

## Power PCB Relay RP11/2

- 2 pole 8 A, 2 form C (CO) or 2 form A (NO) contacts
- 4 kv/8 mm coil contact

Applications  
Domestic appliances, UPS



F0150-B

### Approvals

VDE Cert. No. 40025448, UL E214025  
Technical data of approved types on request

### Contact Data

|  |                                     |
|--|-------------------------------------|
| Contact configuration                              | 2 form C (CO) or<br>2 form A (NO)   |
| Rated voltage / max.switching voltage AC           | 250 VAC                             |
| Max. switching voltage                             | 400 VAC                             |
| Rated current                                      | 8 A (UL: 10A)                       |
| Limiting making capacity, max 4 s, duty factor 10% | 14 A                                |
| Breaking capacity max.                             | 2000 VA                             |
| Contact material                                   | AgNi 90/10<br>AgNi0.15 gold flashed |
| Frequency of operation with load                   | 600 h <sup>-1</sup>                 |
| Frequency of operation without load DC-/REM-coil   | 36000/18000 h <sup>-1</sup>         |
| Operate/release time typ.                          | 9/3 ms                              |
| Bounce time typ., form A/form B                    | 2/3 ms                              |

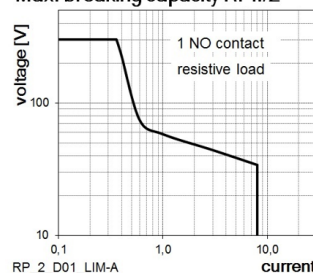
### Contact ratings

| Type            | Contact | Load                          | Cycles              |
|-----------------|---------|-------------------------------|---------------------|
| <b>IEC61810</b> |         |                               |                     |
| RP421           | A (NO)  | 8A, 250 VAC, resistive, 35°C  | 100x10 <sup>3</sup> |
| RP424 DC-coil   | A (NO)  | 8A, 250 VAC, resistive, 35°C  | 100x10 <sup>3</sup> |
| RP424 DC-coil   | C (CO)  | 5A, 250 VAC, resistive, 70°C  | 20x10 <sup>3</sup>  |
| RP424 DC-coil   | A (NO)  | 8A, 250 VAC, resistive, 70°C  | 30x10 <sup>3</sup>  |
| RP424 REM       | A (NO)  | 8A, 250 VAC, resistive, 35°C  | 50x10 <sup>3</sup>  |
| <b>UL508</b>    |         |                               |                     |
| RP421           | C (CO)  | 8A, 250 VAC, gen. purp, 40°C  | 6x10 <sup>3</sup>   |
| RP424           | A (NO)  | 10A, 250 VAC, gen. purp, 65°C | 30x10 <sup>3</sup>  |
| RP424           | C (CO)  | 8A, 250 VAC, gen. purp, 70°C  | 6x10 <sup>3</sup>   |

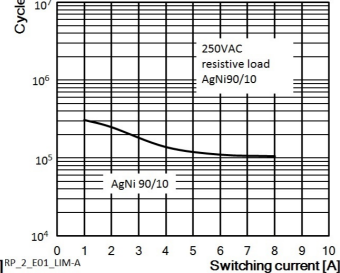
### Mechanical endurance

DC-coil version: >20x10<sup>6</sup> operations  
REM/bistable version: >1x10<sup>6</sup> operations

### Max. breaking capacity RP11/2



### Electrical endurance



### Coil Data

|                            |             |
|----------------------------|-------------|
| Coil voltage range         | 5 to 110VDC |
| Operative range, IEC 61810 | 2           |

