

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



2908821
<https://www.phoenixcontact.com/gb/products/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 documentation. Our general terms of use for downloads are valid.



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)

Commercial data

Item number	2908821
Packing unit	10 pc
Minimum order quantity	10 pc
Note	Made to order (non-returnable)
Sales key	CK6195
Product key	CK6195
GTIN	4055626345154
Weight per piece (including packing)	15.9 g
Weight per piece (excluding packing)	15.9 g
Customs tariff number	85364190
Country of origin	AT

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



2908821

<https://www.phoenixcontact.com/gb/products/2908821>

Technical data

Product properties

Product type	Single relay
Operating mode	100% operating factor
Mechanical service life	3×10^7 cycles

Insulation characteristics

Overvoltage category	III
Pollution degree	3

Electrical properties

Service life electrical	see diagram
Maximum power dissipation for nominal condition	0.4 W
Test voltage (Winding/contact)	5 kV AC (50 Hz, 1 min., winding/contact)

Input data

Coil side

Nominal input voltage U_N	12 V DC
Input voltage range	7.8 V DC ... 28.8 V DC
Input voltage range in reference to U_N	see diagram
Drive and function	monostable
Drive (polarity)	non-polarized
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)

Output data

Switching

Contact switching type	1 changeover contact
Type of switch contact	Single contact
Contact material	AgNi
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	12 V (at 10 mA)
Limiting continuous current	16 A
Maximum inrush current	50 A (20 ms)
Min. switching current	10 mA (at 12 V)
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)

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



2908821

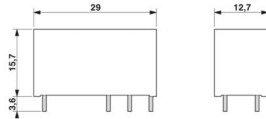
<https://www.phoenixcontact.com/gb/products/2908821>

Switching capacity	4000 VA (for 250 V AC)
	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)

Connection data

Connection method	Plug / solder connection
-------------------	--------------------------

Dimensions

Dimensional drawing	
Width	12.7 mm
Height	29 mm
Depth	15.7 mm

Material specifications

Color	orange (RAL 2003)
-------	-------------------

Environmental and real-life conditions

Ambient conditions

Degree of protection	RT III
Ambient temperature (operation)	-40 °C ... 85 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C

Approvals

Corrosive gas test

Identification	ISA-S71.04. G3 Harsh Group
	EN 60068-2-60

Standards and regulations

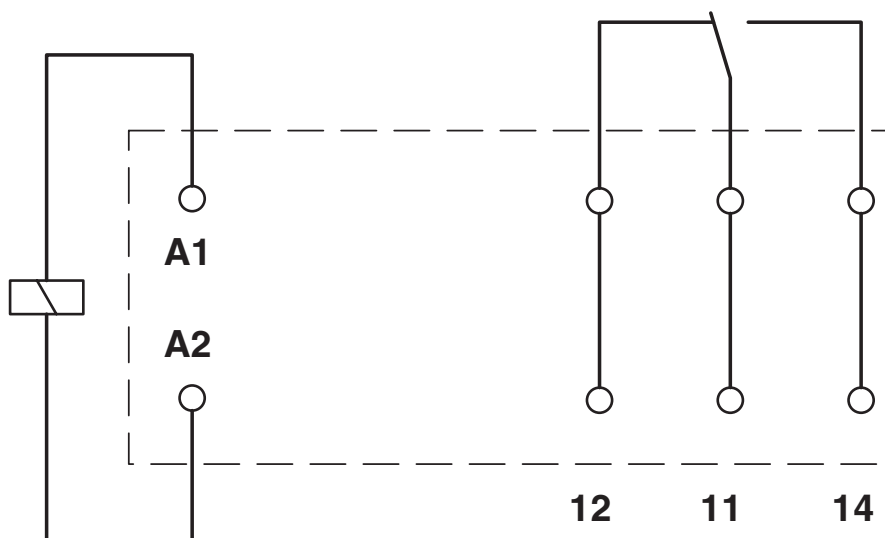
Standards/regulations	IEC 60664
	EN 50178
	EN 61810-1

