

## Power PCB Relay RPII/2

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



©<sup>V</sup>E c**¶** ∪s

FU 100-B

Applications Domestic appliances, UPS

Approvals

VDE Cert. No. 40025448, UL E214025

Technical data of approved types on request

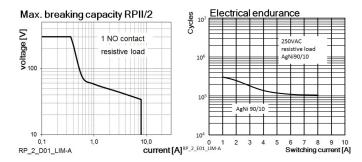
| Contact Data                                       |                             |
|--|-----------------------------|
| Contact configuration                              | 2 form C (CO) or            |
|  | 2 form A (NO)               |
| Rated voltage / max.switching voltage AC           | 250 VAC                     |
| 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                  |
|  | 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** 

REM/bistable version:

| Contact ruting   | 3       |                                |                     |
|------------------|---------|--------------------------------|---------------------|
| Туре             | Contact | Load                           | Cycles              |
| IEC61810         |         |                                |                     |
| 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>  |
| UL508            |         |                                |                     |
| 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 en    | durance |                                |                     |
| DC-coil version: |         | >20x10 <sup>6</sup> operations |                     |

>1x10<sup>6</sup> operations



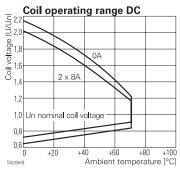
| Coil Data                  |             |
|----------------------------|-------------|
| Coil voltage range         | 5 to 110VDC |
| Operative range, IEC 61810 | 2           |

Coil versions, DC coil

| Oon vers | sions, DO co |         |         |                        |            |
|----------|--------------|---------|---------|------------------------|------------|
| Coil     | Rated        | Operate | Release | Coil                   | Rated coil |
| code     | voltage      | voltage | voltage | resistance             | power      |
|          | VDC          | VDC     | VDC     | $\Omega \pm 10\%^{1)}$ | 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        |

1) Coil resistance ±15%.

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



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

| •••• |         |                   |                     |          |                       |          |  |
|------|---------|-------------------|---------------------|----------|-----------------------|----------|--|
| Coil | Rated   | Resistance        | Magnetisation range |          | Demagnetisation range |          |  |
| code | voltage | $\Omega \pm 15\%$ | MIN./ Vdc           | MAX./Vdc | MIN./ Vdc             | MAX./Vdc |  |
|      | 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 | Rated   | Resistance        | Magnetisation range |          | Demagnetisation range |          |  |
|------|---------|-------------------|---------------------|----------|-----------------------|----------|--|
| code | voltage | $\Omega \pm 15\%$ | MIN./ Vdc           | MAX./Vdc | MIN./ Vdc             | MAX./Vdc |  |
|      | 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  $+20^{\circ}$ 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 | Illa                 |

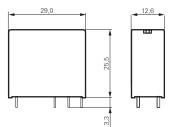
### **Other Data**

Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at www.te.com/customersupport/rohssupportcenter

|                                      | THE CASTOT CASTOT CASTOT CONTROL      |
|--------------------------------------|---------------------------------------|
| 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, IE | C 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**

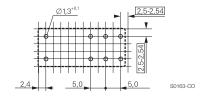
Dimensions in mm

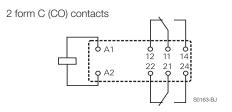


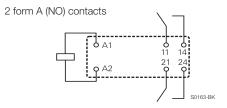
monostable and REM I (REM II version has 3 coil terminals)

#### PCB layout / terminal assignment

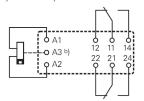
Bottom view on solder pins Dimensions in mm





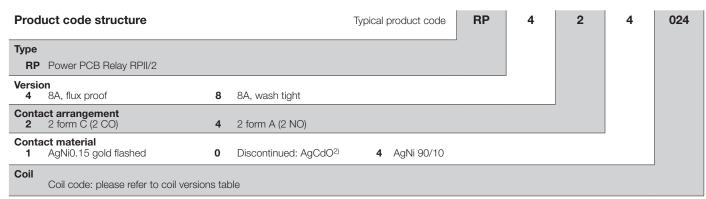


2 form C (CO) contacts (REM II version/ 2 coils)



 a) Indicated contact position while or after coil energization with reset voltage.

b) for 2 coil version only



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



## Power PCB Relay RPII/2 (Continued)

| <b>Product Code</b> | 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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