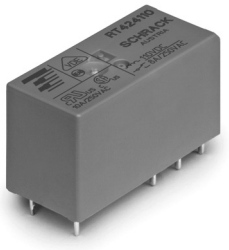
Power PCB Relay RT2

- **2 pole 8A, 2 form C (CO) or 2 form A (NO) contacts**
- **DC or AC coil**
- **5kV/10mm coil-contact, reinforced insulation**
- **Ambient temperature up to 85°C**
- **WG version: product in accordance to IEC60335-1**
- **Reflow version: for THR (Through-Hole Reflow) soldering process**



F0149-C

Typical applications
Boiler control, timers, garage door control, POS automation, interface modules

Approvals

VDE REG.-Nr. 6106, UL E214025, cCSAus 14385
Technical data of approved types on request

Contact Data

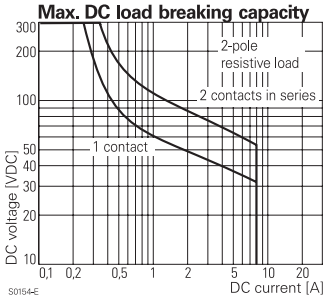
Contact arrangement	2 form C (CO) or 2 form A (NO)
Rated voltage	250VAC
Max. switching voltage	400VAC
Rated current	8A, UL: 10A
Limiting continuous current	8A, UL: 10A
Limiting making current, max. 4s, duty factor 10%	15A
Breaking capacity max.	2000VA
Contact material	AgNi 90/10, AgNi 90/10 gold plated, $AgSnO_2$
Frequency of operation, with/without load	
DC coil	360/72000h^{-1}
AC coil	360/36000h^{-1}
Operate/release time max., DC coil	8/6ms
Bounce time max., DC coil, form A/form B	4/10ms
Electrical endurance	see electrical endurance graph[1)]

Contact ratings

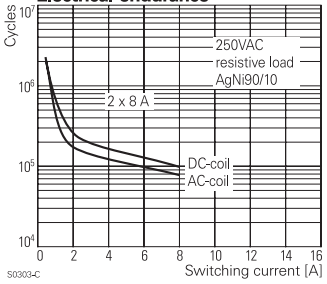
Type	Contact	Load	Cycles
IEC 61810			
RT424 DC coil	C (CO)	8A, 250VAC, cosφ=1, 85°C	10x10^3
RT444 AC coil	A (NO)	8A, 250VAC, cosφ=1, 70°C	50x10^3
RT424 AC coil	C (CO)	8A, 250VAC, cosφ=1, 70°C	30x10^3
UL 508			
RT424 DC coil	A/B (NO/NC)	10A, 250VAC, gen. purpose, 85°C	20x10^3
RT424 DC coil	A/B (NO/NC)	1/2hp, 240VAC, 85°C	1x10^3
RT424 DC coil	A/B (NO/NC)	Pilot duty, B300, R300, 85°C	6x10^3
EN60947-5-1			
RTE24 DC coil	A/B (NO/NC)	AC15, 250VAC, 3A	6.050
RTE24 DC coil	A/B (NO/NC)	DC13, 24VDC, 2A	6.050
RTE24 DC coil	A/B (NO/NC)	DC13, 250VDC, 0.2A	6.050
EN60730-1			
RT424 DC coil	A/B (NO/NC)	6(2)A, 250VAC, 85°C	100x10^3

1) For reflow solderable versions: actual contact performance may be influenced by the reflow soldering process.

Max. DC load breaking capacity



Electrical endurance



Contact Data (continued)

Mechanical endurance	
DC coil	>30x10^6 operations
DC coil, reflow version	>10x10^6 operations
AC coil	>5x10^6 operations
AC coil, reflow version	>2x10^6 operations

Coil Data

Coil voltage range, DC coil/AC coil	5 to 110VDC / 24 to 230VAC
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%[2)]	Rated coil power mW
005	5	3.5	0.5	62	403
006	6	4.2	0.6	90	400
009	9	6.3	0.9	200	400
012	12	8.4	1.2	360	400
024	24	16.8	2.4	1440	400
048	48	33.6	4.8	5520	417
060	60	42.0	6.0	8570[2)]	420
110	110	77.0	11.0	28800[2)]	420

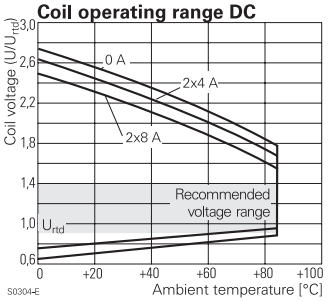
2) Coil resistance ±12%. All figures are given for coil without pre-energization, at ambient temperature +23°C. Other coil voltages on request.

