Miniature Power PCB Relay PCH

- **1pole 5 A, 1CO or 1NO contact**
- **Sensitive 200 mW coil available**
- **Version PCH-WG with tracking resistance PTI 250 on relay base and cover**
- **WG version: Product in accordance to IEC60335-1**

F_PCH_B

Applications

Domestic appliances, heating control, building control, measurement & control

Approvals

PCH / PCH-WG: VDE 119568 cULus E82292
Technical data of approved types on request

Contact data	PCH	PCH-WG
Contact configuration	1 CO or 1 NO	
Contact set	single contact	
Type of interruption	micro-disconn.	
Rated voltage / max. switching voltage AC	250 / 400 VAC	
Rated current	5 A	
Limiting continuous current	5 A, UL: 10 A	
Maximum breaking capacity AC	1250 VA	
Contact material	$AgSnO_2$	
Rated frequency of operation with / without load	6/600 min^{-1}	
Operate- / release time	max. 10/5 ms	
Bounce time NO contact	max. 10 ms	

Contact ratings

Type	Contact	Load	Ambient temp. [°C]	Cycles
IEC 61810				
PCH-…2M-WG	NO	5 A, 250 VAC, cosφ=1	85°C	$100x10^3$
PCH-…D2-WG	NO of CO	5 A, 250 VAC, cosφ=1	85°C	$100x10^3$
PCH-…D2M	NO	5 A, 250 VAC, cosφ=1	70°C	$100x10^3$
PCH-…L2M	NO	5 A, 250 VAC, cosφ=1	70°C	$30x10^3$
PCH-…D2	CO	5 A/3 A, 250 VAC, cosφ=1	40°C	$30x10^3$
UL 508				
PCH	NO	5 A, 250 VAC, general use	85°C	$100x10^3$

Coil data	standard	sensitiv
Rated coil voltage range DC coil	5...48 VDC	5...24 VDC
Operative range to IEC 61810	1	
Coil insulation system according UL1446	class F	

Coil versions, DC-coil - standard

Coil code	Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance Ohm	Rated coil power mW
05	5	3.75	0.5	62.5±10%	400
06	6	4.5	0.6	80±10%	400
09	9	6.3	0.9	202.5±10%	400
12	12	8.4	1.2	360±10%	400
24	24	16.8	2.4	1440±10%	400
48	48	33.6	4.8	5760±10%	400

All figures are given for coil without preenergization, at ambient temperature +23°C
Other coil voltages on request

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Product specification according to IEC 61810-1. Product data, technical parameters, test conditions and processing information only to be used together with the 'Definitions' section in the catalogue or at schrackrelays.com in the 'Schrack' section.

Specifications subject to change.

Miniature Power PCB Relay PCH (Continued)

Coil versions, DC-coil - sensitive

Coil code	Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance Ohm	Rated coil power mW
05	5	3.75	0.5	125±10%	200
06	6	4.5	0.6	180±10%	200
09	9	6.75	0.9	400±10%	200
12	12	9.0	1.2	720±10%	200
24	24	18.0	2.4	2800±10%	200

All figures are given for coil without preenergization, at ambient temperature +23°C
Other coil voltages on request

Insulation

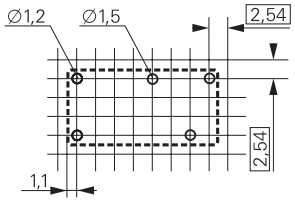
Dielectric strength coil-contact circuit		4000 V_{rms}
	open contact circuit	1000 V_{rms}
Clearance / creepage coil-contact circuit		
	NO:	5.5 / 9 mm
	CO:	4.5 / 9 mm
Material group of insulation parts		IIIa
Tracking index of relay base, standard version		PTI 175
	WG-version	PTI 250
Insulation to IEC 61810-1		
Type of insulation coil-contact circuit		basic
	open contact circuit	micro disconnection
Rated insulation voltage		250 V
Pollution degree		3
Rated voltage system		230 / 400 V
Overvoltage category		III

