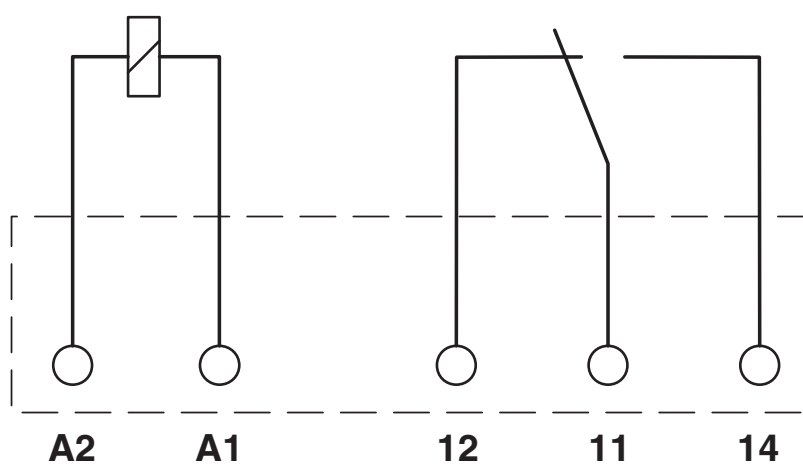
## Drawings

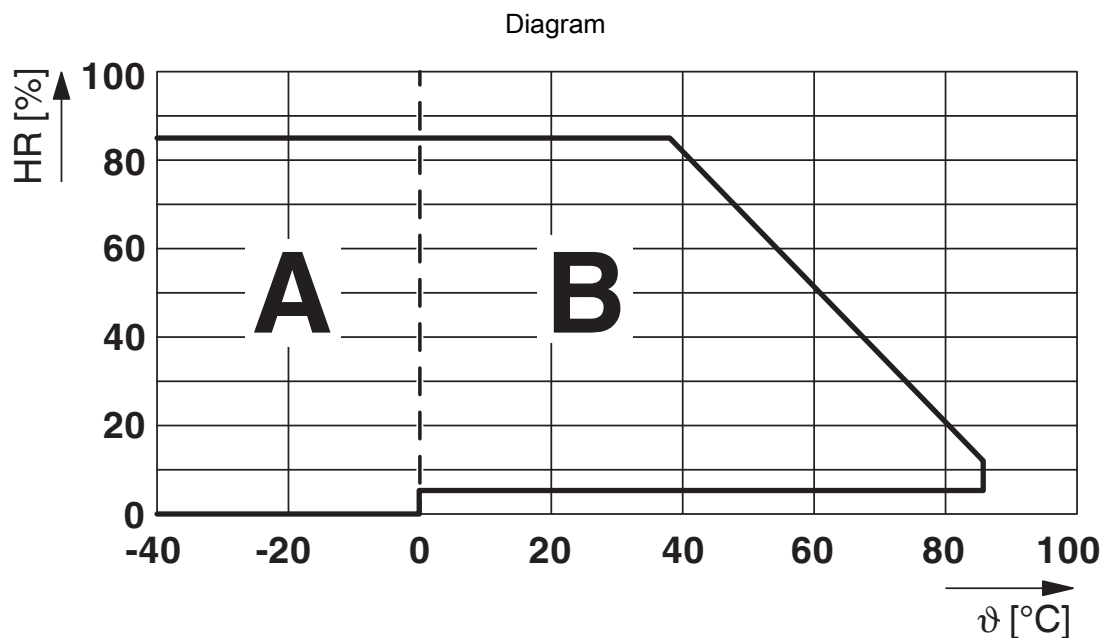
Drilling plan/solder pad geometry



a = pitch division 1.25 mm and 1.27 mm

Circuit diagram





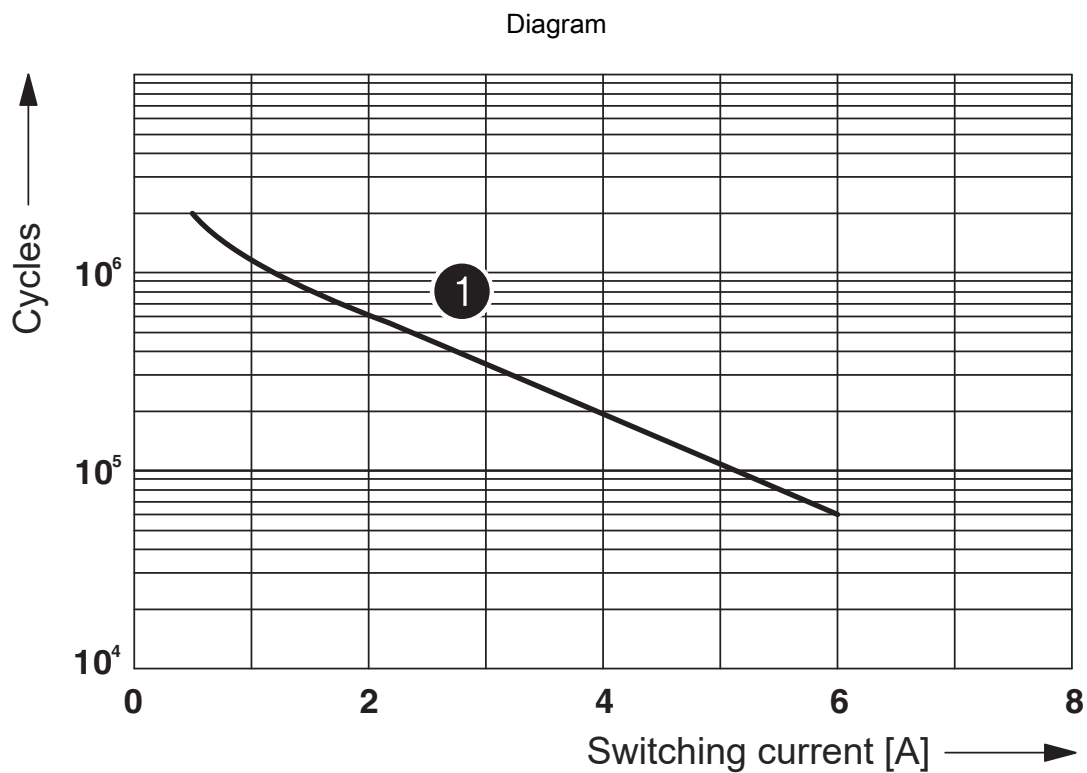
Permissible humidity for operation and storage.

The maximum permissible ambient temperature as specified in the data sheet must be observed.

Area A: Ice buildup at ambient temperatures  $\leq 0^{\circ}\text{C}$  must be prevented

Area B: Condensation at ambient temperatures  $> 0^{\circ}\text{C}$  must be prevented

On 30 full days that are naturally distributed across an entire year, a humidity level of 95% is permissible at an ambient temperature  $\leq 25^{\circ}\text{C}$ .



