

## 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

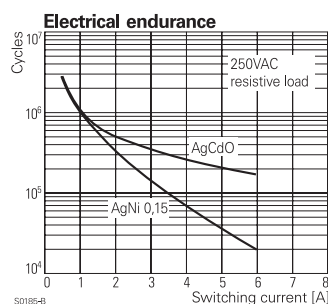
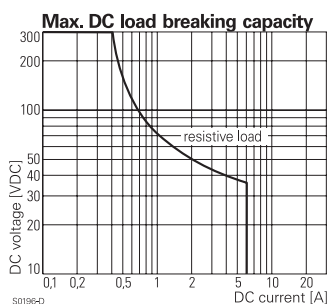
Technical data of approved types on request.

### 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                                 | 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

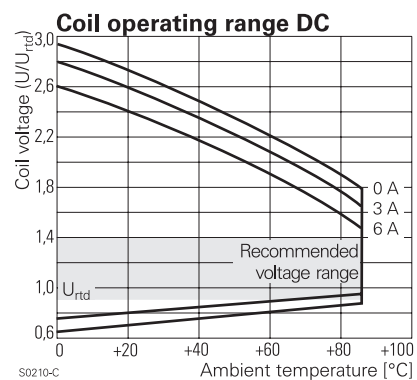
|                                         |             |
|-----------------------------------------|-------------|
| Coil voltage range                      | 5 to 48 VDC |
| Operative range, IEC 61810              | 2           |
| Coil insulation system according UL1446 | F           |

### 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>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               |

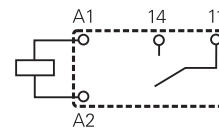
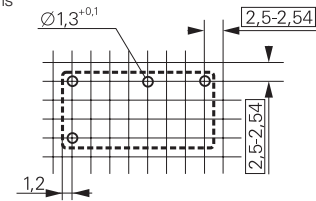
## Miniature PCB Relay RE (Continued)

### Other Data

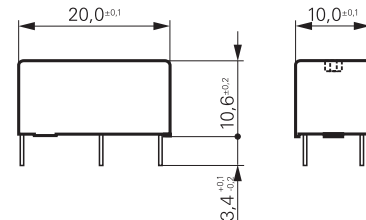
|                                                                                                                                                                                                                                         |                            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at <a href="http://www.te.com/customer-support/rohssupportcenter">www.te.com/customer-support/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.               |

### PCB layout / terminal assignment

Bottom view on solder pins



### Dimensions



### Product code structure

Typical product code

**RE 0 3 2 012**

#### Type

**RE** Miniature PCB Relay RE

#### Version

**0** Wash tight

#### Contact Configuration

**A** form A (NO) contact

#### Contact material

|                     |                                |                                 |
|---------------------|--------------------------------|---------------------------------|
| <b>1</b> AgNi 0.15  | <b>2</b> AgNi 0.15 gold plated | <b>5</b> AgNi 90/10 gold plated |
| <b>4</b> AgNi 90/10 | <b>0</b> AgCdO                 | <b>6</b> AgCdO gold plated      |

#### 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 |

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