

REL-MR-110DC/21-21/EX - Single relay



2908824

<https://www.phoenixcontact.com/us/products/2908824>

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, 2 changeover contacts, input voltage: 110 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 8 A
- RT III-proof (wash-proof)

Commercial data

| | |
|--------------------------------------|--------------------------------|
| Item number | 2908824 |
| Packing unit | 10 pc |
| Minimum order quantity | 10 pc |
| Note | Made to order (non-returnable) |
| Sales key | C460 |
| Product key | DK693B |
| GTIN | 4055626345185 |
| Weight per piece (including packing) | 15.9 g |
| Weight per piece (excluding packing) | 15.9 g |
| Customs tariff number | 85364900 |
| Country of origin | AT |

Technical data

Product properties

| | |
|-------------------------|---------------------------|
| Product type | Single relay |
| Operating mode | 100% operating factor |
| Mechanical service life | 3x 10 ⁷ cycles |

Insulation characteristics

| | |
|----------------------|------------------|
| Insulation | Basic insulation |
| Overvoltage category | III |
| Pollution degree | 3 |

Data management status

| | |
|------------------------------|------------|
| Date of last data management | 01.04.2026 |
|------------------------------|------------|

Electrical properties

| | |
|---|---------------------------|
| Service life electrical | see diagram |
| Maximum power dissipation for nominal condition | 0.45 W |
| Test voltage (Winding/contact) | 5 kV AC (50 Hz, 1 min.) |
| Test voltage (Contact/contact) | 2.5 kV AC (50 Hz, 1 min.) |
| Test voltage (open contact) | 1 kV (50 Hz, 1 min.) |

Input data

Coil side

| | |
|--------------------------------|--------------------------------------|
| Nominal input voltage U_N | 110 V DC |
| Input voltage range | 71.5 V DC ... 272.8 V DC |
| Drive and function | monostable |
| Drive (polarity) | non-polarized |
| Typical input current at U_N | 4.1 mA |
| Typical response time | 7 ms |
| Typical release time | 3 ms |
| Coil resistance | 26600 Ω \pm 15 % (at 20 °C) |

Output data

Switching

| | |
|-----------------------------|-----------------------|
| Contact switching type | 2 changeover contacts |
| Type of switch contact | Single contact |
| Contact material | AgNi |
| Maximum switching voltage | 250 V AC/DC |
| Minimum switching voltage | 5 V (at 10 mA) |
| Limiting continuous current | 8 A |
| Maximum inrush current | 25 A (20 ms) |
| Min. switching current | 10 mA (At 5 V) |

REL-MR-110DC/21-21/EX - Single relay



2908824

<https://www.phoenixcontact.com/us/products/2908824>

| | |
|---------------------------------------|------------------------|
| Interrupting rating (ohmic load) max. | 190 W (at 24 V DC) |
| | 85 W (at 48 V DC) |
| | 60 W (at 60 V DC) |
| | 44 W (at 110 V DC) |
| | 60 W (at 220 V DC) |
| | 2000 VA (for 250 V AC) |
| Switching capacity | 2 A (at 24 V, DC13) |
| | 0.2 A (at 250 V, DC13) |
| | 3 A (at 24 V, AC15) |
| | 3 A (at 120 V, AC15) |
| | 3 A (at 250 V, AC15) |

Connection data

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

Dimensions

Item dimensions

| | |
|--------|---------|
| Width | 12.7 mm |
| Height | 29 mm |
| Depth | 15.7 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

