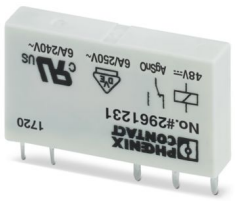
REL-MR- 48DC/21 - Single relay

2961231

https://www.phoenixcontact.com/us/products/2961231

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 relay, with power contact, 1 changeover contact, input voltage 48 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	2961231
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	C460
Product key	DK6921
GTIN	4046356294317
Weight per piece (including packing)	6.79 g
Weight per piece (excluding packing)	6.79 g
Customs tariff number	85364190
Country of origin	CZ

Technical data

Product properties

Product type	Single relay
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	03.07.2026

Electrical properties

Maximum power dissipation for nominal condition	0.22 W
Test voltage (Winding/contact)	4 kV AC (50 Hz, 1 min., winding/contact)

Input data

Coil side

Nominal input voltage U_N	48 V DC
Input voltage range	28.8 V DC ... 132 V DC
Drive and function	monostable
Drive (polarity)	non-polarized
Typical input current at U_N	4.5 mA
Typical response time	5 ms
Typical release time	2.5 ms
Coil resistance	10618 Ω ±10 % (at 20 °C)

Output data

Switching

Contact switching type	1 changeover contact
Type of switch contact	Single contact
Contact material	AgSnO
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	5 V (at 100 mA)
Limiting continuous current	6 A
Maximum inrush current	10 A (4 s)
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

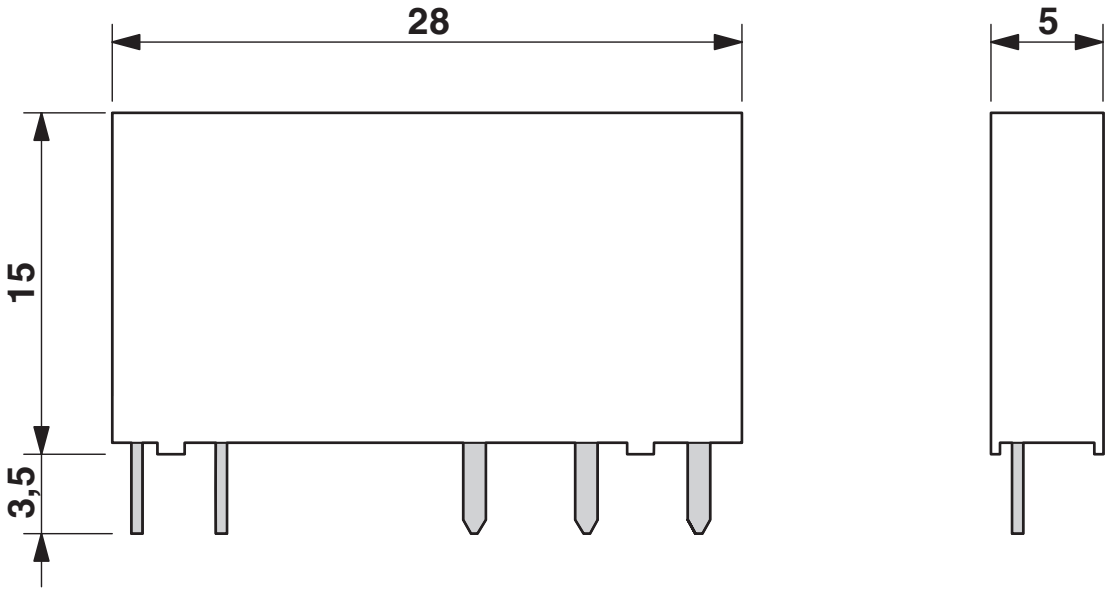
Standards/regulations	IEC 60664
	EN 50178
	EN 61810-1

