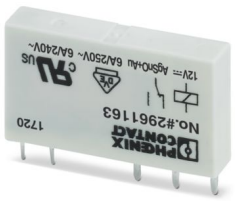
REL-MR- 12DC/21AU - Single relay

2961163

https://www.phoenixcontact.com/gb/products/2961163

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Plug-in miniature power relay, with multi-layer gold contact, 1 changeover contact, input voltage 12 V DC

Your advantages

- Safe isolation between coil and contact side
- High degree of protection up to RT III depending on type (wash-proof)
- Power contacts up to 6 A

Commercial data

Item number	2961163
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	DK6922
Product key	DK6922
GTIN	4017918146870
Weight per piece (including packing)	6.58 g
Weight per piece (excluding packing)	6.58 g
Customs tariff number	85364190
Country of origin	CZ

Technical data

Product properties

Product type	Single relay
Set comprises	2903369 RIF-0-RPT-12DC/21AU
	2903360 RIF-0-RPT-12DC/ 1AU
Operating mode	100% operating factor
Mechanical service life	2x 10^7 cycles

Insulation characteristics

Overvoltage category	III
Pollution degree	3

Data management status

Date of last data management	02.07.2026

Electrical properties

Maximum power dissipation for nominal condition	0.17 W
Test voltage (Winding/contact)	4 kV AC (50 Hz, 1 min., winding/contact)

Input data

Coil side

Nominal input voltage U_N	12 V DC
Input voltage range	7.2 V DC ... 33 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	14 mA
Typical response time	5 ms
Typical release time	2.5 ms
Coil resistance	848 Ω ±10 % (at 20 °C)

Output data

Switching

Contact switching type	1 changeover contact
Type of switch contact	Single contact
Contact material	AgSnO, hard gold-plated
Maximum switching voltage	30 V AC
	36 V DC
Minimum switching voltage	100 mV (at 10 mA)
Limiting continuous current	50 mA
Maximum inrush current	50 mA
Min. switching current	1 mA (at 24 V)

Interrupting rating (ohmic load) max.	1.2 W (at 24 V DC)

Switching: when the gold layer is destroyed

Note	the following values are applicable if a gold layer is destroyed
Contact material	AgSnO
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	5 V (at 100 mA)
Limiting continuous current	6 A
Min. switching current	10 mA (at 12 V)
Interrupting rating (ohmic load) max.	140 W (at 24 V DC)
	20 W (at 48 V DC)
	18 W (at 60 V DC)
	23 W (at 110 V DC)
	40 W (at 220 V DC)
	1500 VA (for 250 V AC)
Switching capacity	2 A (at 24 V, DC13)
	0.2 A (at 110 V, DC13)
	0.1 A (at 220 V, DC13)
	3 A (at 24 V, AC15)
	3 A (at 120 V, AC15)
	3 A (at 230 V, AC15)

Connection data

Connection method	Plug / solder connection

Dimensions

Item dimensions

Width	5 mm
Height	28 mm
Depth	15 mm

Material specifications

Color	white (RAL 9010)

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

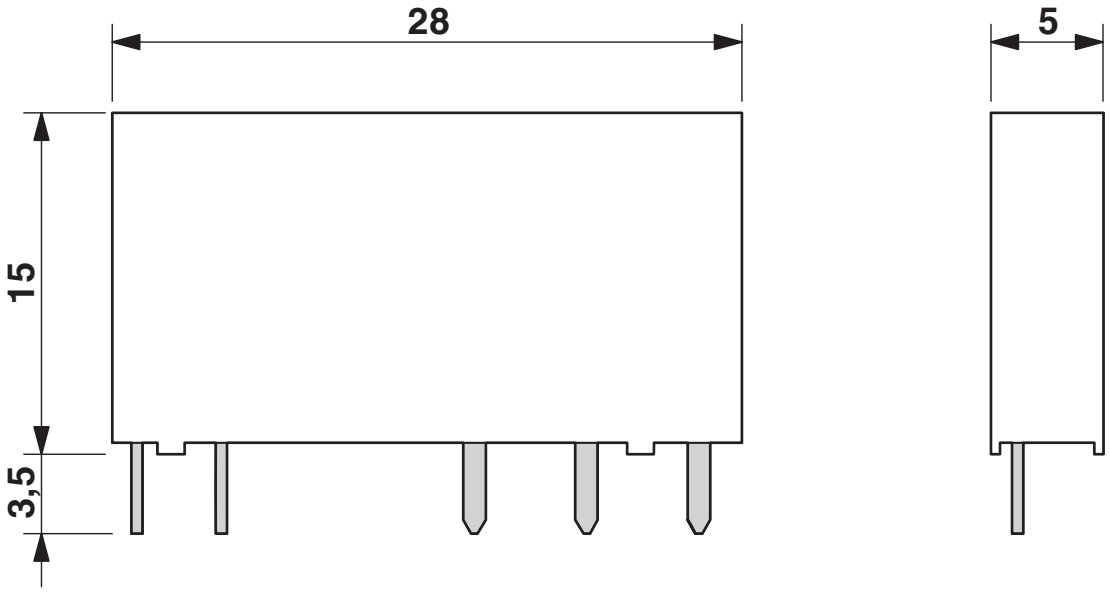
Standards/regulations	IEC 60664
	EN 50178
	EN 61810-1