① 250 V AC, ohmic load

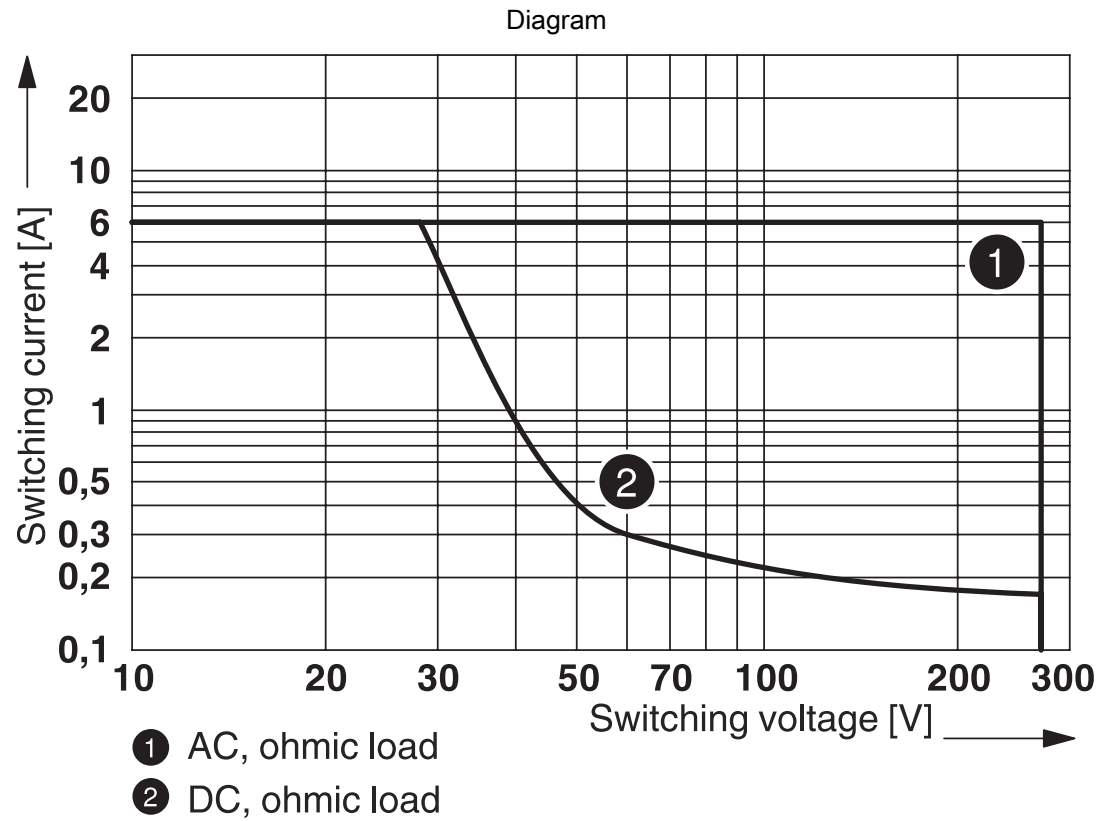
Electrical service life

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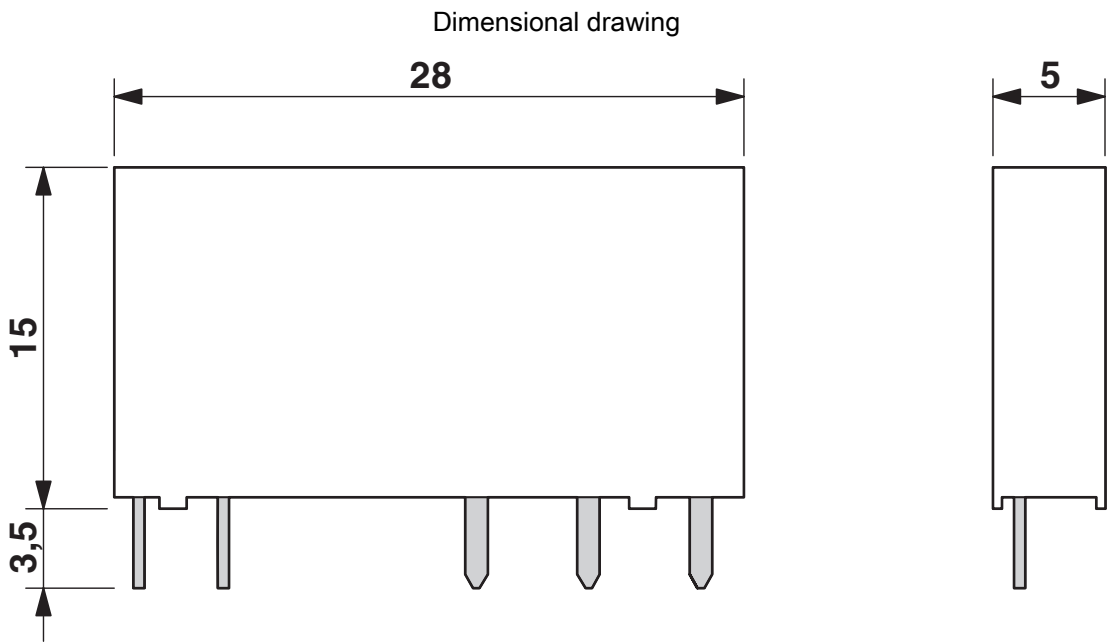


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Interrupting rating





# REL-MR- 60DC/21AU - Single relay



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/gb/products/2961134>

|                                                                                     |                                                        |
|-------------------------------------------------------------------------------------|--------------------------------------------------------|
|    | <b>cUL Recognized</b><br>Approval ID: FILE E 172140    |
|    | <b>UL Recognized</b><br>Approval ID: FILE E 172140     |
|    | <b>EAC</b><br>Approval ID: TR_TS_D_00573_c             |
|    | <b>UL Recognized</b><br>Approval ID: FILE E 172140     |
|  | <b>EAC</b><br>Approval ID: RU*C-DE.*08.B.00010         |
|  | <b>VDE Zeichengenehmigung</b><br>Approval ID: 40010212 |
|  | <b>VDE Zeichengenehmigung</b><br>Approval ID: 40032864 |
|  | <b>cUL Recognized</b><br>Approval ID: FILE E 172140    |
|  | <b>VDE Zeichengenehmigung</b><br>Approval ID: 40054426 |
|  | <b>cUL Recognized</b><br>Approval ID: FILE E 172140    |
|  | <b>UL Recognized</b><br>Approval ID: FILE E 172140     |

# REL-MR- 60DC/21AU - Single relay



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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-11.0 | 27371601 |
| ECLASS-12.0 | 27371601 |
| ECLASS-13.0 | 27371601 |

### ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | EC001437 |
|----------|----------|

### UNSPSC

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

# REL-MR- 60DC/21AU - Single relay



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## Environmental product compliance

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

# REL-MR- 60DC/21AU - Single relay



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## Mandatory accessories

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

2900280

<https://www.phoenixcontact.com/gb/products/2900280>



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/gb/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

# REL-MR- 60DC/21AU - Single relay

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

2900281

<https://www.phoenixcontact.com/gb/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

<https://www.phoenixcontact.com/gb/products/2966045>



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

# REL-MR- 60DC/21AU - Single relay

2961134

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

2900451

<https://www.phoenixcontact.com/gb/products/2900451>



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/gb/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

# REL-MR- 60DC/21AU - Single relay

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

2900452

<https://www.phoenixcontact.com/gb/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/gb/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

# REL-MR- 60DC/21AU - Single relay

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

2900453

<https://www.phoenixcontact.com/gb/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/gb/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



# REL-MR- 60DC/21AU - Single relay

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

2900455

<https://www.phoenixcontact.com/gb/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

<https://www.phoenixcontact.com/gb/products/2980335>



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

# REL-MR- 60DC/21AU - Single relay

2961134

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

2980322

<https://www.phoenixcontact.com/gb/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

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

2900457

<https://www.phoenixcontact.com/gb/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

# REL-MR- 60DC/21AU - Single relay

2961134

<https://www.phoenixcontact.com/gb/products/2961134>



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

2980348

<https://www.phoenixcontact.com/gb/products/2980348>



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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