

## Miniature Power PCB Relay PB

1pole 10 A



F0224-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 available
- Compact and simple design gives high process security

### Applications

White goods, small home appliances, heating temperature controllers



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 <sup>3</sup>
N/O contact	6 A, 85 °C	100x10 <sup>3</sup>
C/O contact	10 A / 3 A, 85 °C	25x10 <sup>3</sup>
C/O contact	10 A / 10 A, 85 °C	1x10 <sup>3</sup>

### Coil data

Nominal voltage	5, 6, 12, 24 Vdc
Nominal coil power	360 mW
Operate power	200 mW
Operate category	2 / c
Operate voltage max.	75 % U <sub>nom</sub>
Non-release voltage	50 % U <sub>nom</sub>
Release voltage min.	10 % U <sub>nom</sub>

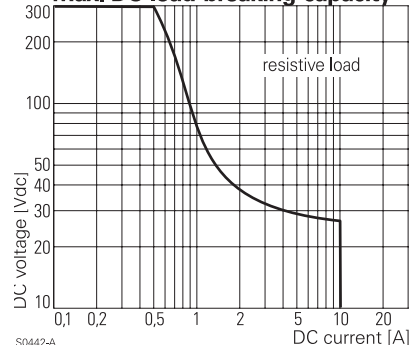
### Coil versions, DC-coil

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

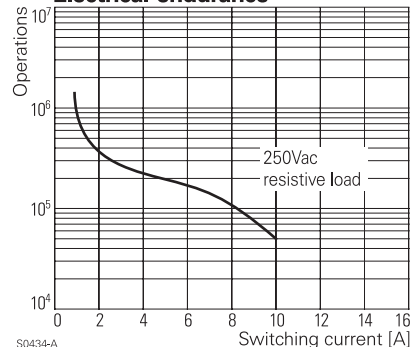
Other coil voltages on request

### Max. DC load breaking capacity



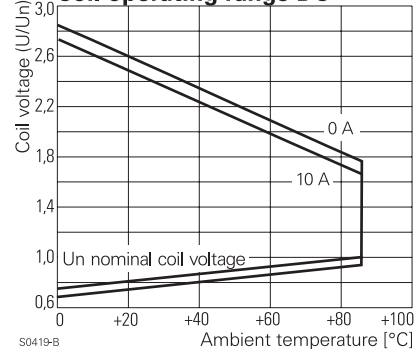
S0442-A

### Electrical endurance



S0434-A

### Coil operating range DC



S0419-B

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### Insulation

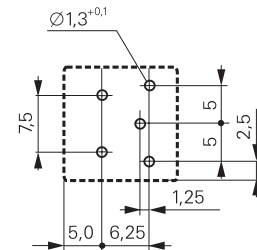
Dielectric strength	coil-contacts	2500 V <sub>rms</sub>
	open contact circuit	1000 V <sub>rms</sub>
Surge voltage resistance	coil-contacts	4000 V <sub>rms</sub>
Clearance / creepage		3 / 4 mm
Insulation to IEC 60664		
Voltage rating		250 V
Pollution degree		3
Overvoltage category		III
Insulation to VDE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

### Other data

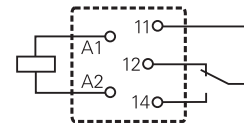
Flammability class according to UL 94	V-0
Coil insulation system according to UL 1446	Class F
Ambient temperature	-20...+85 °C (105 °C)
Mechanical life	> 5x10 <sup>6</sup> operations
Max. switching rate at rated- / minimum load	60 min <sup>-1</sup> / 600 min <sup>-1</sup>
Operate- / release time	< 20 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



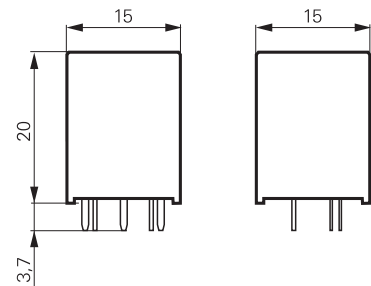
S0407-AA



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

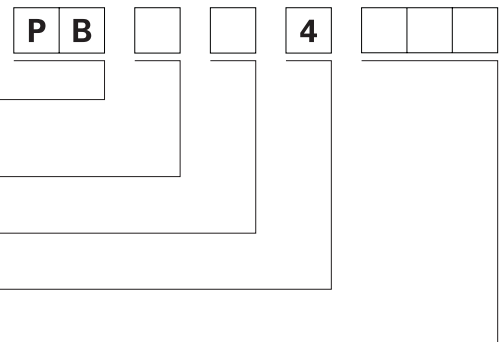
Contact material

- 4** AgNi 90/10

Coil

Coil code: please refer to coil versions table

Other types on request



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