### Coil versions, DC coil

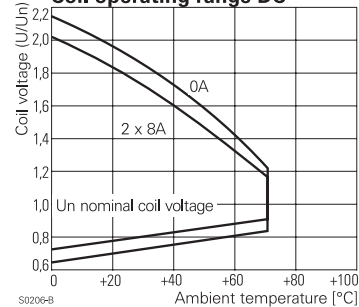
| Coil code | Rated voltage VDC | Operate voltage VDC | Release voltage VDC | Coil resistance $\Omega \pm 10\%$ <sup>1)</sup> | Rated power mW |
|-----------|-------------------|---------------------|---------------------|---|----------------|
| 005       | 5                 | 3.5                 | 0.5                 | 54  | 500            |
| 006       | 6                 | 4.2                 | 0.6                 | 68  | 500            |
| 012       | 12                | 8.4                 | 1.2                 | 270   | 500            |
| 024       | 24                | 16.8                | 2.4                 | 1100 <sup>1)</sup>                              | 500            |
| 048       | 48                | 33.6                | 4.8                 | 4400 <sup>1)</sup>                              | 500            |
| 060       | 60                | 42.0                | 6.0                 | 6540 <sup>1)</sup>                              | 500            |
| 110       | 110               | 77.0                | 11.0                | 23100 <sup>1)</sup>                             | 500            |

<sup>1)</sup> Coil resistance  $\pm 15\%$ .

All figures are given for coil without pre-energization, at ambient temperature +20°C.

Other coil voltages on request.

### Coil operating range DC



### Coil versions, REM I (1 coil bistable/remanence)

| Coil code | Rated voltage VDC | Resistance $\Omega \pm 15\%$ | Magnetisation range MIN./Vdc MAX./Vdc | Demagnetisation range MIN./Vdc MAX./Vdc |
|-----------|-------------------|------------------------------|---------------------------------------|---|
| A12       | 12                | 115                          | 9 18                                  | 3 4.8                                   |
| A24       | 24                | 460                          | 18 36                                 | 6 9.6                                   |
| A48       | 48                | 1748                         | 36 72                                 | 12 19.2                                 |

### Coil versions, REM II (2 coil bistable/remanence)

| Coil code | Rated voltage VDC | Resistance $\Omega \pm 15\%$ | Magnetisation range MIN./Vdc MAX./Vdc | Demagnetisation range MIN./Vdc MAX./Vdc |
|-----------|-------------------|------------------------------|---------------------------------------|---|
| F05       | 5                 | 20                           | 3.7 7.5                               | 3.7 6                                   |
| F12       | 12                | 105                          | 9 18                                  | 9 14.4                                  |
| F24       | 24                | 460                          | 18 36                                 | 18 28.8                                 |

All figures are given for coil without pre-energization, at ambient temperature +20°C.

Other coil voltages on request.

**Power PCB Relay RPII/2 (Continued)**

**Insulation**

|                                    |                      |
|------------------------------------|----------------------|
| Initial dielectric strength        |                      |
| coil-contact circuit               | 4000V <sub>rms</sub> |
| open contact circuit               | 1000V <sub>rms</sub> |
| adjacent contact circuits          | 2500V <sub>rms</sub> |
| Clearance/creepage                 |                      |
| coil-contact circuit               | ≥8/8mm               |
| Material group of insulation parts | IIIa                 |

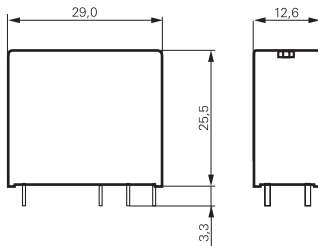
**Other Data**

Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at [www.te.com/customer-support/rohssupportcenter](http://www.te.com/customer-support/rohssupportcenter)

|   |                                       |
|---|---------------------------------------|
| Ambient temperature   | -40 to +70°C                          |
| Category of environmental IEC 61810                           | RTII - flux proof, RTIII - wash tight |
| Vibration resistance (functional), form A/form B, 30 to 150Hz | 11/1.5g                               |
| Shock resistance (destructive)                                | 100g                                  |
| Terminal type   | PCB-THT                               |
| Resistance to soldering heat THT, IEC 60068-2-20              |                                       |
| flux-proof version  | 270°C / 10s                           |
| wash-tight version  | 260°C / 5s                            |
| Relay weight  | 18g                                   |
| Packaging unit  | tube/20 pcs., box/500 pcs.            |

**Dimensions**

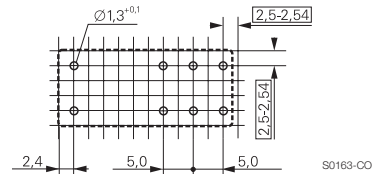
Dimensions in mm



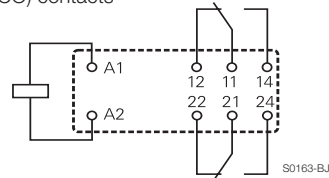
monostable and REM I (REM II version has 3 coil terminals)

