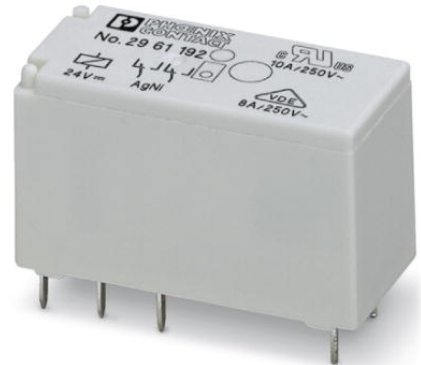


# REL-MR- 12DC/21-21AU


Order No.: 2961299



<http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=2961299>

Pluggable miniature relays, with multi-layer contact, 2 PDT, input voltage 12 V DC

## Commercial data

GTIN (EAN)	 4 017918 164041
Note	Made-to-order
sales group	G084
Pack	10 pcs.
Customs tariff	85364900
Catalog page information	Page 60 (IF-2011)

## Product notes

WEEE/RoHS-compliant since:  
02/09/2006



<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
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)
<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
Minimum switching voltage	5 V
Limiting continuous current	8 A
Maximum inrush current	15 A (300 ms)
Min. switching current	10 mA
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

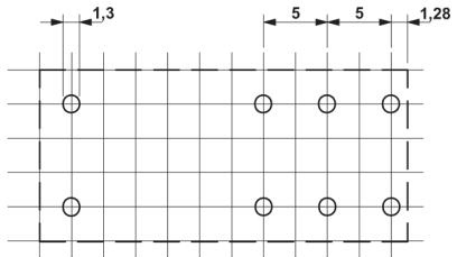
CUL, GL, GOST, UL, VDE-PZI

### Additional products

Item	Designation	Description
<b>General</b>		
2967251	PLC-BSC- 12DC/21-21	14 mm PLC basic terminal blocks with screw connection method, input voltage 12 V DC(without relay or optocoupler)
2912426	PLC-BSP- 12DC/21-21	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

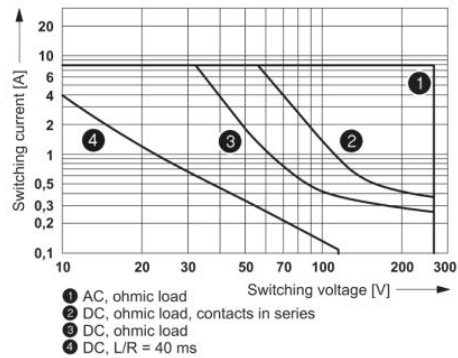
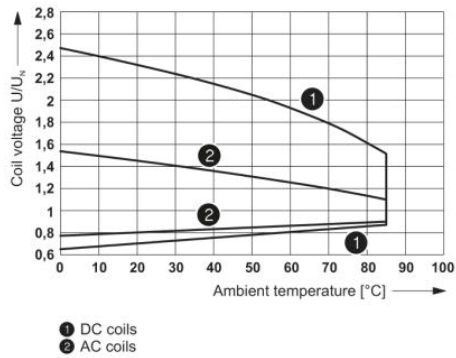
**Diagrams/Drawings**

Drilling plan/solder pad geometry

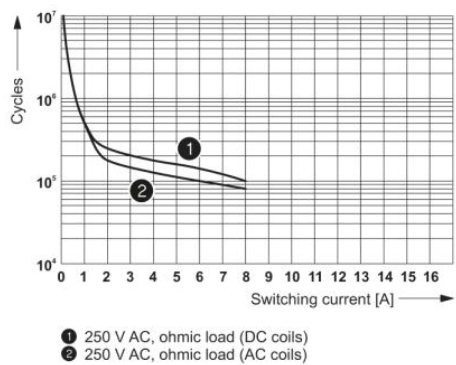


a = pitch division 2.5 mm

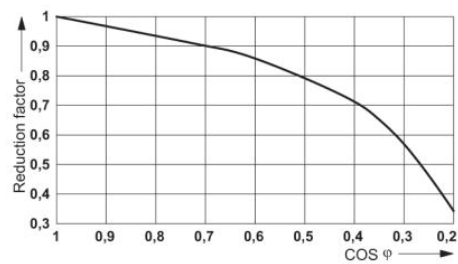
Diagram



Operating voltage range



Interrupting rating

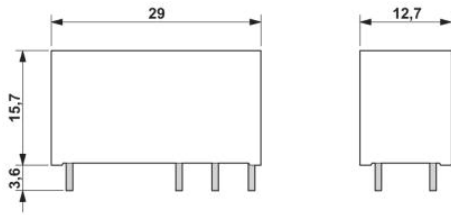


Service life reduction factor with various  $\text{cos } \phi$

Electrical service life

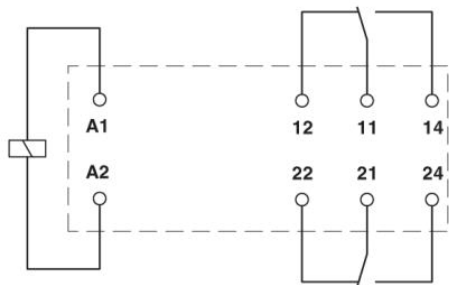
Dimensioned drawing

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Circuit diagram

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**Address**

PHOENIX CONTACT Inc., USA  
586 Fulling Mill Road  
Middletown, PA 17057, USA  
Phone (800) 888-7388  
Fax (717) 944-1625  
<http://www.phoenixcon.com>



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