

## Power PCB Relay RT2 DC and AC (for global markets)

- 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



## Typical applications

Boiler control, timers, garage door control, POS automation, interface modules.

## Approvals

VDE Cert. No. 40007571, UL E214025, cCSAus 1142018

Technical data of approved types on request.

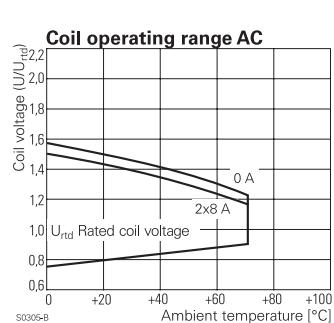
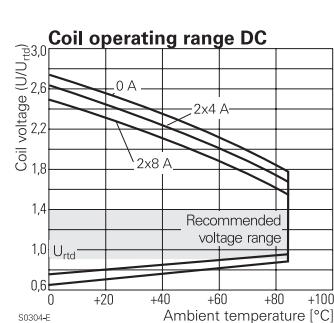
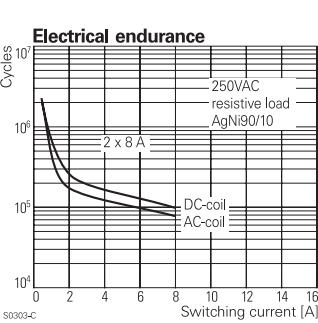
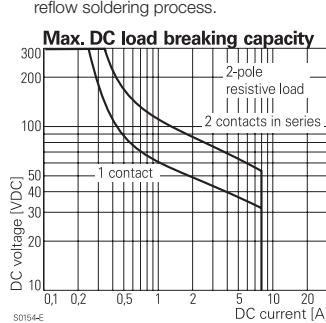
## Contact Data

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 <sub>2</sub>
Frequency of operation, with/without load	
DC coil	360/72000h <sup>-1</sup>
AC coil	360/36000h <sup>-1</sup>
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 <sup>1)</sup>

## Contact ratings

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

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



**Power PCB Relay RT2 DC and AC (for global markets) (Continued)**
**Insulation Data**

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

**Other Data (continued)**

Terminal type reflow version	PCB-THT, plug-in 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 <sup>4)</sup> or vapour phase <sup>5)</sup> temperature profile
Packaging/unit	according EN61730 tube/20pcs., box/500pcs.

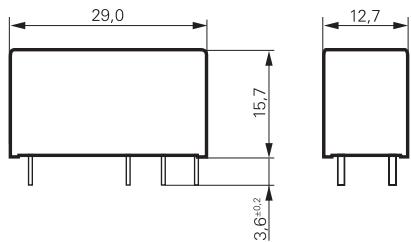
**Other Data**

Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at [www.te.com/customersupport/rohssupportcenter](http://www.te.com/customersupport/rohssupportcenter)

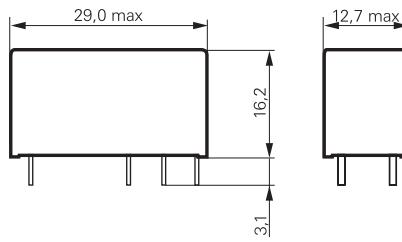
Resistance to heat and fire WG version or reflow version	according EN60335, par30
Ambient temperature	
DC coil	-40 to 85°C
AC coil	-40 to 70°C
AgSnO <sub>2</sub> contacts	-40 to 70°C
Category of environmental protection, IEC 61810	
standard version	RTII - flux proof, RTIII - wash tight
reflow version	RTII - flux proof
Vibration resistance (functional), form A/form B contact, 30 to 300Hz	20g/5g
Shock resistance (destructive)	100g

**Dimensions**

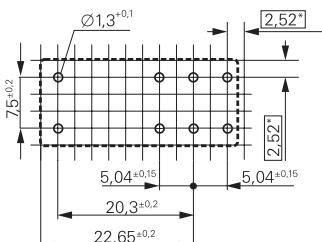
THT version



THR version (reflow solderable)


**PCB layout / terminal assignment**

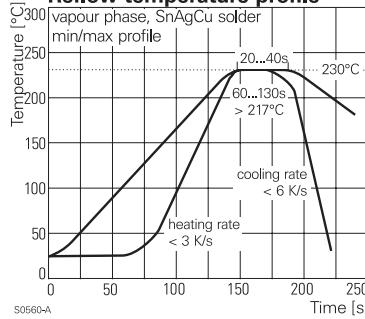
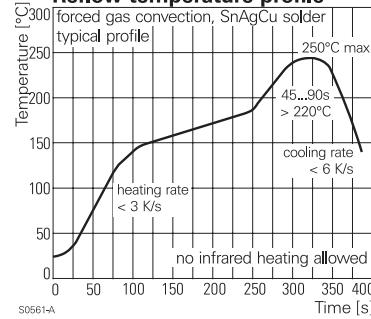
Bottom view on solder pins



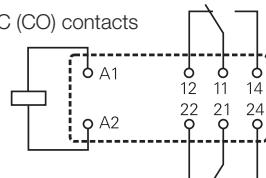
\*) With the recommended PCB hole sizes a grid pattern from 2.5mm to 2.54mm can be used.

**Process conditions for Reflow soldering**

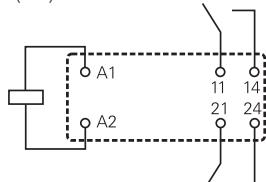
according to EN61760-1

**Reflow temperature profile**

**Reflow temperature profile**


2 form C (CO) contacts



2 form A (NO) contacts



## Power PCB Relay RT2 DC and AC (for global markets) (Continued)

## Product code structure

 Type  
**RT** Power PCB Relay RT2

 Typical product code **RT** **4** **2** **4** **024**

## 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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