Coil versions, AC coil 50Hz

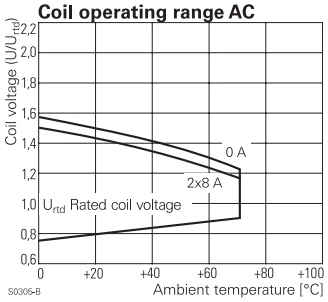
Coil code	Rated voltage VAC	Operate voltage VAC	Release voltage VAC	Coil resistance Ω±15%[3)]	Rated coil power VA
524	24	18.0	3.6	350[3)]	0.76
615	115	86.3	17.3	8100	0.76
620	120	90.0	18.0	8800	0.75
700	200	150.0	30.0	24350	0.76
730	230	172.5	34.5	32500	0.74

3) Coil resistance ±10%. All figures are given for coil without pre-energization, at ambient temperature +23°C, 50Hz. Other coil voltages on request.

Coil operating range DC



Coil operating range AC



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Power PCB Relay RT2 (Continued)

Insulation Data

Initial dielectric strength	
between open contacts	1000V_{rms}
between contact and coil	5000V_{rms}
between adjacent contacts	2500V_{rms}
Clearance/creepage	
between contact and coil	≥10/10mm
between adjacent contacts	≥3/4mm
Material group of insulation parts	IIIa
Tracking index of relay base	PTI 250V
reflow version	PTI 175V

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	
Resistance to heat and fire	
WG version or reflow version	according EN60335, par30
Ambient temperature	
DC coil	-40 to 85°C
AC coil	-40 to 70°C
$AgSnO_2$ contacts	-40 to 70°C
Category of environmental protection, IEC 61810	
standard version	RTII - flux proof, RTIII - wash tight
reflow version	RTII - flux proof
Vibration resistance (functional), form A/form B contact, 30 to 300Hz	20g/5g
Shock resistance (destructive)	100g

Other Data (continued)

Terminal type	PCB-THT, plug-in
reflow version	PCB-THR
Mounting distance, AC coil	≥2.5mm
Weight	13g
Resistance to soldering heat THT, IEC 60068-2-20	
RTII	270°C/10s
RTIII	260°C/5s
Resistance to soldering heat THR	
reflow soldering (for reflow version)	forced gas convection [4] or vapour phase [5]
temperature profile	according EN61730
Packaging/unit	tube/20pcs., box/500pcs.

4) infrared heating not allowed
5) recommended fluid LS/230

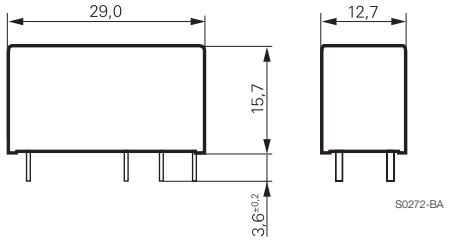
Accessories

For details see datasheet	Accessories Industrial Power Relay RT

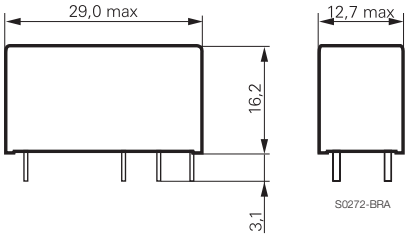
NOTE: indicated contact ratings and electrical endurance data for direct wiring of relays (according IEC 61810-1); for relays mounted on sockets deratings may apply.