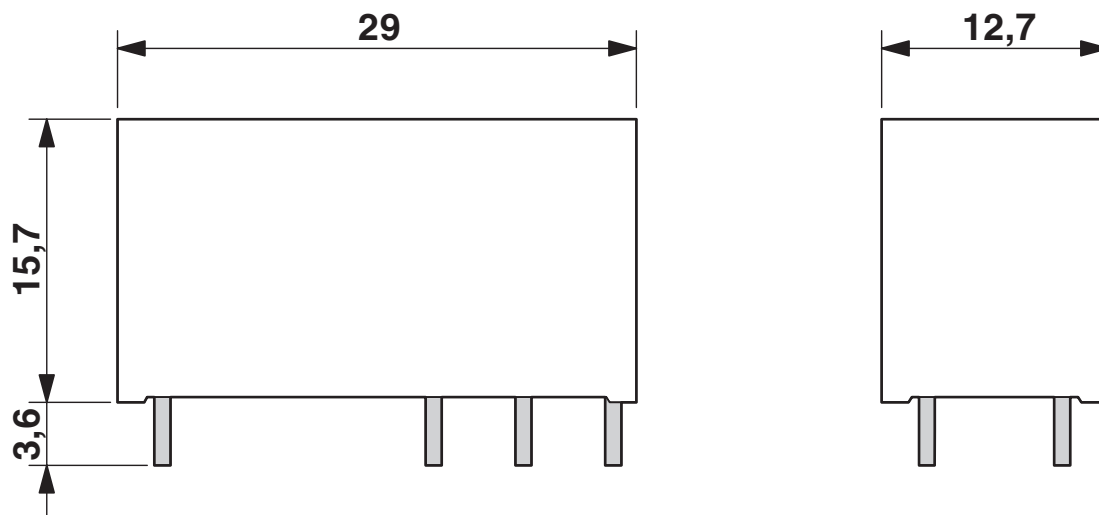
| | |
|-----------------------|------------|
| Standards/regulations | IEC 60664 |
| | EN 50178 |
| | EN 61810-1 |

Mounting

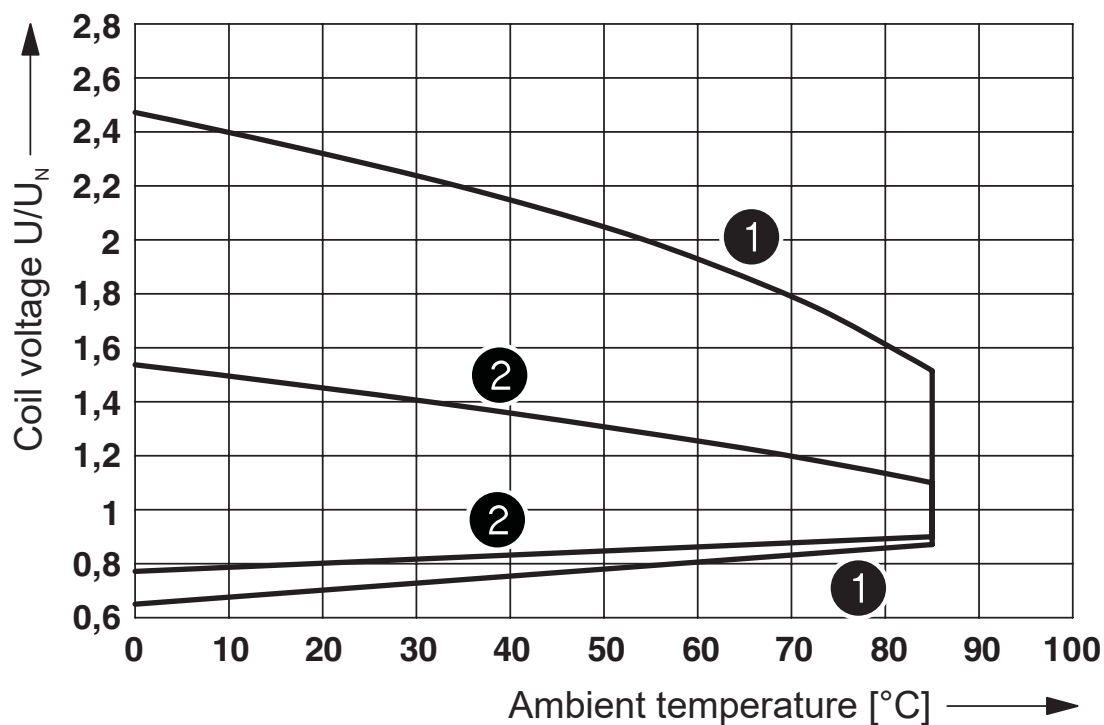
| | |
|-------------------|---|
| Assembly note | Can be aligned without spacing (> 70 °C ≥ 2.5 mm) |
| Mounting position | any |

