

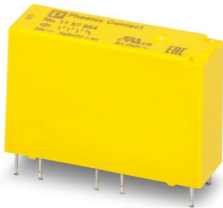
REL-SR- 24DC/3X1AU/1X2AU/FG - Safety relays



1157954

<https://www.phoenixcontact.com/us/products/1157954>

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Safety relay with force-guided contacts in accordance with DIN EN 61810-3 (type A), input voltage 24 V DC, with multi-layer gold contact, 3 N/O contacts and 1 N/C contacts

Commercial data

| | |
|--------------------------------------|---------------|
| Item number | 1157954 |
| Packing unit | 10 pc |
| Minimum order quantity | 10 pc |
| Sales key | C460 |
| Product key | CK6194 |
| GTIN | 4063151163617 |
| Weight per piece (including packing) | 22.08 g |
| Weight per piece (excluding packing) | 22.08 g |
| Customs tariff number | 85364190 |
| Country of origin | CN |

Technical data

Product properties

| | |
|-------------------------|---|
| Product type | Single relay |
| Operating mode | 100% operating factor |
| Mechanical service life | approx. 10^7 cycles |
| B _{10d} | 810000 Cycles (AC15, 250 V / 0.5 A, 1 NO) |
| | 170000 Cycles (AC15; 250 V / 2 A; 1 NO) |
| | 318000 Cycles (DC13, 24 V / 1 A, 1 NO) |
| | 208000 Cycles (DC13, 24 V / 2 A, 1 NO) |

Insulation characteristics

| | |
|------------|--|
| Insulation | Basic insulation |
| | Safe isolation, reinforced insulation and 6 kV between the coil and the contact circuit and between the contacts 3-4, 5-6 to 7-8, 9-10 |

Insulation characteristics: Air clearances and creepage distances between the power circuits

| | |
|----------------------|--|
| Insulation | Basic insulation |
| | Safe isolation, reinforced insulation and 6 kV between the coil and the contact circuit and between the contacts 3-4, 5-6 to 7-8, 9-10 |
| Overvoltage category | III |
| Pollution degree | 2 |

Electrical properties

| | |
|---|--|
| Maximum power dissipation for nominal condition | 0.36 W |
| Test voltage (Winding/contact) | 4 kV _{rms} (50 Hz, 1 min., winding/contact) |
| Test voltage (Contact/contact) | 2.5 kV _{rms} (50 Hz, 1 min., contact/contact) |

Air clearances and creepage distances between the power circuits

| | |
|--------------------------|----------|
| Rated insulation voltage | 250 V AC |
| Rated surge voltage | 4 kV |

Input data

Coil side

| | |
|--|-------------------------|
| Nominal input voltage U _N | 24 V DC |
| Input voltage range | 19.2 V DC ... 26.4 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 | 15 mA |
| Typical response time | 10 ms |
| Typical release time | 5 ms |

Output data

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Switching

| | |
|---|---|
| Contact switching type | 3 N/O contacts, 1 N/C contact, force-guided |
| Type of switch contact | Single contact |
| Contact material | AgSnO ₂ , hard gold-plated |
| Maximum switching voltage | 250 V AC |
| | 300 V DC |
| Minimum switching voltage | 10 V |
| Limiting continuous current | 6 A |
| Maximum inrush current | 35 A (20 ms) |
| Min. switching current | 5 mA (10 V) |
| Interrupting rating (ohmic load) max. | 144 W (24 V DC) |
| | 100 W (48 V DC) |
| | 75 W (60 V DC) |
| | 55 W (110 V DC) |
| | 50 W (220 V DC) |
| | 1500 VA (250 V AC) |
| Switching capacity | 2 A (24 V, DC13) |
| | 3 A (230 V, AC15) |
| Force-guided contacts in accordance with EN 61810-3 | Type A |

Connection data

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

Dimensions

| | |
|--------|-------|
| Width | 13 mm |
| Height | 24 mm |
| Depth | 40 mm |

Environmental and real-life conditions

Ambient conditions

| | |
|--|------------------------------|
| Degree of protection (Relay) | RT II |
| Degree of protection (Installation location) | IP54 (Installation location) |
| Ambient temperature (operation) | -40 °C ... 85 °C |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |
| Altitude | ≤ 2000 m |

Approvals

Corrosive gas test

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

Standards and regulations

Air clearances and creepage distances between the power circuits

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| | |
|-----------------------|--------------|
| Standards/regulations | DIN EN 50178 |
| | EN 61810-1 |

Mounting

| | |
|-------------------|-----|
| Mounting position | any |
|-------------------|-----|

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Classifications

ECLASS

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

ETIM

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

UNSPSC

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

Environmental product compliance

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

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