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 REG.-Nr. 6106, UL E214025, cCSAus 14385
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 400VAC
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. 10.6ms
Bounce time max.: form A/form B 4.0/9.0ms

Contact ratings
Type Contact Load Cycles
IEC 61810
RT174 A/B (NO/NC) 10A, 250VAC resistive, 85°C 100x10³
UL 508
RT174 C (CO) 10A, 250VAC, general purpose, 85°C 6x10³
RT174 A/B (NO/NC) 10A, 250VAC, general purpose, 40°C 30x10³
RT174 A/B (NO/NC) B500, 40°C 6x10³
RT174 A (NO) R150, 40°C 6x10³
RT174 B (NC) 1/2hp, 240VAC, 40°C 1x10³
RT174 A (NO) 3/4hp, 240VAC, 40°C 1x10³
EN60730-1
RT174 A (NO) 6/4A, 250VAC, 85°C 100x10³

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
<table>
<thead>
<tr>
<th>Coi l code</th>
<th>Rated voltage VDC</th>
<th>Operate voltage VDC</th>
<th>Release voltage VDC</th>
<th>Coil resistance Ω±10%</th>
<th>Rated coil power mW</th>
</tr>
</thead>
<tbody>
<tr>
<td>005</td>
<td>5</td>
<td>3.7</td>
<td>0.5</td>
<td>100</td>
<td>250</td>
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<tr>
<td>006</td>
<td>6</td>
<td>4.5</td>
<td>0.6</td>
<td>144</td>
<td>250</td>
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<td>009</td>
<td>9</td>
<td>6.8</td>
<td>0.9</td>
<td>312</td>
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<td>012</td>
<td>12</td>
<td>9.0</td>
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<td>9216</td>
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<td>060</td>
<td>60</td>
<td>45.0</td>
<td>6.0</td>
<td>12857</td>
<td>280</td>
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</tbody>
</table>

1) Coil resistance ±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 between open contacts 1000Vrms
between contact and coil 5000Vrms
Clearance/creepage between contact and coil ≥10/10mm
Material group of insulation parts IIIa
Tracking index of relay base PTI 250V
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-TH1, 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

<table>
<thead>
<tr>
<th>Dimensions</th>
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<td>12.7</td>
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<tr>
<td>3.5</td>
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<td>12.7</td>
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</tbody>
</table>

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

A1

12 11 14

1 form A (NO) contact

A1

12 11 14

Product code structure

<table>
<thead>
<tr>
<th>Product code</th>
<th>Version</th>
<th>Contacts</th>
<th>Contact material</th>
<th>Coil</th>
<th>Part number</th>
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</thead>
<tbody>
<tr>
<td>RT174005</td>
<td>Flux proof</td>
<td>1 form C (CO) contact</td>
<td>AgNi 90/10</td>
<td>5VDC</td>
<td>3-1395290-6</td>
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<tr>
<td>RT174009</td>
<td>9VDC</td>
<td>9-1419143-5</td>
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<td>3-1395298-8</td>
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<td>RT174024</td>
<td>24VDC</td>
<td>3-1395293-9</td>
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<td>RT184005</td>
<td>5VDC</td>
<td>4-1395293-5</td>
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<tr>
<td>RTB98009</td>
<td>Wash tight</td>
<td>1 form A (NO) contact</td>
<td>9VDC</td>
<td>4-1395293-7</td>
<td></td>
</tr>
</tbody>
</table>

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

Product code Version Contacts Contact material Coil Part number

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RT174009 9VDC 9-1419143-5
RT174012 12VDC 3-1395298-8
RT174024 24VDC 3-1395293-9
RT184005 5VDC 4-1395293-5
RTB98009 Wash tight 1 form A (NO) contact 9VDC 4-1395293-7

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