Mounting

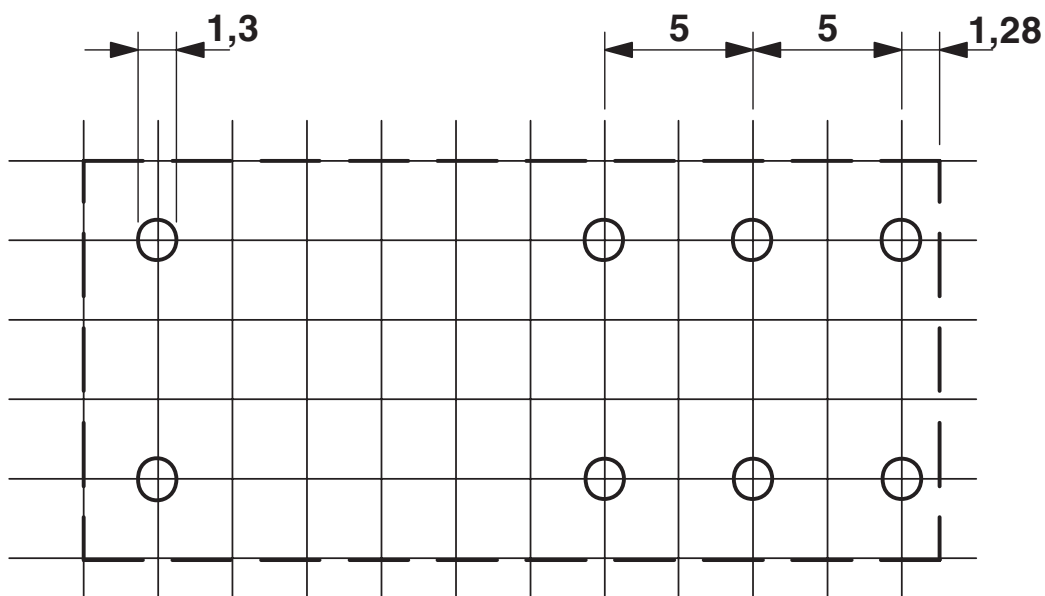
Assembly instructions	Can be aligned without spacing ($> 70\text{ °C} \geq 2.5\text{ mm}$)
Mounting position	any

