

REL-MR-120AC/21HC AU - Single relay



2961516

<https://www.phoenixcontact.com/us/products/2961516>

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, with multi-layer gold contact for high continuous currents, 1 changeover contact, input voltage 120 V AC

Your advantages

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

Commercial data

| | |
|--------------------------------------|--------------------------------|
| Item number | 2961516 |
| Packing unit | 10 pc |
| Minimum order quantity | 10 pc |
| Note | Made to order (non-returnable) |
| Sales key | C460 |
| Product key | DK6932 |
| GTIN | 4017918937911 |
| Weight per piece (including packing) | 16.42 g |
| Weight per piece (excluding packing) | 14.95 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 | 1x 10 ⁷ cycles |

Insulation characteristics

| | |
|----------------------|-----|
| 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 | 0.84 W |
| Test voltage (Winding/contact) | 5 kV AC (50 Hz, 1 min., winding/contact) |

Input data

Coil side

| | |
|---|--|
| Nominal input voltage U _N | 120 V AC |
| Input voltage range | 93.6 V AC ... 186 V AC |
| Mains frequency | 50/60 Hz |
| Drive and function | monostable |
| Drive (polarity) | non-polarized |
| Typical input current at U _N | 7 mA (at 50 Hz) 5 mA (At 60 Hz) |
| Typical response time | 3 ms ... 12 ms (depending on phase relation) |
| Typical release time range | 2 ms ... 9 ms (depending on phase relation) |
| Coil resistance | 8100 Ω ±15 % (at 20 °C) |

Output data

Switching

| | |
|-----------------------------|------------------------|
| Contact switching type | 1 changeover contact |
| Type of switch contact | Single contact |
| Contact material | AgNi, 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) |

REL-MR-120AC/21HC AU - Single relay



2961516

<https://www.phoenixcontact.com/us/products/2961516>

| | |
|---------------------------------------|---------------------|
| Interrupting rating (ohmic load) max. | 1.2 W (at 24 V DC) |
| Switching capacity | 2 A (at 24 V, AC15) |

Switching: when the gold layer is destroyed

| | |
|---------------------------------------|--|
| Note | the following values are applicable if a gold layer is destroyed |
| 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) 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) 2 A (at 24 V, AC15) 2 A (at 120 V, AC15) 2 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

| | |
|---|------------------|
| Ambient temperature (operation) | -40 °C ... 85 °C |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |

Approvals

REL-MR-120AC/21HC AU - Single relay



2961516

<https://www.phoenixcontact.com/us/products/2961516>

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 ($> 70\text{ °C} \geq 2.5\text{ mm}$) |
| Mounting position | any |

REL-MR-120AC/21HC AU - Single relay

2961516

<https://www.phoenixcontact.com/us/products/2961516>



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

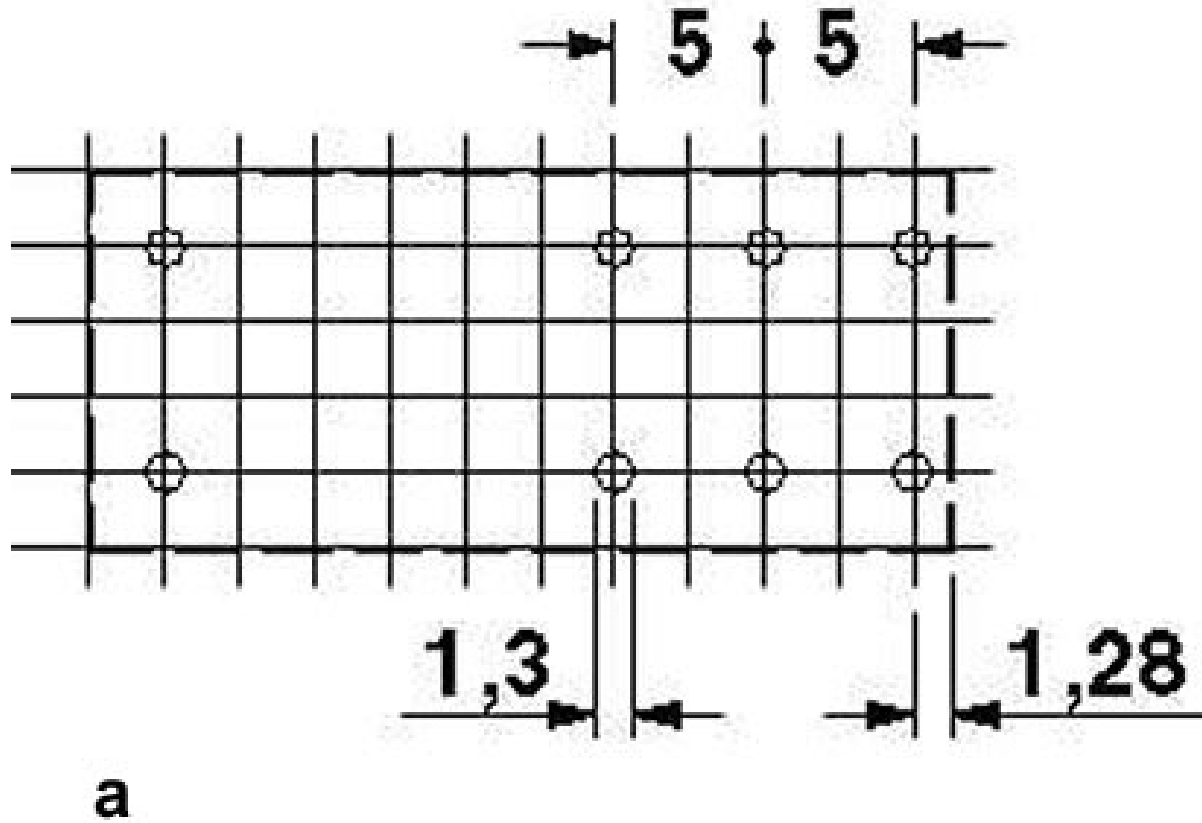
Area B: Condensation at ambient temperatures $> 0^\circ\text{C}$ must be prevented

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



Drilling plan/solder pad geometry



a = pitch division 2.5 mm

REL-MR-120AC/21HC AU - Single relay



2961516

<https://www.phoenixcontact.com/us/products/2961516>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2961516>



cUL Recognized

Approval ID: FILE E 228652



UL Recognized

Approval ID: FILE E 228652



EAC

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



VDE Zeichengenehmigung

Approval ID: 40048281



VDE Zeichengenehmigung

Approval ID: 40007758



cULus Recognized

Approval ID: E172140

REL-MR-120AC/21HC AU - Single relay



2961516

<https://www.phoenixcontact.com/us/products/2961516>

Classifications

ECLASS

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

ETIM

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

UNSPSC

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

REL-MR-120AC/21HC AU - Single relay



2961516

<https://www.phoenixcontact.com/us/products/2961516>

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 | 0.352 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