

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.


Approvals

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 load | 3000/72000h ⁻¹ |
| Operate/release time max. | 10/8ms |
| Bounce time max.; form A/form B | 4/9ms |

Contact ratings

| Type | Contact | Load | Cycles |
|------|---------|------|--------|
|------|---------|------|--------|

IEC 61810

| | | | |
|-------|-------------|-----------------------------|---------------------|
| RT174 | A/B (NO/NC) | 10A, 250VAC resistive, 85°C | 100x10 ³ |
|-------|-------------|-----------------------------|---------------------|

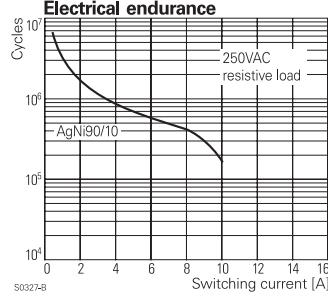
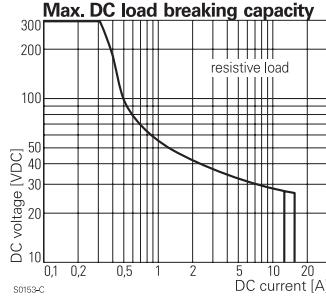
UL 508

| | | | |
|-------|-------------|------------------------------------|--------------------|
| RT174 | C (CO) | 10A, 250VAC, general purpose, 85°C | 6x10 ³ |
| RT174 | 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 | >30x10 ⁶ operations |
|----------------------|--------------------------------|
|----------------------|--------------------------------|


Coil Data

Coil voltage range 5 to 60VDC

Operative range, IEC 61810 2

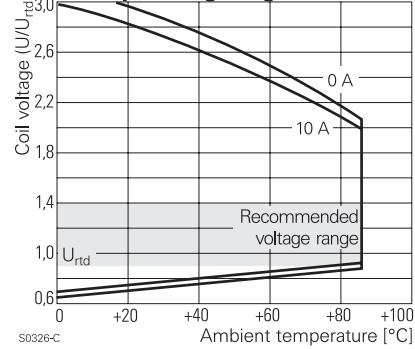
Coil insulation system according UL class F

Coil versions, DC coil

| Coil code | Rated voltage VDC | Operate voltage VDC | Release voltage VDC | Coil resistance $\Omega \pm 10\%$ ¹⁾ | Rated coil power 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 | 12857 ¹⁾ | 280 |

1) Coil resistance $\pm 12\%$.

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

Coil operating range DC

Insulation Data

Initial dielectric strength

1000V_{rms}

between open contacts

5000V_{rms}

between contact and coil

Clearance/creepage

$\geq 10/10\text{mm}$

between contact and coil

IIIa

Material group of insulation parts

PTI 250V

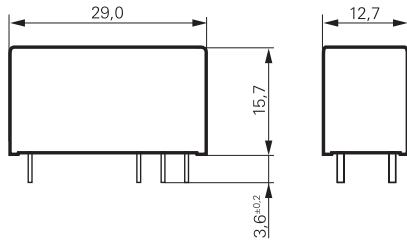
Tracking index of relay base

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 | 20g/5g |
| Shock resistance (destructive) | 100g |
| Terminal type | PCB-THT, plug-in |
| Weight | 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 | Accessories Industrial Power Relay RT |
| 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

Product code structure

| | | | | | | | | |
|-----------------------|--|--------------------------------|----------------------|--------------------------------|---|---|---|-----|
| Type | RT | Power PCB Relay RT1 sensitive | Typical product code | RT | 1 | 7 | 4 | 012 |
| Version | A | 10A, pinning 3.5mm, flux proof | B | 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 | | | | | | |
| 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) contact | AgNi 90/10 | 5VDC | 3-1393239-6 |
| RT174009 | | | | 9VDC | 9-1419143-5 |
| RT174012 | | | | 12VDC | 3-1393239-8 |
| RT174024 | | | | 24VDC | 3-1393239-9 |
| RT184005 | | 1 form A (NO) contact | | 5VDC | 4-1393239-5 |
| RTB84009 | Wash tight | contact | | 9VDC | 4-1393238-7 |

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

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[TE Connectivity:](#)

[9-1419143-5](#)