**PCB layout / terminal assignment**

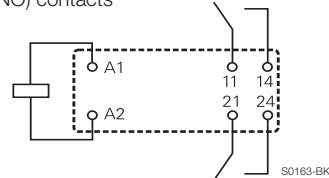
Bottom view on solder pins  
Dimensions in mm



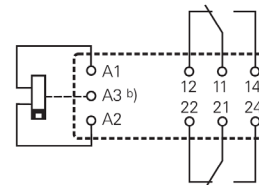
2 form C (CO) contacts



2 form A (NO) contacts



2 form C (CO) contacts (REM II version/ 2 coils)



a) Indicated contact position while or after coil energization with reset voltage.  
b) for 2 coil version only

**Product code structure**

Typical product code

**RP 4 2 4 024**

**Type**

**RP** Power PCB Relay RPII/2

**Version**

**4** 8A, flux proof **8** 8A, wash tight

**Contact arrangement**

**2** 2 form C (2 CO) **4** 2 form A (2 NO)

**Contact material**

**1** AgNi0.15 gold flashed **0** Discontinued: AgCdO<sup>2)</sup> **4** AgNi 90/10

**Coil**

Coil code: please refer to coil versions table

2) AgCdO contacts are discontinued and replaced with AgNi contacts (see PCN E-18-003947)

**Power PCB Relay RPII/2** (Continued)

| Product Code | Version    | Contacts               | Cont. Material | Coil Version | Coil   | Part Number |
|--------------|------------|------------------------|----------------|--------------|--------|-------------|
| RP421012     | Flux proof | 2 form C (CO) contacts | AgNi0.15       | monostable   | 12VDC  | 6-1393234-7 |
| RP421024     |            |                        |                |              | 24VDC  | 6-1393234-8 |
| RP421110     |            |                        |                |              | 110VDC | 7-1393234-1 |
| RP821012     | Wash tight |                        | AgNi0.15       |              | 12VDC  | 1393845-4   |
| RP821024     |            |                        |                |              | 24VDC  | 1393845-5   |
| RP424005     | Flux proof |                        | AgNi 90/10     |              | 5VDC   | 6-1415546-2 |
| RP424006     |            |                        |                |              | 6VDC   | 6-1415546-3 |
| RP424012     |            |                        |                |              | 12VDC  | 6-1415546-4 |
| RP424024     |            |                        |                |              | 24VDC  | 6-1415546-5 |
| RP424048     |            |                        |                |              | 48VDC  | 6-1415546-6 |
| RP424060     |            |                        |                |              | 60VDC  | 6-1415546-7 |
| RP424110     |            |                        |                |              | 110VDC | 6-1415546-8 |
| RP424A12     |            |                        |                | REM I        | 12VDC  | 6-1415546-9 |
| RP424A24     |            |                        |                |              | 24VDC  | 7-1415546-0 |
| RP424A48     |            |                        |                |              | 48VDC  | 7-1415546-1 |
| RP424F12     |            |                        |                | REM II       | 12VDC  | 7-1415546-2 |
| RP424F24     |            |                        |                |              | 24VDC  | 7-1415546-3 |
| RP444012     |            | 2 form A (NO) contacts |                | monostable   | 12VDC  | 7-1415546-4 |
| RP444024     |            |                        |                |              | 24VDC  | 7-1415546-5 |
| RP824006     | Wash tight | 2 form C (CO) contacts |                |              | 6VDC   | 7-1415546-6 |
| RP824012     |            |                        |                |              | 12VDC  | 7-1415546-7 |
| RP824024     |            |                        |                |              | 24VDC  | 7-1415546-8 |
| RP824048     |            |                        |                |              | 48VDC  | 7-1415546-9 |
| RP824060     |            |                        |                |              | 60VDC  | 8-1415546-0 |
| RP844024     |            | 2 form A (NO) contacts |                |              | 24VDC  | 6-1415546-1 |

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

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