

## Miniature PCB Relay RE

- 1 pole 6 A, 1 form A (NO) contact
- Sensitive coil 200 mW
- 4 kV coil-contact
- Optimized height 10.6mm
- PCB area 200mm<sup>2</sup>
- Wash tight
- Product in accordance to IEC 60335-1 (domestic appliances)



F0141-B

### Typical applications

PLC's, timers, temperature control, I/O cards, white goods



### Approvals

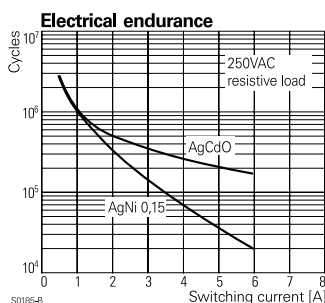
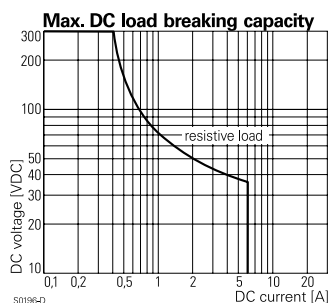
VDE REG.-Nr. 5063, cULus E214025  
Technical data of approved types on request

### Contact Data

|  |                              |
|--|------------------------------|
| Contact arrangement                              | 1 form A (NO)                |
| Rated voltage                                    | 250VAC                       |
| Max. switching voltage                           | 400VAC                       |
| Rated current                                    | 6A                           |
| Limiting making current, max 4s, duty factor 10% | 15A                          |
| Breaking capacity max.                           | 1500VA                       |
| Contact material                                 | AgCdO, AgNi 0.15, AgNi 90/10 |
| Frequency of operation, with/without load        | 360/72000 ops./h             |
| Operate/release time max.                        | 10/5ms                       |
| Bounce time max.                                 | 4ms                          |

### Contact ratings

| Type                 | Contact | Load                              | Cycles              |
|----------------------|---------|-----------------------------------|---------------------|
| <b>IEC 61810</b>     |         |                                   |                     |
| RE030                | A (NO)  | 6A, 250VAC, cosφ=1, 70°C          | 100x10 <sup>3</sup> |
| RE034                | A (NO)  | 6A, 250VAC, cosφ=1, 70°C          | 100x10 <sup>3</sup> |
| <b>UL 508</b>        |         |                                   |                     |
| RE030                | A (NO)  | 1/4 hp, 240VAC, motor 40°C        | 30x10 <sup>3</sup>  |
| RE030                | A (NO)  | B300 pilot duty 40°C              | 6x10 <sup>3</sup>   |
| RE034                | A (NO)  | 6A, 250VAC, general purpose, 70°C | 100x10 <sup>3</sup> |
| RE034                | A (NO)  | B300 pilot duty 40°C              | 6x10 <sup>3</sup>   |
| Mechanical endurance |         | >30x10 <sup>6</sup> ops.          |                     |



### Coil Data

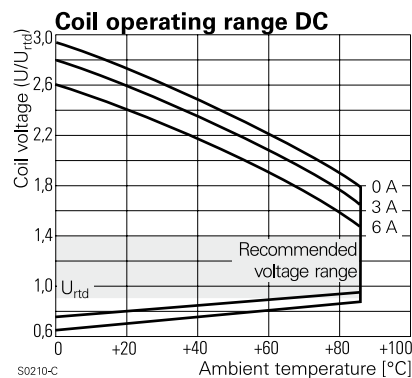
|   |             |
|---|-------------|
| Coil voltage range                      | 5 to 48 VDC |
| Operative range, IEC 61810              | 2           |
| Coil insulation system according UL1446 | F           |

### Coil versions, DC coil

| Coil code | Rated voltage VDC | Operate voltage VDC | Release voltage VDC | Coil resistance Ω±10% <sup>1)</sup> | Rated coil power mW |
|-----------|-------------------|---------------------|---------------------|-------------------------------------|---------------------|
| 5         | 5                 | 3.5                 | 0.5                 | 125                                 | 200                 |
| 6         | 6                 | 4.2                 | 0.6                 | 180                                 | 200                 |
| 12        | 12                | 8.4                 | 1.2                 | 720                                 | 200                 |
| 18        | 18                | 12.6                | 1.8                 | 1620                                | 200                 |
| 24        | 24                | 16.8                | 2.4                 | 2880 <sup>1)</sup>                  | 200                 |
| 48        | 48                | 33.6                | 4.8                 | 11520 <sup>1)</sup>                 | 200                 |

<sup>1)</sup> Coil resistance ±15%.

