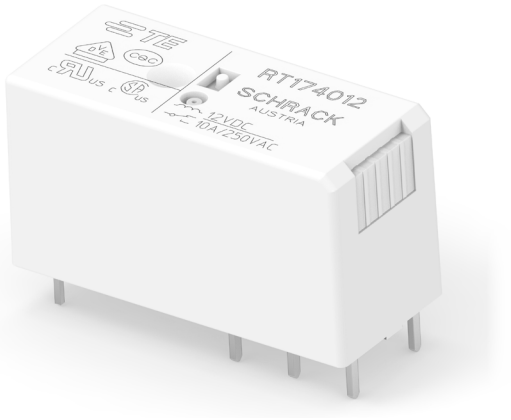
POWER PCB RELAY RT1 SENSITIVE

GENERAL PURPOSE
LOW POWER PCB RELAYS

FEATURES

- 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



APPLICATIONS

- Domestic appliances
- Heating control

APPROVALS

- VDE Cert. No.40007571
- UL E214025
- cCSAus 1142018
- CQC 18002197247

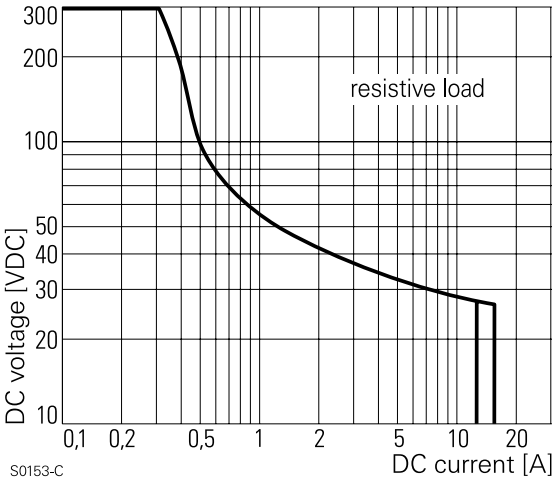
Technical data of approved types on request

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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.	10/8ms
Bounce time max.; form A/form B	4/9ms

MAX. DC LOAD BREAKING CAPACITY

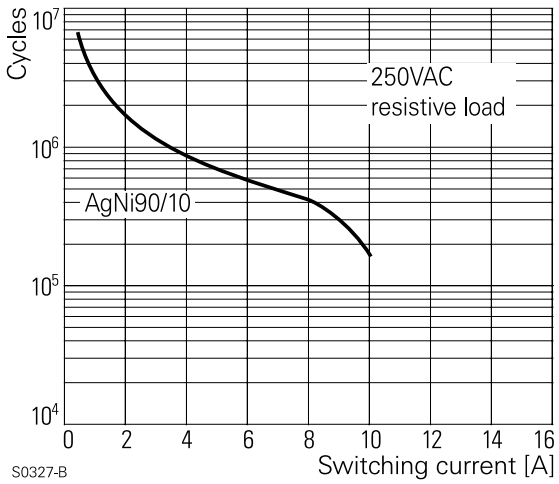


CONTACT RATINGS

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

ELECTRICAL ENDURANCE



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COIL DATA

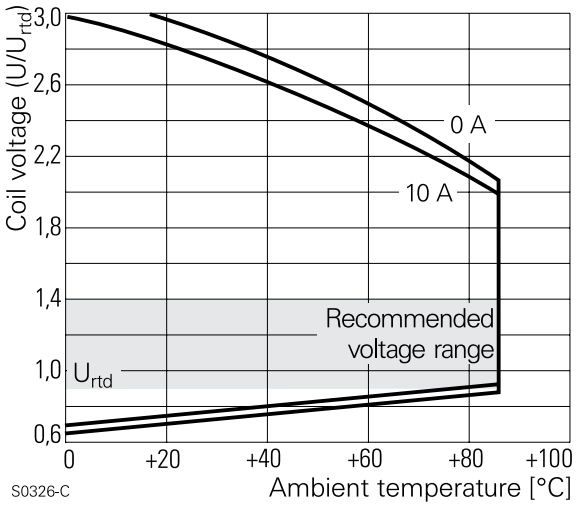
Coil voltage range	5 to 60 VDC
Operative range, IEC 61810	2
Coil insulation system according UL	class F

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	PTI250V

ACCESSORIES

For details see datasheet	Accessories Industrial Power Relay RT

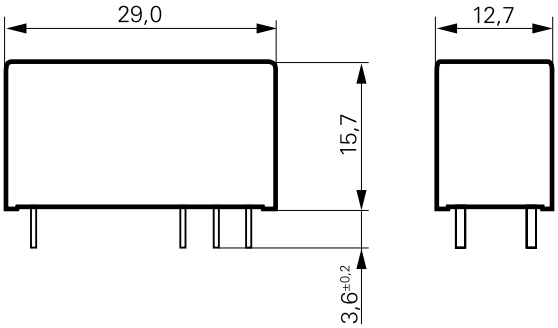
NOTE: indicated contact ratings and electrical endurance data for direct wiring of relays (according IEC 61810-1); for relays mounted on sockets deratings may apply.

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.

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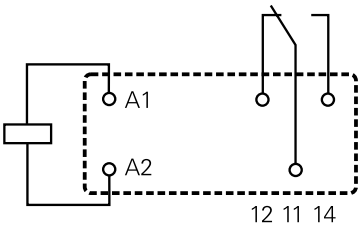
DIMENSIONS (UNIT: mm)



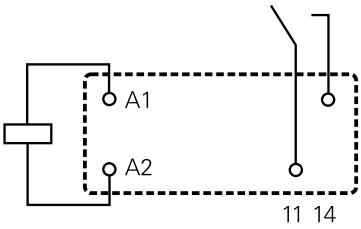
PCB LAYOUT / TERMINAL ASSIGNMENT

Bottom view on solder pins

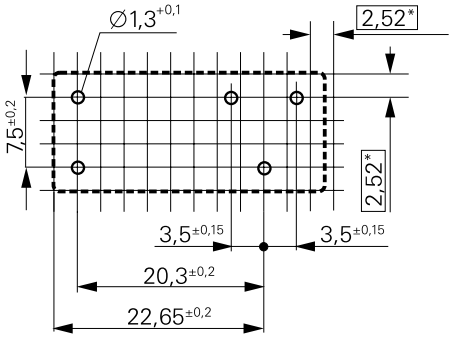
1 FORM C (CO) CONTACT



1 FORM A (NO) CONTACT



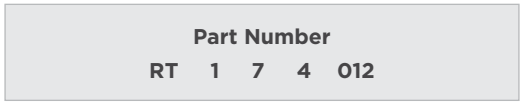
10A, PINNING 3.5MM



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

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PRODUCT CODE STRUCTURE



Type

RT	Power PCB Relay RT1 sensitive

Version

1	10A, pinning 3.5mm, flux proof
B	10A, pinning 3.5mm, wash tight

Contact arrangement

7	1 form C (CO) contact
8	1 form A (NO) contact

Coil

Coil code	please refer to coil versions table

Contact material

4	AgNi 90/10
5	AgNi 90/10 gold plated

PRODUCT INFORMATION

Product code	Version	Contacts	Contact material	Coil	TE 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.

Notes:
1. Datasheets and product specification according to IEC 61810-1 and to be used only together with the 'Definitions' section.
2. Datasheets 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.
3. Datasheets, product data, 'Definitions' section, application notes and all specifications are subject to change.

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