Mounting

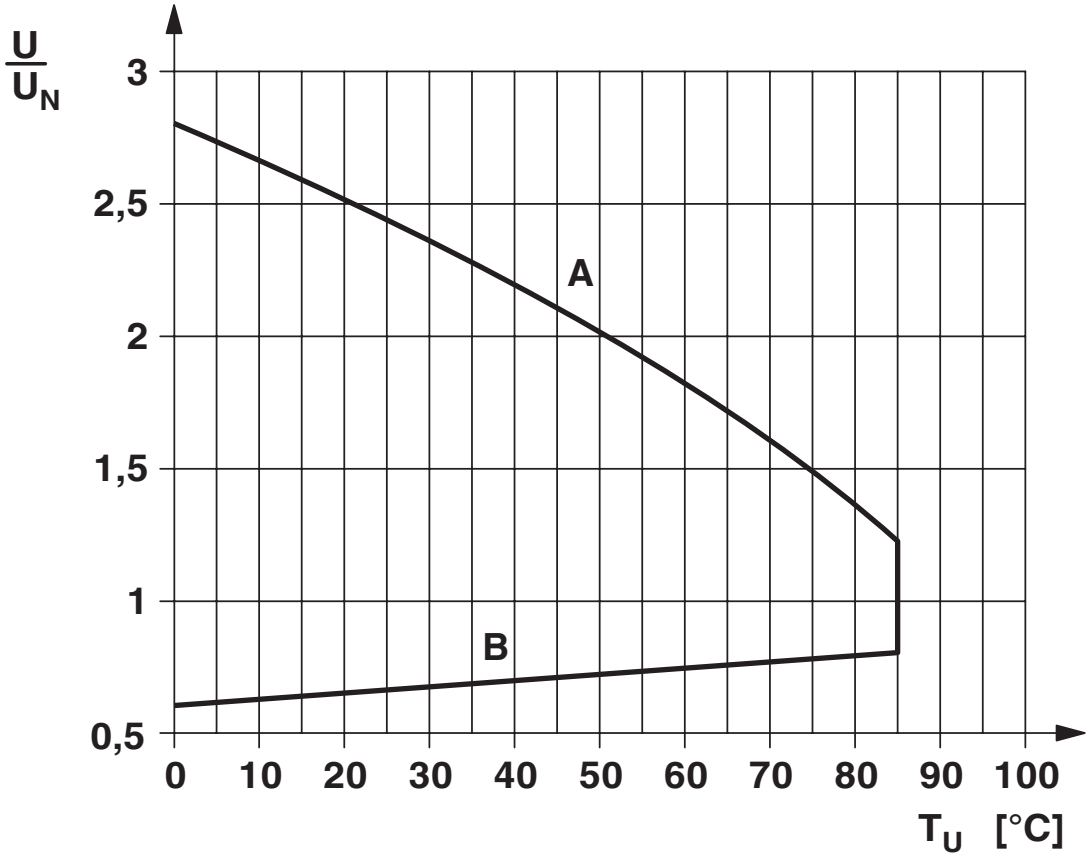
Assembly note	in rows with zero spacing
Mounting position	any

