

Miniature PCB Relay PE

- 1 pole 5 A, 1 form C (CO) or 1 form A (NO) contact
- Cadmium-free contacts
- Sensitive coil 200mW
- Ambient temperature 85°C
- Low height 10.0mm
- Plastic materials according to IEC 60335-1 (domestic appliances)



F0169-C

Typical applications
Industrial electronics, white goods, measurement and control



Approvals

VDE REG.-Nr. 6656, UL E214025 (version with 1 form A (NO) in process)
Technical data of approved types on request

Contact Data

| | |
|---|--------------------------------|
| Contact arrangement | 1 form C (CO) or 1 form A (NO) |
| Rated voltage | 250VAC |
| Max. switching voltage | 400VAC |
| Rated current | 5A |
| Breaking capacity max. | 1250VA |
| Contact material | AgNi 90/10, AgSnO ₂ |
| Frequency of operation with/without load | 360/72000 ops/h |
| Operate/release time | typ. 8/8ms |
| Bounce time, form A/form B | typ. 4/6ms |

Contact ratings

| Type | Contact | Load | Cycles |
|-------------------------------|---------|---------------------------------|---------------------|
| IEC 61810 | | | |
| PE013 | C (CO) | 5A, 250VAC, cosφ=1, 85°C | 30x10 ³ |
| PE014/PE015 | C (CO) | 5A, 250VAC, cosφ=1, 85°C | 100x10 ³ |
| PE014/PE015 | A (NO) | 5A, 30VDC, 0ms, 85°C | 100x10 ³ |
| PE034 | A (NO) | 6A, 250VAC, cosφ=1, 70°C | 50x10 ³ |
| UL 508 | | | |
| PE013 | C (CO) | 5A, 240VAC, resistive, 85°C | 30x10 ³ |
| PE014/PE015 | C (CO) | 5A, 240VAC, resistive, 85°C | 100x10 ³ |
| PE014 | A (NO) | 5A, 30VDC, resistive, 85°C | 100x10 ³ |
| PE034 | A (NO) | 6A, 250VAC, resistive, 70°C | 100x10 ³ |
| Mechanical endurance, DC coil | | >15x10 ⁶ operations. | |

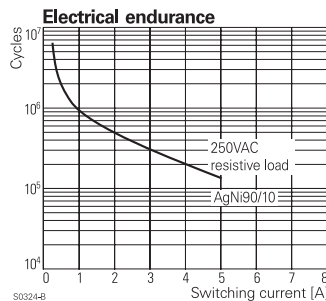
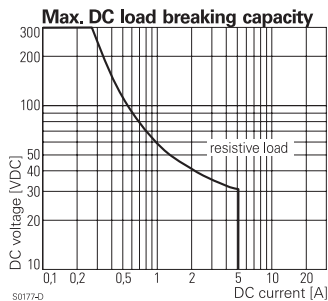
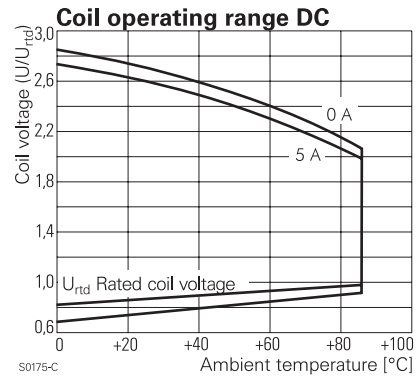
Coil Data

| | |
|----------------------------|-------------|
| Coil voltage range | 5 to 48 VDC |
| Operative range, IEC 61810 | 2 |

Coil versions, DC coil

| Coil code | Rated voltage VDC | Operate voltage VDC | Release voltage VDC | Coil resistance Ω±10% | Rated power mW |
|-----------|-------------------|---------------------|---------------------|-----------------------|----------------|
| 3 | 3 | 2.25 | 0.3 | 45 | 200 |
| 5 | 5 | 3.8 | 0.5 | 125 | 200 |
| 6 | 6 | 4.5 | 0.6 | 172 | 209 |
| 9 | 9 | 6.8 | 0.9 | 405 | 200 |
| 12 | 12 | 9.0 | 1.2 | 685 | 210 |
| 24 | 24 | 18.0 | 2.4 | 2725 | 211 |
| 48 | 48 | 36.0 | 4.8 | 10970 | 210 |

