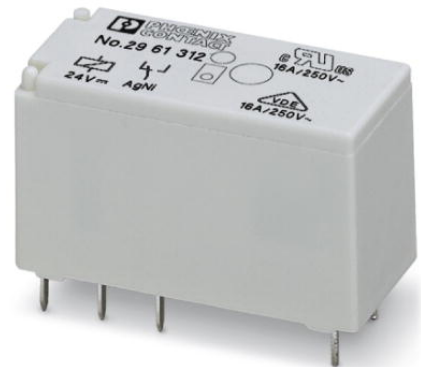


# REL-MR- 12DC/21HC

Order No.: 2961309



<http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=2961309>

Pluggable miniature relays, with power contact for high continuous current, 1 PDT, input voltage 12 V DC

Commercial data	
EAN	4017918187552
Pack	10 pcs.
Customs tariff	85364190
Weight/Piece	0.0157 KG
Catalog page information	Page 46 (IF-2007)

#### Product notes

WEEE/RoHS-compliant since:  
03/27/2006



<http://www.download.phoenixcontact.com>  
Please note that the data given here has been taken from the online catalog. For comprehensive information and data, please refer to the user documentation. The General Terms and Conditions of Use apply to Internet downloads.

## Technical data

### Coil side

Nominal input voltage $U_N$	12 V DC
Input voltage range in reference to $U_N$	(refer to the diagram)
Nominal input current at $U_{IN}$	33 mA
Typical response time	7 ms

Typical release time	3 ms
Coil resistance	360 Ω ± 10% (at 20°C)

**Contact side**

Contact type	Single contact, 1-PDT
Contact material	AgNi
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	12 V
Maximum inrush current	30 A (300 ms)
Min. switching current	100 mA
Limiting continuous current	16 A
Interrupting rating (ohmic load) max.	384 W (for 24 V DC)
	58 W (for 48 V DC)
	48 W (for 60 V DC)
	50 W (for 110 V DC)
	80 W (for 220 V DC)
	4000 VA (for 250 V AC)

**General data**

Length	29 mm
Height	15.7 mm
Width	12.7 mm
Test voltage relay winding/relay contact	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
Service life mechanical	3 x 10 <sup>7</sup> cycles
Standards/regulations	IEC 60664
	IEC 60664 A
	DIN VDE 0110
	DIN VDE 0106-101
	DIN EN 50178/DIN VDE 0160 (in relevant parts)
	IEC 60255/DIN VDE 0435 (in relevant parts)
	EN 60730/DIN VDE 0631
Pollution degree	3
Surge voltage category	III

Mounting position	Any
Assembly instructions	Can be aligned without spacing ( $> 70\text{ °C} \geq 2.5\text{ mm}$ )

**Certificates / Approvals**

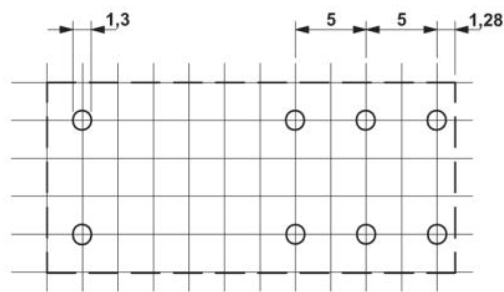


Certification

CUL, GL, GOST, UL, VDE-PZI

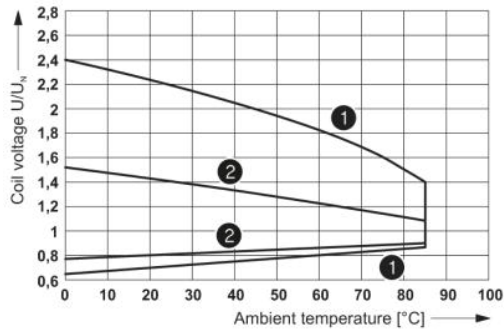
**Drawings**

Drilling diagram



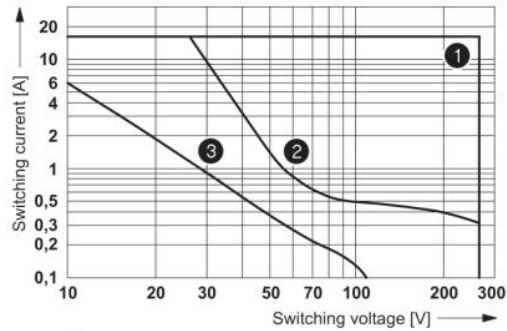
a = pitch division 2.5 mm

Diagram



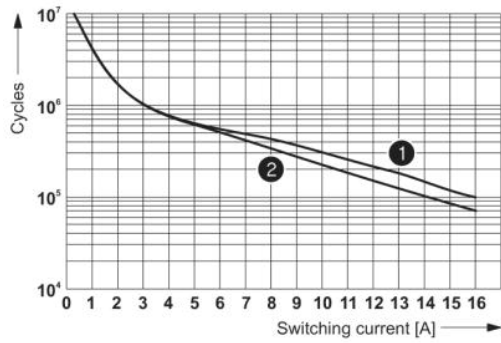
- ① DC coils
- ② AC coils

Operating voltage range



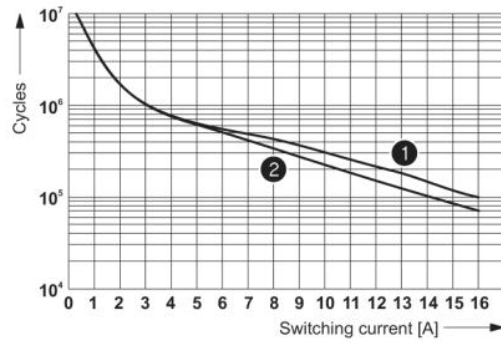
- ① AC, ohmic load
- ② DC, ohmic load
- ③ DC, L/R = 40 ms

Interrupting rating



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

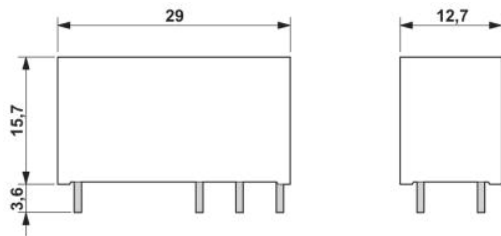
Electrical service life



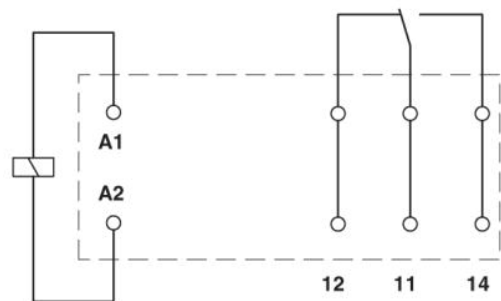
- ① 250 V AC, ohmic load (DC coils)
- ② 250 V AC, ohmic load (AC coils)

Service life reduction factor with various cos phi

Dimensioned drawing



Circuit diagram



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