Power PCB Relay RTX

- **1 pole 16A, 1 form A (NO) contact (W pre-make contact + $AgSnO_2$)**
- **16A rated fluorescent load according to EN60669-1**
- **Bistable coil**
- **5kV/10mm coil-contact**
- **Reinforced insulation**


F0176-C

Typical applications
Lighting control systems, movement sensors (e.g. passive infrared sensors), home automation applications (bus systems, remote switching), electronic switches for fixed installation

Approvals

VDE 40035087; UL E214025
Technical data of approved types on request

Contact Data

Contact arrangement	1 form A (NO) contact
Rated voltage	250VAC
Rated current	16A
Limiting making current	
incandescent lamps	200A peak
flourescent lamps	320A peak
Breaking capacity max.	4000VA
Contact material	W (pre-make cont.)+$AgSnO_2$
Contact style	pre-make contact
Frequency of operation, with/without load	720/7200h^{-1}
Operate/ Reset time max.	7/5 ms
Bounce time max.	4 ms

Contact ratings

Load	Cycles
IEC 61810	
16A, 250VAC resistive, 70°C	$10x10^3$
IEC 60669-1 (planned)	
16A; 250V	
UL508	
16A, 250VAC, general purpose, 70°C	$15x10^3$
TV16, 277VAC, 70°C	$25x10^3$

Mechanical endurance	$>10^5$ operations

Coil Data, bistable coils

	1 coil	2 coils
Magnetic system	polarized, bistable	
Coil voltage range	3 to 48VDC	
Min./Max. energization duration	30ms/1min at < 10% df	
Coil insulation system according UL1446	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
Coil versions, bistable 1 coil					
B003	3	2.25	2.25	14	650
B005	5	3.75	3.75	38	650
B006	6	4.5	4.5	55	650
B009	9	6.8	6.8	120	665
B012	12	9.0	9.0	220	650
B024	24	18.0	18.0	890	650
B048	48	36.0	36.0	3540	650
Coil versions, bistable 2 coils					
C012	12	9.0	9.0	150	950
C024	24	18.0	18.0	610	950

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

Coil data (continued)

Bistable coils - operation

Version	1 coil		2 coils		
Coil terminals	A1	A2	A1	A3	A2
Operate	+	-		+	-
Reset	-	+	-	+	
Contact position not defined at delivery					

Insulation Data

Initial dielectric strength	
between open contacts	
new	1250Vrms
after test with 250VAC	500Vrms
between contact and coil	5000Vrms
Clearance/creepage	
between contact and coil	≥ 6/6mm
Distance through solid insulation	> 2mm
Material group of insulation parts	IIIa
Tracking index of relay base	PTI 250V

Other Data

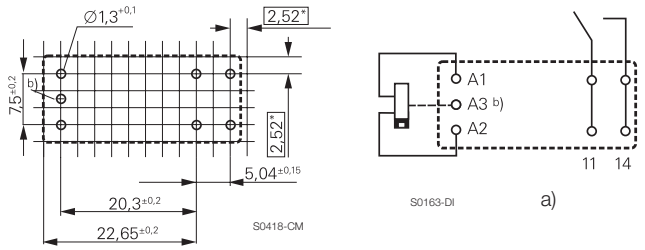
EU RoHS/ELV compliance	compliant
Ambient temperature	-40 to 70°C
Category of environmental protection	
IEC 61810	RTII - flux proof
Vibration resistance (functional)	15g
Shock resistance (destructive)	100g
Terminal type	PCB-THT
Weight	11g
Resistance to soldering heat THT	
IEC 60068-2-20	270°C/10s
Packaging/unit	tube/20 pcs., box/500 pcs.

04-2013, Rev. 0413
www.te.com

Power PCB Relay RTX (Continued)

PCB layout / terminal assignment
Bottom view on solder pins

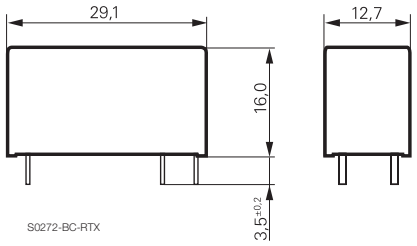
16A, pinning 5mm, 1 form A (NO) contact



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

b) for 2 coil version only

Dimensions



Product code structure

Typical product code	RTX	3	-1A	T	-B012

Type
RTX Power PCB Relay RTX

Version
3 16A, double pinning 5mm

Contact arrangement
1A 1 form A (1 NO)

Contact material
T W (pre-make cont.)+AgSnO

Coil version
Coil code: please refer to coil versions table

Product code	Contacts	Contact material	Coil Version	Coil	Part number
RTX3-1AT-B003	1 NO contact	W(pre-make) + AgSnO	bistable 1 coil	3 VDC	1937650-1
RTX3-1AT-B005				5 VDC	1937650-2
RTX3-1AT-B006				6 VDC	1937650-3
RTX3-1AT-B009				9 VDC	1937650-4
RTX3-1AT-B012				12 VDC	1937650-5
RTX3-1AT-B024				24 VDC	1937650-6
RTX3-1AT-B048				48 VDC	1937650-7
RTX3-1AT-C012			bistable 2 coil	12 VDC	1937650-8
RTX3-1AT-C024				24 VDC	1937650-9

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