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
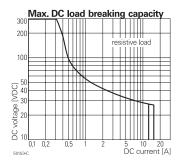Technical data of approved types on request.

Contact Data

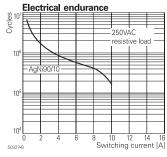|	
Contact arrangement	1 form C (CO) or 1 form A (NO)
Rated voltage	250VAC
Max. switching voltage	400 VAC
Rated current	10A
Limiting making current; max. 4s, duty factor 10%	15A
Breaking capacity	2500VA
Contact material	AgNi 90/10
Frequency of operation; with/without load	3000/72000h^{-1}
Operate/release 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	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)	B300, 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(4)A, 250VAC, 85°C	100x10³

Mechanical endurance	>30x10⁶ operations

Max. DC load breaking capacity (S0153-C)

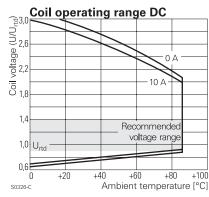Electrical endurance (S0327-B)

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 Ω±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	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.

Coil operating range DC

S0326-C

Insulation Data

Initial dielectric strength	
between open contacts	1000V$_{rms}$
between contact and coil	5000V$_{rms}$
Clearance/creepage	
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

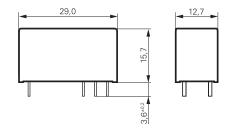|	
Ambient temperature	-40 to 85°C
Category of environmental protection	
IEC 61810	RTII - flux proof, RTIII - wash tight
Vibration resistance (functional),	
form A/form B contact, 30 to 500Hz	20g/5g
Shock resistance (destructive)	100g
Terminal type	PCB-THT, plug-in
Weight	14g
Resistance to soldering 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
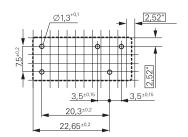wiring of relays (according IEC 61810-1); for relays mounted on sockets
deratings may apply.

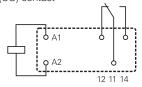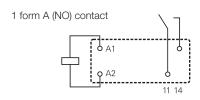### PCB layout / terminal assignment

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.

1 form C (CO) contact

1 form A (NO) contact

Dimensions

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)	AgNi 90/10	5VDC	3-1393239-6
RT174009		contact		9VDC	9-1419143-5
RT174012				12VDC	3-1393239-8
RT174024				24VDC	3-1393239-9
RT184005		1 form A (NO)		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.

Catalog and product specification according
to IEC 61810-1 and to be used only together
with the 'Definitions' section.

Catalog product data, 'Definitions' section,
application notes and all specifications are
subject to change.