

Miniature Power PCB Relay PB

- 1pole 10A, 1 form C (CO) or 1 form A (NO)
- **■** Environmentally-friendly cadmium-free contacts
- Class F coil system standard
- Compact and simple design gives high process security
- Product in accordance to IEC 60335-1



Typical applications

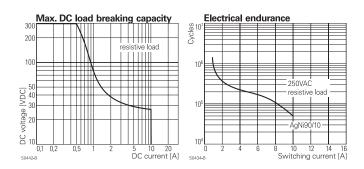
White goods, small home appliances, heating temperature controllers.

Approvals
VDE Cert. No. 40008364, UL E214025
Technical data of approved types on request.

Contact Data	ı			
Contact arranger	ment	1 fc	orm C (CO) or 1 form A (N	NO)
Rated voltage			250VAC	
Max. switching v	oltage		400VAC	
Rated current			10A	
Limiting making of	current, max 4 s	, duty fac	tor 10% 15A	
Breaking capacit	y max.		2500VA	
Contact material			AgNi 90/10, AgSnO ₂	
Frequency of ope	eration, with/with	nout load	360/36000h-1	
Operate/release	time max.		10/20ms	
Bounce time max	x., form A/form I	В	10/15ms	
Contact ratings	3			
Туре	Contact	Load		Cycles
IEC 61810				
PB114: PB113	A/B (NO/NC)	10A/3A.	250VAC. cos@=1. 85°C	30x10 ³

Туре	Contact	Load	Cycles
IEC 61810			
PB114; PB113	A/B (NO/NC)	10A/3A, 250VAC, cosφ=1, 85°C	30x10 ³
PB114	A of C	10A, 250VAC, cosφ=1, 85°C	30x10 ³
PB134; PB133	A (NO)	10A, 250VAC, cosφ=1, 85°C	20x10 ³
PB134	A (NO)	6.5A, 440VAC, cosφ=1, 85°C	50x10 ³
PB634	A (NO)	8.5A, 250VAC, cosφ=1, 85°C	100x10 ³
PB634	A (NO)	10A, 250VAC, cosφ=1, 85°C	60x10 ³
UL 508			
PB1x4	A (NO)	10A, 250VAC, cosφ=1, 85°C	20x10 ³

	Mechanical endurance, DC coil	5x10 ⁶ operations
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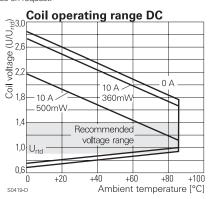




Coil Data	PB1	PB5	PB6
Coil voltage range	5 to 48 VDC	5 to 24 VDC	5 to 24 VDC
Operative range, IEC 61810	2	2	2

Coil vers	sions, DC co	il						
Coil	Rated	Operate	Release	Coil	Rated coil			
code	voltage	voltage	voltage	resistance	power			
	VDC	VDC	VDC	$\Omega \pm 10\%$	mW			
Coil vers	sions, DC-co	il, 360mW						
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			
Coil versions, DC-coil, 500mW								
005	5	3.75	0.5	48	521			
006	6	4.5	0.6	69	522			
012	12	9	1.2	274	526			
024	24	18	2.4	1097	525			

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



Insulation Data	
Initial dielectric strength	
between open contacts	1000Vrms
between contact and coil	2500Vrms
Clearance/creepage	
between contact and coil	
form C (CO) version	≥3/4mm
form A (NO) version	≥4/5mm
Material group of insulation parts	Illa
Tracking index of relay base	PTI250



Miniature Power PCB Relay PB (Continued)

Other Data

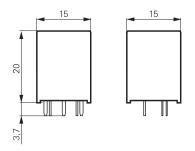
Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at www.te.com/customersupport/rohssupportcenter

Resistance to heat and fire according EN60335, par.30 version PB1, PB5 Ambient temperature, DC coil -40 to +85°C Category of environmental protection IEC 61810 RTII - flux proof Vibration resistance (functional), form A/form B, 30 to 400Hz PB1, PB6 >10/4gPB5 >10/6 g >1<u>00g</u> Shock resistance (destructive) Terminal type PCB-THT

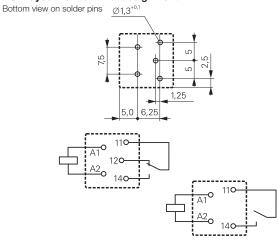
Weight 5.4g
Resistance to soldering heat THT
IEC 60068-2-20 270°C/10s

Packaging/unit tube/35 pcs., box/1050 pcs.

Dimensions



PCB layout¹⁾ / terminal assignment



1) 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.

Product	code structure		Typical product code PB	1	1	4	012
Туре	Minister Douge DCD Daloy DD						
	Miniature Power PCB Relay PB						
Version							
1	Standard version	5	500 mW version				
		6	High performance version (form A version only)				
Contact a	arrangement				_		
1	1 form C contact (1 CO)	3	1 form A contact (1 NO)				
Contact r	material					-	
3	AgSnO ₂	4	AgNi 90/10				
Coil							
Co	oil code: please refer to coil versions ta	ble					

Product code	Version	Contacts	Contact material	Coil	Part number
PB114005	Standard	1 form C	AgNi 90/10	5VDC	6-1415029-1
PB114006	class F	1 CO contact		6VDC	7-1415029-1
PB114012				12VDC	8-1415029-1
PB114024				24VDC	9-1415029-1
PB134005		1 form A		5VDC	1415030-1
PB134006		1 NO contact		6VDC	1-1415030-1
PB134012				12VDC	2-1415030-1
PB134024				24VDC	3-1415030-1
PB514012	500 mW	1 form C		12VDC	2-1415538-5
PB514024	version	1 CO contact		24VDC	5-1415535-6
PB634005	High	1 form A	1	5VDC	3-1415541-8
PB634006	performance	1 NO contact		6VDC	3-1415541-9
PB634012	version			12VDC	4-1415541-1
PB634024				24VDC	4-1415541-2