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



### Insulation Data

|                                    |                       |
|------------------------------------|-----------------------|
| Initial dielectric strength        |                       |
| between open contacts              | 1000V <sub>rms</sub>  |
| between contact and coil           | 4000V <sub>rms</sub>  |
| Initial insulation resistance      |                       |
| open contact circuit               | >10x10 <sup>9</sup> Ω |
| coil-contact circuit               | >10x10 <sup>9</sup> Ω |
| Clearance/creepage                 |                       |
| between contact and coil           | ≥4/4mm                |
| Material group of insulation parts | IIla                  |
| Tracking index of relay base       | PTI250V               |

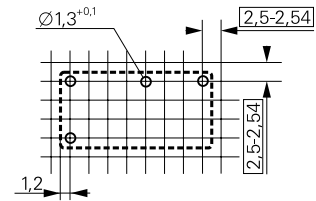
## Miniature PCB Relay RE (Continued)

### Other Data

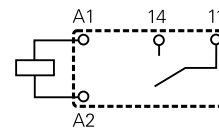
|   |                            |
|---|----------------------------|
| Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at <a href="http://www.tycoelectronics.com/customersupport/rohssupportcenter">www.tycoelectronics.com/customersupport/rohssupportcenter</a> |                            |
| Resistance to heat and fire   | according EN 60335, par.30 |
| Ambient temperature   | -40 to +70°C               |
|   | -40 to +85°C at 4A         |
| Category of environmental protection  | IEC 61810                  |
|   | RTIII - wash tight         |
| Vibration resistance (functional)   | 10g                        |
| Terminal type   | PCB-THT                    |
| Resistance to soldering heat THT  | 260°C/5s                   |
| Packaging/unit  | tube/25 pcs.               |

### PCB layout / terminal assignment

Bottom view on solder pins

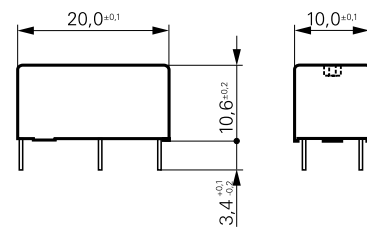


S0176-BH



S0176-BJ

### Dimensions



S0271-AH

### Product code structure

Typical product code **RE 0 3 2 012**

#### Type

**RE** Miniature PCB Relay RE

#### Version

**0** Wash tight

#### Contact configuration

**3** 1 form A (NO) contact

#### Contact material

**1** AgNi 0.15 **2** AgNi 0.15 gold plated  
**4** AgNi 90/10 **0** AgCdO

#### Coil

Coil code: please refer to coil versions table

| Product code | Version    | Contacts     | Contact material | Coil  | Part number |
|--------------|------------|--------------|------------------|-------|-------------|
| RE030005     | wash tight | 1 form A     | AgCdO            | 5VDC  | 1393217-1   |
| RE030006     |            | 1 NO contact |                  | 6VDC  | 1393217-2   |
| RE030012     |            |              |                  | 12VDC | 1393217-4   |
| RE030024     |            |              |                  | 24VDC | 1393217-8   |
| RE030048     |            |              |                  | 48VDC | 1-1393217-1 |
| RE032005     |            |              | AgNi 0,15        | 5VDC  | 1-1393217-9 |
| RE032006     |            |              | gold plated      | 6VDC  | 2-1393217-0 |
| RE032012     |            |              |                  | 12VDC | 2-1393217-2 |
| RE032024     |            |              |                  | 24VDC | 2-1393217-4 |
| RE032048     |            |              |                  | 48VDC | 2-1393217-5 |
| RE034005     |            |              | AgNi 90/10       | 5VDC  | 2-1416010-3 |
| RE034006     |            |              |                  | 6VDC  | 2-1416010-4 |
| RE034012     |            |              |                  | 12VDC | 2-1416010-6 |
| RE034024     |            |              |                  | 24VDC | 2-1416010-7 |
| RE034048     |            |              |                  | 48VDC | 2-1416010-8 |