Drawings

Dimensional drawing

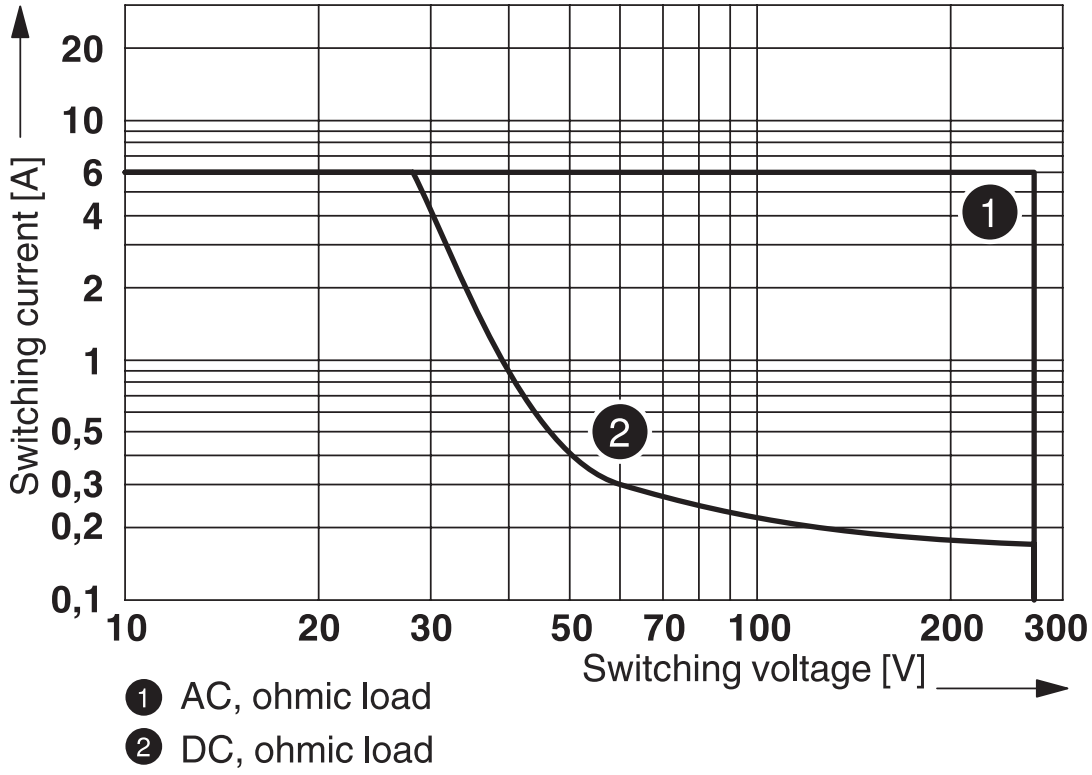


Diagram



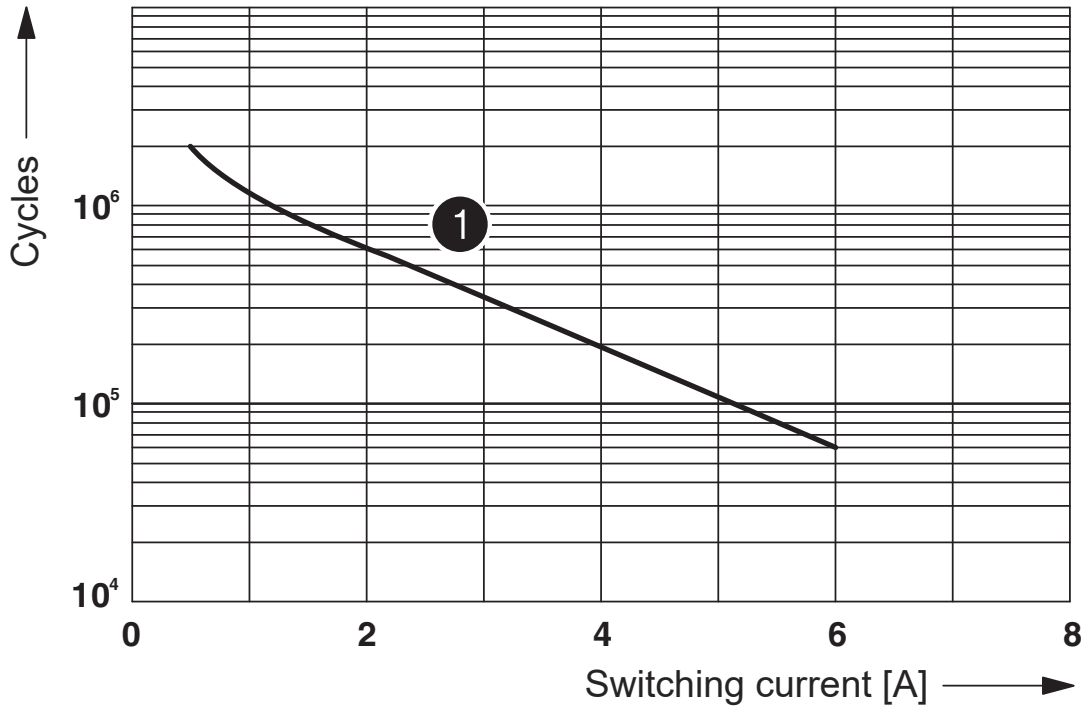
Operating voltage range

Diagram



Interrupting rating

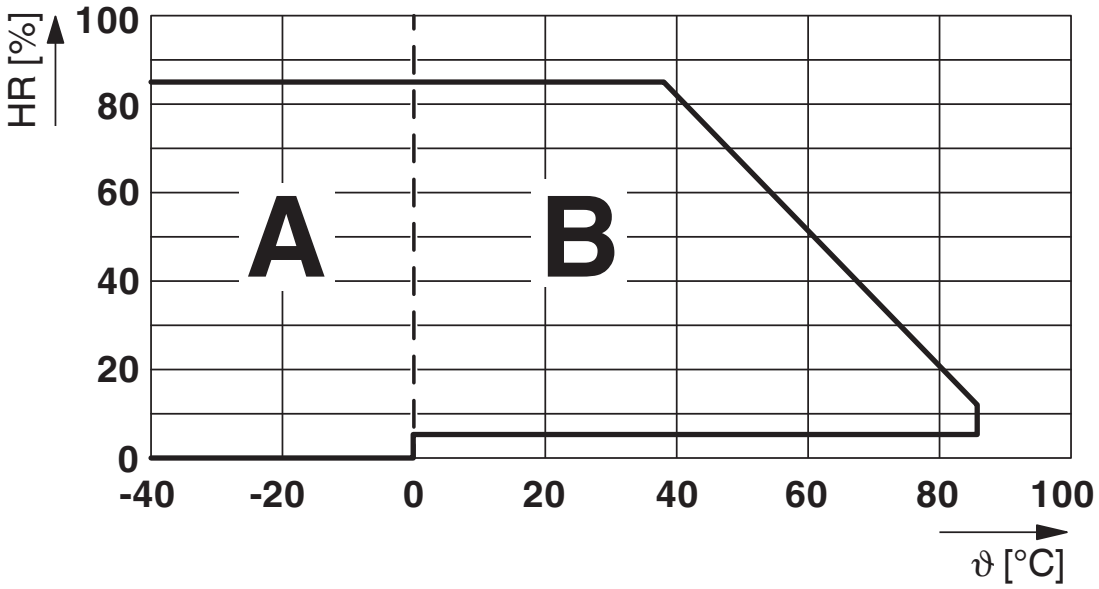
Diagram



1 250 V AC, ohmic load

Electrical service life

Diagram

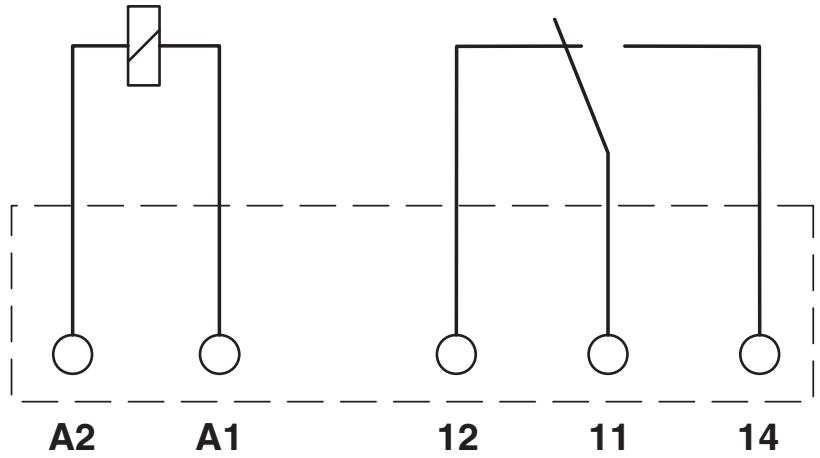


Permissible humidity for operation and storage.
The maximum permissible ambient temperature as specified in the data sheet must be observed.

