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Plug-in miniature power relay, with multi-layer gold contact, 1 PDT, input voltage 24 V DC



The illustration shows the version REL-MR- 24DC/21

#### Why buy this product

- ☑ Safe isolation according to DIN EN 50178 between coil and contact
- High degree of protection up to RT III depending on type (wash-proof)
- Power contacts up to 6 A



## Key Commercial Data

Packing unit	10 STK
Minimum order quantity	10 STK
GTIN	4 017918 130879
GTIN	4017918130879
Weight per Piece (excluding packing)	6.840 g
Custom tariff number	85364190
Country of origin	Czech Republic

## Technical data

#### Dimensions

Width	5 mm
Height	28 mm
Depth	15 mm

#### Ambient conditions

Ambient temperature (operation)	-40 °C 85 °C
Ambient temperature (storage/transport)	-40 °C 85 °C

Coil side



## Technical data

#### Coil side

Nominal input voltage U <sub>N</sub>	24 V DC
Input voltage range in reference to $U_N$	see diagram
Typical input current at $U_N$	7 mA
Typical response time	5 ms
Typical release time	2.5 ms
Coil resistance	3390 Ω ±10 % (at 20 °C)
Power dissipation for nominal condition	0.17 W

#### Contact side

Contact type	1 PDT
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)
Min. switching current	1 mA (at 24 V)
Maximum inrush current	50 mA
Limiting continuous current	50 mA
Interrupting rating (ohmic load) max.	1.2 W (at 24 V DC)

## Contact side (with destroyed gold layer)

Contact material	AgSnO
Note	the following values are applicable if a gold layer is destroyed
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 in acc. with DIN VDE 0660/IEC 60947	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)

## General

Test voltage relay winding/relay contact	4 kV AC (50 Hz, 1 min.)



## Technical data

#### General

Operating mode	100% operating factor
Degree of protection	RT III (wash-proof)
Mechanical service life	2 x 10 <sup>7</sup> cycles
Mounting position	any
Assembly instructions	In rows with zero spacing

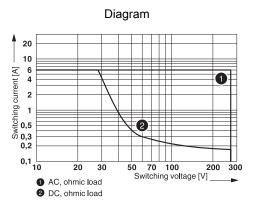
### Standards and Regulations

Connection in acc. with standard	CUL
Standards/regulations	IEC 60664
	EN 50178
	IEC 62103
	EN 61810-1
Degree of pollution	3
Overvoltage category	111

### **Environmental Product Compliance**

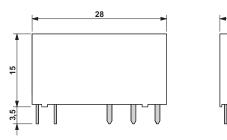
China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

## Drawings

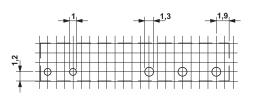


Interrupting rating

#### Dimensional drawing

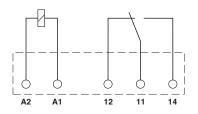


### Drilling diagram



a = pitch division 1.25 mm and 1.27 mm

#### Circuit diagram



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## Classifications

#### eCl@ss

eCl@ss 5.0	27371601
eCl@ss 5.1	27371601
eCl@ss 6.0	27371601
eCl@ss 7.0	27371601
eCl@ss 8.0	27371601
eCl@ss 9.0	27371601

## ETIM

ETIM 2.0	EC001437
ETIM 3.0	EC001437
ETIM 4.0	EC001437
ETIM 5.0	EC001437
ETIM 6.0	EC001437

### UNSPSC

UNSPSC 6.01	30211916
UNSPSC 7.0901	39121515
UNSPSC 11	39121515
UNSPSC 12.01	39121515
UNSPSC 13.2	39122334

### Approvals

#### Approvals

#### Approvals

UL Recognized / VDE Zeichengenehmigung / cUL Recognized / GL / EAC / EAC / UL Recognized / cUL Recognized / VDE approval of drawings / PRS / cULus Recognized

#### Ex Approvals

#### Approval details

UL Recognized

*F1* 

VDE Zeichengenehmigung



http://www.vde.com/en/Institute/OnlineService/ VDE-approved-products/Pages/Online-Search.aspx

http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm

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FILE E 172140

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## Approvals

cUL Recognized	<b>. A</b>	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 172140
GL	GL	http://www.gl-group.com/newbuilding/approvals/index.html	46016-03 HH
EAC	EAC		EAC-Zulassung
EAC	EAC		7500651.22.01.00244
UL Recognized	<b>91</b>	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 172140
cUL Recognized	<b>۵۹۱</b>	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 172140
VDE approval of drawings		http://www.vde.com/en/Institute/OnlineService/ VDE-approved-products/Pages/Online-Search.aspx	40010212
PRS		http://www.prs.pl/	TE/2109/880590/16
cULus Recognized	c <b>AL</b> us	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	
Accessories			

Additional products



### Accessories

Relay socket - PLC-BPT- 24DC/21 - 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 PDT, input voltage 24 V DC

Relay socket - PLC-BSP- 24DC/21 - 2967219



6.2 mm PLC basic terminal block with spring-cage connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, 1 PDT, input voltage 24 V DC

Relay socket - PLC-BSC- 24DC/21 - 2966016



6.2 mm PLC basic terminal block with screw connection, without relays or solid-state relay, for mounting on DIN rail NS 35/7,5, 1 PDT, input voltage 24 V DC

Relay socket - PLC-BPT- 24UC/21 - 2900446



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 PDT, input voltage 24 V AC/DC

Relay socket - PLC-BSP- 24UC/21 - 2967222



6.2 mm PLC basic terminal block with spring-cage connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, 1 PDT, input voltage 24 V AC/DC



### Accessories

Relay socket - PLC-BSC- 24UC/21 - 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 PDT, input voltage 24 V AC/DC

Basic terminal block - PLC-BSC- 36DC/21 - 2966964

Basic terminal block

Relay socket - PLC-BPT- 48DC/21 - 2900447



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 PDT, input voltage 48 V DC

Relay socket - PLC-BSP- 48DC/21 - 2967329



6.2 mm PLC basic terminal block with spring-cage connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, 1 PDT, input voltage 48 V DC

Relay socket - PLC-BSC- 48DC/21 - 2966090



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 PDT, input voltage 48 V DC

Relay socket - PLC-BPT- 24DC/ 1/SEN - 2900262



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



## Accessories

Relay socket - PLC-BSP- 24DC/ 1/SEN - 2967206



6.2 mm PLC basic terminal block for input functions with spring-cage 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

#### Relay socket - PLC-BSC- 24DC/ 1/SEN - 2966061



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

Relay socket - PLC-BPT- 24DC/ 1/ACT - 2900449



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 DC

Relay socket - PLC-BSP- 24DC/ 1/ACT - 2967196



6.2 mm PLC basic terminal block for output functions with spring-cage 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 DC

Relay socket - PLC-BSC- 24DC/ 1/ACT - 2966058



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 DC



## Accessories

Relay socket - PLC-BPT- 24UC/ 1/ACT - 2900450



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

#### Relay socket - PLC-BSP- 24UC/ 1/ACT - 2982809



6.2 mm PLC basic terminal block for output functions with spring-cage 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

Relay socket - PLC-BSC- 24UC/ 1/ACT - 2982799



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

Relay socket - PLC-BSC- 24DC/21/SO46 - 2980458



6.2 mm PLC basic terminal block with protection against interference currents and interference voltages on the control side, with screw connection, without relay or solid-state relay, for mounting on NS 35/7,5 DIN rail, with increased input current consumption, 1 PDT, 24 V DC input voltage

#### Relay socket - RIF-0-BPT/21 - 2900958



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

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