Drawings

Circuit diagram

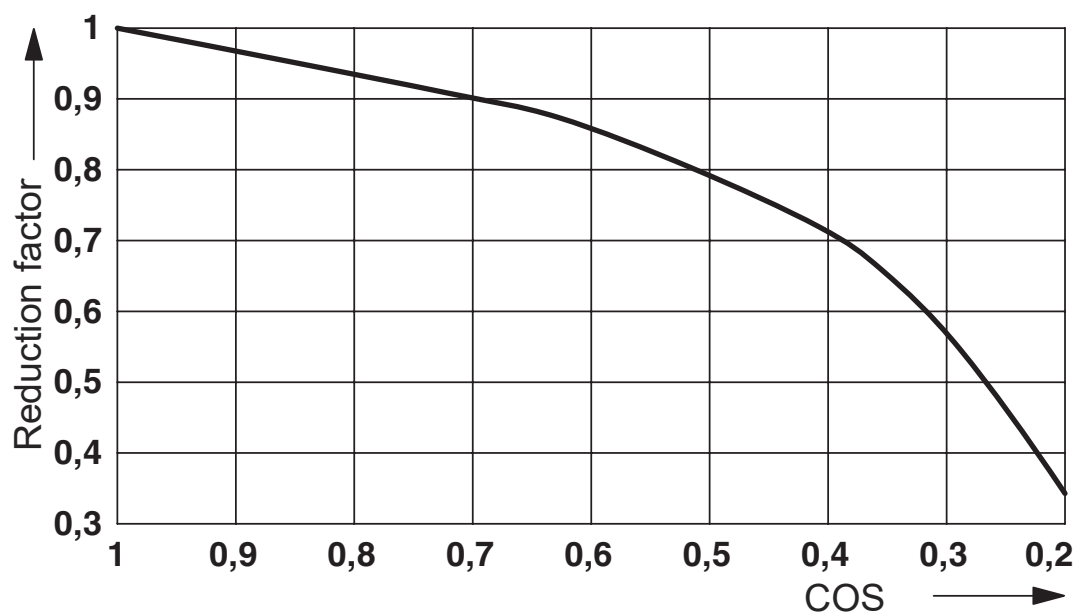


Drilling plan/solder pad geometry

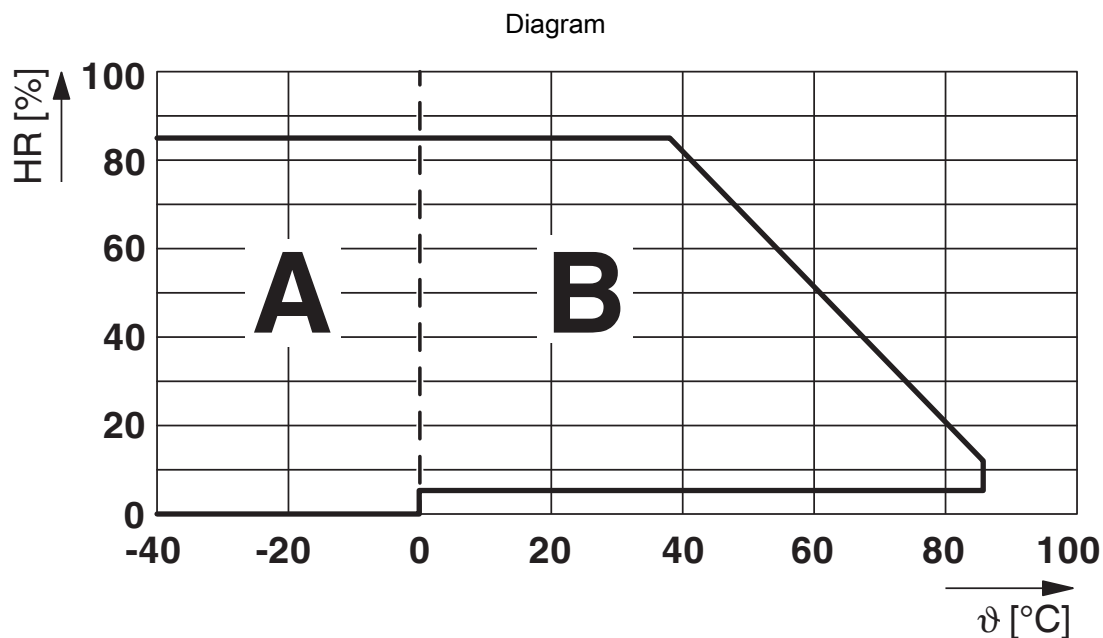


a = pitch division 2.5 mm

Diagram



Service life reduction factor with various cos phi



