

# SCHRACK MINIATURE POWER PCB RELAY PB 105°C

## GENERAL PURPOSE | LOW POWER PCB RELAYS

### FEATURES

- 1pole 6 A, 1 form C (CO) or 1 form A (NO) contact
- Environmentally-friendly cadmium-free contacts
- Class F coil system standard
- For ambient temperatures up to 105°C
- Plastic materials according to IEC 60335-1 (domestic appliances)



### APPLICATIONS

- White goods
- Domestic appliances

### APPROVALS

- VDE Cert. No. 40008364
- UL E214025



Technical data of approved types on request.

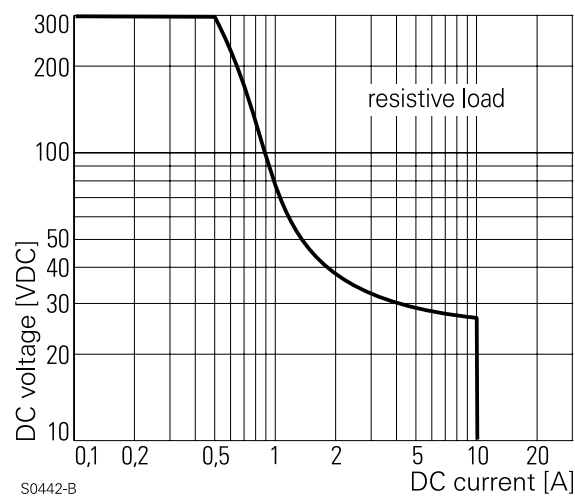
# SCHRACK Miniature Power PCB Relay PB 105°C

Low Power PCB Relays

## CONTACT DATA

Contact arrangement	1 form C (CO) or 1 form A (NO)
Rated voltage	250 VAC
Max. switching voltage	400 VAC
Rated current	6 A
Limiting continuous current	6.5 A
Limiting making current, max 4 s, duty factor 10%	10 A
Breaking capacity max.	1500 VA
Contact material	AgNi 90/10
Frequency of operation, with/without load	load 360/36000h-1
Operate/release time max.	10/20 ms
Bounce time max., form A/form B	10/15 ms

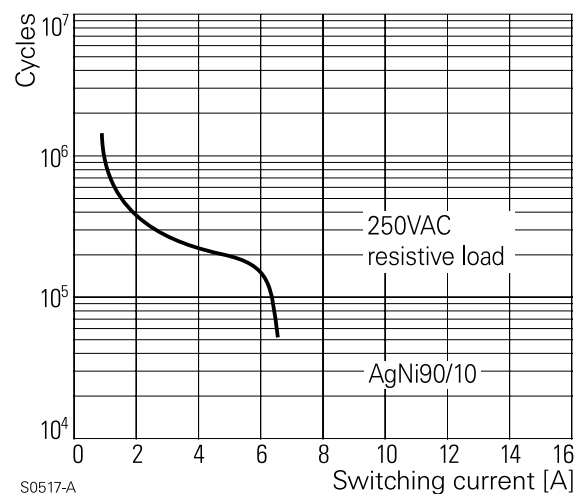
## MAX. DC LOAD BREAKING CAPACITY



## CONTACT RATINGS FOR SR4

Type	Contact	Load	Cycles
<b>IEC 61810</b>			
PBH14	C (CO)	6.5 A, 250 VAC, $\cos\phi=1$ , 105 °C	$10 \times 10^3$
PBH34	A (NO)	6.5 A, 250 VAC, $\cos\phi=1$ , 105 °C	$100 \times 10^3$
PBH14	A of C	6.5 A, 250 VAC, $\cos\phi=1$ , 105 °C	$100 \times 10^3$
PBH34	A (NO)	2 A, 250 VAC, $\cos\phi=0.55$ , 105 °C	$250 \times 10^3$
PBH14	A of C	2 A, 250 VAC, $\cos\phi=0.55$ , 105 °C	$250 \times 10^3$
PBH34	A (NO)	6.5 A, 440 VAC, $\cos\phi=1$ , 105 °C	$50 \times 10^3$
<b>UL61810-1 (former UL 508)</b>			
PBHx4	A (NO)	6 A, 415 VAC, $\cos\phi=1$ , 105 °C	$50 \times 10^3$
Mechanical endurance, DC coil		$2 \times 10^6$ operations	

