

Single relay - REL-MR-12DC/21HC/EX - 2908821

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)




Plug-in miniature power relay, with power contact for high continuous currents, 1 changeover contact, 12 V DC input voltage for use in Zone 2 applications

Why buy this product

- ✓ Switching current of up to 16 A
- ✓ RT III-proof (wash-proof)

RoHS

Key Commercial Data

Packing unit	10 STK
Minimum order quantity	10 STK
GTIN	 4 055626 345154
GTIN	4055626345154
Weight per Piece (excluding packing)	15.900 g
Custom tariff number	85364190
Country of origin	Austria
Note	Made to Order (non-returnable)

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
-----------------------------	---------

Single relay - REL-MR-12DC/21HC/EX - 2908821

Technical data

Coil side

Input voltage range in reference to U_N	see diagram
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)
Power dissipation for nominal condition	0.4 W

Contact side

Contact type	1 PDT
Type of switch contact	Single contact
Contact material	AgNi
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	12 V (at 10 mA)
Min. switching current	10 mA (at 12 V)
Maximum inrush current	50 A (20 ms)
Limiting continuous current	16 A
Interrupting rating (ohmic load) max.	384 W (at 24 V DC)
	58 W (at 48 V DC)
	48 W (at 60 V DC)
	50 W (at 110 V DC)
	80 W (at 220 V DC)
	4000 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)
	6 A (at 24 V, AC15)
	6 A (at 120 V, AC15)
	6 A (at 250 V, AC15)

General

Test voltage relay winding/relay contact	5 kV AC (50 Hz, 1 min.)
Operating mode	100% operating factor
Degree of protection	RT III (wash-proof)
Mechanical service life	3 x 10 ⁷ cycles
Mounting position	any
Assembly instructions	Can be aligned without spacing (> 70 °C \geq 2.5 mm)

Standards and Regulations

Standards/regulations	IEC 60664
	EN 50178
	EN 61810-1
Degree of pollution	3

Single relay - REL-MR-12DC/21HC/EX - 2908821

Technical data

Standards and Regulations

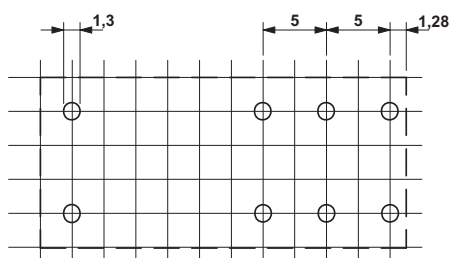
Overvoltage category	III
----------------------	-----

