

## 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)



### Typical applications

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



### Approvals

VDE Cert. No. 40010578, UL 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                                 | 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>          |         |                                   |                     |
| RE034                     | A (NO)  | 6A, 250VAC, cosφ=1, 70°C          | 100x10 <sup>3</sup> |
| <b>UL61810-1 (UL 508)</b> |         |                                   |                     |
| 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>   |
| RE034                     | A (NO)  | 6A, 30VDC, general purpose, 70°C  | 100x10 <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           |

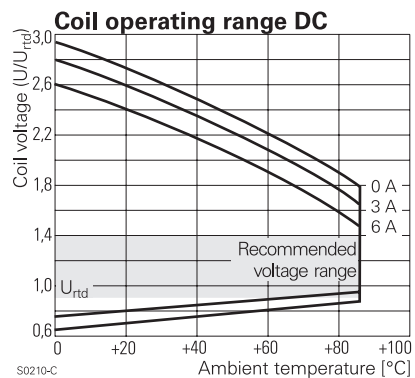
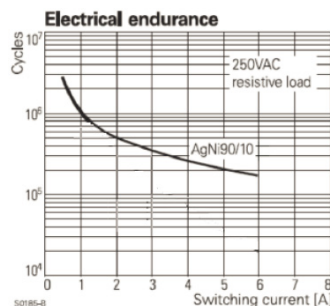
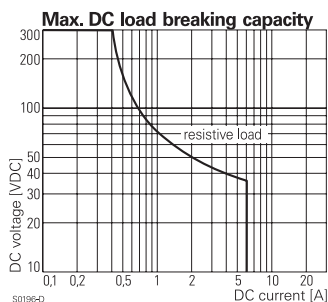
### Coil versions, DC coil

| 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                 |
| 9         | 9                 | 6.3                 | 0.9                 | 405                                 | 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>ms</sub>   |
| between contact and coil           | 4000V <sub>ms</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 | IIIa                  |
| Tracking index of relay base       | PTI250V               |

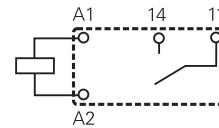
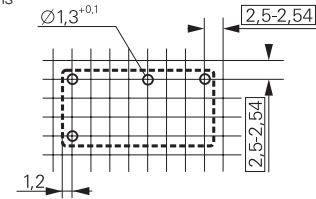
## Miniature PCB Relay RE (Continued)

### Other Data

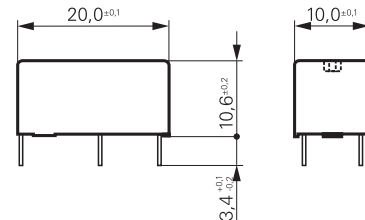
|                                                                                                                                                                                                                                       |                            |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at <a href="http://www.te.com/customersupport/rohssupportcenter">www.te.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                                                                                                                                                                                                      |                            |
| IEC 60068-2-20                                                                                                                                                                                                                        | 260°C/5s                   |
| Packaging/unit                                                                                                                                                                                                                        | tube/25 pcs., box/500 pcs. |

### PCB layout / terminal assignment

Bottom view on solder pins



### Dimensions



### Product code structure

Typical product code

**RE 0 3 4 012**

#### Type

**RE** Miniature PCB Relay RE

#### Version

**0** Wash tight

#### Contact Configuration

**3** form A (NO) contact

#### Contact material

**5** AgNi 90/10 gold plated  
**4** AgNi 90/10

#### Coil

Coil code: please refer to coil versions table

| Product code | Version    | Contacts    | Contact material       | Coil   | Part Number |
|--------------|------------|-------------|------------------------|--------|-------------|
| RE034005     | wash tight | NO contacts | AgNi 90/10             | 5 VDC  | 2-1416010-3 |
| RE034006     | wash tight | NO contacts | AgNi 90/10             | 6 VDC  | 2-1416010-4 |
| RE034009     | wash tight | NO contacts | AgNi 90/10             | 9 VDC  | 2-1416010-5 |
| RE034012     | wash tight | NO contacts | AgNi 90/10             | 12 VDC | 2-1416010-6 |
| RE034018     | wash tight | NO contacts | AgNi 90/10             | 18 VDC | 3-1416010-2 |
| RE034021     | wash tight | NO contacts | AgNi 90/10             | 21 VDC | 1956220-7   |
| RE034024     | wash tight | NO contacts | AgNi 90/10             | 24 VDC | 2-1416010-7 |
| RE035005     | wash tight | NO contacts | AgNi 90/10 gold plated | 5 VDC  | 1956226-3   |
| RE035006     | wash tight | NO contacts | AgNi 90/10 gold plated | 6 VDC  | 1956226-5   |
| RE035009     | wash tight | NO contacts | AgNi 90/10 gold plated | 9 VDC  | 1956226-7   |
| RE035012     | wash tight | NO contacts | AgNi 90/10 gold plated | 12 VDC | 1956226-1   |
| RE035018     | wash tight | NO contacts | AgNi 90/10 gold plated | 18 VDC | 1956226-9   |
| RE035021     | wash tight | NO contacts | AgNi 90/10 gold plated | 21 VDC | 1-1956226-1 |
| RE035024     | wash tight | NO contacts | AgNi 90/10 gold plated | 24 VDC | 1956226-2   |
| RE035048     | wash tight | NO contacts | AgNi 90/10 gold plated | 48 VDC | 1-1956226-3 |

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