Drawings

Dimensional drawing

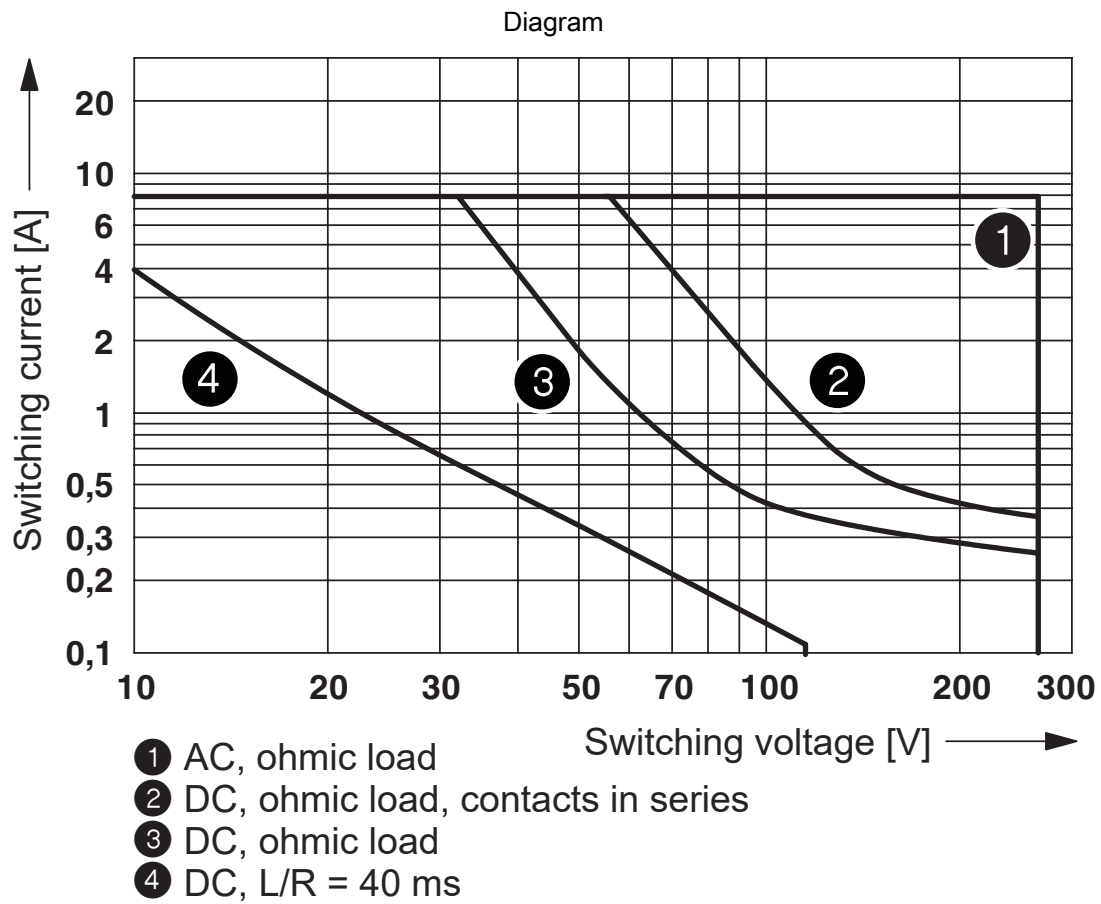


Diagram



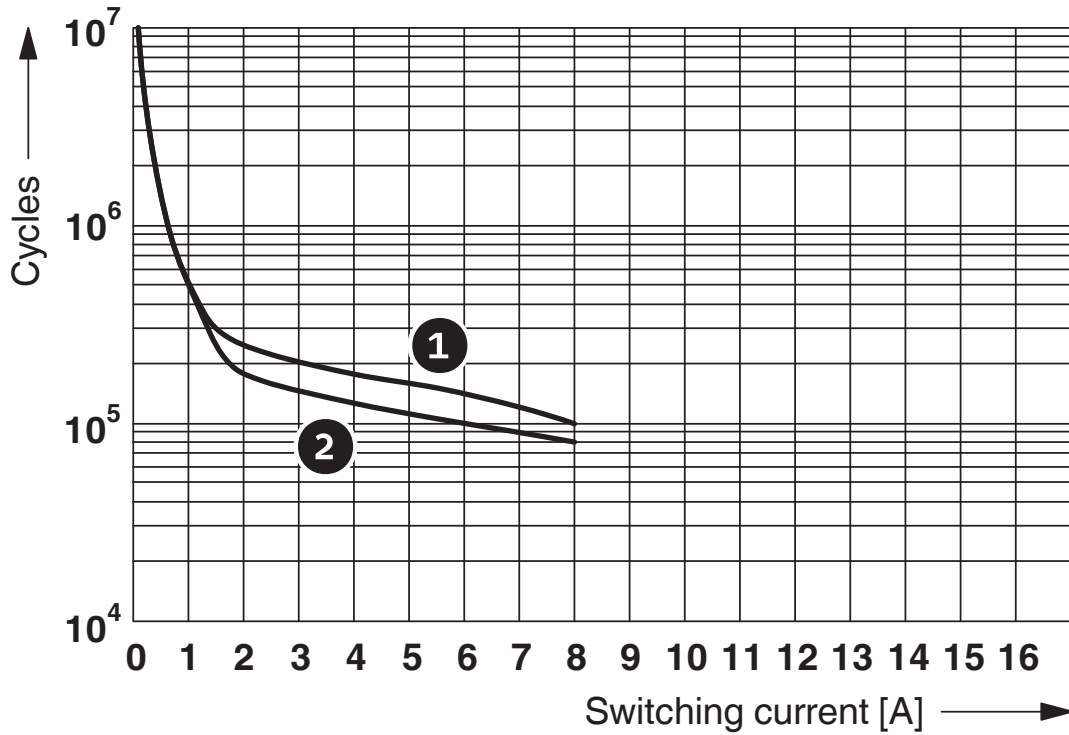
- ① DC coils
- ② AC coils

Operating voltage range



Interrupting rating

Diagram



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

Electrical service life

Diagram



Service life reduction factor with various cos phi

Diagram



Permissible humidity for operation and storage.

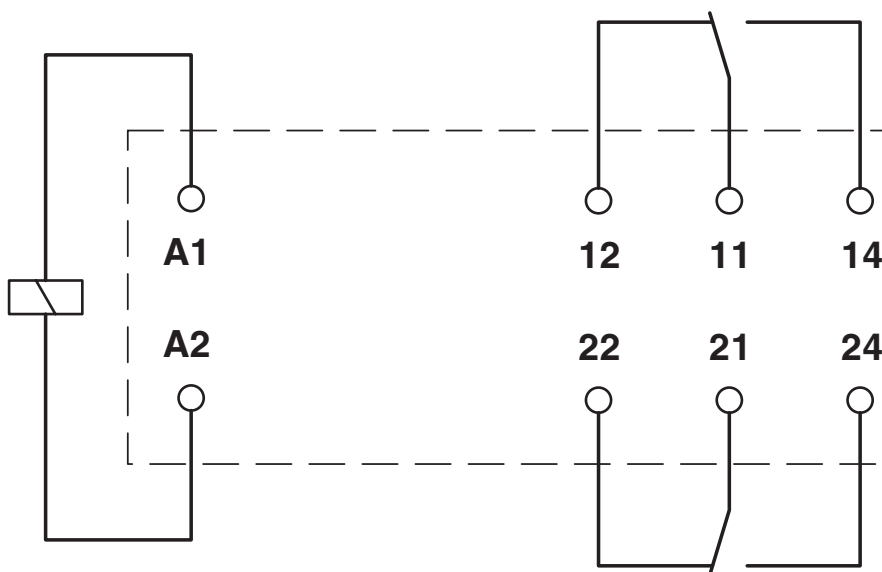
The maximum permissible ambient temperature as specified in the data sheet must be observed.

Area A: Ice buildup at ambient temperatures $\leq 0^{\circ}\text{C}$ 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 $\leq 25^{\circ}\text{C}$.

Circuit diagram



REL-MR-110DC/21-21/EX - Single relay



2908824

<https://www.phoenixcontact.com/us/products/2908824>

Drilling plan/solder pad geometry



a = pitch division 2.5 mm

REL-MR-110DC/21-21/EX - Single relay



2908824

<https://www.phoenixcontact.com/us/products/2908824>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2908824>



cUL Recognized

Approval ID: FILE E 228652



UL Recognized

Approval ID: FILE E 228652



EAC

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



VDE approval of drawings

Approval ID: 40007758

REL-MR-110DC/21-21/EX - Single relay



2908824

<https://www.phoenixcontact.com/us/products/2908824>

Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-13.0 | 27371601 |
| ECLASS-15.0 | 27371601 |

ETIM

| | |
|-----------|----------|
| ETIM 10.0 | EC001437 |
|-----------|----------|

UNSPSC

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

REL-MR-110DC/21-21/EX - Single relay



2908824

<https://www.phoenixcontact.com/us/products/2908824>

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 | 0.197 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