

# REL-MR- 24DC/21 - Single relay

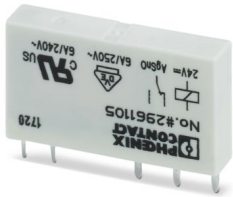


2961105

<https://www.phoenixcontact.com/in/products/2961105>

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Plug-in miniature power relay, with power contact, 1 changeover contact, input voltage 24 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	2961105
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	CK6
Product key	CK6921
Catalog page	Page 284 (C-5-2019)
GTIN	4017918130893
Weight per piece (including packing)	6.71 g
Weight per piece (excluding packing)	5 g
Customs tariff number	85364900
Country of origin	CZ

## Technical data

### Product properties

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

### Data management status

Date of last data management	18.06.2024
Article revision	02

### Insulation characteristics

Overvoltage category	III
Pollution degree	3

### Electrical properties

Maximum power dissipation for nominal condition	0.17 W
Test voltage (Winding/contact)	4 kV AC (50 Hz, 1 min., winding/contact)

### Input data

#### Coil side

Nominal input voltage $U_N$	24 V DC
Input voltage range	14.4 V DC ... 66 V DC
Input voltage range in reference to $U_N$	see diagram
Drive and function	monostable
Drive (polarity)	non-polarized
Typical input current at $U_N$	7 mA
Typical response time	5 ms
Typical release time	2.5 ms
Coil resistance	3390 $\Omega$ $\pm$ 10 % (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)

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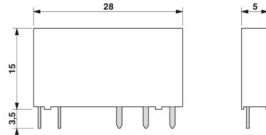
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	18 W (at 60 V DC)
	23 W (at 110 V DC)
	40 W (at 220 V DC)
	1500 VA (for 250 V AC)
	Switching capacity
Switching capacity	2 A (at 24 V, DC13)
	0.2 A (at 110 V, DC13)
	0.1 A (at 220 V, DC13)
	3 A (at 24 V, AC15)
	3 A (at 120 V, AC15)
	3 A (at 230 V, AC15)
Motor load according to UL 508	1/4 HP, 240 - 277 V AC (N/O contact)
	1/6 HP, 240 - 277 V AC (N/C contact)

## Connection data

Connection method	Plug / solder connection
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## Dimensions

Dimensional drawing	
Width	5 mm
Height	28 mm
Depth	15 mm

## Material specifications

Color	white (RAL 9010)
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## 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

## Standards and regulations

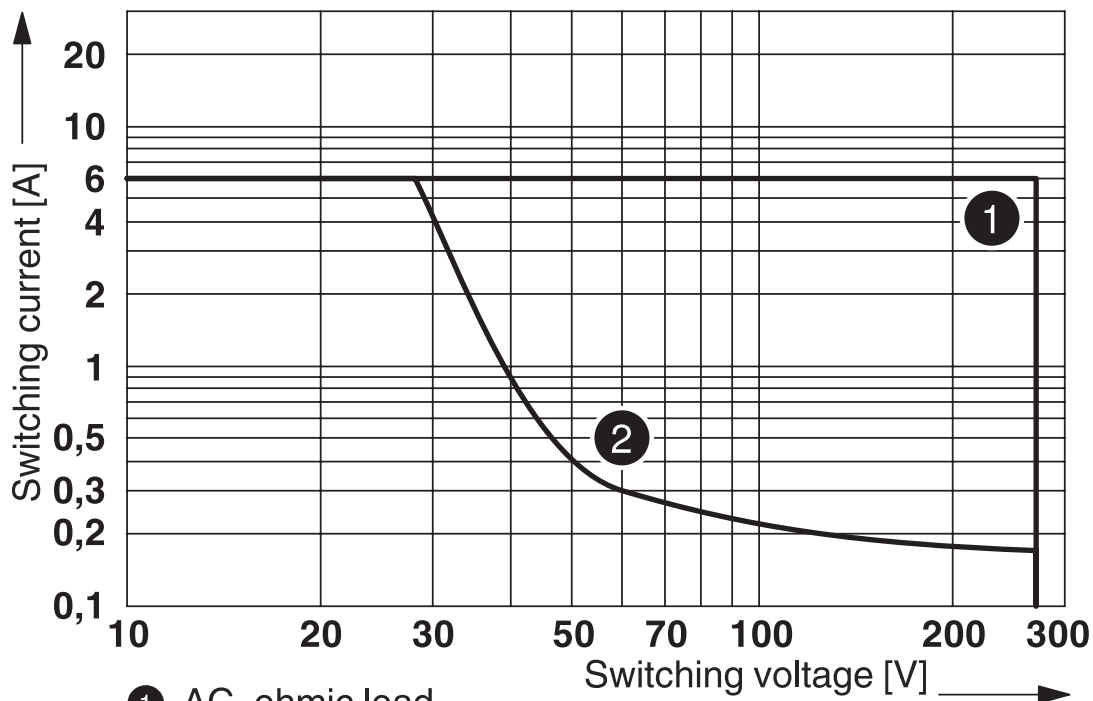
Standards/regulations	IEC 60664
	EN 50178
	EN 61810-1

