

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, RT III sealed with power contacts, 1 changeover contact, input voltage: 12 V DC, in connection with the corresponding PLC base approved in accordance with ATEX/IECEx (zone 2) and Ex zone class I, div. 2.

Your advantages

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



Key Commercial Data

Packing unit	10 pc
Minimum order quantity	10 pc
GTIN	
GTIN	4055626345154

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
Degree of protection	RT III

Coil side

Nominal input voltage U_N	12 V DC
Input voltage range in reference to U_N	see diagram
Typical input current at U_N	33 mA
Typical response time	7 ms

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

Technical data

Coil side

Typical release time	3 ms
Coil resistance	360 Ω $\pm$ 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	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
Mechanical service life	3x 10 ⁷ cycles
Service life, electrical	see diagram
Mounting position	any
Assembly instructions	Can be aligned without spacing (> 70 °C $\geq$ 2.5 mm)

Connection data

Connection method	Solder connection
-------------------	-------------------

Standards and Regulations

Standards/regulations	IEC 60664
	EN 50178
	EN 61810-1
Pollution degree	3
Overvoltage category	III

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

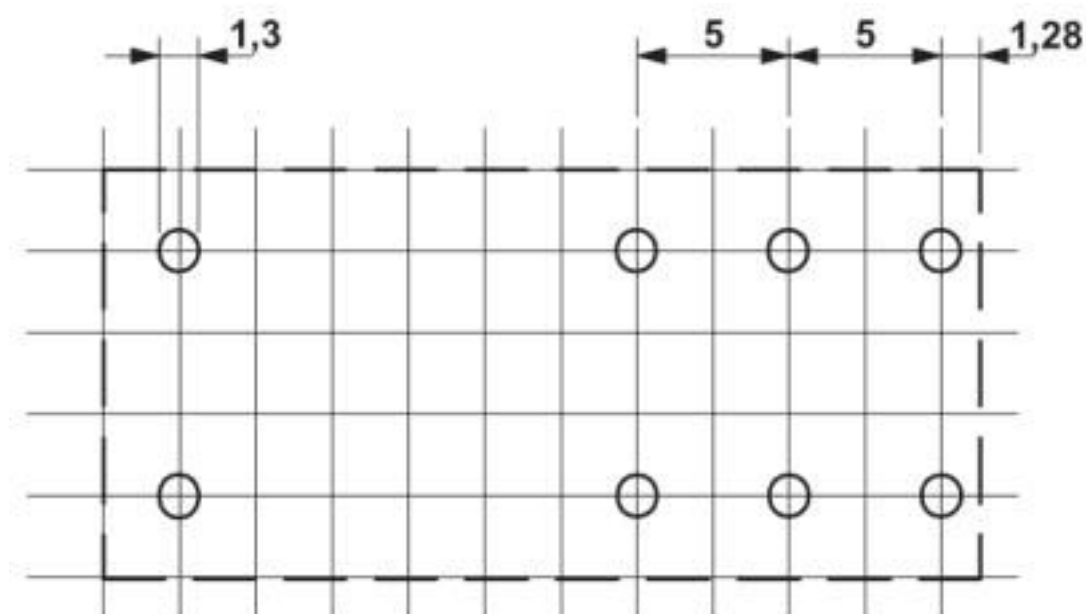
Technical data

Environmental Product Compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

Drawings

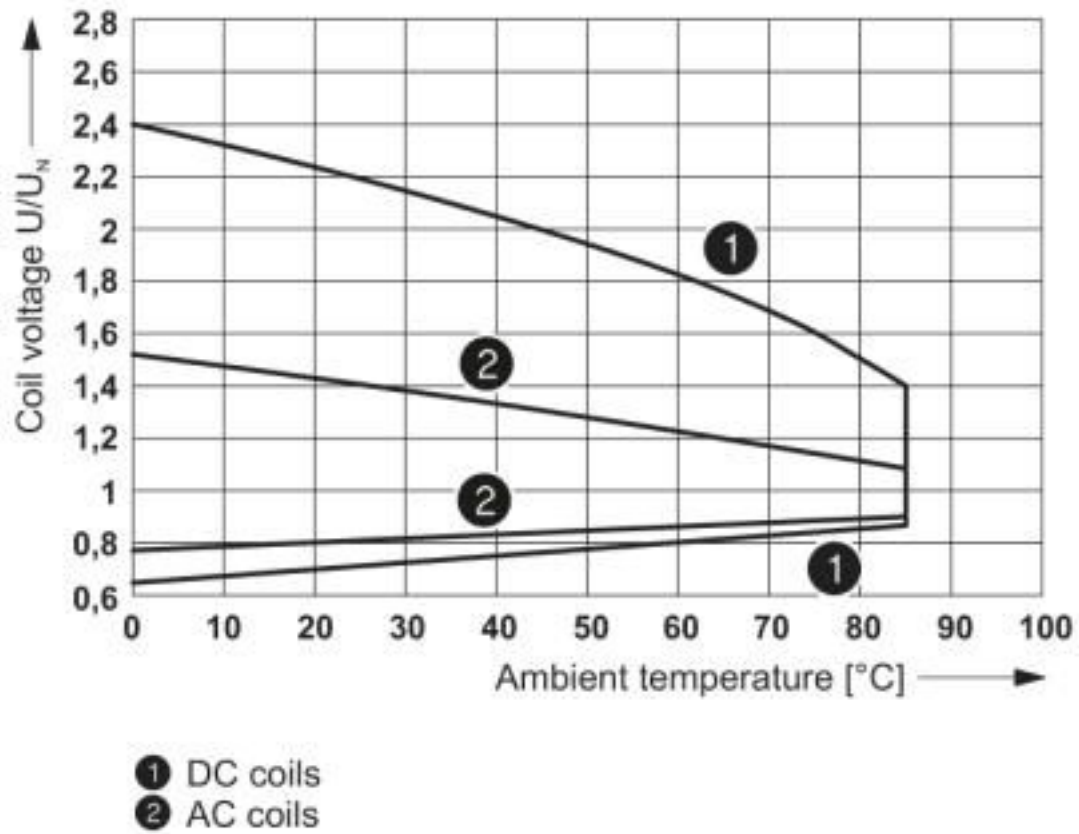