Environmental Product Compliance

China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

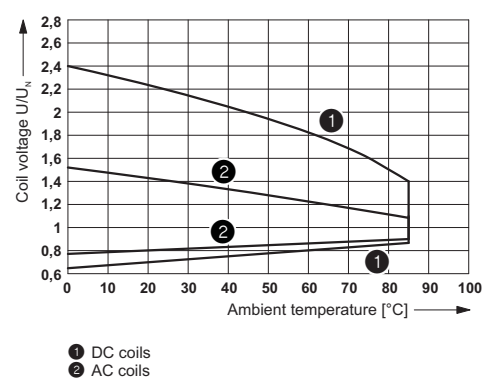
Drawings

Drilling diagram



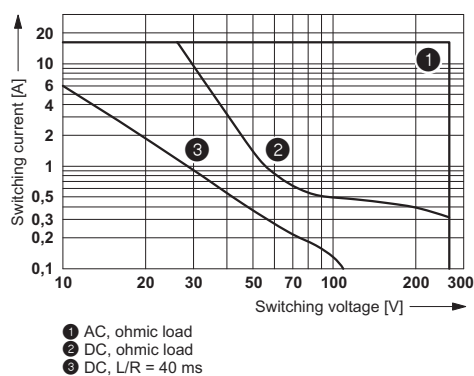
a = pitch division 2.5 mm

Diagram



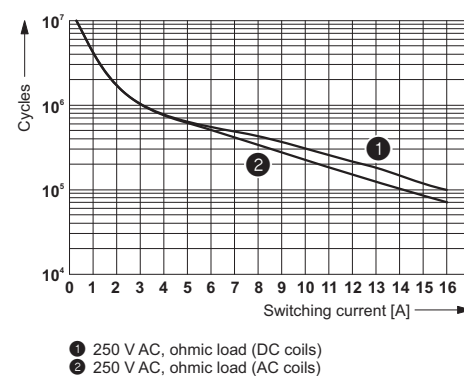
Operating voltage range

Diagram



Interrupting rating

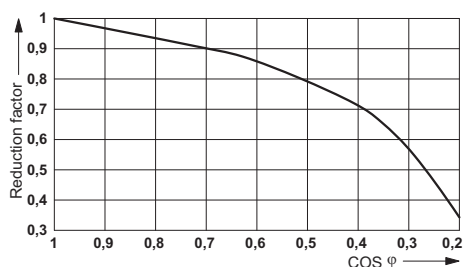
Diagram



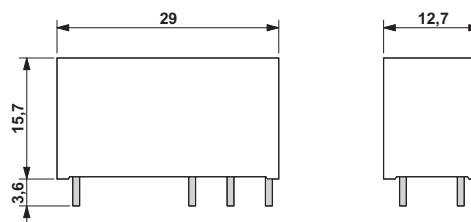
Electrical service life

Single relay - REL-MR-12DC/21HC/EX - 2908821

Diagram

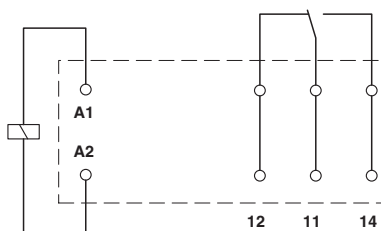


Dimensional drawing



Service life reduction factor with various cos phi

Circuit diagram



Classifications

eCl@ss

eCl@ss 5.0	27371601
eCl@ss 5.1	27371601
eCl@ss 6.0	27371601
eCl@ss 7.0	27371601
eCl@ss 8.0	27371601
eCl@ss 9.0	27371601

ETIM

ETIM 2.0	EC001437
ETIM 3.0	EC001437
ETIM 4.0	EC001437
ETIM 5.0	EC001437
ETIM 6.0	EC001437

UNSPSC

UNSPSC 13.2	39122334
-------------	----------

Approvals

Approvals

Single relay - REL-MR-12DC/21HC/EX - 2908821

Approvals

Approvals

UL Recognized / cUL Recognized / VDE approval of drawings / EAC / cULus Recognized

Ex Approvals

Approval details

UL Recognized



<http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm>

FILE E 228652

cUL Recognized



<http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm>

FILE E 228652

VDE approval of drawings



[http://www.vde.com/en/Institute/OnlineService/
VDE-approved-products/Pages/Online-Search.aspx](http://www.vde.com/en/Institute/OnlineService/VDE-approved-products/Pages/Online-Search.aspx)

40007758

EAC



RU C-
DE.A*30.B.01082

cULus Recognized



<http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm>

Accessories

Additional products

Relay base - PLC-BPT- 12DC/21HC - 2900253



14 mm PLC basic terminal block for high continuous currents with push-in connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, 1 PDT, input voltage 12 V DC

Single relay - REL-MR-12DC/21HC/EX - 2908821

Accessories

Relay base - PLC-BSP- 12DC/21HC - 2912332



14 mm PLC basic terminal block for high continuous currents with spring-cage connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, 1 PDT, input voltage 12 V DC

Relay base - PLC-BSC- 12DC/21HC - 2967769



14 mm PLC basic terminal block for high continuous currents with screw connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, 1 PDT, input voltage 12 V DC

Relay base - PR1-BSC2/2X21 - 2833518



Relay base 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

Relay base - PR1-BSC3/2X21 - 2833521



Relay base 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

Relay base - PR1-BSP3/2X21 - 2833534



Relay base 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

Single relay - REL-MR-12DC/21HC/EX - 2908821

Accessories

Relay base - RIF-1-BPT/2X21 - 2900931



RIF-1... relay base, for miniature power relay with 1 or 2 PDTs or solid-state relays of the same design, push-in connection, plug-in option for input/suppressor modules, for mounting on NS 35/7,5

Relay base - RIF-1-BSC/2X21 - 2900930



RIF-1... relay base, for miniature power relay with 1 or 2 changeover contacts or identical solid-state relays, screw connection, plug-in option for input/interference suppression modules, for mounting on NS 35/7,5