Dimensions

THT version

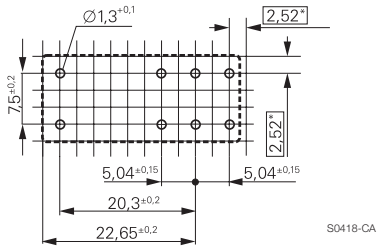


THR version (reflow solderable)



PCB layout / terminal assignment

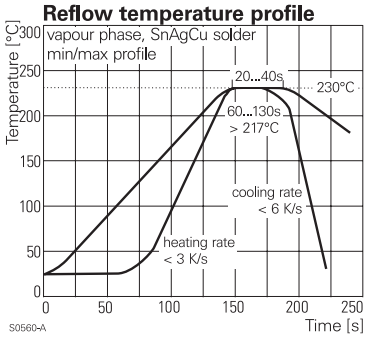
Bottom view on solder pins

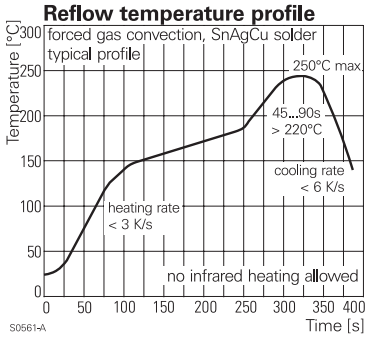


*) With the recommended PCB hole sizes a grid pattern from 2.5mm to 2.54mm can be used.

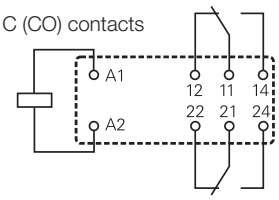
Process conditions for Reflow soldering

according to EN61760-1

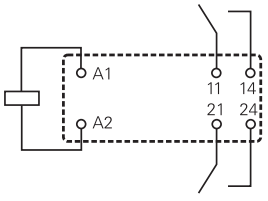




2 form C (CO) contacts



2 form A (NO) contacts



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Power PCB Relay RT2 (Continued)

Product code structure — Typical product code: **RT 4 2 4 024**

Type
- **RT** Power PCB Relay RT2

Version
- **4** 8A, pinning 5mm, flux proof
- **E** 8A, pinning 5mm, wash tight (not for Reflow version)

Contact arrangement
- **2** 2 form C (CO) contacts
- **4** 2 form A (NO) contacts

Contact material
- **3** AgSnO
- **4** AgNi 90/10
- **5** AgNi 90/10 gold plated

Coil
- Coil code: please refer to coil versions table

Version
- **Blank** Standard version
- **WG** Product in accordance with IEC 60335-1 (domestic appliances)
- **R** Reflow solderable

Product code	Version	Contacts	Contact material	Coil	Version	Part number
RT423730	8A, pinning 5mm, flux proof	2 form C (CO) contacts	AgSnO	230VAC	Standard	4-1393243-3
RT424005			AgNi 90/10	5VDC		5-1393243-9
RT424006				6VDC		6-1393243-1
RT424012				12VDC		6-1393243-3
RT424012WG					IEC60335-1 compliant	7-1415538-8
RT424024				24VDC	Standard	6-1393243-8
RT424024WG					IEC60335-1 compliant	7-1415538-7
RT424048				48VDC	Standard	7-1393243-0
RT424060				60VDC		7-1393243-3
RT424110				110VDC		7-1393243-5
RT424524				24VAC		7-1393243-6
RT424615				115VAC		7-1393243-8
RT424730				230VAC		7-1393243-9
RT425003			AgNi 90/10 gold plated	3VDC		7-1415525-1
RT425005				5VDC		8-1393243-0
RT425012				12VDC		8-1393243-2
RT425024				24VDC		8-1393243-5
RT444012		2 form A (NO) contacts	AgNi 90/10	12VDC		9-1393243-7
RT444024				24VDC		9-1393243-9
RTE24005	8A, pinning 5mm, wash tight	2 form C (CO) contacts		5VDC		1393243-1
RTE24006				6VDC		1393243-2
RTE24012				12VDC		1393243-4
RTE24024				24VDC		1-1393243-0
RTE24048				48VDC		1-1393243-1
RTE24110				110VDC		1-1393243-4
RTE24524				24VAC		1-1393243-5
RTE24615				115VAC		1-1393243-7
RTE24730				230VAC		1-1393243-8
RTE25005			AgNi 90/10 gold plated	5VDC		1-1393243-9
RTE25012				12VDC		2-1393243-0
RTE25024				24VDC		2-1393243-1
RTE25524						2-1393243-4
RTE43009		2 form A (NO) contacts	AgSnO	9VDC		4-1415535-1
RTE44009			AgNi 90/10			3-1393243-1
RTE44730				230VAC		3-1393243-5

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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