Other data

Mechanical endurance, standard version		$1.5x10^6$ cycles
	WG version	$10x10^6$ cycles
Material		
RoHS - Directive 2002/95/EC		compliant as per product date code 0424
Resistance to heat and fire, WG-version		according EN60335, par.30
Environment		
Ambient temperature range		
	all WG-versions:	-40...85°C
	Standard NO:	-30...70°C
	Standard CO:	-30...40°C
Vibration resistance (function) NO / NC contact		>14 / 8 g, 30...400 Hz
Shock resistance (destruction)		100 g
Category of protection		RTII - flux proof RTIII - wash tight
Processing		
Mounting		PCB
Resistance to soldering	heat flux-proof version	270°C / 10 s
	wash-tight version	260°C / 5 s
Relay weight		7 g
Packaging unit		25/1000 pcs

PCB layout / terminal assignment

Bottom view on solder pins



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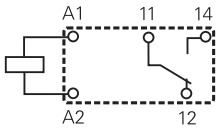

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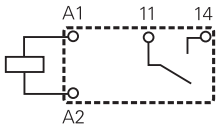

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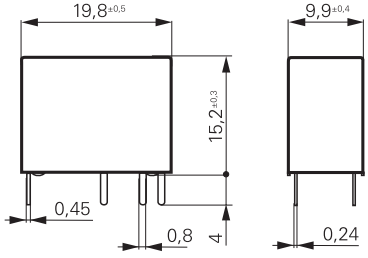
Dimensions



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Product key	Typical product key	PCH	-1	12	D	2		

Type
PCH Miniature PCB Relay RE

Version
1 1 pole

Coil

05	5 VDC	**12**	12 VDC
06	6 VDC	**24**	24 VDC
09	9 VDC	**48**	48 VDC

Coil power

D	standard 400 mW	**L**	sensitive 200 mW (for NO contact only)

Contact material
2 $AgSnO_2$

Contact configuration

Blank	1 CO contact (1 form C)	**M**	1 NO contact (1 form A)

Enclosure

Blank	flux proof	**H**	wash tight

Version

Blank	standard version	**WG**	Product in accordance with IEC 60335-1 (domestic appliances)

Other types on request

Product Key	Version	Contact material	Contacts	Coil	Part number
PCH-105D2M	flux proof	$AgSnO_2$	1 NO contact	5 VDC	1461350-2
PCH-106D2M	standard			6 VDC	1461350-3
PCH-109D2M				9 VDC	1461350-4
PCH-112D2M				12 VDC	1461350-5
PCH-124D2M				24 VDC	1461350-6
PCH-148D2M				48 VDC	1461350-7
PCH-105D2			1 CO contact	5 VDC	9-1440003-7
PCH-106D2				6 VDC	9-1440003-8
PCH-109D2				9 VDC	9-1440003-9
PCH-112D2				12 VDC	1440004-0
PCH-124D2				24 VDC	1440004-1
PCH-148D2				48 VDC	1461410-2
PCH-105L2M	flux proof		1 NO contact	5 VDC	1461352-2
PCH-106L2M	sensitive			6 VDC	1461352-3
PCH-109L2M				9 VDC	1461352-4
PCH-112L2M				12 VDC	1461352-5
PCH-124L2M				24 VDC	1461352-6
PCH-105D2M-WG	flux proof			5 VDC	1721767-2
PCH-106D2M-WG	standard			6 VDC	1721767-3
PCH-109D2M-WG	materials according			9 VDC	1721767-4
PCH-112D2M-WG	IEC 60335-1			12 VDC	1721767-5
PCH-124D2M-WG				24 VDC	1721767-6
PCH-148D2M-WG				48 VDC	1721767-7
PCH-105D2-WG			1 CO contact	5 VDC	1721766-2
PCH-106D2-WG				6 VDC	1721766-3
PCH-109D2-WG				9 VDC	1721766-4
PCH-112D2-WG				12 VDC	1721766-5
PCH-124D2-WG				24 VDC	1721766-6
PCH-148D2-WG				48 VDC	1721766-7
PCH-105L2M-WG	flux proof		1 NO contact	5 VDC	1721768-2
PCH-106L2M-WG	sensitive			6 VDC	1721768-3
PCH-109L2M-WG	materials according			9 VDC	1721768-4
PCH-112L2M-WG	IEC 60335-1			12 VDC	1721768-5
PCH-124L2M-WG				24 VDC	1721768-6

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