

Power PCB Relay RT1

- 1 pole 12A/16A, 1 form C (CO) or 1 form A (NO) contact
- 5kV/10mm coil-contact, reinforced insulation
- Ambient temperature 85°C



Typical applications

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



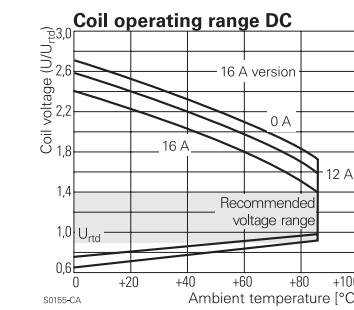
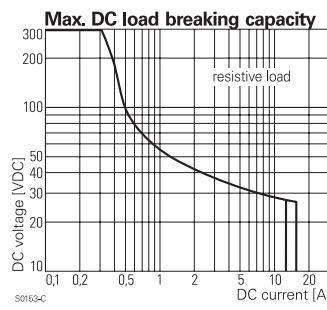
Approvals

VDE Cert. No. 40007571, cULus E214025, cCSAus 1142018;

CQC in preparation

Technical data of approved types on request

Contact Data	12A	16A
Contact arrangement	1 form C (CO) or 1 form A (NO)	
Rated voltage	250VAC	
Max. switching voltage	400VAC	
Rated current	12A	16A
Limiting continuous current	12A	16A, UL: 20A
Limiting making current max. 4s, duty factor 10%	25A	30A
Breaking capacity max.	3000VA	4000VA
Contact material	AgNi 90/10	
Frequency of operation, with/without load DC coil	360/72000h ⁻¹	
Operate/release time max., DC coil	8/6ms	
Bounce time max., DC coil, form A/form B	4/6ms	
Contact ratings		
Type	Contact	Load
IEC 61810		Cycles
RT314 DC-coil	A (NO)	16A, 250VAC, cosφ=1, 85°C
RT314 DC-coil	C (CO)	16A, 250VAC, cosφ=1, 85°C
RT314 DC-coil	A (NO)	10A, 400VAC, cosφ=1, 85°C
RT114 DC-coil	A (NO)	12A, 250VAC, cosφ=1, 85°C
RT114 AC-coil	A (NO)	12A, 250VAC, cosφ=1, 70°C
UL 508		
RT314	A/B (NO/NC)	20A, 250VAC, general purpose, 85°C
RT334	A (NO)	16A, 250VAC, gen. purpose, 85°C
RT314	A (NO)	1hp, 240VAC, 40°C
RT314	A (NO)	FLA/LRA, 4.5/13.1A, 480VAC, 70°C
RT314, RTD14	A (NO)	1/2 HP@120VAC, 40°C
RT314, RTD14	A (NO)	60LRA/10 FLA@240VAC, 40°C
RT314, RTD14	A (NO)	A300 Pilot Duty, 40°C
RT314, RTD14	B (CO)	B300 Pilot Duty, 40°C



Power PCB Relay RT1 (Continued)
Insulation Data

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

Other Data (continued)

Terminal type standard version	PCB-THT, plug-in
Weight	14g
Resistance to soldering heat THT, IEC 60068-2-20	
RTII	270°C/10s
RTIII	260°C/5s
Packaging/unit	tube/20 pcs., box/500 pcs.

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	
DC coil	-40 to 85°C
Category of environmental protection, IEC 61810	
standard version	RTII - flux proof, RTIII - wash tight
Vibration resistance (functional)	
form A/form B contact, 30 to 500Hz	20g/5g
Shock resistance (destructive)	100g

Accessories

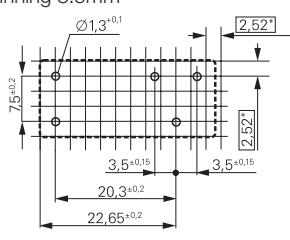
For details see datasheet [Accessories Industrial Power Relay RT](#)

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.

