

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



2909643

<https://www.phoenixcontact.com/us/products/2909643>

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Plug-in miniature power relay, with power contact, 1 changeover contact, manual operation, 60 V DC input voltage

## Commercial data

Item number	2909643
Packing unit	1 pc
Minimum order quantity	10 pc
Note	Made to order (non-returnable)
Sales key	C460
Product key	CK6195
Catalog page	Page 394 (C-5-2019)
GTIN	4055626377681
Weight per piece (including packing)	6.62 g
Weight per piece (excluding packing)	4.7 g
Customs tariff number	85364190
Country of origin	CZ

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## Technical data

### Product properties

Product type	Single relay
Operating mode	100% operating factor
Mechanical service life	1x 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
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	5 V (at 100 mA)
Limiting continuous current	6 A
Maximum inrush current	10 A (4 s)
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)
	2 A (at 24 V, DC13)

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Switching capacity	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
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## Dimensions

Width	5 mm
Height	28 mm
Depth	16 mm

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	RT II
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

## Standards and regulations

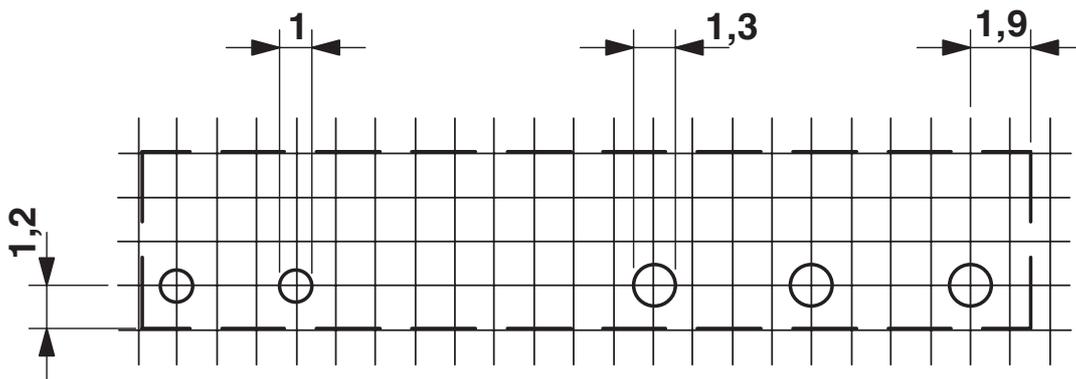
Standards/regulations	IEC 60664
	EN 50178
	EN 61810-1

