

Miniature PCB Relay PE

- 1 pole 5 A, 1 CO or 1 NO contact
- Cadmium-free contacts
- Sensitive coil 200 mW
- 4 kV coil-contact
- Ambient temperature 85°C
- Low height 10.0 mm
- Plastic materials according to IEC60335-1 (domestic appliances)
- RoHS compliant (Directive 2002/95/EC) as per product date code 0352

Applications

Industrial electronics, white goods, measurement and control



F0169-B

Approvals

REG.-Nr. 6656, US E214025 (for version with 1 NO in process)
Technical data of approved types on request

Contact data

| | |
|--|---------------------------|
| Contact configuration | 1 CO or 1 NO contact |
| Contact set | single contact |
| Type of interruption | micro disconnection |
| Rated current | 5 A |
| Rated voltage / max.switching voltage AC | 240/400 VAC |
| Maximum breaking capacity AC | 1250 VA |
| Contact material | AgNi90/10 |
| Mechanical endurance | 15x10 ⁶ cycles |
| Rated frequency of operation with / without load | 6/1200 min ⁻¹ |

Contact ratings

| Type | Load | Cycles |
|-------|--|-------------------|
| PE014 | 5 A, 250 VAC, resistive, 85°C, 6 cycles/min, 50% df, EN61810-1 | 1x10 ⁵ |
| PE014 | 5 A, 30 VDC, resistive, on NO-contact, 85°C, 6 cycles/min, 50% duty factor, EN61810-1, | 1x10 ⁵ |
| PE014 | 5 A, 240 VAC resistive load, on NO or NC contact, UL508 | 1x10 ⁵ |
| PE034 | 5 A, 250 VAC, resistive, 85°C, 6 cycles/min, 50% df, EN61810-1 | 1x10 ⁵ |
| PE034 | 5 A, 30 VDC, resistive, 85°C, 6 cycles/min, 50% duty factor, EN61810-1, | 1x10 ⁵ |
| PE034 | 5 A, 240 VAC resistive load, UL508 | 1x10 ⁵ |

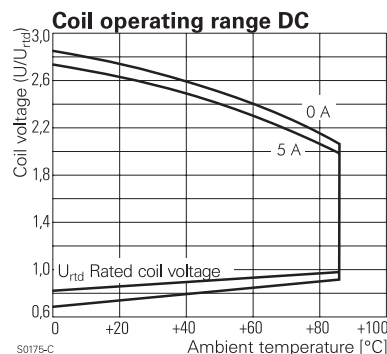
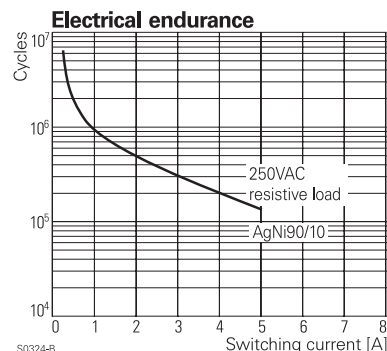
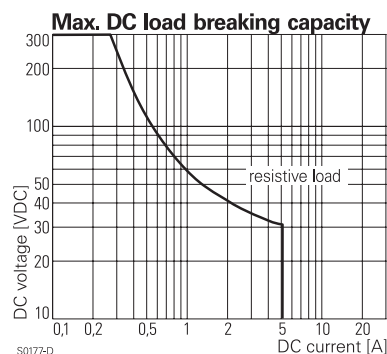
Coil data

| | |
|----------------------------------|-------------|
| Rated coil voltage range DC coil | 5...48 VDC |
| Coil power DC coil | typ. 200 mW |
| Operative range | 2 |

Coil versions, DC-coil

| Coil code | Rated voltage VDC | Operate voltage VDC | Release voltage VDC | Coil resistance Ohm | Rated coil power mW |
|-----------|-------------------|---------------------|---------------------|---------------------|---------------------|
| 005 | 5 | 3.8 | 0.5 | 125±10% | 200 |
| 006 | 6 | 4.5 | 0.6 | 172±10% | 209 |
| 012 | 12 | 9.0 | 1.2 | 685±10% | 210 |
| 024 | 24 | 18.0 | 2.4 | 2725±10% | 211 |
| 048 | 48 | 36.0 | 4.8 | 10970±10% | 210 |

All figures are given for coil without preenergization, at ambient temperature +23°C
Other coil voltages on request



Miniature PCB Relay PE (Continued)

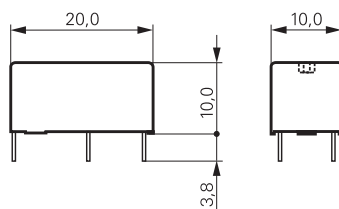
Insulation

| | |
|---|-----------------------|
| Dielectric strength coil-contact circuit | 4000 V _{rms} |
| open contact circuit | 1000 V _{rms} |
| Clearance / creepage coil-contact circuit | ≥ 3,2 / 4 mm |
| Material group of insulation parts | IIIa |
| Tracking index of relay base | PTI 250 |
| Insulation to IEC 60664-1 | |
| Type of insulation coil-contact circuit | basic |
| open contact circuit | functional |
| Rated insulation voltage | 250 V |
| Pollution degree | 3 |
| Rated voltage system | 230 V |
| Overvoltage category | III |

Other data

| | |
|---|---|
| RoHS - Directive 2002/95/EC | compliant as per product date code 0352 |
| Flammability class according to UL94 | V-0 |
| Ambient temperature range | -40...85°C |
| Operate- / release time | typ. 5/2 ms |
| Bounce time NO / NC contact | typ. 1/5 ms |
| Vibration resistance (function) NO / NC contact | > 15/5 g |
| Shock resistance (destruction) | > 100 g |
| Category of protection | RTII - flux proof |
| | (RTIII - wash tight on request) |
| Resistance to soldering heat flux-proof version | 270°C / 10 s |
| Relay weight | 5 g |
| Packaging unit | 25/500 pcs |

Dimensions

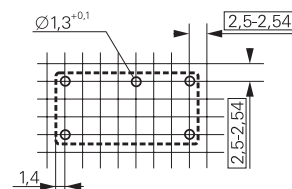


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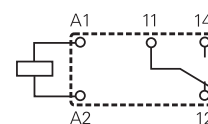
PCB layout / terminal assignment

Bottom view on solder pins

CO version

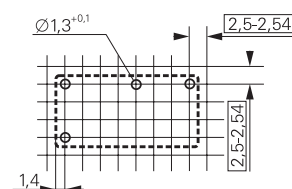


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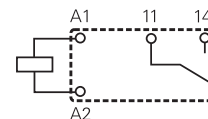


S0176-BB

NO version



S0176-BC



S0176-BD

Product key

Type

Version

0 flux proof

Contact configuration

1 1 CO contact

3 NO contact

Contact material

4 AgNi 90/10

Coil

Coil code: please refer to coil versions table



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