

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.

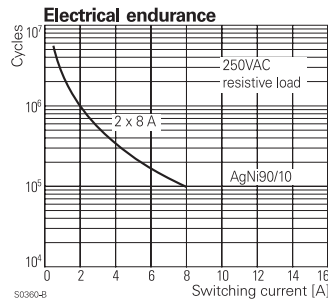
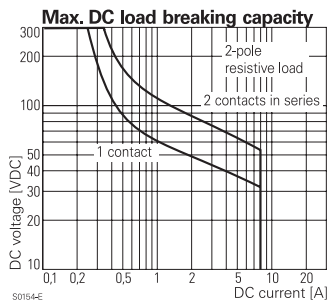
Contact Data

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 ⁻¹
Operate/Reset time max.	10/5ms
Bounce time max., form A/form B	4/9ms

Contact ratings

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

Mechanical endurance >2x10⁶ 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 Ω±10%	Rated coil power mW
bistable 1 coil					
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
bistable 2 coils					
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

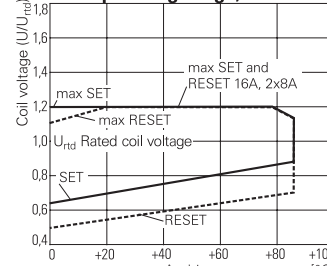
All figures are given for coil without pre-energization, at ambient temperature +23°C.
Other coil voltages on request.

Bistable coils - operation

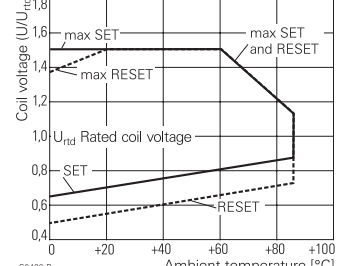
Version	1 coil				2 coils	
Coil terminals	A1	A2	A1	A3	A2	
Operate	+	-		+	-	
Reset	-	+		-	+	

Contact position not defined at delivery

Coil operating range, 1 coil



Coil operating range, 2 coils



Power PCB Relay RT2 bistable (Continued)

Insulation Data

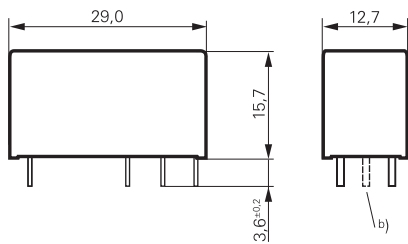
Initial dielectric strength	
between open contacts	1000V _{rms}
between contact and coil	5000V _{rms}
between adjacent contacts	2500V _{rms}
Clearance/creepage	
between contact and coil	≥10/10mm
between adjacent contacts	≥3/4mm
Material group of insulation parts	IIIa
Tracking index of relay base	PTI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

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	
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 ¹⁾
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

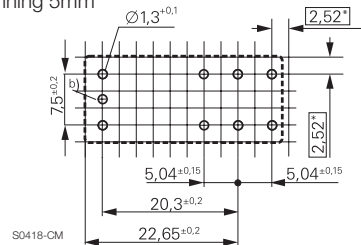
For 1 coil version, details see datasheet [Accessories Industrial Power Relay RT](#)

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

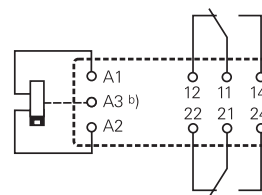
Bottom view on solder pins

8 A, Pinning 5mm



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

2 form C (CO) contacts



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) contacts	AgNi 90/10	Bistable 1 coil	5VDC	4-1393243-4
RT424A12	pinning 5mm,				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.