## Mounting

Assembly instructions	in rows with zero spacing
Mounting position	any

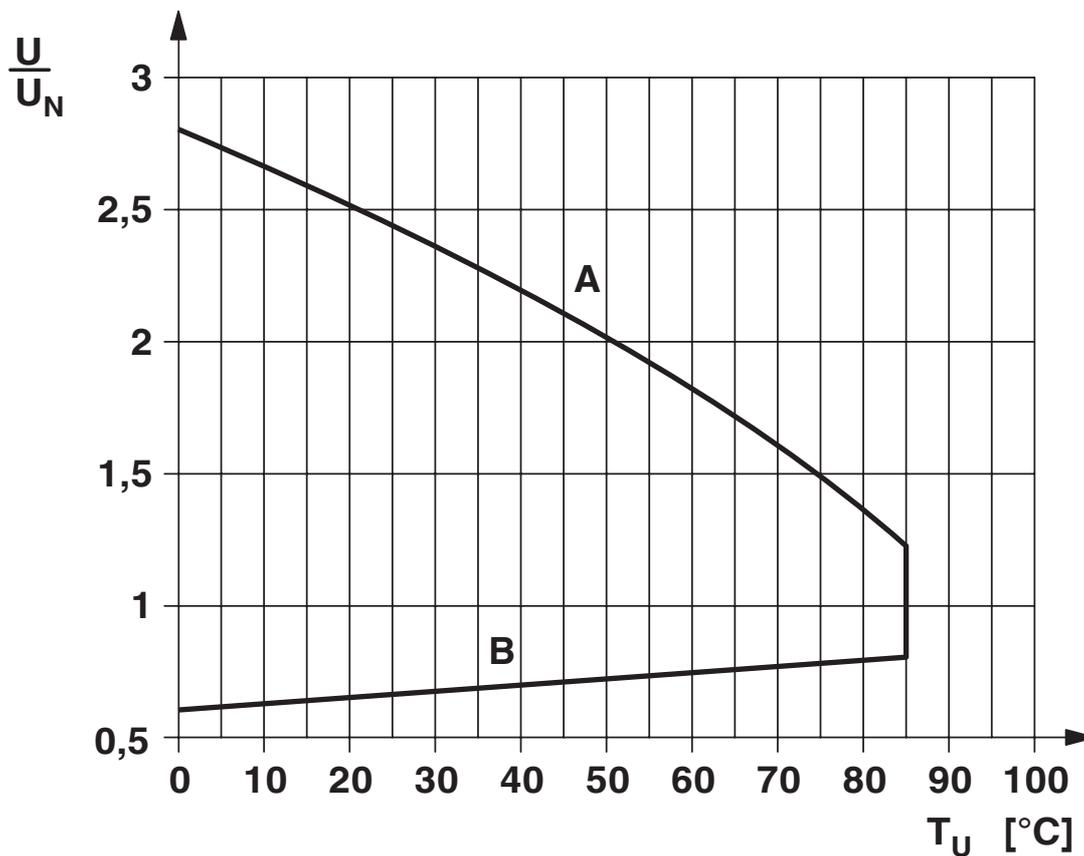
Drawings

Drilling plan/solder pad geometry



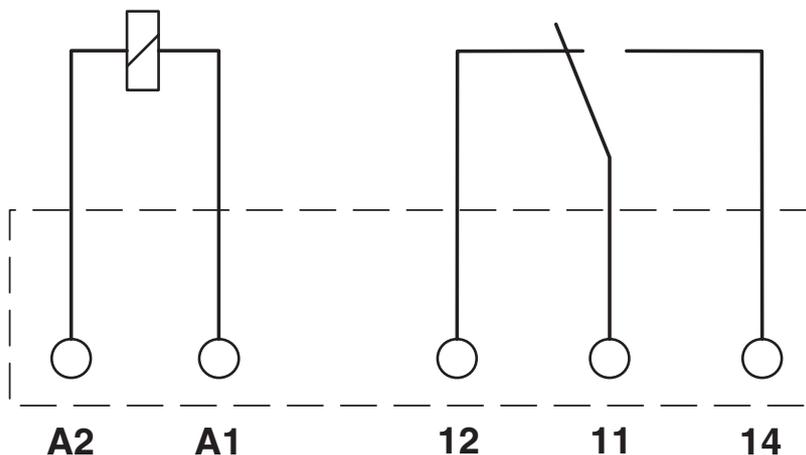
a = pitch division 1.25 mm and 1.27 mm

Diagram

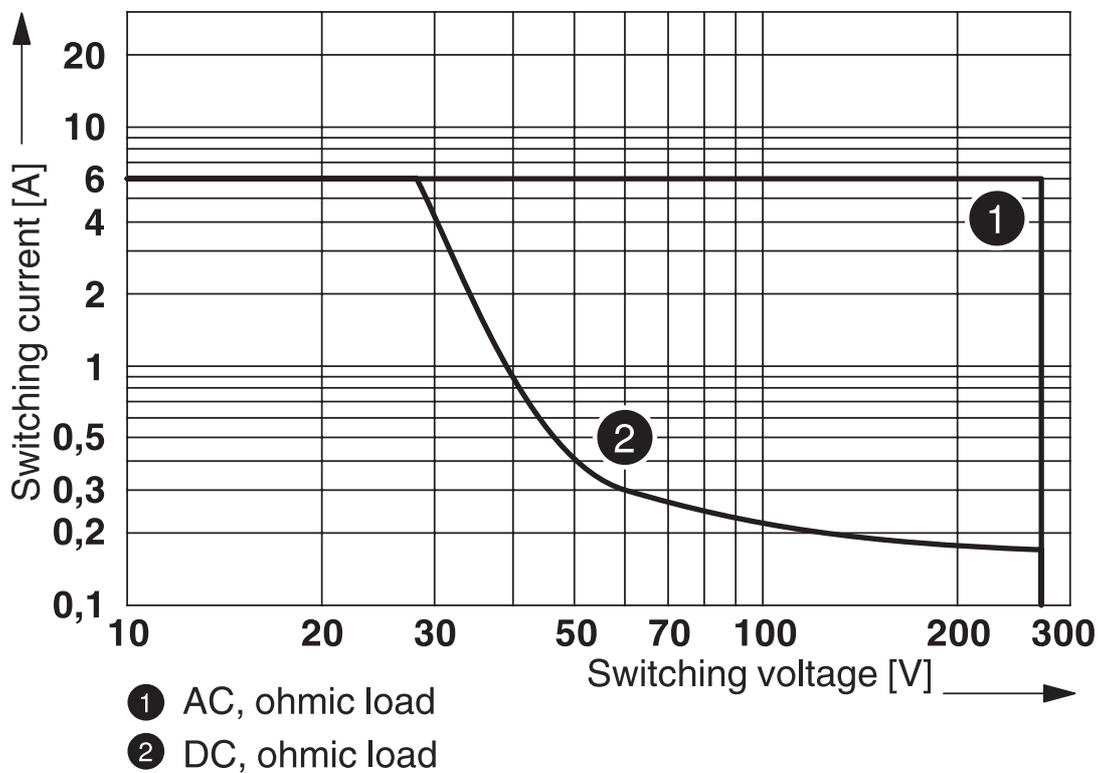


Operating voltage range

Circuit diagram



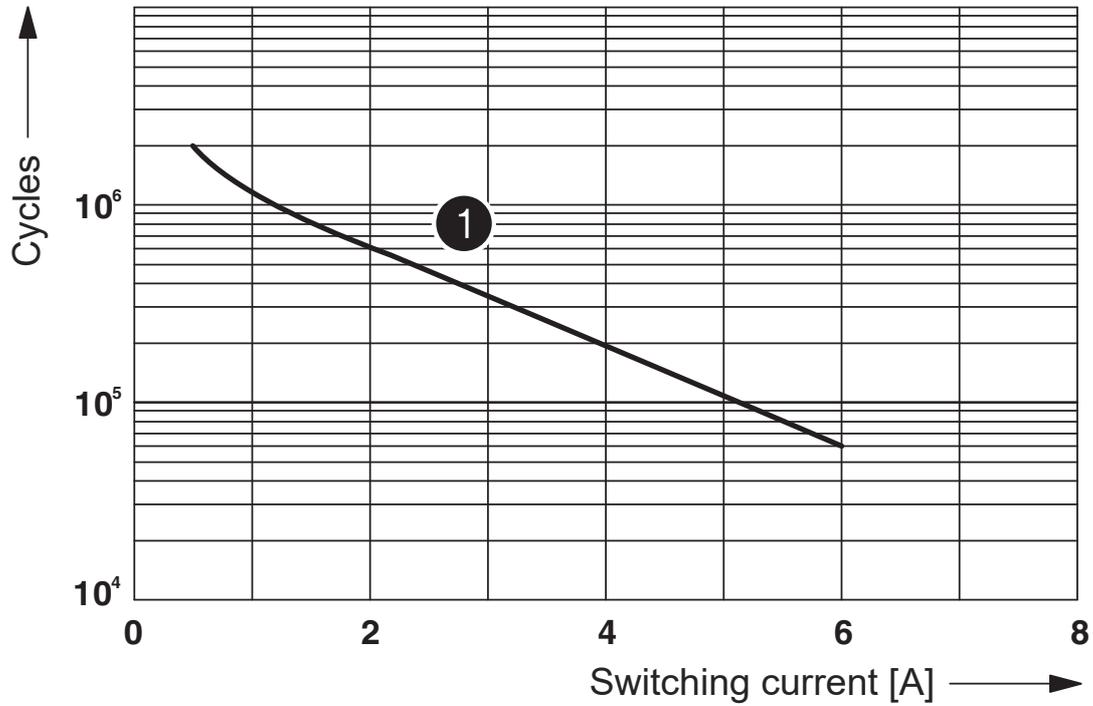
Diagram



- ① AC, ohmic load
- ② DC, ohmic load

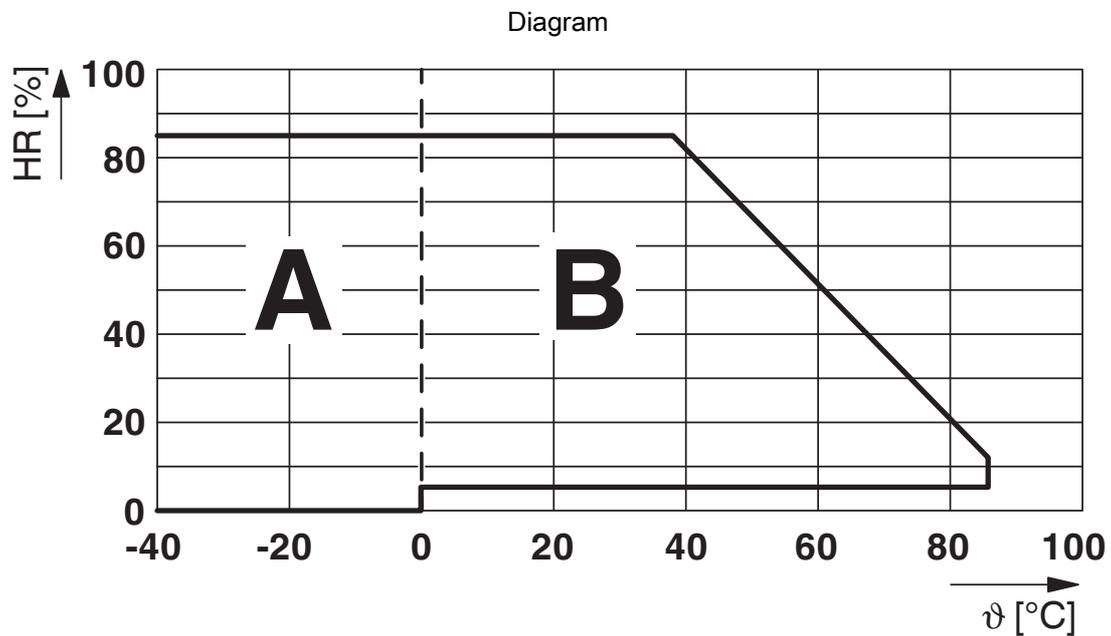
Interrupting rating

Diagram



① 250 V AC, ohmic load

Electrical service life



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  $\leq 25^\circ\text{C}$ .

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2909643>



**cUL Recognized**  
Approval ID: FILE E 228652



**UL Recognized**  
Approval ID: FILE E 228652



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



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



**VDE Zeichengenehmigung**  
Approval ID: 40010212

**cULus Recognized**

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## Classifications

### ECLASS

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

### ETIM

ETIM 8.0	EC001437
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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-BPT-120UC/21 - Relay base

2900280

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

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

2900281

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

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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

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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

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

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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

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

2980319

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

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

2900455

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

# REL-MR- 60DC/21/MS - Single 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

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

2900457

<https://www.phoenixcontact.com/us/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/21/MS - Single 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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