PCB layout / terminal assignment

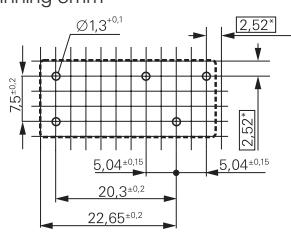
Bottom view on solder pins

12A, pinning 3.5mm



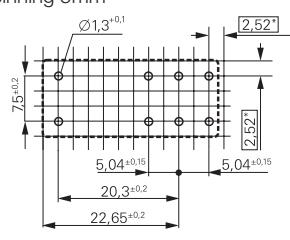
S0418-CB

12A, pinning 5mm



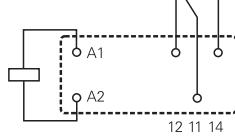
S0418-CN

16A, pinning 5mm



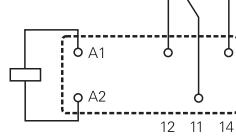
S0418-CA

1 form C (CO) contact



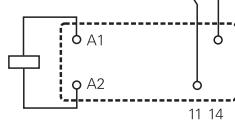
S0163-BG

1 form C (CO) contact



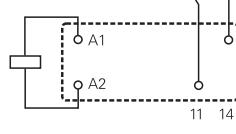
S0163-BC

1 form A (NO) contact



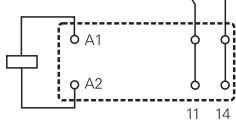
S0163-BH

1 form A (NO) contact



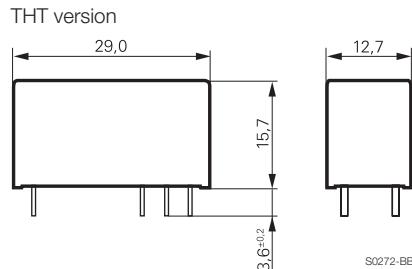
S0163-BD

1 form A (NO) contact



S0163-BF

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

Power PCB Relay RT1 (Continued)
Dimensions

Product code structure

Type	Typical product code	RT	3	1	4	024
Type	RT Power PCB Relay RT1					
Version						
1	12A, pinning 3.5mm, flux proof					
2	12A, pinning 5mm, flux proof *)					
3	16A, pinning 5mm, flux proof					
B	12A, pinning 3.5mm, wash tight					
D	16A, pinning 5mm, wash tight					
Contact arrangement						
1	1 form C (CO) contact					
3	1 form A (NO) contact					
Contact material						
4	AgNi 90/10					
Coil	Coil code: please refer to coil versions table					
Version						
F	Standard version					

*) Wash tight version on request

Product code	Version	Contacts	Contact material	Coil	Part number
RT114012F	12A, pinning 3.5mm, flux proof	1 form C (CO) contact	AgNi 90/10	12VDC	1419108-2
RT114024F		1 form A (NO) contact		24VDC	1419108-3
RT134012F				12VDC	5-1415020-1
RT134024F				24VDC	2-1393242-1
RT314005F	16A, pinning 5mm, flux proof	1 form C (CO) contact		5VDC	1419108-8
RT314012F		1 form A (NO) contact		12VDC	2-1393237-2
RT314024F				24VDC	2-1393237-3
RT334012F		1 form C (CO) contact		12VDC	2-1393237-5
RT334024F		1 form A (NO) contact		24VDC	2-1393237-7
RTB14005F	12A, pinning 3.5mm, wash tight	1 form C (CO) contact		5VDC	2-1419108-4
RTB14012F		1 form A (NO) contact		12VDC	2-1419108-5
RTB14024F				24VDC	2-1419108-6
RTB34012F		1 form C (CO) contact		12VDC	2-1419108-7
RTD14005F	16A, pinning 5mm, wash tight	1 form A (NO) contact		5VDC	2-1419108-8
RTD14012F				12VDC	2-1419108-9
RTD14024F				24VDC	3-1419108-1
RTD34012F		1 form C (CO) contact		12VDC	3-1419108-6
RTD34024F		1 form A (NO) contact		24VDC	3-1419108-9

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

Other types on request