## ELECTRICAL ENDURANCE



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### COIL DATA

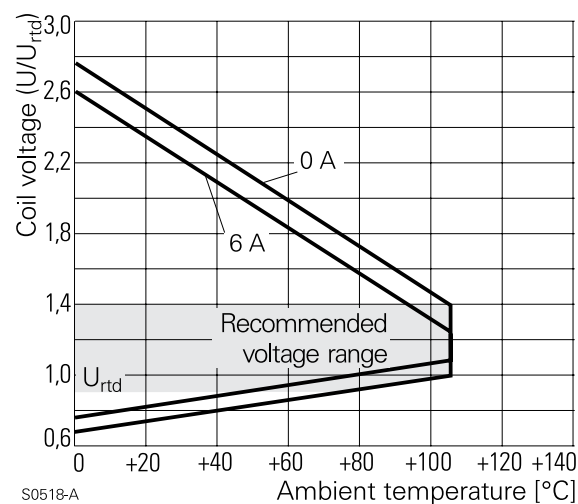
	PB6
Coil voltage range	5 to 36 VDC
Operative voltage range, % of rated coil voltage	90 to 100 %

### COIL VERSIONS, DC-COIL

Coil code	Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance $\Omega \pm 10\%$	Rated coil power mW
005	5	3.75	0.5	70	357
006	6	4.50	0.6	100	360
009	9	6.75	0.9	225	360
012	12	9.00	1.2	400	360
018	18	13.50	1.8	900	360
022	22	16.50	2.2	1344	360
024	24	18.00	2.4	1600	360
048	48	36.00	4.8	6400	360

All figures are given for coil without pre-energization, at ambient temperature +23 °C.

### COIL OPERATING RANGE DC



Other coil voltages on request.

### INSULATION DATA

Initial dielectric strength	
Between open contacts	1000 Vrms
Between contact and coil	2500 Vrms
Clearance/creepage	
Between contact and coil	
Form C (CO) version	$\geq 3/4$ mm
Form A (NO) version	$\geq 4/5$ mm
Material group of insulation parts	IIIa
Tracking index of relay base	PTI250

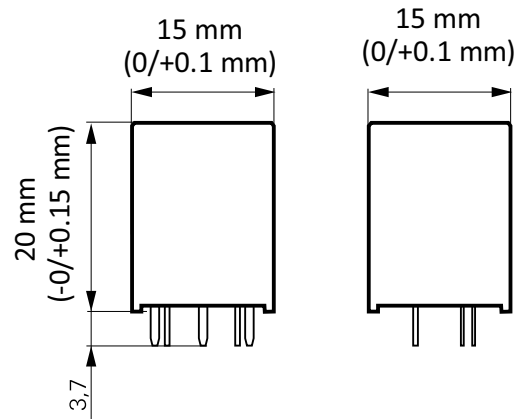
### OTHER DATA

Material compliance	EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at <a href="http://www.te.com/customer-support/rohssupportcenter">www.te.com/customer-support/rohssupportcenter</a>
Resistance to heat and fire version PB1, PB5	according EN60335, par.30
Ambient temperature, DC coil	-20 to +105°C
Category of environmental protection	
IEC 61810	RTII - flux proof
Vibration resistance (functional),	
form A/form B, 30 to 400 Hz	$> 10/4$ g
Shock resistance (destructive)	$> 100$ g
Terminal type	PCB-THT
Weight	5.4 g
Resistance to soldering heat THT	
IEC 60068-2-20	270 °C/ 10 s
Packaging/unit	tube/35 pcs., box/1050 pcs.

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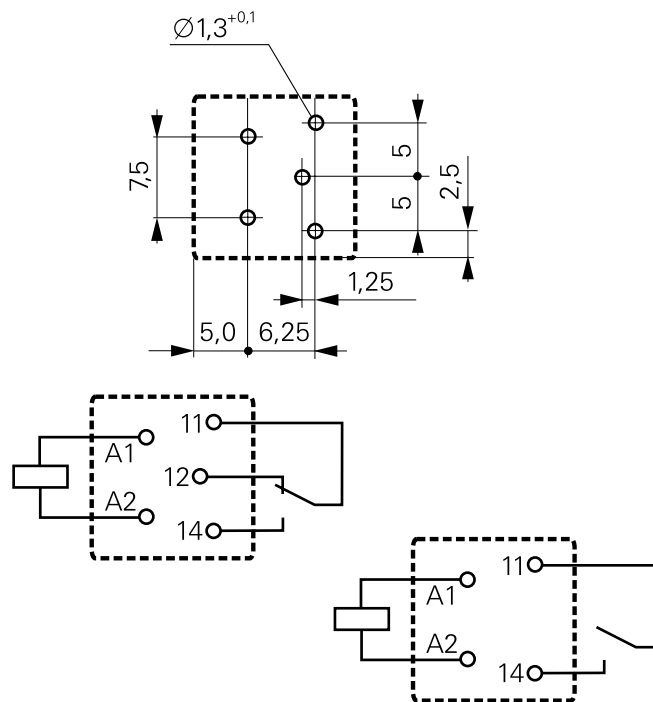
Low Power PCB Relays