Drilling diagram



a = pitch division 2.5 mm

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

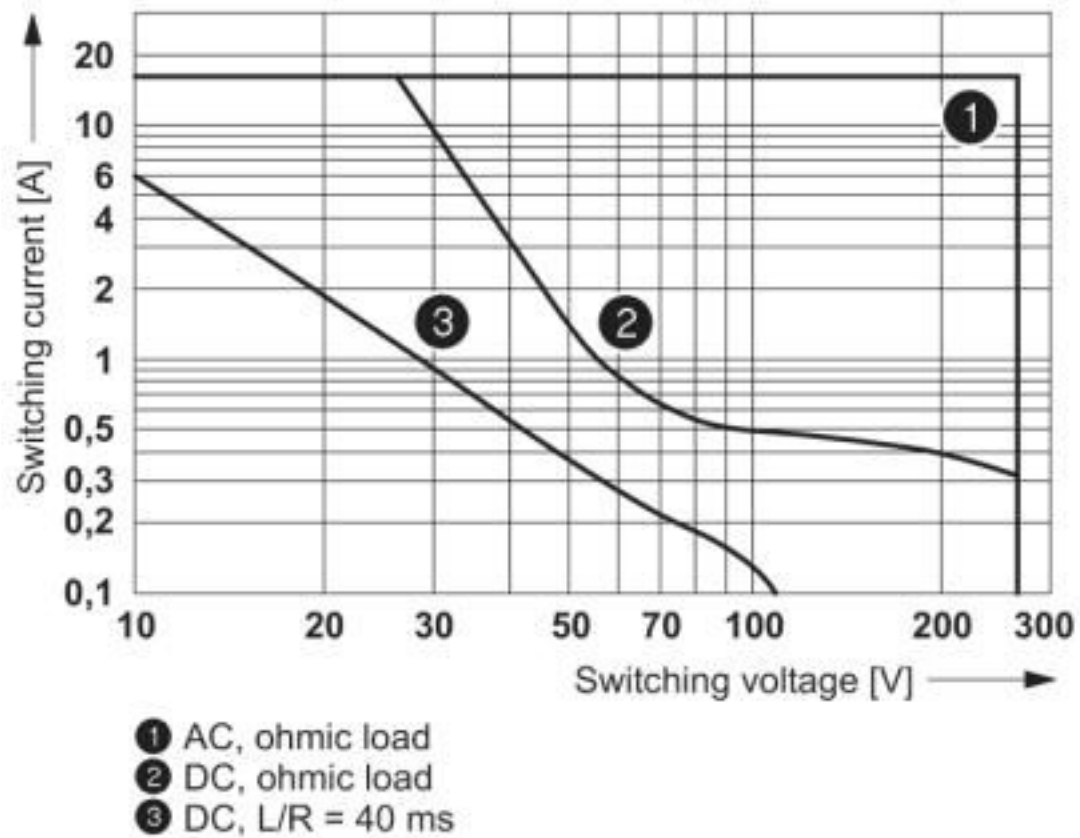
Diagram



Operating voltage range

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

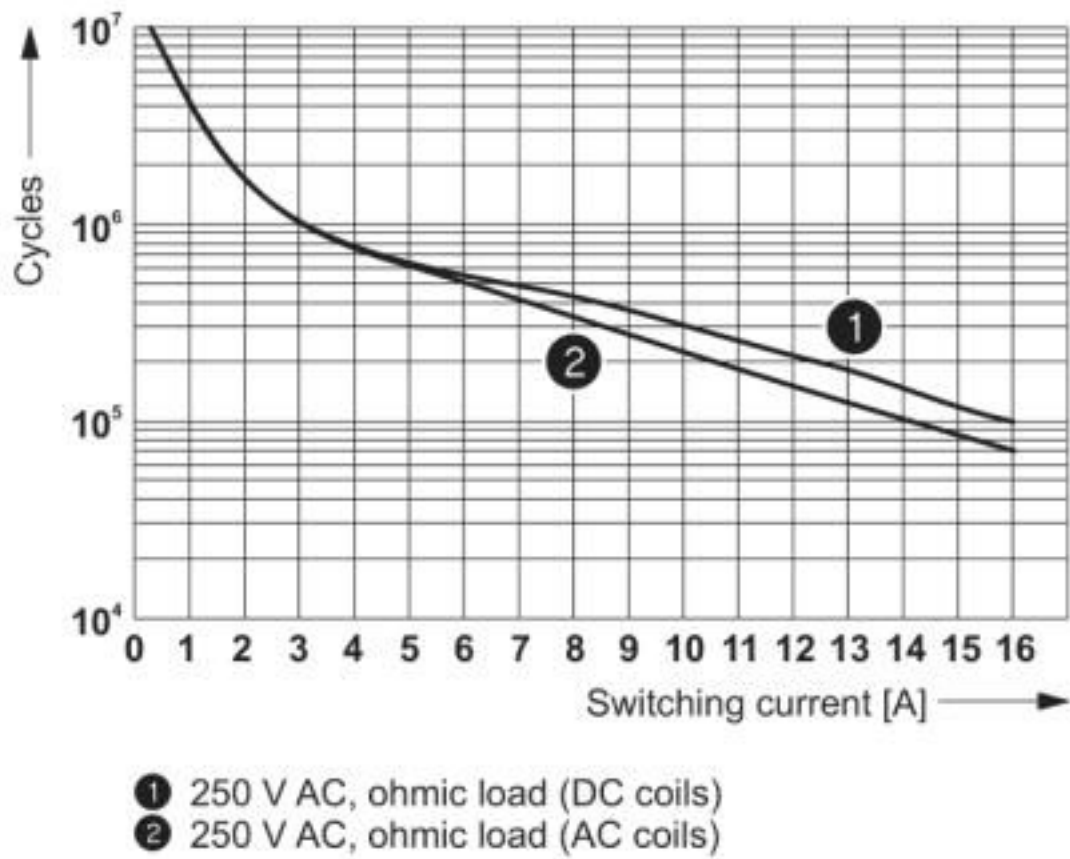
Diagram



Interrupting rating

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

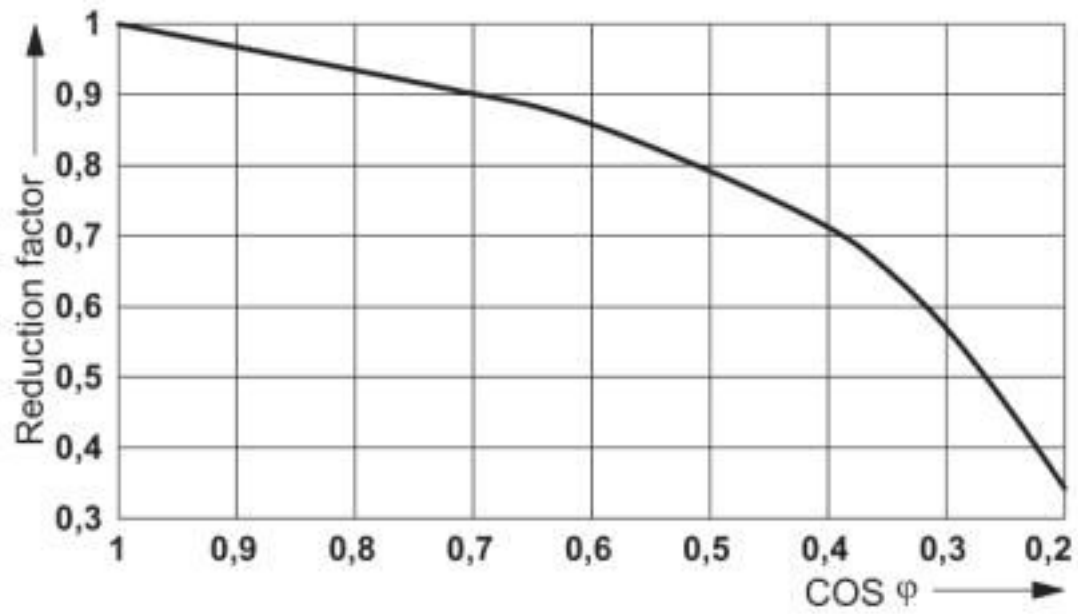
Diagram



Electrical service life

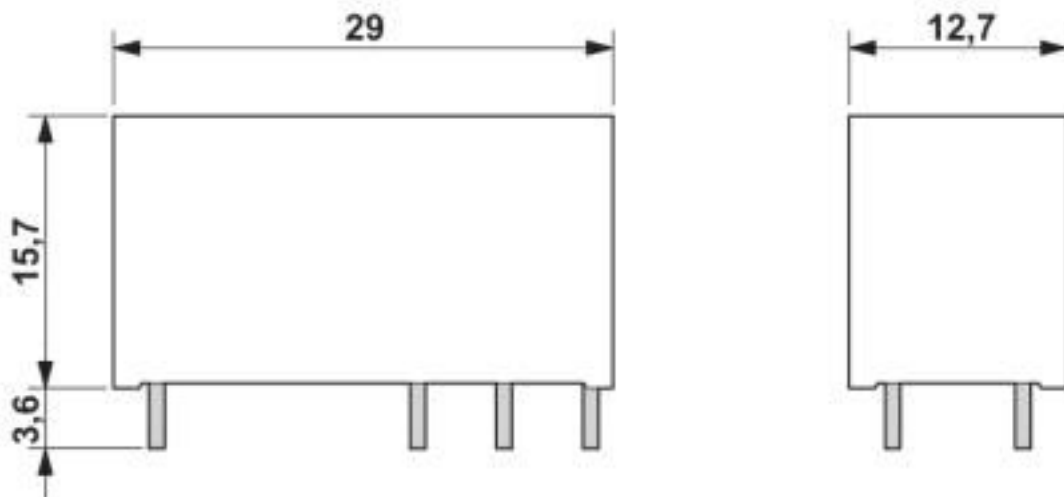
Single relay - REL-MR-12DC/21HC/EX - 2908821

