

Power PCB Relay RT2 bistable

- 2 pole 8 A, 2 CO contacts
- Polarized bistable version with 1 or 2 coils
- 5 kV / 10 mm coil-contact
- Reinforced insulation
- RoHS compliant (Directive 2002/95/EC) as per product date code 0413

Applications

Battery powered equipment or applications with "memory function" (e.g. mains failure)



F0219-B

Approvals

VDE REG.-Nr. 6106, **UL** US E214025
Technical data of approved types on request

Contact data

| | |
|--|------------------------------|
| Contact configuration | 2 CO |
| Contact set | single contact |
| Type of interruption | micro disconnection |
| Rated current | 8 A, UL: 10 A |
| Rated voltage / max. switching voltage AC | 240/400 VAC |
| Limiting continuous current | UL: 10 A |
| Maximum breaking capacity AC | 2000 VA |
| Limiting making capacity, max 4 s, duty factor 10% | 15 A |
| Contact material | AgNi 90/10 |
| Mechanical endurance | > 2 x 10 ⁶ cycles |
| Rated frequency of operation with / without load | 15 / 1200 min ⁻¹ |

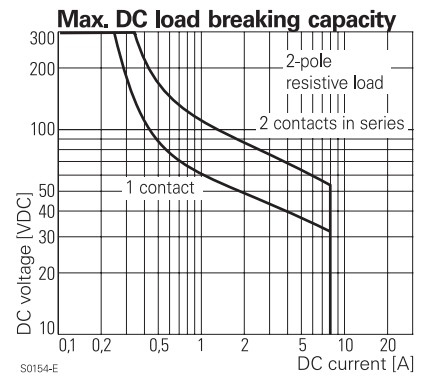
Coil data

| | 1 coil | 2 coils |
|---|-------------------|------------|
| Rated coil voltage range | 5...24 VDC | |
| Coil power | typ 400 mW | typ 600 mW |
| Operative range | 2 | |
| Limiting voltage, % of rated coil voltage | 120% | 150% |
| Minimum energization duration | 30 ms | |
| Maximum energization duration | 1 min at < 10% DF | |
| Coil insulation system according UL1446 | class F | |

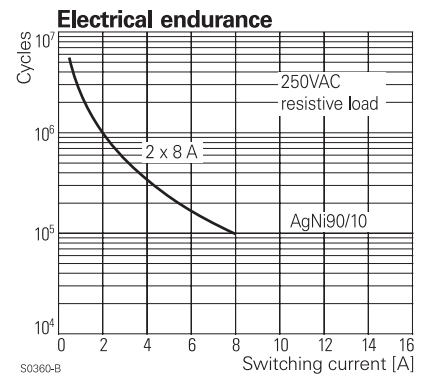
Coil versions, bistable DC-coil

| Coil code | Rated voltage VDC | Operate voltage VDC | Reset voltage VDC | Coil resistance Ω | Rated coil power mW |
|--------------------------|-------------------|---------------------|-------------------|-------------------|---------------------|
| bistable, 1 coil | | | | | |
| A05 | 5 | 3.5 | 3.5 | 62 ± 10% | 403 |
| A06 | 6 | 4.2 | 4.2 | 90 ± 10% | 400 |
| A12 | 12 | 8.4 | 8.4 | 360 ± 10% | 400 |
| A24 | 24 | 16.8 | 16.8 | 1440 ± 10% | 400 |
| bistable, 2 coils | | | | | |
| F05 | 5 | 3.5 | 3.5 | 42 ± 10% | 595 |
| F06 | 6 | 4.2 | 4.2 | 55 ± 10% | 655 |
| F12 | 12 | 8.4 | 8.4 | 240 ± 10% | 600 |
| F24 | 24 | 16.8 | 16.8 | 886 ± 10% | 650 |

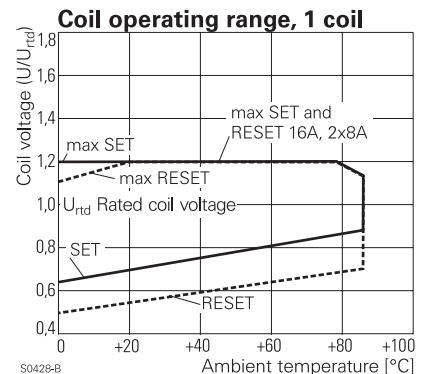
All figures are given for coil without preenergization, at ambient temperature +23°C
Other coil voltages on request



S0154-E



S0360-B



S0428-B

Coils operation

| Version | 1 coil | | 2 coils | | |
|--|--------|----|---------|----|----|
| Coil terminals | A1 | A2 | A1 | A3 | A2 |
| Pull-in | + | - | | + | - |
| Reset | - | + | - | + | |
| Contact position not defined at delivery | | | | | |

