

Miniature Power PCB Relay PB

1pole 10 A



Features

- 1 C/O or 1 N/O contact
- Environmentally-friendly cadmium-free contacts
- Creepage/clearance to VDE 0435 and VDE 0700
- Class F coil system standard
- Compact and simple design gives high process security

Applications

White goods, small home appliances, heating temperature controllers

F0224-A



Technical data of approvals on request

Contact data

| | |
|---|---|
| Configuration | 1 C/O contact or 1 N/O contact |
| Type of contact | single contact |
| Rated current | C/O version: N/O 10 A; N/C 3 A N/O version: 10 A |
| Continuous thermal load | 10 A |
| Maximum switching voltage | 250 Vac / 100 Vdc |
| Maximum breaking capacity AC | 2500 VA |
| Make current (max. 4 s at duty cycle 10%) | 15 A |
| Contact material | AgNi 90/10 |

Contact ratings

| Type | Load | Operations |
|-------------|--------------------|---------------------|
| N/O contact | 10 A, 85 °C | 25x10 ³ |
| N/O contact | 6 A, 85 °C | 100x10 ³ |
| C/O contact | 10 A / 3 A, 85 °C | 25x10 ³ |
| C/O contact | 10 A / 10 A, 85 °C | 1x10 ³ |

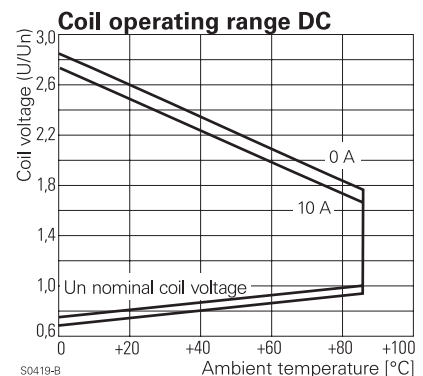
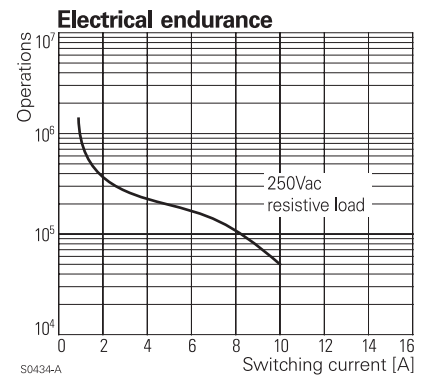
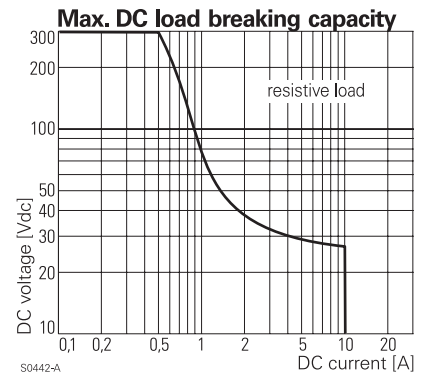
Coil data

| | |
|----------------------|-----------------------|
| Nominal voltage | 5...36 Vdc |
| Nominal coil power | 360 mW |
| Operate power | 200 mW |
| Operate category | 2 / c |
| Operate voltage max. | 75 % U _{nom} |
| Non-release voltage | 50 % U _{nom} |
| Release voltage min. | 10 % U _{nom} |

Coil versions, DC-coil

| Coil code | Nominal voltage Vdc | Pull-in voltage Vdc | Release voltage Vdc | Coil resistance Ω | Coil current mA |
|-----------|---------------------|---------------------|---------------------|-------------------|-----------------|
| 005 | 5 | 3.75 | 0.5 | 70 ± 10% | 72.0 |
| 006 | 6 | 4.5 | 0.6 | 100 ± 10% | 60.0 |
| 009 | 9 | 6.75 | 0.9 | 225 ± 10% | 40.0 |
| 012 | 12 | 9 | 1.2 | 400 ± 10% | 30.0 |
| 024 | 24 | 18 | 2.4 | 1600 ± 10% | 15.0 |
| 036 | 36 | 27.0 | 3.6 | 3600 ± 10% | 10.0 |

All figures are given for coil without preenergization, at ambient temperature +20°C
Other coil voltages on request



