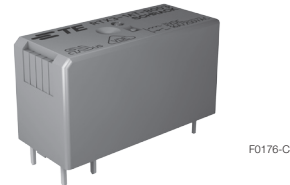


Power PCB Relay RTX

- 1 pole 16A, 1 form A (NO) contact (W pre-make contact + AgSnO₂)
- 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



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

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 |
| fluorescent 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 |

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

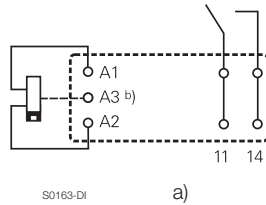
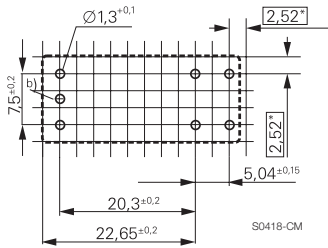
| | |
|--------------------------------------|----------------------------|
| EU RoHS/ELV compliance | compliant |
| Ambient temperature | -40 to 70°C |
| Category of environmental protection | |
| IEC 61810 | RTII - flux proof |
| Vibration resistance (functional) | 15g |
| Shock resistance (destructive) | 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. |

Power PCB Relay RTX (Continued)

PCB layout / terminal assignment

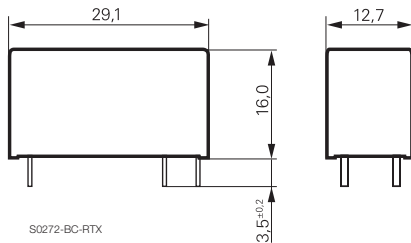
Bottom view on solder pins

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.