

## REL-MR- 24DC/21-21AU


Order No.: 2961215



<http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=2961215>

Pluggable miniature relays, with multi-layer contact, 2 PDT, input voltage 24 V DC

### Commercial data

GTIN (EAN)	 4 017918 157999
sales group	G084
Pack	10 pcs.
Customs tariff	85364190
Catalog page information	Page 54 (IF-2009)

### Product notes

WEEE/RoHS-compliant since:  
03/16/2006



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### Technical data

#### Coil side

Nominal input voltage $U_N$	24 V DC
Nominal input current at $U_N$	17 mA
Typical response time	7 ms
Typical release time	3 ms

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Coil resistance	1440 $\Omega \pm 10\%$ (at 20°C)
<b>Contact side</b>	
Contact type	Single contact, 2-PDT
Contact material	AgNi, hard gold-plated
Maximum switching voltage	30 V AC 36 V DC
Minimum switching voltage	100 mV (at 10 mA)
Maximum inrush current	50 mA
Min. switching current	1 mA (at 24 V)
Limiting continuous current	50 mA
Interrupting rating (ohmic load) max.	1.2 W (at 24 V DC)
Note	<b>the following values are applicable if a gold layer is destroyed</b>
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	5 V
Limiting continuous current	8 A
Maximum inrush current	15 A (300 ms)
Interrupting rating (ohmic load) max.	190 W (at 24 V DC) 85 W (for 48 V DC) 60 W (for 60 V DC) 44 W (for 110 V DC) 60 W (for 220 V DC) 2000 VA (for 250 V AC)
<b>General data</b>	
Width	12.7 mm
Height	29 mm
Depth	15.7 mm
Test voltage relay winding/relay contact	5 kV AC (50 Hz, 1 min.)
Test voltage relay contact/relay contact	2.5 kV AC (50 Hz, 1 min.)
Ambient temperature (operation)	-40 °C ... 85 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Operating mode	100% operating factor
Mechanical service life	3 x 10 <sup>7</sup> cycles

Standards/regulations	IEC 60664
	EN 50178
	IEC 62103
Rated surge voltage / insulation	Basic insulation
Pollution degree	3
Surge voltage category	III
Mounting position	Any
Assembly instructions	Can be aligned without spacing (> 70 °C ≥ 2.5 mm)

### Certificates / Approvals



Certification

CUL, GL, GOST, UL, VDE-PZI

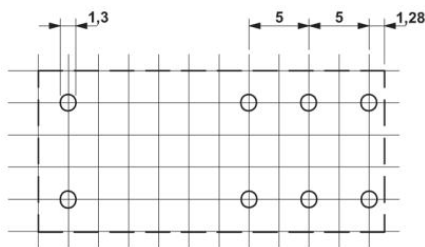
### Additional products

Item	Designation	Description
<b>General</b>		
2967057	PLC-BSC- 24DC/ 1- 1/ACT	14 mm PLC actuator basic terminal blocks with screw connection method, input voltage 24 V DC(without relay or optocoupler)
2967015	PLC-BSC- 24DC/21-21	14 mm PLC basic terminal blocks with screw connection method, input voltage 24 V DC(without relay or optocoupler)
2967028	PLC-BSC- 24UC/21-21	14 mm PLC basic terminal blocks with screw connection method, input voltage 24 V AC/DC(without relay or optocoupler)
2967264	PLC-BSC- 48DC/21-21	14 mm PLC basic terminal blocks with screw connection method, input voltage 48 V DC(without relay or optocoupler)
2912439	PLC-BSP- 24DC/21-21	14 mm PLC basic terminal blocks with spring-cage connection method, input voltage 24 V DC(without relay or optocoupler)
2912442	PLC-BSP- 24UC/21-21	14 mm PLC basic terminal blocks with spring-cage connection method, input voltage 24 V AC/DC(without relay or optocoupler)
2912455	PLC-BSP- 48DC/21-21	14 mm PLC basic terminal blocks with spring-cage connection method, input voltage 48 V DC(without relay or optocoupler)
2833518	PR1-BSC2/2X21	Relay socket PR1..., for miniature power relay or miniature switching relay with 1 or 2 PDT or solid-state relay of same construction, 2/2 level design, screw connections, connection facility for input/interference suppression modules