Diagram



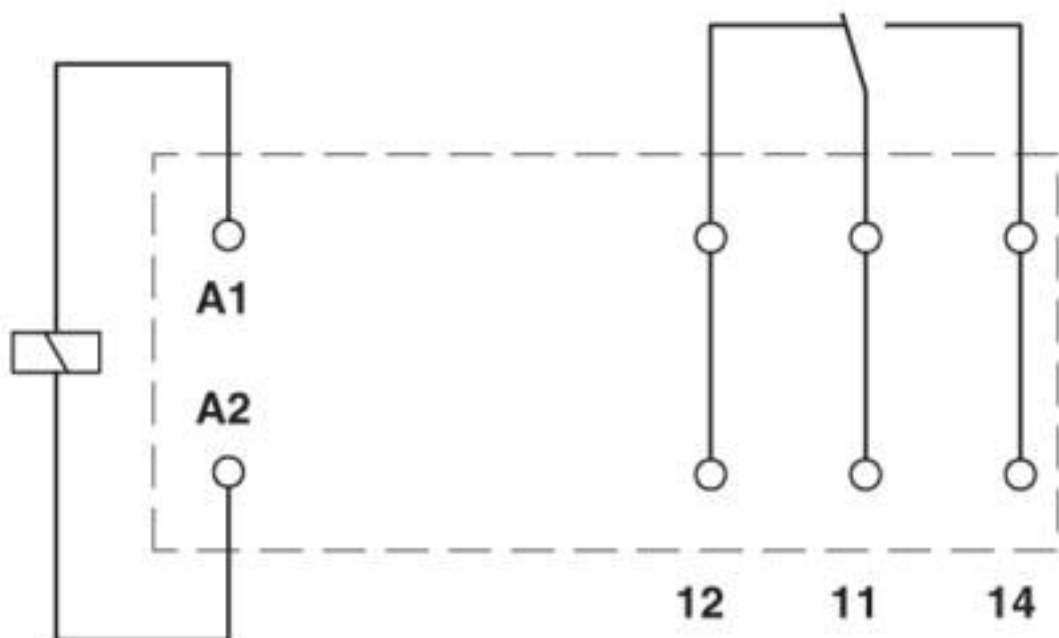
Service life reduction factor with various $\cos \varphi$

Dimensional drawing



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

Circuit diagram



Classifications

eCl@ss

eCl@ss 10.0.1	27371601
eCl@ss 5.0	27371600
eCl@ss 5.1	27371600
eCl@ss 6.0	27371600
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
ETIM 7.0	EC001437

UNSPSC

UNSPSC 13.2	39122334
UNSPSC 18.0	39122334
UNSPSC 19.0	39122334
UNSPSC 20.0	39122334

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

Classifications

UNSPSC

UNSPSC 21.0	39122334
-------------	----------

Approvals

Approvals

Approvals

UL Recognized / cUL Recognized / VDE Zeichengenehmigung / 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 Zeichengenehmigung		http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx	40007758
------------------------	---	---	----------

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

cULus Recognized			
------------------	---	--	--

Phoenix Contact 2020 © - all rights reserved
<http://www.phoenixcontact.com>

PHOENIX CONTACT GmbH & Co. KG
Flachsmarktstr. 8
32825 Blomberg
Germany
Tel. +49 5235 300
Fax +49 5235 3 41200
<http://www.phoenixcontact.com>

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Phoenix Contact:

2908821