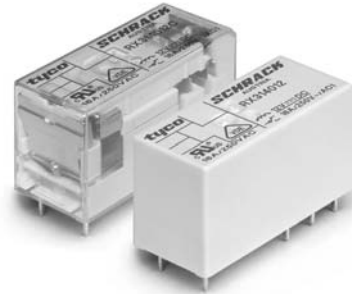


**Power PCB Relay RX1**

- 1 pole 12 or 16 A, 1 CO or 1 NO
- DC- or AC-coil
- Reinforced insulation
- Transparent cover optional
- RoHS compliant (Directive 2002/95/EC) as per product date code 0413

**Applications**

Domestic appliances, heating control, emergency lighting, automatic doors



S0271-A

**Approvals**

VDE REG.-Nr. A651, cULus E214025  
 Technical data of approved types on request

**Contact data**

|  |                              |
|--|------------------------------|
| Contact configuration                              | 1 CO or 1 NO                 |
| Contact set  | single contact               |
| Type of interruption                               | micro disconnection          |
| Rated current                                      | 12 A / 16 A                  |
| Rated voltage / max.switching voltage AC           | 240/400 VAC                  |
| Maximum breaking capacity AC                       | 3000 VA / 4000 VA            |
| Limiting making capacity, max 4 s, duty factor 10% | 25 A                         |
| Contact material                                   | AgNi 90/10                   |
| Mechanical endurance DC coil                       | > 5 x 10 <sup>6</sup> cycles |
| AC coil  | > 1 x 10 <sup>6</sup> cycles |
| Rated frequency of operation with / without load   | 6 / 600 min <sup>-1</sup>    |

**Contact ratings**

| Type | Load  | Cycles            |
|------|---|-------------------|
| RX1  | 12 A, 250 VAC, DC coil, NO contact, 85°C, EN61810-1 | 1x10 <sup>5</sup> |
| RX1  | 12 A, 250 VAC, AC coil, NO contact, 70°C, EN61810-1 | 1x10 <sup>5</sup> |
| RX3  | 16 A, 250 VAC, NO contact, 70°C, DF 50%, EN61810-1  | 5x10 <sup>4</sup> |
| RX3  | 16 A, 250 VAC, NO contact, 85°C, DF 10%, UL508      | 5x10 <sup>4</sup> |

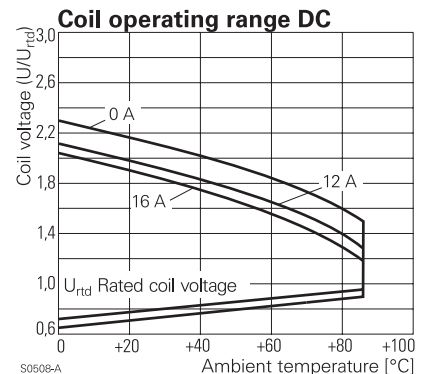
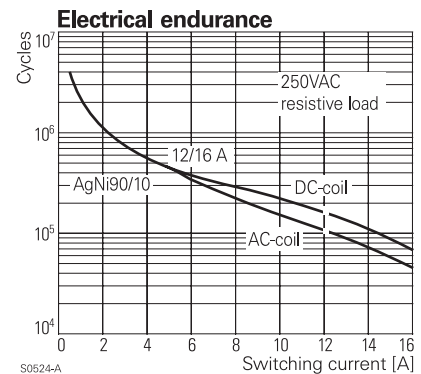
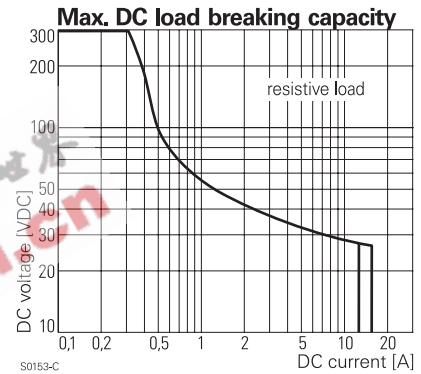
**Coil data**

|   |              |
|---|--------------|
| Rated coil voltage range DC coil        | 5...110 VDC  |
| AC coil                                 | 24...230 VAC |
| Coil power DC coil                      | 520 mW       |
| AC coil                                 | typ 0,75 VA  |
| Operative range                         | 2            |
| Coil insulation system according UL1446 | class F      |