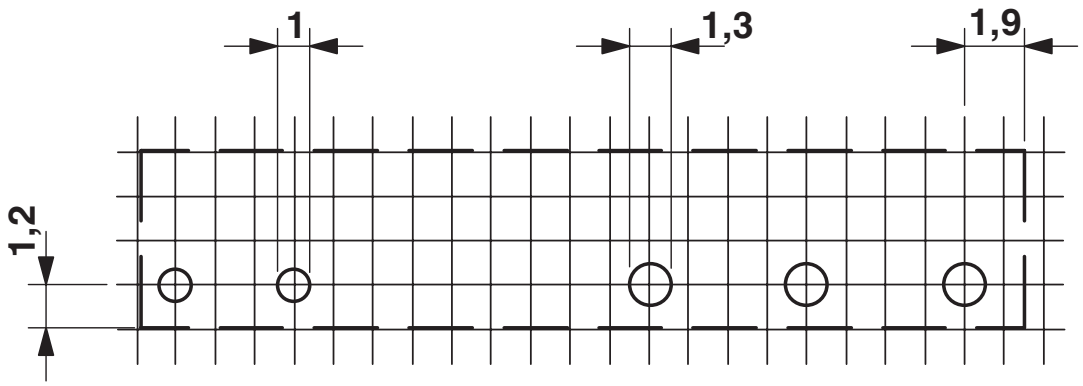
Area A: Ice buildup at ambient temperatures ≤ 0°C must be prevented
Area B: Condensation at ambient temperatures > 0°C must be prevented

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/us/products/2961231

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	1.8 kg CO2e

Phoenix Contact 2026 © - all rights reserved
https://www.phoenixcontact.com

Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com