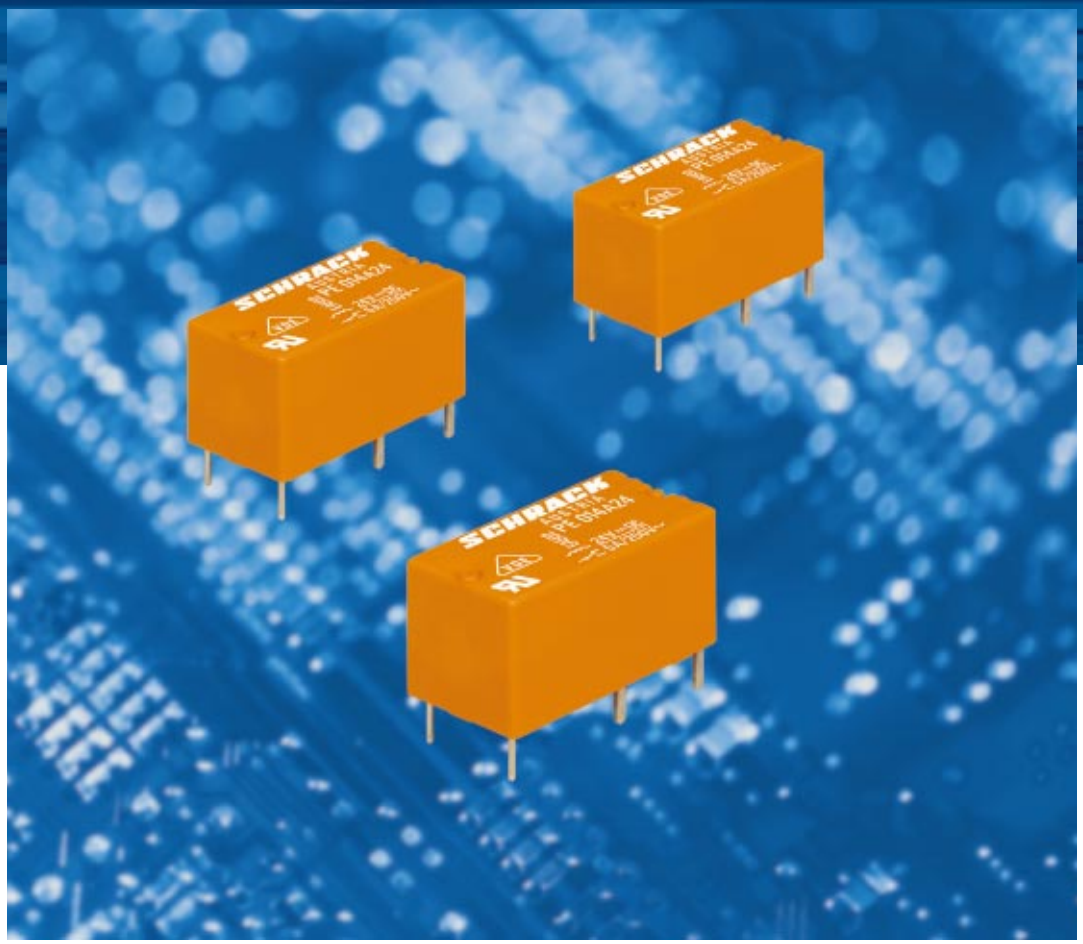
**EN:** This Datasheet/Document is presented by the manufacturer.

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# PE bistable - small, strong, smart

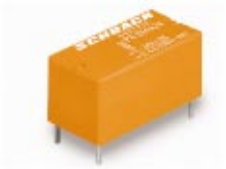



tyco Electronics

SCHRACK

# Miniature PCB Relay PE bistable

## 1pole 5 A, polarized bistable version



F0221-bc

### Features

- 1 C/O contact
- Cadmium-free contacts
- 4 kV coil-contact
- Insulation according to IEC 255
- Ambient temperature 70 °C
- Low height 10.0 mm

### Applications

Room thermostats, electricity meters, domotic devices and white goods

in process VDE c UL us
Technical data of approved types on request

### Contact data

| | |
|---|---|
| Configuration | 1 C/O contact |
| Type of contact | single contact |
| Rated current | 5 A |
| Rated voltage / max.breaking voltage AC | 250 Vac / 440 Vac |
| Maximum breaking capacity AC | 1250 VA |
| Contact material | AgNi 90/10 |

### Contact ratings

| Type | Load | Operations | Standard |
|---|---|---|---|
| PE 014 | 5A, 250 Vac, on the C/O contact | $10^5$ | VDE 0435 |

### Coil data

| | |
|---|---|
| Nominal voltage | 3...48 Vdc |
| Nominal coil power | typ. 360 mW |
| Minimum energization time | 20 ms |
| Information on reduced pulse duration with higher energization voltages on demand | |
| Maximum energization time | <1 min at <10%duty cycle |
| Reset voltage max. | 120 % $U_{nom}$ at -40 °C |

