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Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China









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

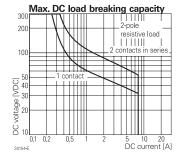
Technical data of approved types on request.

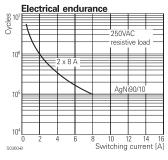
Contact Data			
Contact arrangement	2 form C (CO)		
Rated voltage	250VAC		
Max. switching voltage	400VAC		
Rated current	8A, UL: 10A		
Limiting continuous current 8A, UL: 10A			
Limiting making current, max. 4s, duty factor	or 10% 15A		
Breaking capacity max.	2000VA		
Contact material	AgNi 90/10		
Frequency 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

Туре	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 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	polarize	d, bistable
Coil voltage range	3 to	48VDC
Operative range, IEC 61810		2
Limiting voltage, % of rated coil voltag	e 120%	150%
Min./Max. energization duration	30ms/1min at	<10% duty factor
Coil insulation system according UL	cla	ass F

Coll insula	ation system a	according UL		С
Coil vers	sions, bistab	le coil		
Coil	Rated	Set	Reset	
code	voltage	voltage	voltage	1
	\ /DO	1/00	1/00	

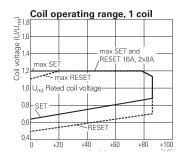
Coil	Rated	Set	Reset	Coil	Rated coil
code	voltage	voltage	voltage	resistance	power
	VDC	VDC	VDC	Ω±10%	mW
bistable	1 coil				
A03	3	2.1	1.7	21	429
A05	5	3.5	2.8	62	403
A06	6	4.2	3.3	90	400
A12	12	8.4	6.6	360	400
A24	24	16.8	13.2	1440	400
A48	48	33.6	26.4	5520	417
bistable	2 coils				
F03	3	2.1	1.7	15	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

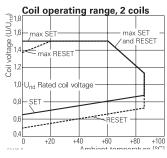
All figures are given for coil without pre-energization, at ambient temperature +23°C.

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			







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	
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

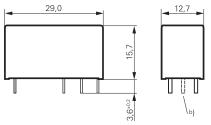
Category of environmental protection

IEC 61810 RTII - flux proof RTIII - wash tigth

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

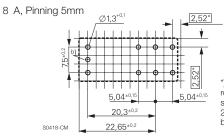
For 1 coil version,

details see datasheet <u>Accessories Industrial Power Relay RT</u>

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



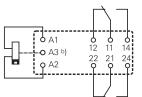
*) With the recommended PCB hole sizes a grid pattern from 2.5mm to 2.54mm can be used.

F24

a)



Typical product code



RT

4

2

Product code structure

RT Power PCB Relay RT2 bistable

Version 4 8A, pinning 5mm, flux proof

of **E** 8A, pinning 5mm, wash tight

Contact configuration

2 2 form C (CO) contacts

Contact material

4 AgNi 90/10

Coil

Туре

Product code	Version	Contacts	Contact material	Coil version	Coil	Part number
RT424A05	8A,	2 form C (CO)	AgNi 90/10	Bistable 1coil	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.