Insulation

| | | | | | |
|---|-------|--|-----------------------|--|--|
| Dielectric strength coil-contact circuit | | | 5000 V _{rms} | | |
| open contact circuit | | | 1000 V _{rms} | | |
| adjacent contact circuits | | | 2500 V _{rms} | | |
| Clearance / creepage coil-contact circuit | | | ≥ 10 / 10 mm | | |
| adjacent contact circuits | | | ≥ 3 / 4 mm | | |
| Material group of insulation parts | | | ≥ IIIa | | |
| Tracking index of relay base | | | PTI 250 V | | |
| Insulation to IEC 60664-1 | | | | | |
| Type of insulation coil-contact circuit | | | reinforced | | |
| open contact circuit | | | functional | | |
| adjacent contact circuits | | | basic | | |
| Rated insulation voltage | | | 250 V | | |
| Pollution degree | 3 | | 2 | | |
| Rated voltage system | 240 V | | 400 V | | |
| Overvoltage category | | | III | | |

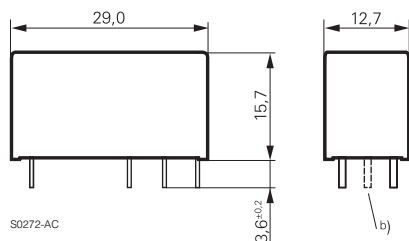
Other data

| | | |
|--|---|--|
| RoHS - Directive 2002/95/EC | compliant as per product date code 0413 | |
| Flammability class according to UL94 | V-0 | |
| Ambient temperature range | -40...+85°C | |
| Operate- / release time | typ 5 / 3 ms | |
| Bounce time NO / NC contact | typ 1 / 4 ms | |
| Vibration / shock resistance (function) opening NC contact | 3 / 5 g | |
| opening closed NO contact | 6 / 15 g | |
| Shock resistance (destruction) | 100 g | |
| Category of protection | RTII - flux-proof | |
| Mounting | pcb or on socket | |
| Mounting distance DC / AC coils | 0 mm | |
| Resistance to soldering heat | 270°C / 10 s | |
| Relay weight | 13 g | |
| Packaging unit DC coil, bistable 1 coil | 20 / 500 pcs | |
| bistable 2 coils | 100 pcs | |

Accessories

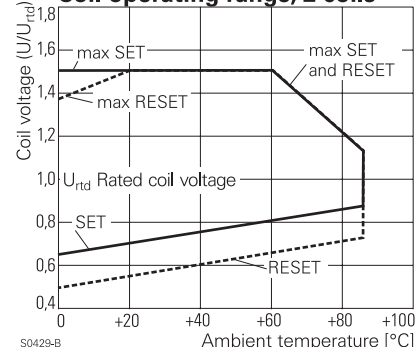
| | |
|---|----------------|
| For 1-coil version, details see datasheet | accessories RT |
|---|----------------|

Dimensions



a) Indicated contact position while or after coil energization with reset voltage.
b) for 2 coil version only

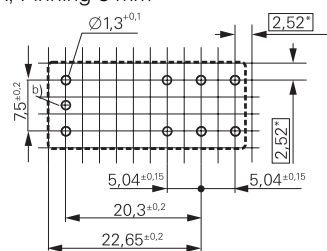
Coil operating range, 2 coils



PCB layout / terminal assignment

Bottom view on solder pins

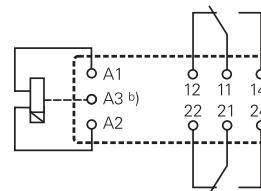
8 A, Pinning 5 mm



*) With the recommended PCB hole sizes a grid pattern from 2.5 mm to 2.54 mm can be used.

2 CO contacts

a)



S0163-CL

Power PCB Relay RT2 bistable (Continued)

Product key

| | | | | | | | | |
|-----------------------|---|----------|----------|----------|----------|--|--|--|
| Type | R | T | 4 | 2 | 4 | | | |
| Version | 8 A, pinning 5 mm, flux proof | | | | | | | |
| Contact configuration | 2 CO contacts | | | | | | | |
| Contact material | 4 AgNi 90/10 | | | | | | | |
| Coil | Coil code: please refer to coil versions table, preferred types in bold print | | | | | | | |

| Product key | Version | Contacts | Cont. material | Coil | Coil | Part number |
|-------------|--------------|---------------|----------------|----------|--------|-------------|
| RT424A12 | 8 A | 2 CO contacts | AgNi 90/10 | bistable | 12 VDC | 4-1393243-6 |
| RT424A24 | pinning 5 mm | | | 1 coil | 24 VDC | 4-1393243-7 |
| RT424F12 | flux tight | | | bistable | 12 VDC | 5-1393243-4 |
| RT424F24 | | | | 2 coils | 24 VDC | 5-1393243-6 |