## Mounting

Assembly note	in rows with zero spacing
Mounting position	any

## Drawings

Diagram

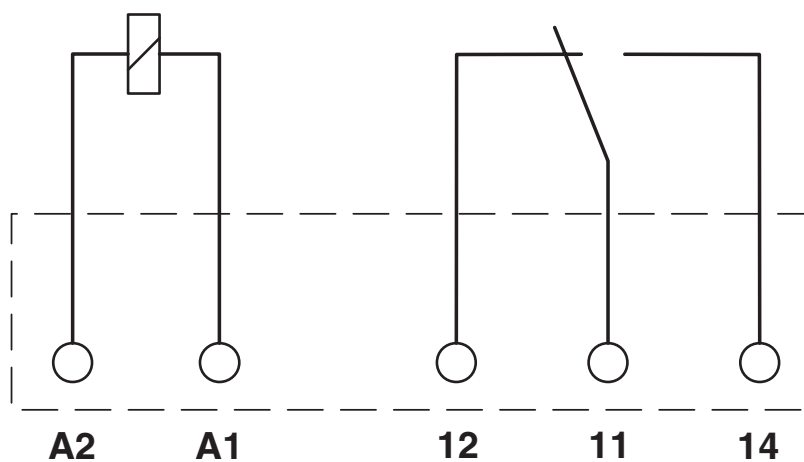


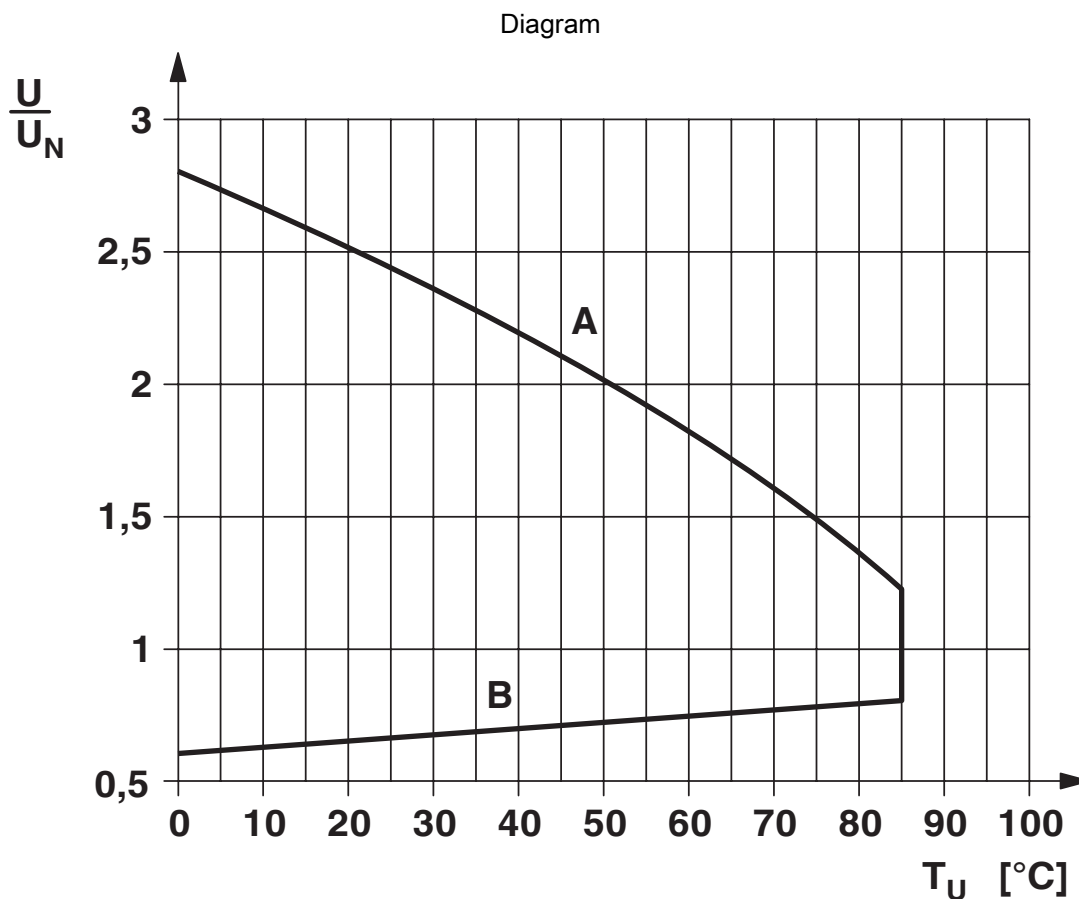
① AC, ohmic load

② DC, ohmic load

## Interrupting rating

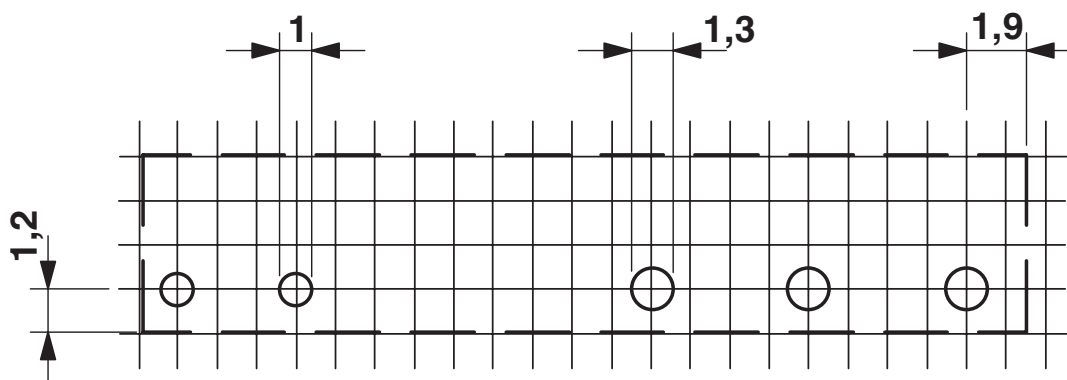
Circuit diagram





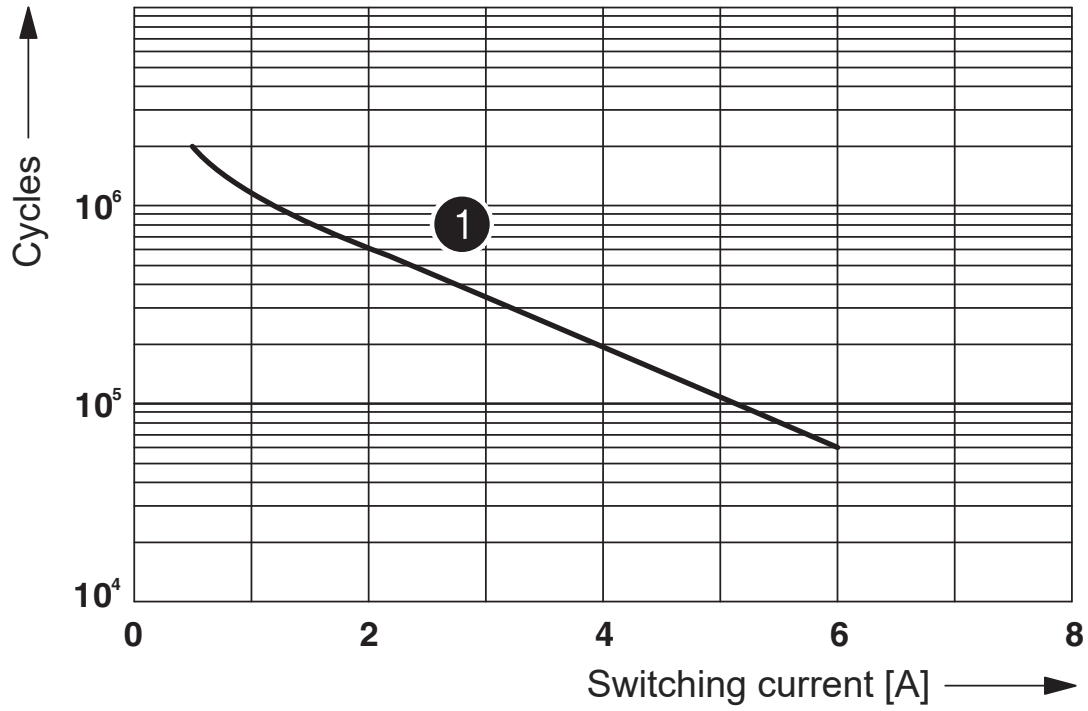
Operating voltage range

Drilling plan/solder pad geometry



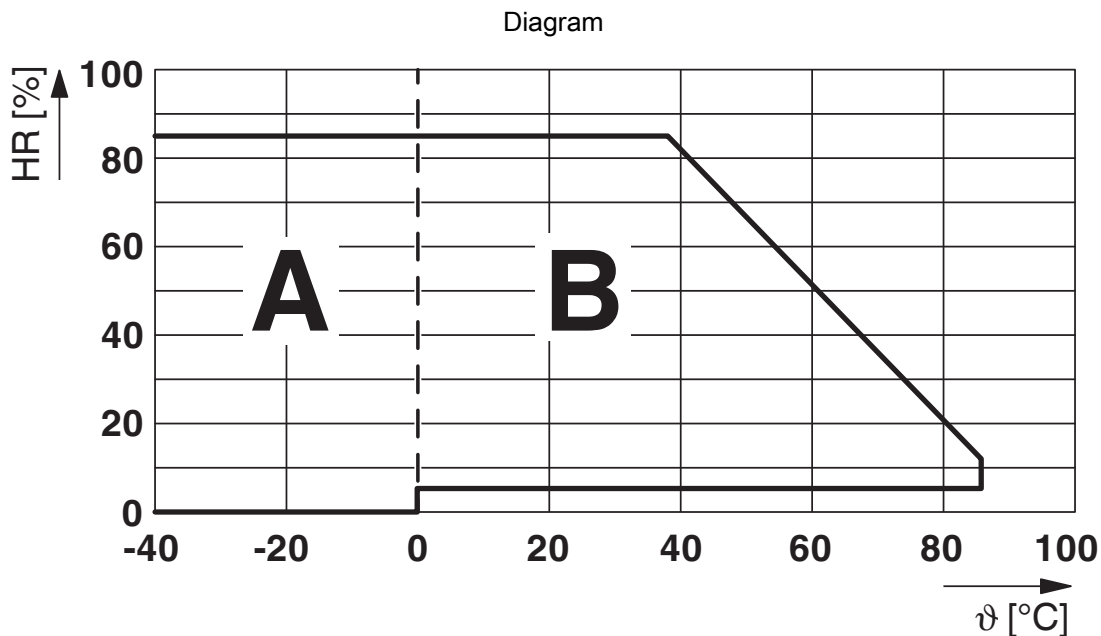
a = pitch division 1.25 mm and 1.27 mm

Diagram



① 250 V AC, ohmic load

Electrical service life



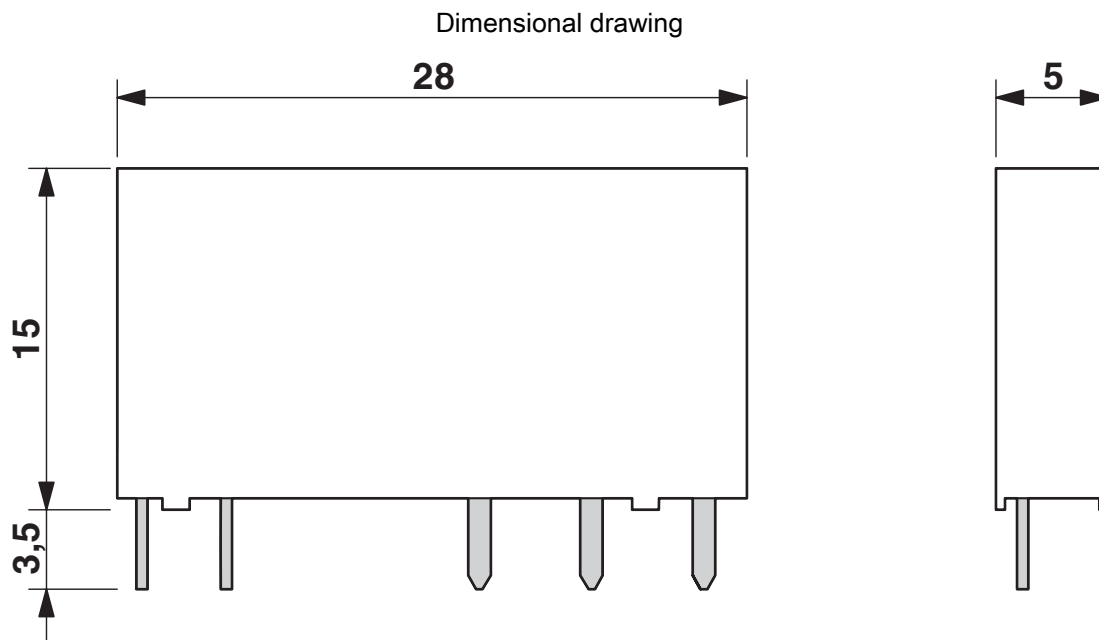
Permissible humidity for operation and storage.

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/in/products/2961105>



**cUL Recognized**  
Approval ID: FILE E 172140



**UL Recognized**  
Approval ID: FILE E 172140



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



**UL Recognized**  
Approval ID: FILE E 172140



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



**VDE Zeichengenehmigung**  
Approval ID: 40010212



**VDE Zeichengenehmigung**  
Approval ID: 40032864



**cUL Recognized**  
Approval ID: FILE E 172140



**VDE Zeichengenehmigung**  
Approval ID: 40054426