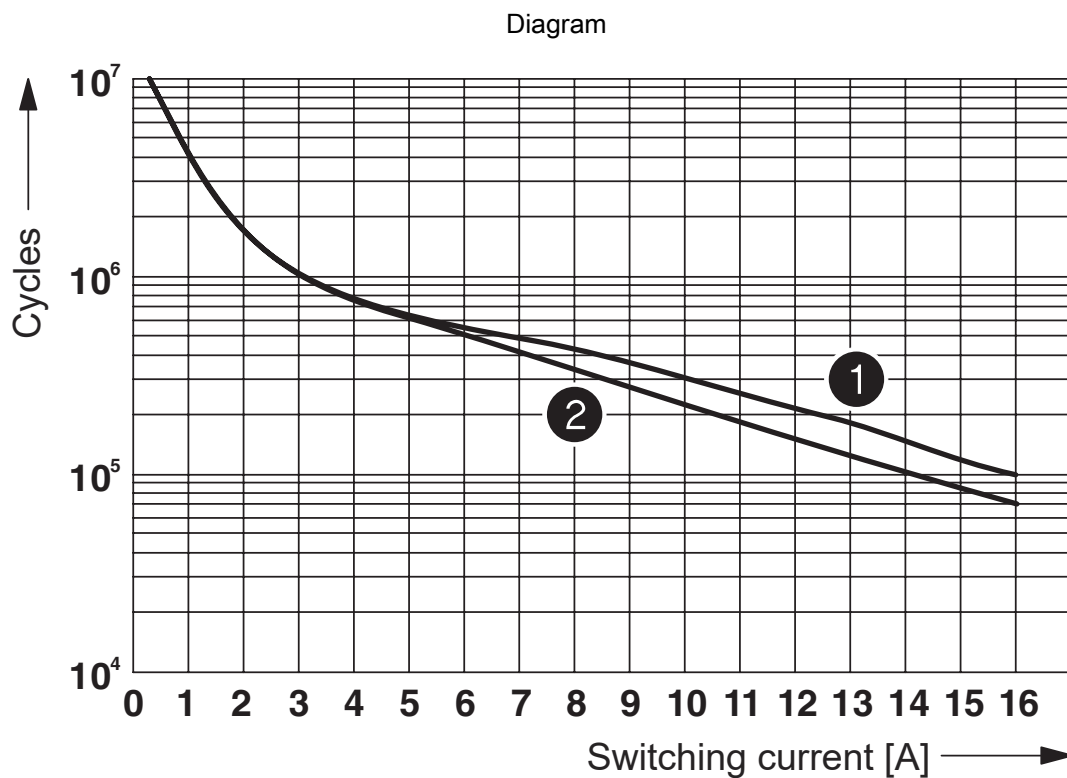
Permissible humidity for operation and storage.

The maximum permissible ambient temperature as specified in the data sheet must be observed.

Area A: Ice buildup at ambient temperatures $\leq 0^{\circ}\text{C}$ must be prevented