Mounting

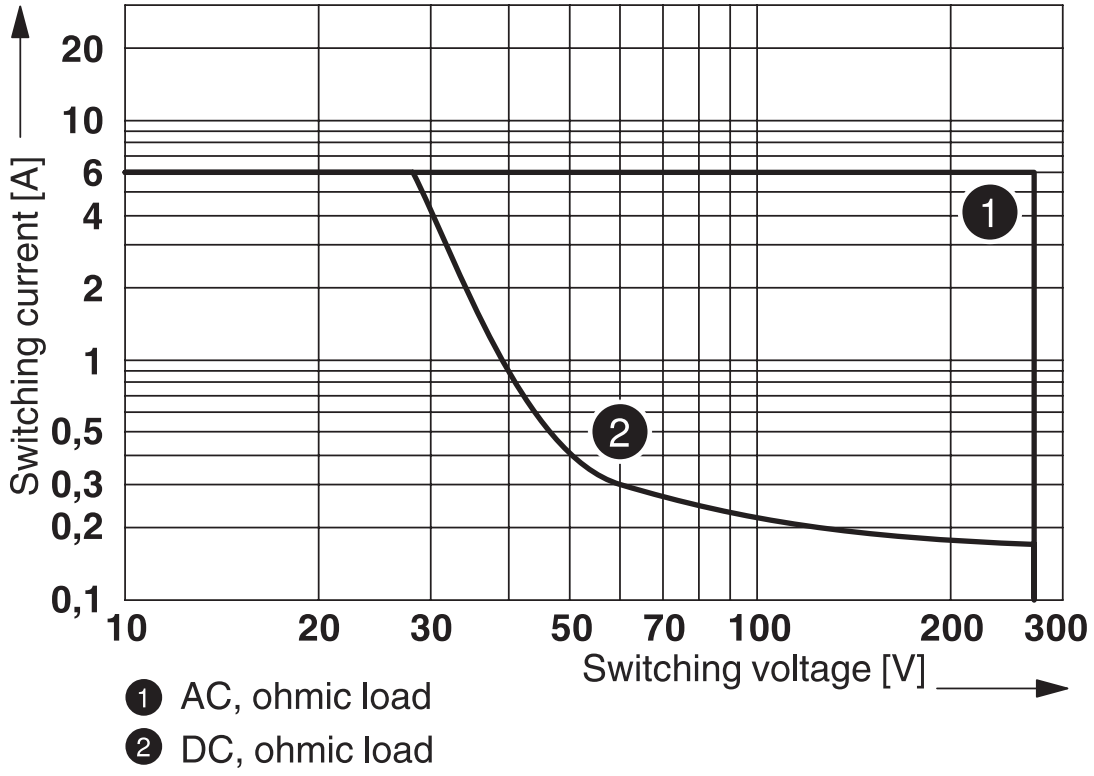
Assembly note	in rows with zero spacing
Mounting position	any

