

REL-MR- 12DC/21-21AU

Order No.: 2961299



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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



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information and data, please refer
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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 $\Omega \pm 10\%$ (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:

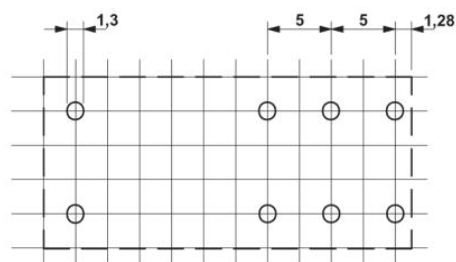
Certification Ex:

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

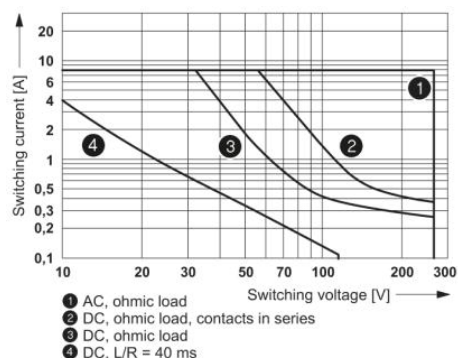
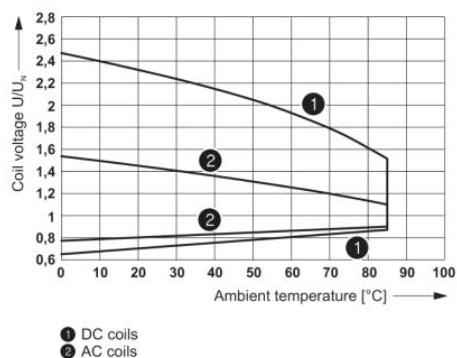
Drawings

Drilling plan/solder pad geometry

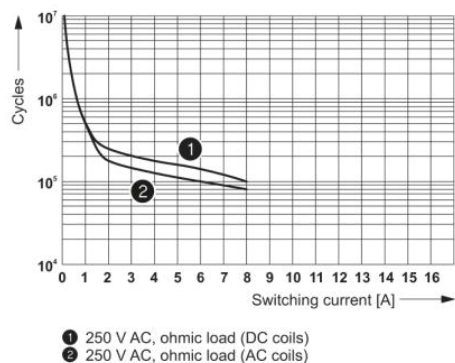


a = pitch division 2.5 mm

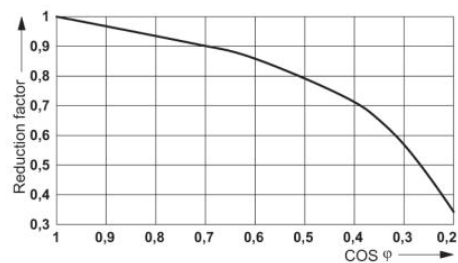
Diagram



Operating voltage range



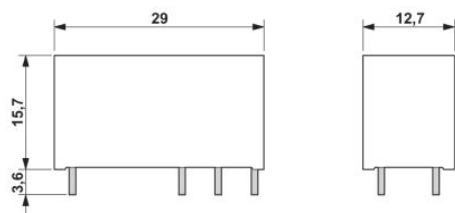
Interrupting rating



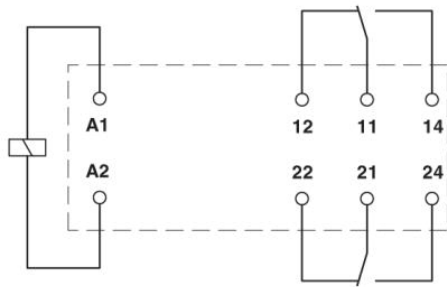
Service life reduction factor with various $\cos \phi$

Electrical service life

Dimensioned drawing



Circuit diagram



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