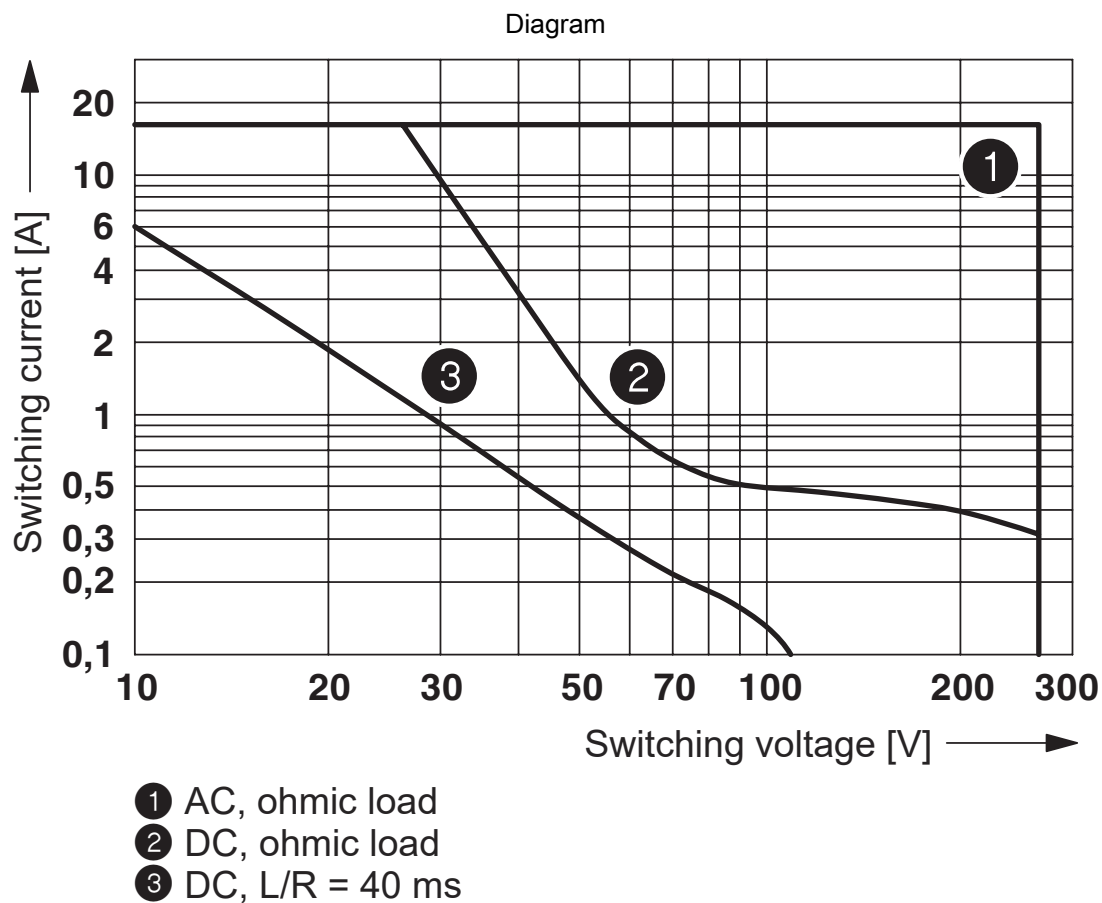
Area B: Condensation at ambient temperatures $> 0^{\circ}\text{C}$ must be prevented

On 30 full days that are naturally distributed across an entire year, a humidity level of 95% is permissible at an ambient temperature $\leq 25^{\circ}\text{C}$.



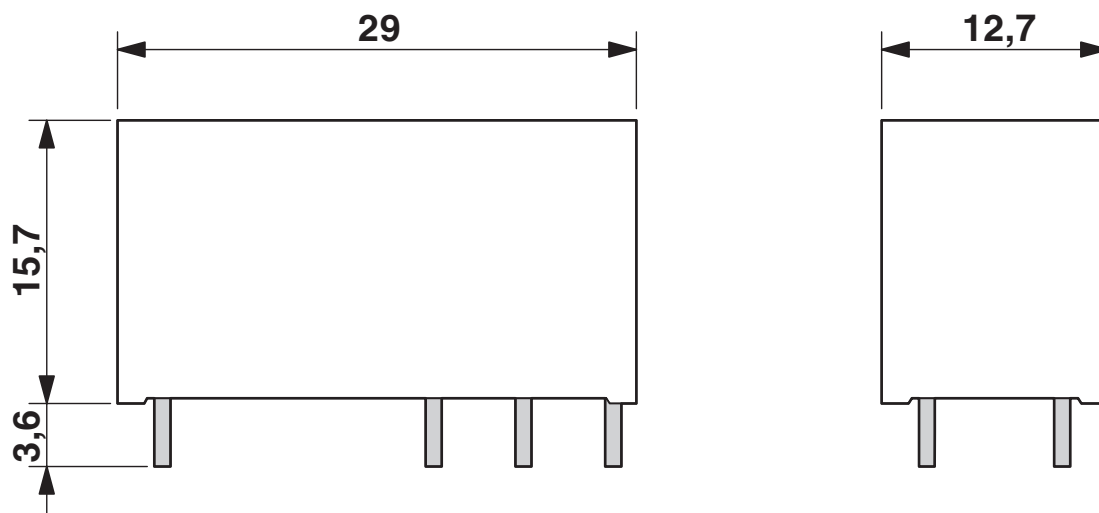
- ① 250 V AC, ohmic load (DC coils)
- ② 250 V AC, ohmic load (AC coils)