Drawings

Dimensional drawing

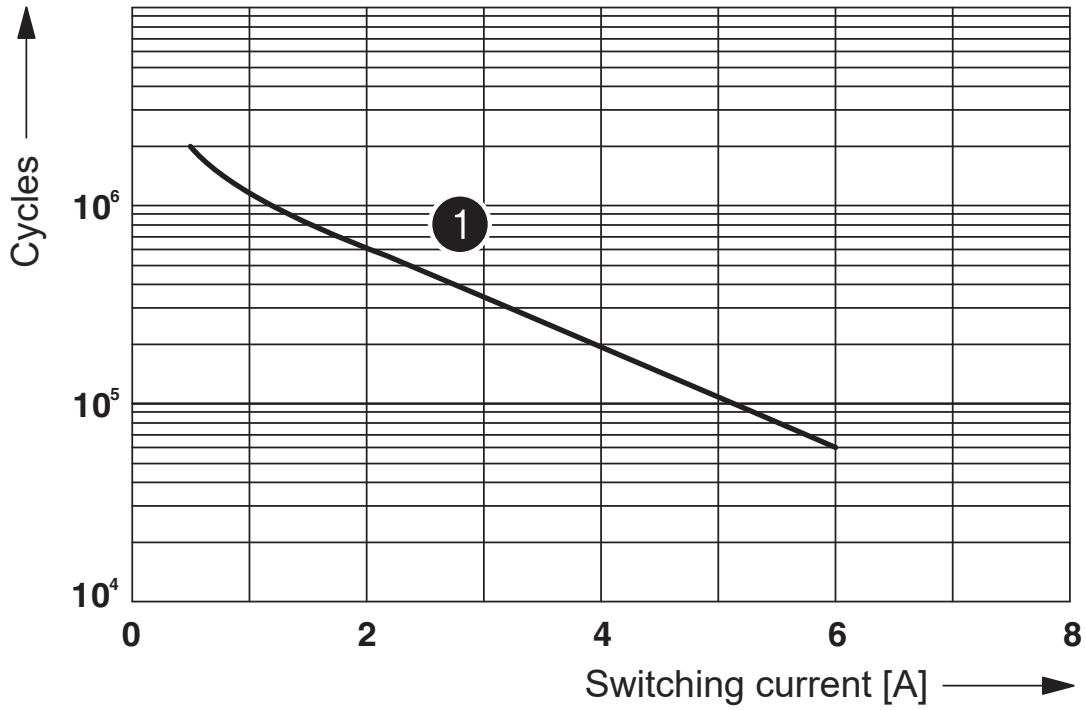


Diagram



Interrupting rating

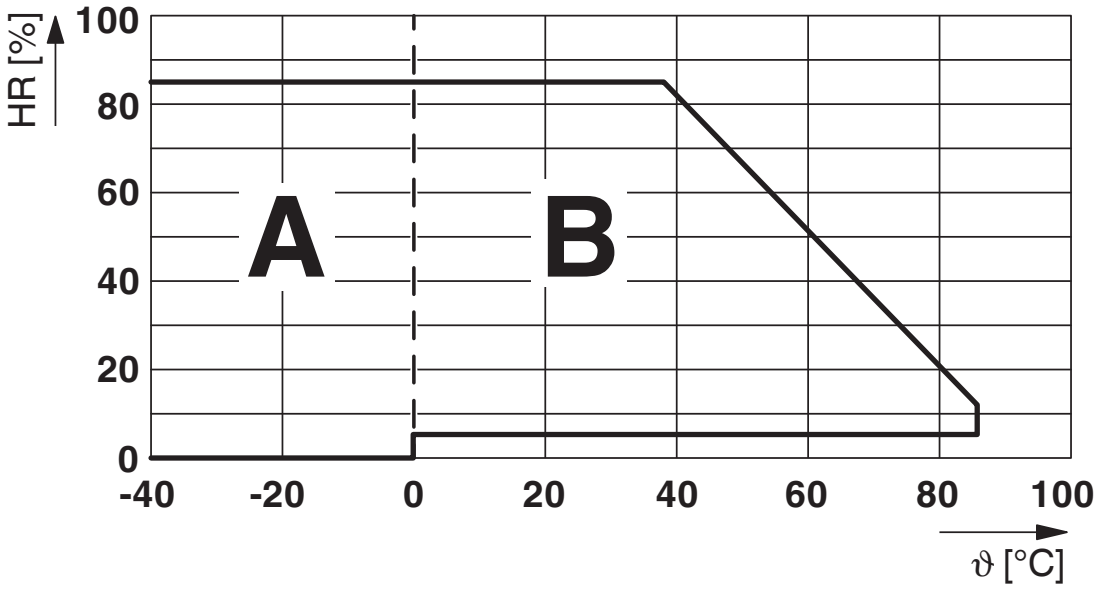
Diagram



1 250 V AC, ohmic load

Electrical service life

Diagram

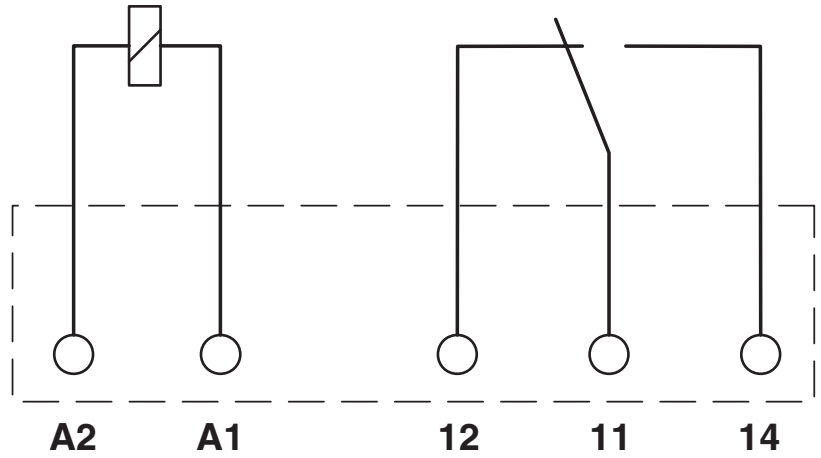


Permissible humidity for operation and storage.
The maximum permissible ambient temperature as specified in the data sheet must be observed.

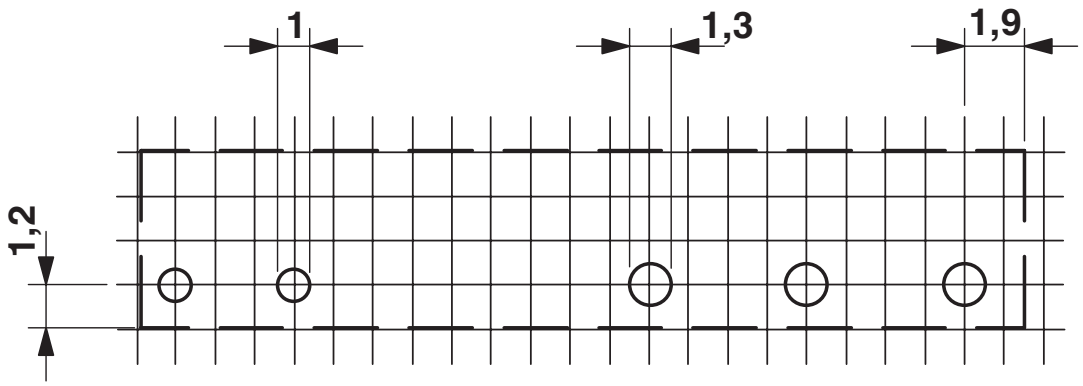
Area A: Ice buildup at ambient temperatures ≤ 0°C must be prevented
Area B: Condensation at ambient temperatures > 0°C must be prevented

On 30 full days that are naturally distributed across an entire year, a humidity level of 95% is permissible at an ambient temperature ≤ 25°C.

Circuit diagram



Drilling plan/solder pad geometry



View from below

a = grid spacing 1.25 mm and 1.27 mm

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/gb/products/2961163

cUL Recognized
Approval ID: FILE E 172140

UL Recognized
Approval ID: FILE E 172140

UL Recognized
Approval ID: FILE E 172140

VDE Zeichengenehmigung
Approval ID: 40032864

VDE Zeichengenehmigung
Approval ID: 40054426

cUL Recognized
Approval ID: FILE E 172140

VDE Zeichengenehmigung
Approval ID: 40010212

cUL Recognized
Approval ID: FILE E 172140

UL Recognized
Approval ID: FILE E 172140

Classifications

ECLASS

ECLASS-13.0	27371601
ECLASS-15.0	27371601

ETIM

ETIM 10.0	EC001437

UNSPSC

UNSPSC 21.0	39122300

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions

China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%

EF3.1 Climate Change

CO2e kg	0.045 kg CO2e

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