

## Power PCB Relay RT2 bistable

- 2 pole 8A, 2 form C (CO) contacts
- Polarized bistable version with 1 or 2 coils
- 5kV/10mm coil-contact
- Reinforced insulation

### Typical applications

Battery powered equipment or applications with "memory function".



### Approvals

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

Technical data of approved types on request.

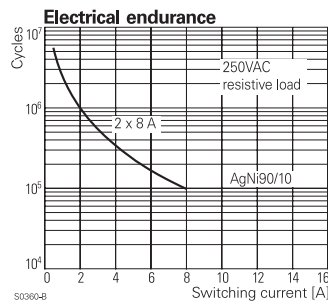
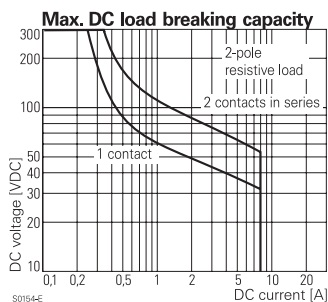
### Contact Data

Contact arrangement	2 form C (CO)
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
Frequency of operation, with/without load	900/72000h <sup>-1</sup>
Operate/Reset time max.	10/5ms
Bounce time max., form A/form B	4/9ms

### Contact ratings

Type	Contact	Load	Cycles
<b>IEC 61810</b>			
RT444	A (NO)	8A, 250VAC resistive, 85°C	100x10 <sup>3</sup>
RT424	C (CO)	8A, 250VAC resistive, 85°C	30x10 <sup>3</sup>
<b>UL 508</b>			
RT424	A/B (NO/NC)	10A, 250VAC, general purpose, 85°C	20x10 <sup>3</sup>
RT424	A/B (NO/NC)	1/2hp, 240VAC, 85°C	1x10 <sup>3</sup>
RT424	A/B (NO/NC)	Pilot duty, B300, R300, 85°C	6x10 <sup>3</sup>
RT4/E	A/B (NO/NC)	10A/24VDC, general purpose, 85°C	5x10 <sup>3</sup>
<b>EN60947-5-1</b>			
RT424	A/B (NO/NC)	AC-15, 250VAC, 3A	6.050

Mechanical endurance >2x10<sup>6</sup> operations



### Coil Data, bistable coils

	1 coil	2 coils
Magnetic system	polarized, bistable	
Coil voltage range	3 to 48VDC	
Operative range, IEC 61810	2	
Limiting voltage, % of rated coil voltage	120%	150%
Min./Max. energization duration	30ms/1min at <10% duty factor	
Coil insulation system according UL	class F	

### Coil versions, bistable coil

Coil code	Rated voltage VDC	Set voltage VDC	Reset voltage VDC	Coil resistance $\Omega \pm 10\%$	Rated coil power mW
<b>bistable 1 coil</b>					
A03	3	2.1	1.7	21	429
A05	5	3.5	2.8	62	403
A06	6	4.2	3.3	90	400
A12	12	8.4	6.6	360	400
A24	24	16.8	13.2	1440	400
A48	48	33.6	26.4	5520	417
<b>bistable 2 coils</b>					
F03	3	2.1	1.7	15	600
F05	5	3.5	2.8	42	595
F06	6	4.2	3.3	55	655
F12	12	8.4	6.6	240	600
F24	24	16.8	13.2	886	650
F48	48	33.6	26.4	3291	700

All figures are given for coil without pre-energization, at ambient temperature +23°C.  
Other coil voltages on request.

### Bistable coils - operation

Version

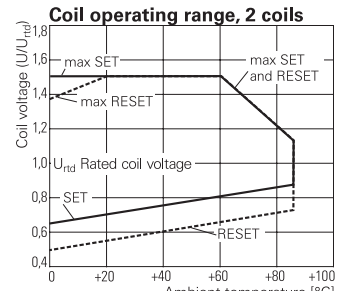
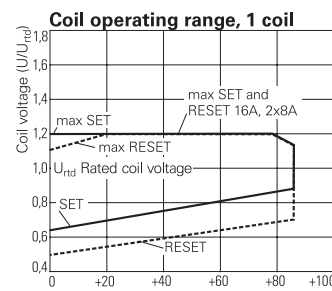
Coil terminals

Operate

Reset

Contact position not defined at delivery

	1 coil		2 coils		
	A1	A2	A1	A3	A2
Operate	+	-	+	+	-
Reset	-	+	-	+	+



**Power PCB Relay RT2 bistable** (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	PTI 250V

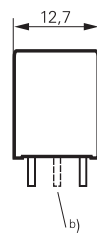
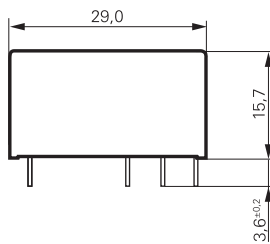
**Other Data**

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

Ambient temperature	
bistable 1 coil	-10 to 85°C
bistable 2 coils	-40 to 85°C
Category of environmental protection	
IEC 61810	RTII - flux proof RTIII - wash tight

Vibration/shock resistance (functional),	
opening B contact	3/5g
opening closed A contact	6/15g
Shock resistance (destructive)	100g

**Dimensions**



a) Indicated contact position while or after coil energization with reset voltage.

b) for 2 coil version only

**Other Data** (continued)

Terminal type	PCB-THT, plug-in <sup>1)</sup>
Weight	13g
Resistance to soldering heat	THT
IEC 60068-2-20	270°C/10s
Packaging/unit	tube/20 pcs., box/500 pcs.

1) socket available for 1 coil version only, see Accessories.

**Accessories**

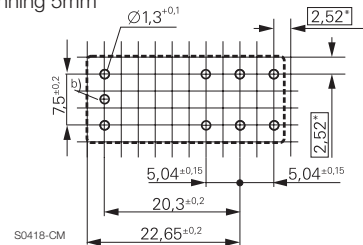
For 1 coil version,  
details see datasheet [Accessories Industrial Power Relay RT](#)

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**

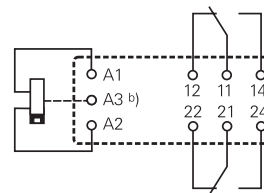
Bottom view on solder pins

8 A, Pinning 5mm



2 form C (CO) contacts

a)



**Product code structure**

Typical product code **RT 4 2 4 F24**

Type	RT Power PCB Relay RT2 bistable	
Version	4 8A, pinning 5mm, flux proof	E 8A, pinning 5mm, wash tight
Contact configuration	2 2 form C (CO) contacts	
Contact material	4 AgNi 90/10	
Coil		

Product code	Version	Contacts	Contact material	Coil version	Coil	Part number
RT424A05	8A,	2 form C (CO)	AgNi 90/10	Bistable 1 coil	5VDC	4-1393243-4
RT424A12	pinning 5mm,	contacts			12VDC	4-1393243-6
RT424F05	flux proof			Bistable 2 coils	5VDC	5-1393243-2
RT424F12					12VDC	5-1393243-4
RT424F24					24VDC	5-1393243-6
RT424F48					48VDC	5-1393243-7
RTE24F24	8A	2 form C (CO)	AgNi 90/10	Bistable 2 coils	24VDC	8-1415541-7
RTE24F06	pinning 5mm				6VDC	1-1415020-1
RTE24F12	wash tight				12VDC	7-1415072-1

This list represents the most common types and does not show all variants covered by this datasheet. Other types on request.

# Mouser Electronics

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[TE Connectivity:](#)

[5-1393243-4](#) [RT424F12](#)