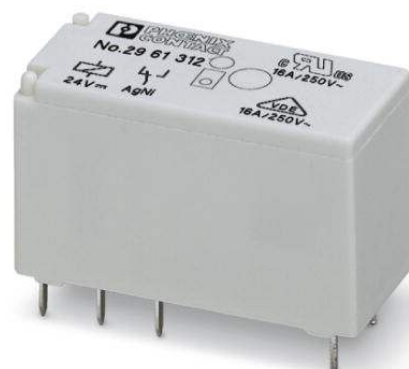



# REL-MR- 12DC/21HC

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	
GTIN (EAN)	 4 017918 187552
Note	Made-to-order
sales group	G084
Pack	10 pcs.
Customs tariff	85364190
Catalog page information	Page 54 (IF-2009)

#### 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 $\Omega$ $\pm$ 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 (at 10 mA)
Maximum inrush current	30 A (300 ms)
Min. switching current	100 mA
Limiting continuous current	16 A
Interrupting rating (ohmic load) max.	384 W (at 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

Width	12.7 mm
Height	29 mm
Depth	15.7 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
Mechanical service life	3 x 10 <sup>7</sup> cycles
Standards/regulations	IEC 60664
	EN 50178
	IEC 62103
Pollution degree	3
Surge voltage category	III
Mounting position	Any
Assembly instructions	Can be aligned without spacing (> 70 °C $\geq$ 2.5 mm)

**Certificates / Approvals**



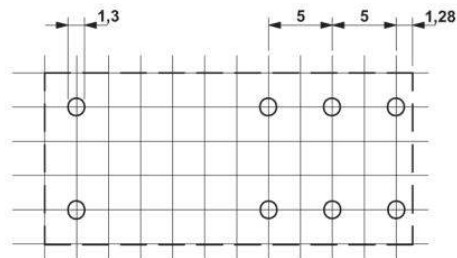
Certification CUL, GL, GOST, UL, VDE-PZI

**Additional products**

Item	Designation	Description
<b>General</b>		
2967769	PLC-BSC- 12DC/21HC	14 mm PLC-HC basic terminal blocks with screw connection method, input voltage 12 V DC(without relay or optocoupler)
2912332	PLC-BSP- 12DC/21HC	14 mm PLC basic terminal blocks with spring-cage connection method, input voltage 12 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

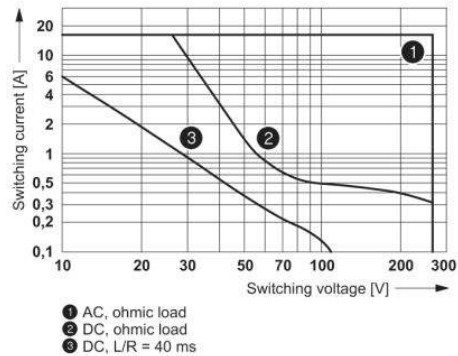
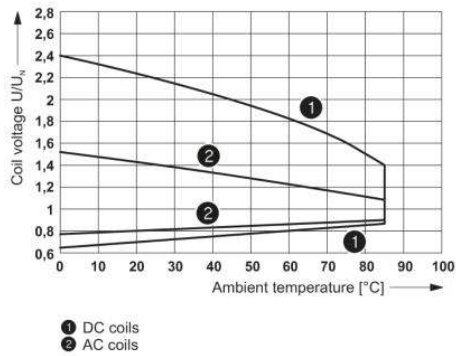
**Diagrams/Drawings**

Drilling plan/solder pad geometry

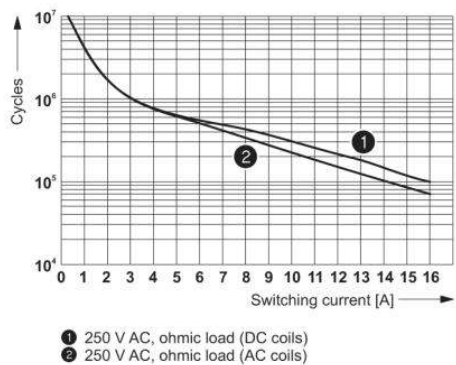


a = pitch division 2.5 mm

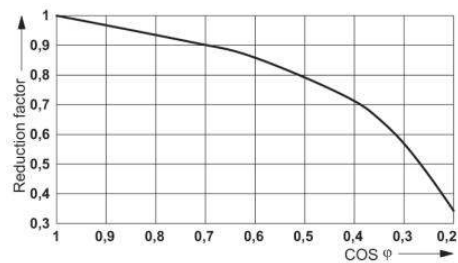
Diagram



Operating voltage range



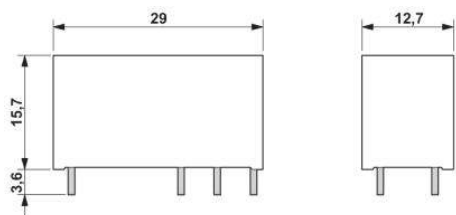
Interrupting rating



Service life reduction factor with various  $\cos \phi$

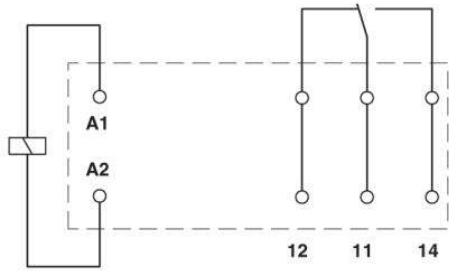
Electrical service life

Dimensioned drawing



Circuit diagram

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