

# Miniature Power Relay PB

## 1pole 10 A



- 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

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 life

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

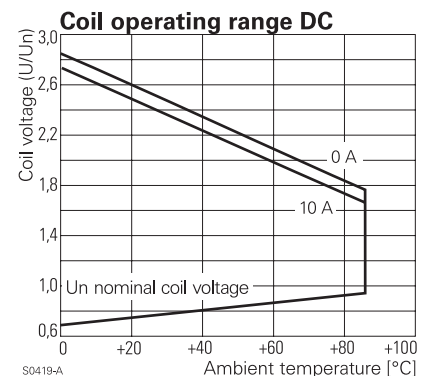
### Coil data

Nominal voltage	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
006	6	4.5	0.6	100±10%	60.0
012	12	9	1.2	400±10%	30.0
024	24	18	2.4	1600±10%	15.0

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



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## Insulation

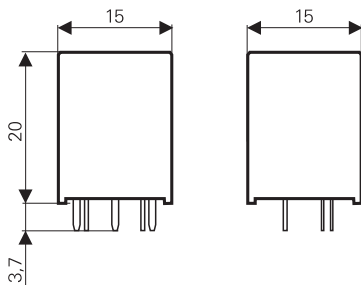
Dielectric strength coil-contacts	2500 V <sub>rms</sub>
open contact circuit	1000 V <sub>rms</sub>
Surge voltage resistance coil-contacts	4000 V <sub>rms</sub>
Clearance / creepage	3 / 4 mm
Insulation to VDE 0110b (2/79)	
Insulation category / reference voltage	C / 250
Insulation resistance	100x10 <sup>6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

## Other data

Flammability class UL	V-0
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
Protection category	IP 50
Relay weight	5.4 g
Soldering temperature / time, IEC 68-2-20	max. 260°C / 5s
Packaging unit	35 / 1050 pcs.

## Dimensions

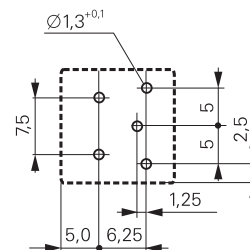
Dimensions in mm



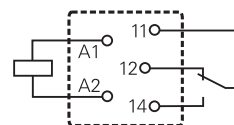
S0406-A

## PCB layout / terminal assignment

View on solder pins  
Dimensions in mm



S0407-AA



S0407-AB

## Ordering key

Type	<b>P B</b>			<b>4</b>		
Version	<p><b>1</b> standard version, CTI 250/class F</p> <p><b>3</b> high CTI version, CTI 300</p>					
Contacts	<p><b>1</b> 1 C/O contact                      <b>3</b> 1 N/O contact</p>					
Contact material	<b>4</b> AgNi 90/10					
Coil	Coil code: please refer to coil versions table					
Other types on request						