

Power PCB Relay RT1 sensitive

- 1 pole 10A, 1 form C (CO) or 1 form A (NO) contact
- Highly sensitive version, coil power 250mW
- 5kV/10mm coil-contact
- **■** Reinforced insulation
- Ambient temperature 85°C

Typical applications Domestic appliances, heating control.









| Α | p | р | r | o | ٧ | a | I | S |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

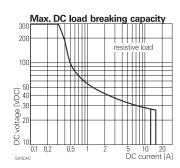
VDE Cert. No. 40007571, UL E214025, cCSAus 1142018

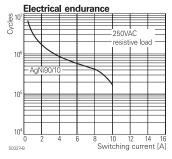
Technical data of approved types on request.

| Contact Data | |
|---|--------------------------------|
| Contact arrangement | 1 form C (CO) or 1 form A (NO) |
| Rated voltage | 250VAC |
| Max. switching voltage | 400 VAC |
| Rated current | 10A |
| Limiting making current; max. 4s, duty | factor 10% 15A |
| Breaking capacity | 2500VA |
| Contact material | AgNi 90/10 |
| Frequency of operation; with/without lo | ad 3000/72000h ⁻¹ |
| Operate/release time max. | 10/8ms |
| Bounce time max.; form A/form B | 4/9ms |
| | |

Contact ratings

| Oontaot ii | atiligo | | |
|------------------|-------------|------------------------------------|---------------------|
| Туре | Contact | Load | Cycles |
| IEC 61810 | | | |
| RT17* | A (NO) | 10A, 250VAC resistive, 85°C | 100x10 ³ |
| RTB7* | A (NO) | 10A, 250VAC resistive, 85°C | 50x10 ³ |
| UL 508 | | | |
| RT17* | C (CO) | 10A, 250VAC, general purpose, 85°C | 6x10 ³ |
| RT17* | A/B (NO/NC) | 10A, 250VAC, general purpose, 40°C | $30x10^{3}$ |
| RT174 | A/B (NO/NC) | B300, 40°C | 6x10 ³ |
| RT174 | A (NO) | R150, 40°C | 6x10 ³ |
| RT174 | B (NC) | 1/2hp, 240VAC, 40°C | 1x10 ³ |
| RT174 | A (NO) | 3/4hp, 240VAC, 40°C | 1x10 ³ |
| EN60730- | 1 | | |
| RT174 | A (NO) | 6(4)A, 250VAC, 85°C | 100x10 ³ |
| | | | |





Mechanical endurance

>30x10⁶ operations

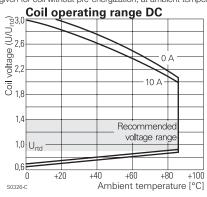
| Coil Data | | |
|-------------------------------------|------------|--|
| Coil voltage range | 5 to 60VDC | |
| Operative range, IEC 61810 | 2 | |
| Coil insulation system according UL | class F | |

Coil versions, DC coil

| | , | | | | |
|------|---------|---------|---------|------------------------|------------|
| Coil | Rated | Operate | Release | Coil | Rated coil |
| code | voltage | voltage | voltage | resistance | power |
| | VDC | VDC | VDC | $\Omega \pm 10\%^{1)}$ | mW |
| 005 | 5 | 3.7 | 0.5 | 100 | 250 |
| 006 | 6 | 4.5 | 0.6 | 144 | 250 |
| 009 | 9 | 6.8 | 0.9 | 312 | 260 |
| 012 | 12 | 9.0 | 1.2 | 576 | 250 |
| 024 | 24 | 18.0 | 2.4 | 2304 | 250 |
| 048 | 48 | 36.0 | 4.8 | 9216 | 250 |
| 060 | 60 | 45.0 | 6.0 | 128571) | 280 |

1) Coil resistance ±12%.

All figures are given for coil without pre-energization, at ambient temperature +23°C.



Other coil voltages on request.

| Insulation Data | |
|------------------------------------|---------------------|
| Initial dielectric strength | |
| between open contacts | 1000V _{ms} |
| between contact and coil | 5000V |
| Clearance/creepage | ino |
| between contact and coil | ≥10/10mm |
| Material group of insulation parts | IIIa |
| Tracking index of relay base | PTI 250V |



Power PCB Relay RT1 sensitive (Continued)

Other Data

Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at www.te.com/customersupport/rohssupportcenter

Ambient temperature -40 to 85°C

Category of environmental protection

IEC 61810 RTII - flux proof, RTIII - wash tight

Vibration resistance (functional),

form A/form B contact, 30 to 500Hz
Shock resistance (destructive)

Terminal type
Weight

20g/5g
100g
PCB-THT, plug-in
14g

Resistance to soldering heat THT, IEC 60068-2-20

 RTII
 270°C/10s

 RTIII
 260°C/5s

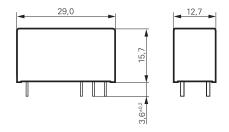
Packaging/unit tube/20 pcs., box/500 pcs.

Accessories

For details see datasheet <u>Accessories Industrial Power Relay RT</u>

NOTE: indicated contact ratings and electrical endurance data for direct wiring of relays (according IEC 61810-1); for relays mounted on sockets deratings may apply.

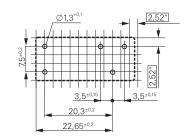
Dimensions



PCB layout / terminal assignment

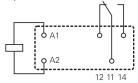
Bottom view on solder pins

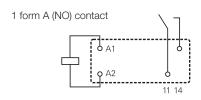
10A, pinning 3.5mm



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

1 form C (CO) contact





| Product code structure | Typical product code | RT | 1 | 7 | 4 | 012 | |
|--|----------------------|--------------------------------|---|---|---|-----|---|
| Туре | | | | | | | |
| RT Power PCB Relay RT1 sensitive | | | | | | | |
| Version | | | | | | | |
| 1 10A, pinning 3.5mm, flux proof | В | 10A, pinning 3.5mm, wash tight | | | | | |
| Contact configuration | | | | | - | | |
| 7 1 form C (CO) contact | 8 | 1 form A (NO) contact | | | | | |
| Contact material | | | | | | • | |
| 4 AgNi 90/10 | 5 | AgNi 90/10 gold plated | | | | | |
| Coil | | | | | | | - |
| Coil code: please refer to coil versions table | | | | | | | |

| Product code | Version | Contacts | Contact material | Coil | Part number |
|--------------|------------|---------------|---------------------|-------|-------------|
| RT174005 | Flux proof | 1 form C (CO) | AgNi 90/10 | 5VDC | 3-1393239-6 |
| RT174009 | | | | 9VDC | 9-1419143-5 |
| RT174012 | | | | 12VDC | 3-1393239-8 |
| RT174024 | | | | 24VDC | 3-1393239-9 |
| RT175024 | | | AgNi 90/10 gold pl. | 24VDC | 4-1393239-4 |
| RT184005 | | 1 form A (NO) | AgNi 90/10 | 5VDC | 4-1393239-5 |
| RT184012 | | | | 12VDC | 4-1393239-7 |
| RT184024 | | | | 24VDC | 4-1393239-9 |
| RTB84009 | Wash tight | | | 9VDC | 4-1393238-7 |
| RTB84012 | | | | 12VDC | 1415536-4 |

This list represents the most common types and does not show all variants covered by this datasheet. Other types on request.

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