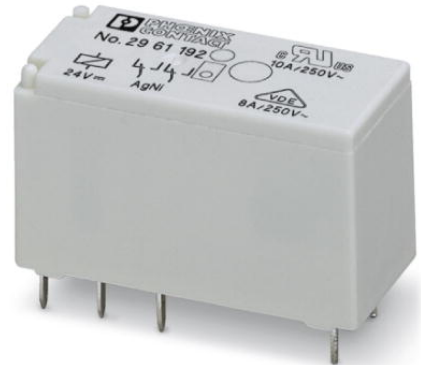


REL-MR- 12DC/21-21AU

Order No.: 2961299



<http://catalog.phoenixcontact.net/phoenix/treeViewClick.do?UID=2961299>

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

Commercial data

EAN	 4 017918 164041
Note	Made-to-order
sales group	G084
Pack	10 Pcs.
Customs tariff	85364900
Gross weight in pieces	0.01634 KG
Net weight per piece	0.01498 KG
Catalog page information	Page 284 (C-7-2013)

Product notes

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



[http://
www.download.phoenixcontact.com](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

Dimensions

Width	12.7 mm
Height	29 mm
Depth	15.7 mm

Ambient conditions

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

Coil side

Nominal input voltage U_N	12 V DC
Typical input current at U_N	33 mA
Typical response time	7 ms
Typical release time	3 ms
Coil resistance	360 Ω $\pm$ 10 % (at 20 °C)

Contact side

Contact type	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)
Switching capacity min.	0.12 W
Note	the following values are applicable if a gold layer is destroyed
Maximum switching voltage	250 V
Minimum switching voltage	5 V (at 10 mA)
Limiting continuous current	8 A
Maximum inrush current	15 A (300 ms)
Min. switching current	10 mA (At 5 V)
Interrupting rating (ohmic load) max.	190 W (at 24 V DC)
	85 W (at 48 V DC)
	60 W (at 60 V DC)
	44 W (at 110 V DC)
	60 W (at 220 V DC)
	2000 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)
	0.2 A (at 250 V, DC13)
	2 A (at 24 V, AC15)
	2 A (at 120 V, AC15)
	2 A (at 250 V, AC15)

General

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.)
Operating mode	100% operating factor
Mechanical service life	3 x 10 ⁷ 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

cULus Recognized, GOST, VDE Gutachten mit
Fertigungsüberwachung, GL

Certifications applied for:

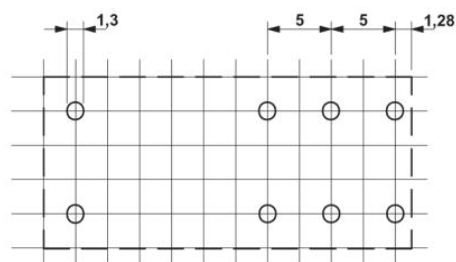
Certification Ex:

Additional products

Item	Designation	Description
General		
2967251	PLC-BSC- 12DC/21-21	14 mm PLC basic terminal blocks with screw connection, 12 V DC input voltage (without relay or optocoupler)
Relay base		
2900282	PLC-BPT- 12DC/21-21	14 mm PLC basic terminal blocks with push-in connection, 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, 12 V DC input voltage (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

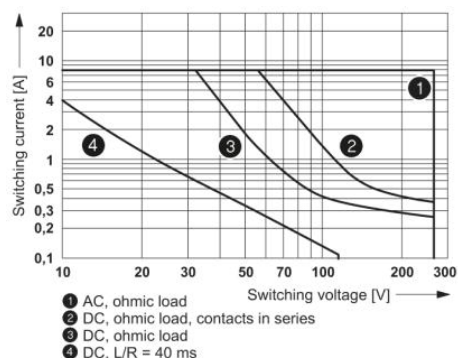
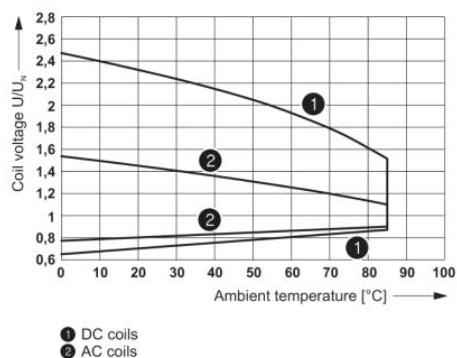
Drawings

Drilling plan/solder pad geometry

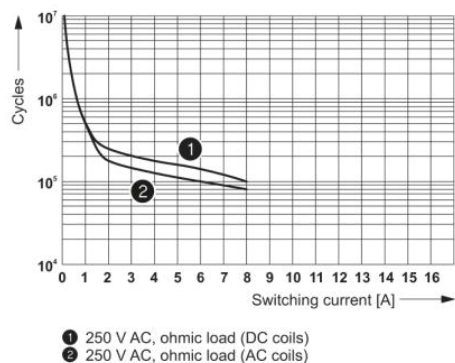


a = pitch division 2.5 mm

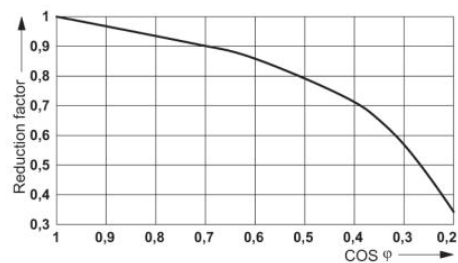
Diagram



Operating voltage range



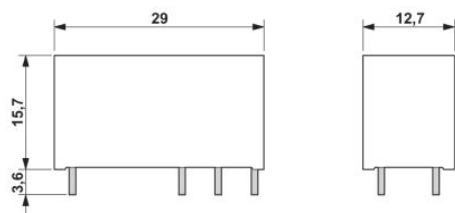
Interrupting rating



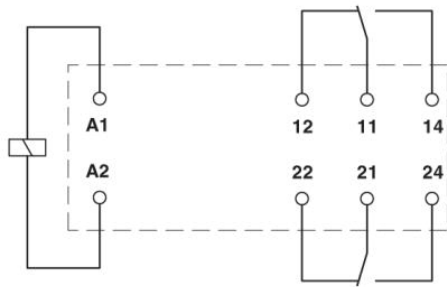
Service life reduction factor with various $\cos \phi$

Electrical service life

Dimensioned drawing



Circuit diagram



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