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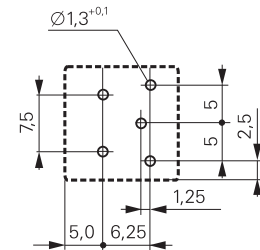
1pole 10 A

| Insulation | | |
|-----------------------------------|---|-----------------------|
| Dielectric strength | coil-contacts | 2500 V _{rms} |
| | open contact circuit | 1000 V _{rms} |
| Surge voltage resistance | coil-contacts | 4000 V _{rms} |
| Clearance / creepage | | 3 / 4 mm |
| Insulation to IEC 60664 | | |
| | Voltage rating | 250 V |
| | Pollution degree | 3 |
| | Overvoltage category | III |
| Insulation to VDE 0110b (2/79) | | |
| | Insulation category / reference voltage | C / 250 |
| Insulation resistance | | 100x10 ⁶ |
| Tracking resistance of relay base | PB1...CTI 250 | |
| | PB3...CTI 300 | |

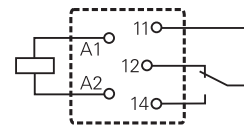
| Other data | |
|--|---|
| Flammability class according to UL 94 | V-0 |
| Coil insulation system according to UL 1446 | Class F |
| Ambient temperature | -40...+85 °C |
| Mechanical life | > 5x10 ⁶ operations |
| Max. switching rate at rated- / minimum load | 6 min ⁻¹ / 600 min ⁻¹ |
| Operate- / release time | < 20 ms |
| Bounce time | < 15 ms |
| Vibration resistance 30...400 Hz | >4 g |
| Shock resistance (destruction) | >30 g |
| Category of protection (IEC 61810) | RT II - flux proof |
| Relay weight | 5.4 g |
| Soldering temperature / time, IEC 68-2-20 | max. 260 °C / 5s |
| Packaging unit | 35 / 1050 pcs. |

PCB layout / terminal assignment

View on solder pins
Dimensions in mm



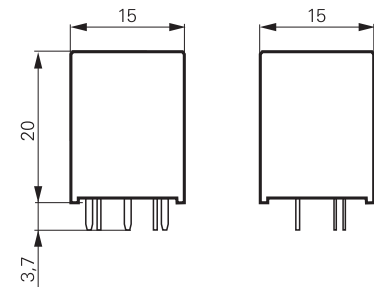
S0407-AA



S0407-AB

Dimensions

Dimensions in mm



S0406-A

Product key

Type

Version

- 1** standard version, CTI 250
- 3** high CTI version, CTI 300

Contacts

- 1** 1 C/O contact
- 3** 1 N/O contact

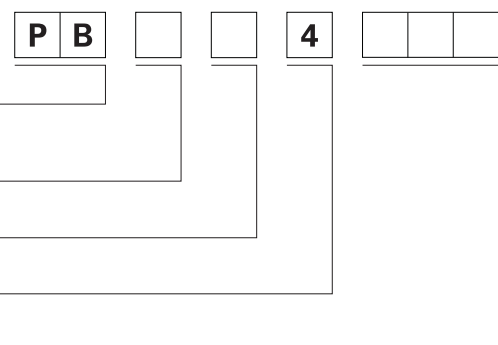
Contact material

- 4** AgNi 90/10

Coil

Coil code: please refer to coil versions table

Other types on request



| Product key | Version | Contacts | Contact material | Coil | Part number |
|-------------|-----------------------------|---------------|------------------|--------|-------------|
| PB114005 | standard CTI 250 | 1 C/O contact | AgNi 90/10 | 5 Vdc | 6-1415029-1 |
| PB114006 | | | | 6 Vdc | 7-1415029-1 |
| PB114012 | high CTI version CTI 300 | 1 N/O contact | AgNi 90/10 | 12 Vdc | 8-1415029-1 |
| PB114024 | | | | 24 Vdc | 9-1415029-1 |
| PB134005 | | | | 5 Vdc | 0-1415030-1 |
| PB134006 | | | | 6 Vdc | 1-1415030-1 |
| PB134012 | | | | 12 Vdc | 2-1415030-1 |
| PB134024 | | | | 24 Vdc | 3-1415030-1 |
| PB314005 | | | | 5 Vdc | 4-1415030-1 |
| PB314006 | | | | 6 Vdc | 5-1415030-1 |
| PB314012 | | | | 12 Vdc | 6-1415030-1 |
| PB314024 | | | | 24 Vdc | 7-1415030-1 |
| PB334005 | | 1 N/O contact | AgNi 90/10 | 5 Vdc | 8-1415030-1 |
| PB334006 | | | | 6 Vdc | 9-1415030-1 |
| PB334012 | | | | 12 Vdc | 0-1415031-1 |
| PB334024 | | | | 24 Vdc | 1-1415031-1 |