

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.

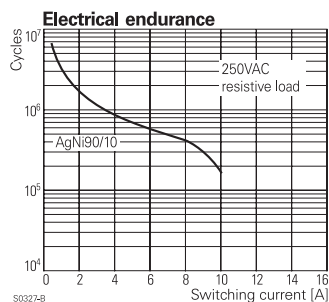
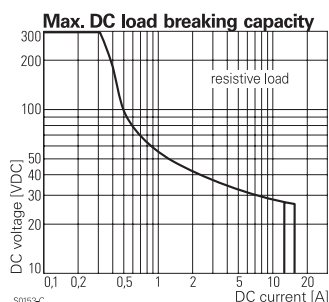
Contact Data

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 >30x10⁶ operations



Coil Data

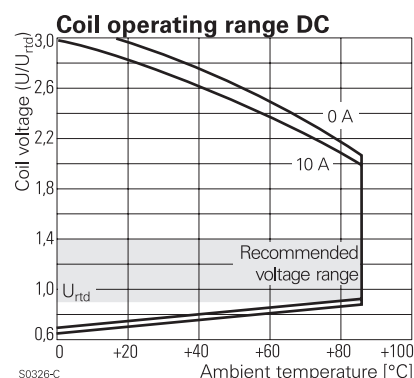
Coil voltage range	5 to 60VDC
Operative range, IEC 61810	2
Coil insulation system according UL	class F

Coil versions, DC coil

Coil 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.



Insulation Data

Initial dielectric strength	
between open contacts	1000V _{ms}
between contact and coil	5000V _{ms}
Clearance/creepage	
between contact and coil	≥10/10mm
Material group of insulation parts	IIa
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/customer-support/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

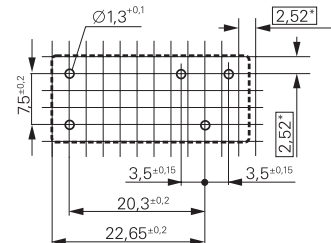
For details see datasheet [Accessories Industrial Power Relay RT](#)

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.

PCB layout / terminal assignment

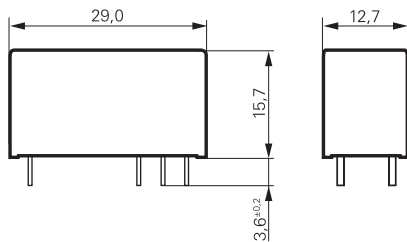
Bottom view on solder pins

10A, pinning 3.5mm

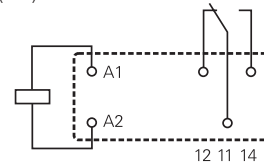


*) With the recommended PCB hole sizes a grid pattern from 2.5mm to 2.54mm can be used.

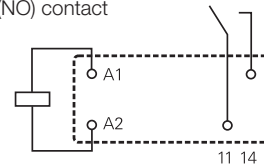
Dimensions



1 form C (CO) contact



1 form A (NO) contact



Product code structure

Typical product code **RT 1 7 4 012**

Type	RT Power PCB Relay RT1 sensitive		
Version	1 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			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

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[RT174024](#)