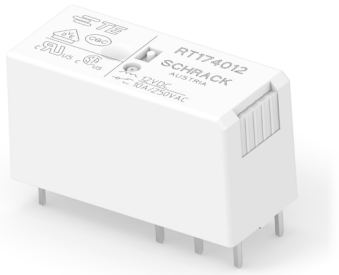
Power PCB Relay RT1 sensitive

- **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
CQC 18002197247

Technical data of approved types on request.

Contact Data

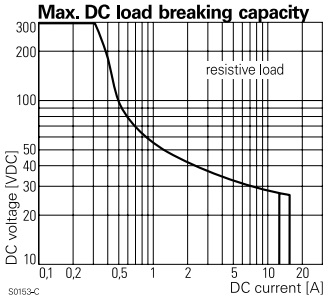
Contact arrangement	1 form C (CO) or 1 form A (NO)
Rated voltage	250VAC
Max. switching voltage	400 VAC
Rated current	10A
Limiting making current; max. 4s, duty factor 10%	15A
Breaking capacity	2500VA
Contact material	AgNi 90/10
Frequency of operation; with/without load	3000/72000h^{-1}
Operate/release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

Contact ratings

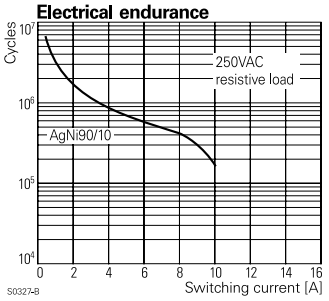
Type	Contact	Load	Cycles
IEC 61810			
RT17*	A (NO)	10A, 250VAC resistive, 85°C	100x10^3
RTB7*	A (NO)	10A, 250VAC resistive, 85°C	50x10^3
UL 61810-1 (former UL 508)			
RT17*	C (CO)	10A, 250VAC, general purpose, 85°C	6x10^3
RT17*	A/B (NO/NC)	10A, 250VAC, general purpose, 40°C	30x10^3
RT174	A/B (NO/NC)	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 >30x10^6 operations

Max. DC load breaking capacity



Electrical endurance



Coil Data

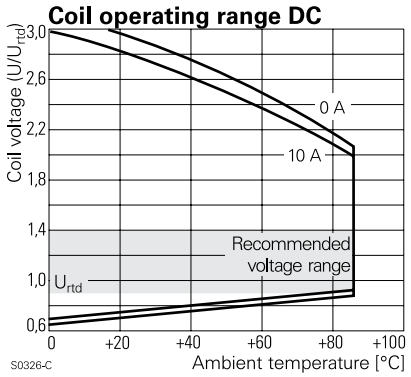
Coil voltage range	5 to 60VDC
Operative range, IEC 61810	2
Coil insulation system according UL	class F

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	12857[1)]	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



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

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

Catalog and product data is subject to the terms of the disclaimer and all chapters of the 'Definitions' section, available at http://relays.te.com/definitions

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

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.

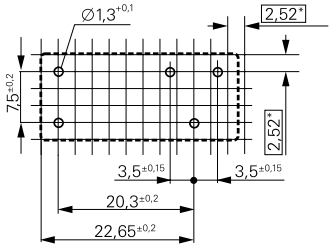
Accessories

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.

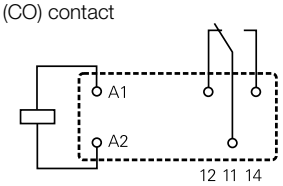
PCB layout / terminal assignment
Bottom view on solder pins

10A, pinning 3.5mm

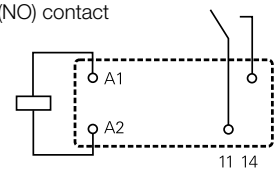


*) With the recommended PCB hole sizes a grid pattern from 2.5mm to 2.54mm can be used.

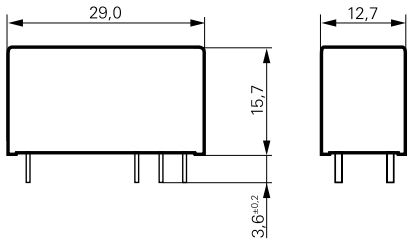
1 form C (CO) contact



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
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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