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## Classifications

### ECLASS

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

### ETIM

ETIM 9.0	EC001437
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### UNSPSC

UNSPSC 21.0	39122300
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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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### China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

### EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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## Mandatory accessories

### PLC-BPT- 24DC/21 - Relay base

2900445

<https://www.phoenixcontact.com/in/products/2900445>



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 24 V DC

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### PLC-BSC- 24DC/21 - Relay base

2966016

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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 24 V DC

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## PLC-BPT- 24UC/21 - Relay base

2900446

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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 24 V AC/DC

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## PLC-BSC- 24UC/21 - Relay base

2966029

<https://www.phoenixcontact.com/in/products/2966029>



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 24 V AC/DC

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## PLC-BPT- 24DC/ 1/SEN - Relay base

2900262

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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 24 V DC

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## PLC-BSC- 24DC/ 1/SEN - Relay base

2966061

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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 24 V DC

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## PLC-BPT- 24UC/ 1/ACT - Relay base

2900450

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6.2 mm PLC basic terminal block for output functions with push-in connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, with load return line connection (BB), 1 N/O contact, input voltage 24 V AC/DC

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## PLC-BSC- 24UC/ 1/ACT - Relay base

2982799

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6.2 mm PLC basic terminal block for output functions with screw connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, with load return line connection (BB), 1 N/O contact, input voltage 24 V AC/DC

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## PLC-BSC- 24DC/21/SO46 - Relay base

2980458

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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 increased input current consumption, 1 changeover contact, input voltage 24 V DC

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## RIF-0-BPT/21 - Relay base

2900958

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Relay base RIF-0..., for miniature power relay with 1 changeover contact or solid-state relays of the same design, Push-in connection, for mounting on NS 35/7,5

# REL-MR- 24DC/21 - Single relay

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## RIF-0-BSC/21 - Relay base

2900957

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RIF-0... relay base, for miniature power relay with 1 changeover contact or identical solid-state relays, screw connection, for mounting on NS 35/7,5

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