

F0141-B

# 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

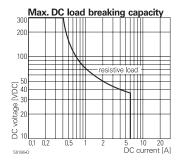
VDE REG.-Nr. 5063, UL E214025 Technical data of approved types on request

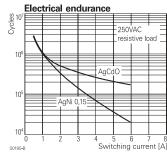
### Contact Data

| 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 le | oad 360/72000 ops./h         |
| Operate/release time max.               | 10/5ms                       |
| Bounce time max.                        | 4ms                          |

#### **Contact ratings**

| 001110101       | aango       |                                  |                     |
|-----------------|-------------|----------------------------------|---------------------|
| Туре            | Contact     | Load                             | Cycles              |
| <b>IEC 6181</b> | 0           |                                  |                     |
| 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> |
| UL 508          |             |                                  |                     |
| 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>   |
| Mechanic        | al endurand | ce >30x10 <sup>6</sup> ops.      |                     |





## Coil Data

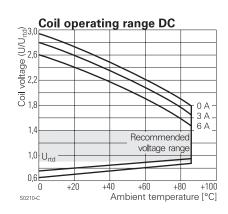
| Coil voltage range                      | 5 to 48 VDC |  |
|-----------------------------------------|-------------|--|
| Operative range, IEC 61810              | 2           |  |
| Coil insulation system according UL1446 | F           |  |

#### Coil versions, DC coil

| Con vers | SIONS, DC CO |         |         |                        |            |
|----------|--------------|---------|---------|------------------------|------------|
| Coil     | Rated        | Operate | Release | Coil                   | Rated coil |
| code     | voltage      | voltage | voltage | resistance             | power      |
|          | VDC          | VDC     | VDC     | $\Omega \pm 10\%^{1)}$ | 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        |

1) Coil resistance ±15%.

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



# Insulation Data

| insulation bata                    |                       |  |
|------------------------------------|-----------------------|--|
| 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 | Illa                  |  |
| Tracking index of relay base       | PTI250V               |  |
|                                    |                       |  |

Datasheets and product specification according to IEC 61810-1 and to be used only together with the 'Definitions' section. Datasheets and product data is subject to the terms of the disclaimer and all chapters of the 'Definitions' section, available at <a href="http://relays.te.com/definitions">http://relays.te.com/definitions</a>

Datasheets, product data, 'Definitions' section, application notes and all specifications are subject to change. 1

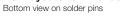


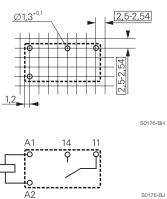
# Miniature PCB Relay RE (Continued)

### Other Data

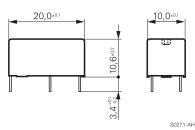
| Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content |  |  |  |  |  |
|----------------------------------------------------------------------|--|--|--|--|--|
| refer to the Product Compliance Support Center at                    |  |  |  |  |  |
| n/customersupport/rohssupportcenter                                  |  |  |  |  |  |
| according EN 60335, par.30                                           |  |  |  |  |  |
| -40 to +70°C                                                         |  |  |  |  |  |
| -40 to +85°C at 4A                                                   |  |  |  |  |  |
|                                                                      |  |  |  |  |  |
| RTIII - wash tight                                                   |  |  |  |  |  |
| 10g                                                                  |  |  |  |  |  |
| PCB-THT                                                              |  |  |  |  |  |
|                                                                      |  |  |  |  |  |
| 260°C/5s                                                             |  |  |  |  |  |
| tube/25 pcs.                                                         |  |  |  |  |  |
|                                                                      |  |  |  |  |  |

#### PCB layout / terminal assignment





Dimensions



| Product code structure            |   |                       | Typical product code | RE | 0 | 3 | 2 | 012 |
|-----------------------------------|---|-----------------------|----------------------|----|---|---|---|-----|
| Type<br>RE Miniature PCB Relay RE |   |                       |                      |    |   |   |   |     |
| Version                           |   |                       |                      |    | 1 |   |   |     |
| 0 Wash tight                      |   |                       |                      |    |   |   |   |     |
| Contact configuration             |   |                       |                      |    |   |   |   |     |
| 3 1 form A (NO) contact           |   |                       |                      |    |   |   |   |     |
| Contact material                  |   |                       |                      |    |   |   |   |     |
| 1 AgNi 0.15                       | 2 | AgNi 0.15 gold plated |                      |    |   |   |   |     |
| <b>4</b> 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 |

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