Power PCB Relay RTX

- **1 pole 16A, 1 form A (NO) contact (W pre-make contact + $AgSnO_2$)**
- **16A rated fluorescent load**
- **140µF load, 16A/250V, 30000 operations**
- **Bistable coil**
- **5kV/10mm coil-contact**
- **Reinforced insulation**



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.

05-2014, Rev. 0514
www.te.com
© 2014 Tyco Electronics Corporation,
a TE Connectivity Ltd. company

Datasheets and product specification according to IEC 61810-1 and to be used only together with the 'Definitions' section.

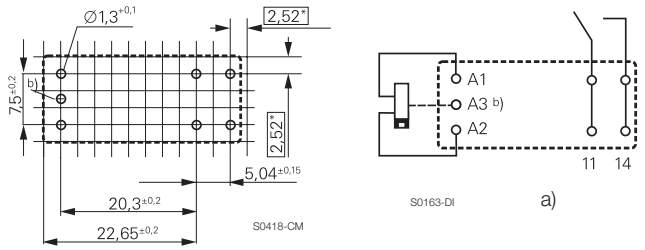
Datasheets and product data is subject to the terms of the disclaimer and all chapters of the 'Definitions' section, available at http://relays.te.com/definitions

Datasheets, product data, 'Definitions' section, application notes and all specifications are subject to change.

Power PCB Relay RTX (Continued)

PCB layout / terminal assignment
Bottom view on solder pins

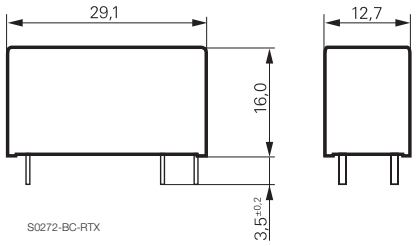
16A, pinning 5mm, 1 form A (NO) contact



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.

05-2014, Rev. 0514
www.te.com
© 2014 Tyco Electronics Corporation,
a TE Connectivity Ltd. company

Datasheets and product specification according to IEC 61810-1 and to be used only together with the 'Definitions' section.

Datasheets and product data is subject to the terms of the disclaimer and all chapters of the 'Definitions' section, available at http://relays.te.com/definitions

Datasheets, product data, 'Definitions' section, application notes and all specifications are subject to change.