### Coil versions, bistable, 1 coil

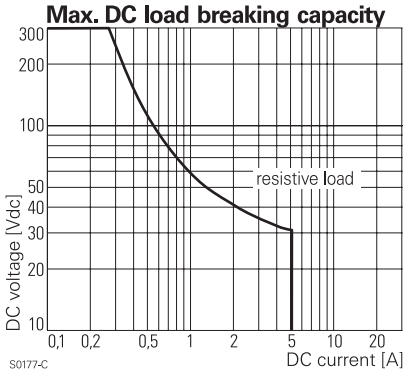
| Coil code* | | Nominal voltage Vdc | Pull-in voltage Vdc | Reset voltage Vdc | Coil resistance Ω | Coil current mA |
|---|---|---|---|---|---|---|
| A02 | C02 | 2.2 | 1.65 | 1.65 | 13±10% | 163.0 |
| A03 | C03 | 3 | 2.25 | 2.25 | 25±10% | 120.0 |
| A05 | C05 | 5 | 3.75 | 3.75 | 69±10% | 72.0 |
| A06 | C06 | 6 | 4.5 | 4.5 | 100±10% | 60.0 |
| A12 | C12 | 12 | 9.0 | 9.0 | 400±10% | 30.0 |
| A24 | C24 | 24 | 18.0 | 18.0 | 1600±10% | 15.0 |

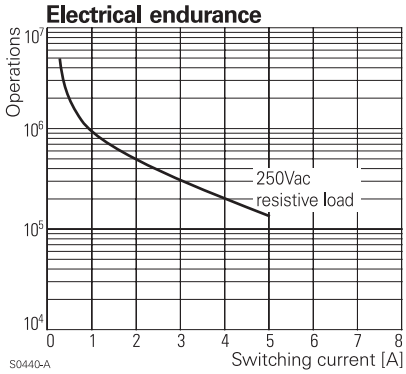
All figures are given for coil without preenergization, at ambient temperature +20°C
* Coil codes A.. and C.. have opposite polarity; refer to coil operation table
Other coil voltages on request

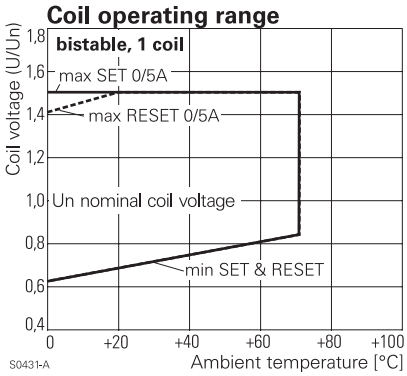
### Coils - operation

| version | A.. | | C.. | |
|---|---|---|---|---|
| coil terminals | A1 | A2 | A1 | A2 |
| pull-in | + | - | - | + |
| reset | - | + | + | - |

Contact position not defined at delivery



# Miniature PCB Relay PE bistable

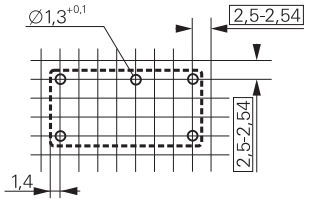
## 1pole 5 A, polarized bistable version

| Insulation | | |
|---|---|---|
| Dielectric strength | coil-contacts | 4000 $V_{rms}$ |
| | open contact circuit | 1000 $V_{rms}$ |
| Clearance / creepage | | ≥3.2 / 4 mm |
| Insulation to IEC 60664 | | |
| Voltage rating | | 250 V |
| Pollution degree | | 3 |
| Overvoltage category | | III |
| Tracking resistance of relay base | | CTI 250 |

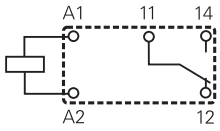
| Other data | |
|---|---|
| Flammability class according to UL 94 | V-0 |
| Ambient temperature | -40...+70 °C |
| Mechanical life | $5x10^6$ operations |
| Max. switching rate at rated- / minimum load | 6 $min^{-1}$ / 1200 $min^{-1}$ |
| Shock resistance (destruction) | >100 g |
| Category of protection (IEC 61810) | RT II - flux proof<br>(RT III - wash tight, on request) |
| Relay weight | 5 g |
| Packaging unit | 25 / 500 pcs. |

### PCB layout / terminal assigment

View on solder pins
Dimensions in mm



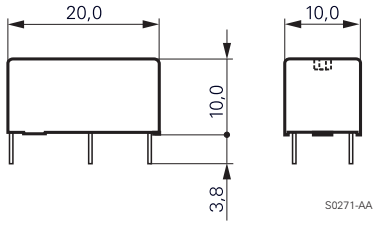

S0176-BA




S0176-BB

### Dimensions

Dimensions in mm




S0271-AA

### Product key

| P | E | 0 | 1 | 4 | | | |
|---|---|---|---|---|---|---|---|

Type

Version
**0** flux proof *)

Contacts
**1** 1 C/O contact

Contact material
**4** AgNi 90/10

Coil
Coil code: please refer to coil versions table

*) washable version on request

| Product key | Version | Contacts | Cont. material | Coil | Coil | Part number |
|---|---|---|---|---|---|---|
| PE014A03 | flux proof | 1 C/O contact | AgNi 90/10 | bistable | 3 Vdc | 4-1415064-1 |
| PE014A05 | | | | 1-coil | 5 Vdc | 7-1415063-1 |
| PE014A06 | | | | polarity A | 6 Vdc | 3-1415053-1 |
| PE014A12 | | | | | 12 Vdc | 8-1415063-1 |
| PE014A24 | | | | | 24 Vdc | 9-1415063-1 |
| PE014C03 | | | | bistable | 3 Vdc | 5-1415064-1 |
| PE014C05 | | | | 1-coil | 5 Vdc | 3-1415064-1 |
| PE014C06 | | | | polarity C | 6 Vdc | 2-1415064-1 |
| PE014C12 | | | | | 12 Vdc | 1-1415064-1 |
| PE014C24 | | | | | 24 Vdc | 0-1415064-1 |

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Issued by
Tyco Electronics Austria GmbH
Pilzgasse 33, A-1210 Vienna



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**Ref.-No. 1308101**
Edition: 03/2002 5.000 WM: 90201175
Printed in Austria