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 _{rms} |
| between contact and coil | 4000V _{rms} |
| Initial insulation resistance | |
| open contact circuit | >10x10 ⁹ Ω |
| coil-contact circuit | >10x10 ⁹ Ω |
| Clearance/creepage | |
| between contact and coil | ≥3.2/4mm |
| Material group of insulation parts | IIla |
| Tracking index of relay base | PTI250V |

Miniature PCB Relay PE (Continued)

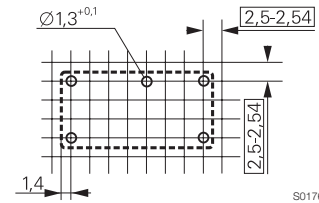
Other Data

| | |
|---|--|
| Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at www.te.com/customersupport/rohssupportcenter | |
| Resistance to heat and fire | according EN60335, par.30 |
| Ambient temperature | -40 to 85°C |
| Category of environmental protection, IEC 61810 | RTII - flux proof (RTIII - wash tight on request) |
| Vibration resistance (functional), form A/form B | >15/5g |
| Shock resistance (destructive) | >100g |
| Terminal type | PCB-THT |
| Weight | 5g |
| Resistance to soldering heat THT | 270°C/10s (flux proof version) |
| Packaging/unit | IEC 60068-2-20 tube/25 pcs., box/500 pcs. |

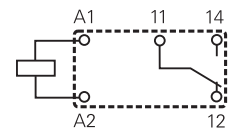
PCB layout / terminal assignment

Bottom view on solder pins

1 form C (CO) version

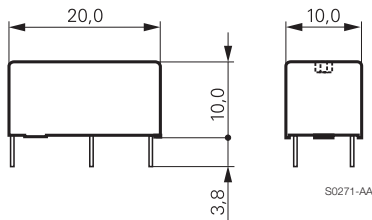


S0176-BA



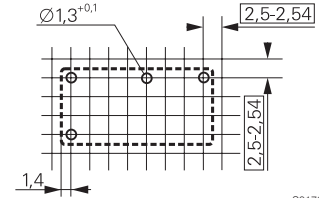
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Dimensions

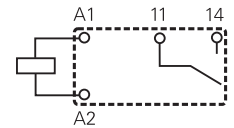


S0271-AA

1 form A (NO) version



S0176-BC



S0176-BD

Product code structure

Typical product code **PE 0 1 4 012**

| | | | | | |
|----------------------------|--|-------------------------|--------------------------|--|--|
| Type | PE Miniature PCB Relay PE | | | | |
| Version | 0 Flux proof | | | | |
| Contact arrangement | 1 1 form C (CO) contact | 3 1 form A (NO) contact | | | |
| Contact material | 4 AgNi 90/10 | 3 AgSnO ₂ | 5 AgNi 90/10 gold plated | | |
| Coil | Coil code: please refer to coil versions table | | | | |

| Product code | Version | Contacts | Contact material | Coil | Part number |
|--------------|------------|--------------------------|---------------------------|-------|-------------|
| PE014005 | flux proof | 1 form C 1 CO contact | AgNi 90/10 | 5VDC | 1393219-3 |
| PE014006 | | | | 6VDC | 1393219-4 |
| PE014012 | | | | 12VDC | 1393219-6 |
| PE014024 | | | | 24VDC | 1-1393219-0 |
| PE014048 | | | | 48VDC | 1-1393219-3 |
| PE015012 | | | | 12VDC | 1-1393219-4 |
| PE015024 | | 1 form A 1 NO contact | AgNi 90/10 gold plated | 24VDC | 1-1393219-5 |
| PE034005 | | | | 5VDC | 4-1415535-6 |
| PE034006 | | | | 6VDC | 4-1415535-7 |
| PE034012 | | | | 12VDC | 4-1415535-9 |
| PE034024 | | | | 24VDC | 5-1415535-1 |
| PE034048 | | | | 48VDC | 5-1415535-2 |