**Coil versions, DC-coil**

| Coil code | Rated voltage VDC | Operate voltage VDC | Release voltage VDC | Coil resistance Ohm | Rated coil power mW |
|-----------|-------------------|---------------------|---------------------|---------------------|---------------------|
| 005       | 5                 | 3.5                 | 0.5                 | 50±10%              | 500                 |
| 006       | 6                 | 4.2                 | 0.6                 | 68±10%              | 529                 |
| 012       | 12                | 8.4                 | 1.2                 | 274±10%             | 526                 |
| 024       | 24                | 16.8                | 2.4                 | 1095±10%            | 526                 |
| 048       | 48                | 33.6                | 4.8                 | 4380±10%            | 526                 |
| 060       | 60                | 42.0                | 6.0                 | 6845±10%            | 526                 |
| 110       | 110               | 77.0                | 11.0                | 23010±10%           | 526                 |

All figures are given for coil without preenergization, at ambient temperature +23°C



**Power PCB Relay RX1 (Continued)**

**Coil versions, AC-coil 50Hz**

| Coil code | Rated voltage | Operate voltage 50 Hz | Release voltage 50 Hz | Coil resistance | Rated coil power 50 Hz |
|-----------|---------------|-----------------------|-----------------------|-----------------|------------------------|
|           | VAC           | VAC                   | VAC                   | Ohm             | VA                     |
| 524       | 24            | 18.0                  | 3.6                   | 350±10%         | 0.76                   |
| 615       | 115           | 86.3                  | 17.3                  | 8100±15%        | 0.76                   |
| 730       | 230           | 172.5                 | 34.5                  | 32500±15%       | 0.74                   |

All figures are given for coil without preenergization, at ambient temperature +23°C

**Insulation**

|   |                       |  |       |
|---|-----------------------|--|-------|
| Dielectric strength coil-contact circuit  | 4000 V <sub>rms</sub> |  |       |
| open contact circuit                      | 1000 V <sub>rms</sub> |  |       |
| Clearance / creepage coil-contact circuit | ≥ 8 / 8 mm            |  |       |
| Material group of insulation parts        | ≥ IIIa                |  |       |
| Tracking index of relay base              | PTI 250 V             |  |       |
| Insulation to IEC 60664-1                 |                       |  |       |
| Type of insulation coil-contact circuit   | reinforced            |  |       |
| open contact circuit                      | functional            |  |       |
| Rated insulation voltage                  | 250 V                 |  |       |
| Pollution degree 12 A version             | 3                     |  | 3     |
| 16 A version                              | 3                     |  | 2     |
| Rated voltage system                      | 240 V                 |  | 400 V |
| Overtoltage category                      | III                   |  |       |

**Other data**

|   |   |
|---|---|
| RoHS - Directive 2002/95/EC                     | compliant as per product date code 0413 |
| Flammability class according to UL94            | V-0 <sup>1)</sup>                       |
| Ambient temperature range DC coil               | -40...+85°C <sup>2)</sup>               |
| AC coil   | -40...+70°C                             |
| Operate- / release time DC coil                 | typ 7 / 2 ms                            |
| Bounce time DC coil, NO / NC contact            | typ 1 / 3 ms                            |
| Vibration resistance (function) NO / NC contact | 20 / 4 g, 10 ... 150 Hz                 |
| Shock resistance (destruction)                  | 100 g                                   |
| Category of protection                          | RTII - flux proof                       |
| Mounting standard version (white cover)         | pcb or on socket                        |
| transparent version                             | pcb                                     |
| Mounting distance                               | 2,5 mm <sup>3)</sup>                    |
| Resistance to soldering heat flux-proof version | 270 °C / 10 s                           |
| Relay weight                                    | 14 g                                    |
| Packaging unit                                  | 500 pcs                                 |

<sup>1)</sup> Version with transparent cover: V-2

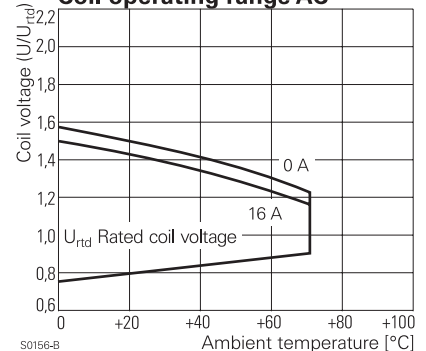
<sup>2)</sup> Version with transparent cover: -40...+70°C