2833521	PR1-BSC3/2X21	Relay socket PR1..., for miniature power relay or miniature switching relay with 1 or 2 PDT or solid-state relay of same construction, 1/3 level design, screw connections, connection facility for input/interference suppression modules
2833534	PR1-BSP3/2X21	Relay socket PR1..., for miniature power relay or miniature switching relay with 1 or 2 PDT or solid-state relay of same construction, 1/3 level design, spring-cage connections, connection facility for input/interference suppression modules

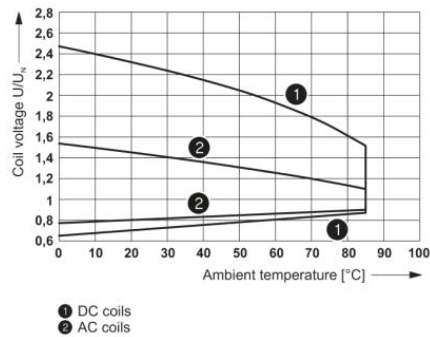
### Diagrams/Drawings

#### Drilling plan/solder pad geometry

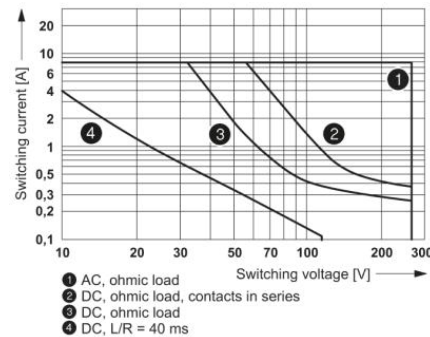


a = pitch division 2.5 mm

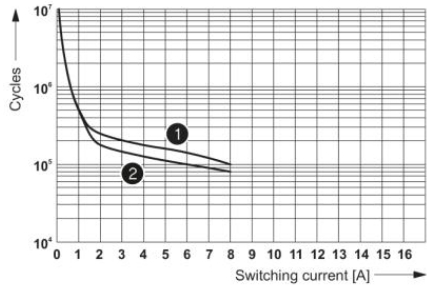
#### Diagram



Operating voltage range

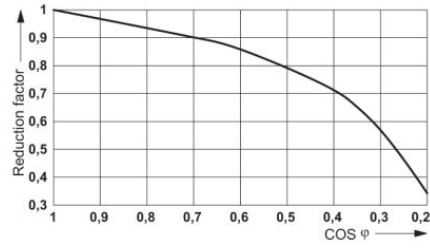


Interrupting rating



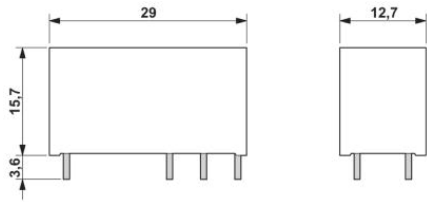
- ① 250 V AC, ohmic load (DC coils)
- ② 250 V AC, ohmic load (AC coils)

Electrical service life

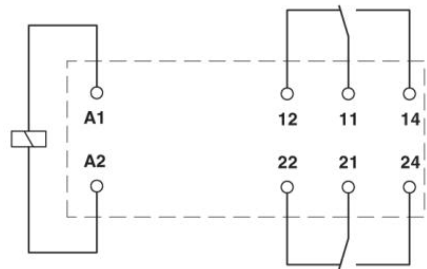


Service life reduction factor with various cos phi

Dimensioned drawing



Circuit diagram



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