Electrical service life

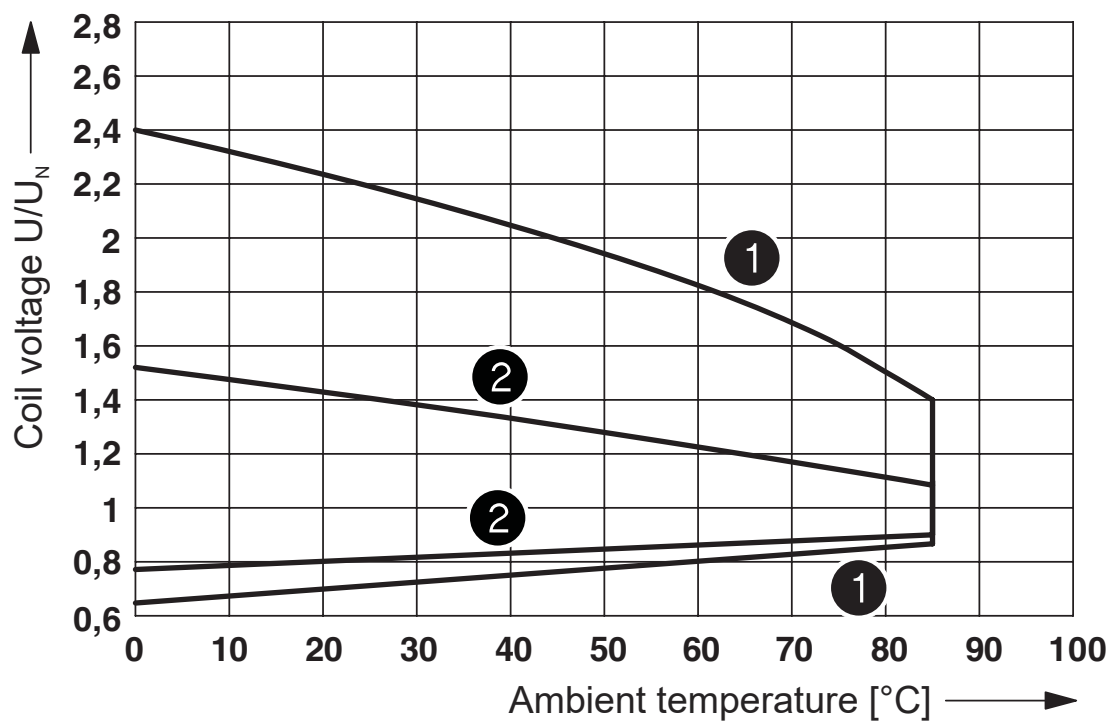


Interrupting rating

Dimensional drawing



Diagram



- ① DC coils
- ② AC coils

Operating voltage range

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



2908821

<https://www.phoenixcontact.com/gb/products/2908821>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/gb/products/2908821>



cUL Recognized
Approval ID: FILE E 228652



UL Recognized
Approval ID: FILE E 228652



EAC
Approval ID: TR_TS_D_00573_c



VDE Zeichengenehmigung
Approval ID: 40007758



EAC
Approval ID: RU*C-DE.*08.B.00010

cULus Recognized

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



2908821

<https://www.phoenixcontact.com/gb/products/2908821>

Classifications

ECLASS

ECLASS-11.0	27371601
ECLASS-12.0	27371601
ECLASS-13.0	27371601

ETIM

ETIM 9.0	EC001437
----------	----------

UNSPSC

UNSPSC 21.0	39122300
-------------	----------

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



2908821

<https://www.phoenixcontact.com/gb/products/2908821>

Environmental product compliance

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

Phoenix Contact 2024 © - all rights reserved
<https://www.phoenixcontact.com>

PHOENIX CONTACT Ltd
Halesfield 13, Telford
Shropshire, TF7 4PG
01952 681700
info@phoenixcontact.co.uk