<sup>3)</sup> Version with transparent cover: 5 mm

**Accessories**

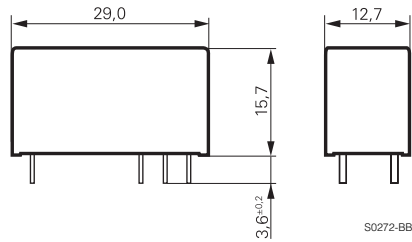
For standard version (white cover), details see datasheet accessories RT

**Coil operating range AC**



**Power PCB Relay RX1 (Continued)**

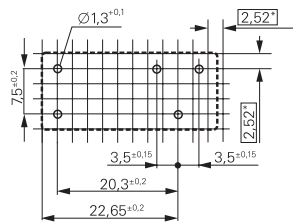
**Dimensions**



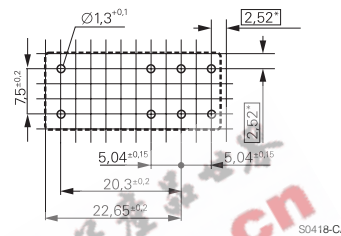
**PCB layout / terminal assignment**  
Bottom view on solder pins

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

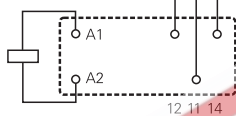
12 A, pinning 3.5 mm



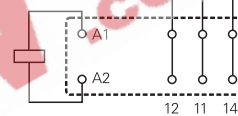
16 A, pinning 5 mm



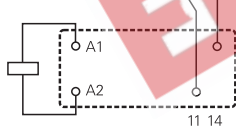
1 CO contact



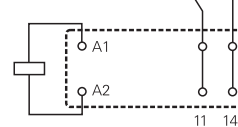
1 CO contact



1 NO contact



1 NO contact



**Product key**



Type

Version

- 1** 12 A, pinning 3.5 mm, flux proof
- 3** 16 A, pinning 5 mm, flux proof

Contact configuration

- 1** 1 CO contact
- 3** 1 NO contact

Contact material

- 4** AgNi 90/10

Coil

Coil code: please refer to coil versions table

Cover

- Blank** standard cover (white)
- C** transparent cover (clear)

**Power PCB Relay RX1** (Continued)

| Product key | Version       | Contacts     | Cont. material | Coil    | Cover       | Part number |
|-------------|---------------|--------------|----------------|---------|-------------|-------------|
| RX114012    | 12 A          | 1 CO contact | AgNi 90/10     | 12 VDC  | white       | 6-1415502-1 |
| RX114012C   | pinning 3.5mm |              |                |         | transparent | 1-1415503-1 |
| RX114024    | flux proof    |              |                | 24 VDC  | white       | 7-1415502-1 |
| RX114024C   |               |              |                |         | transparent | 2-1415503-1 |
| RX114730    |               |              |                | 230 VAC | white       | 8-1415502-1 |
| RX114730C   |               |              |                |         | transparent | 5-1415503-1 |
| RX134012    |               | 1 NO contact |                | 12 VDC  | white       | 9-1415502-1 |
| RX134024    |               |              |                | 24 VDC  |             | 1415503-1   |
| RX314012    | 16 A          | 1 CO contact |                | 12 VDC  |             | 1-1415502-1 |
| RX314012C   | pinning 5mm   |              |                |         | transparent | 3-1415503-1 |
| RX314024    | flux proof    |              |                | 24 VDC  | white       | 2-1415502-1 |
| RX314024C   |               |              |                |         | transparent | 4-1415503-1 |
| RX314730    |               |              |                | 230 VAC | white       | 3-1415502-1 |
| RX314730C   |               |              |                |         | transparent | 6-1415503-1 |
| RX334012    |               | 1 NO contact |                | 12 VDC  | white       | 4-1415502-1 |
| RX334024    |               |              |                | 24 VDC  |             | 5-1415502-1 |

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