## DIMENSIONS (Unit: mm)



## PCB LAYOUT<sup>2)</sup>/ TERMINAL ASSIGNMENT

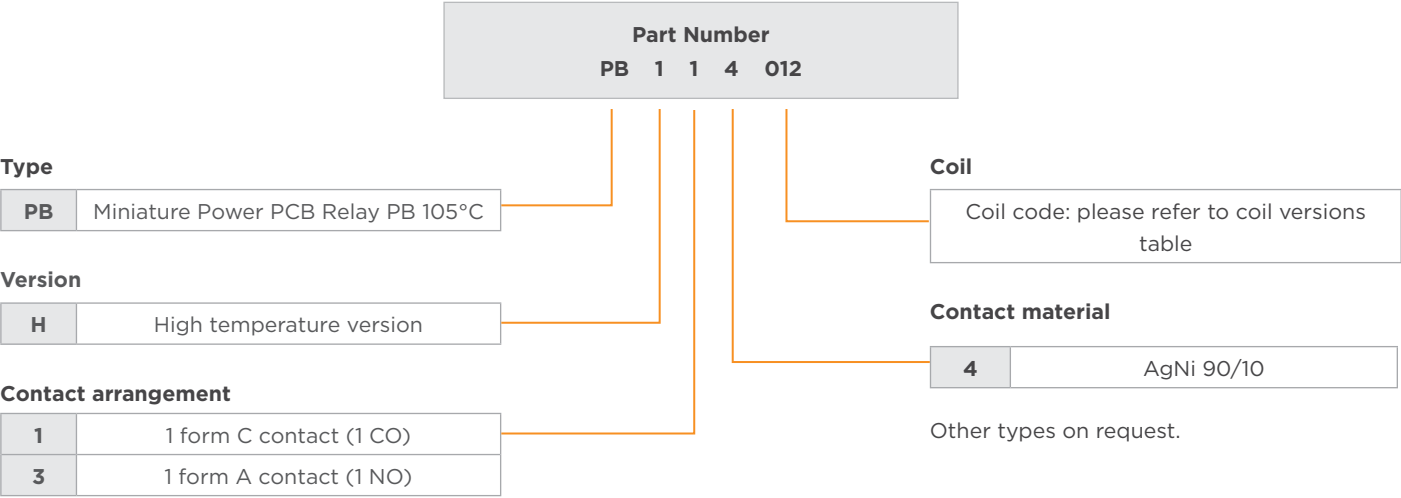
Bottom view on solder pins



### 2) Layout note:

No openings (e.g. holes, slots, cutouts, unused pins, open through connections, etc.) allowed under the relay base. The relay base must be fully covered by the PCB, recommended minimum distance between the relay and the edge of the printed circuit board is 5 mm. For more information, please contact our application support.

ORDERING INFORMATION



PRODUCT INFORMATION

Product code	Version	Contact configuration	Contact material	Coil	Part Number
PBH14005	High temperature version	1 form C 1 CO contact	AgNi 90/10	5 VDC	<a href="#">9-1415356-1</a>
PBH14006				6 VDC	<a href="#">8-1415356-1</a>
PBH14009				9 VDC	<a href="#">7-1415356-1</a>
PBH14012				12 VDC	<a href="#">6-1415356-1</a>
PBH14018				18 VDC	<a href="#">6-1415357-1</a>
PBH14022				22 VDC	<a href="#">7-1415357-1</a>
PBH14024				24 VDC	<a href="#">6-1415355-1</a>
PBH14036				36 VDC	<a href="#">9-1415355-1</a>
PBH34005		1 form A 1 NO contact		5 VDC	<a href="#">5-1415356-1</a>
PBH34006				6 VDC	<a href="#">4-1415356-1</a>
PBH34009				9 VDC	<a href="#">3-1415356-1</a>
PBH34012				12 VDC	<a href="#">2-1415356-1</a>
PBH34018				18 VDC	<a href="#">8-1415357-1</a>
PBH34022				22 VDC	<a href="#">9-1415357-1</a>
PBH34024				24 VDC	<a href="#">1-1415356-1</a>
PBH34036				36 VDC	<a href="#">1415356-1</a>

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