

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

Applications

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



F_PCH_B

Approvals

PCH / PCH-WG:  119568  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

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

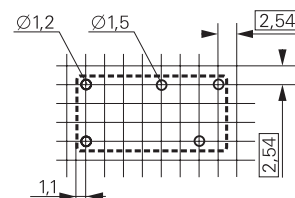
Dielectric strength coil-contact circuit	4000 V _{rms}
open contact circuit	1000 V _{rms}
Clearance / creepage coil-contact circuit	
NO:	5.5 / 9 mm
CO:	4.5 / 9 mm
Material group of insulation parts	IIIa
Tracking index of relay base, standard version	PTI 175
WG-version	PTI 250
Insulation to IEC 61810-1	
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

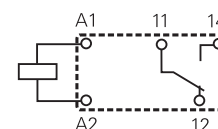
Mechanical endurance, standard version	1.5x10 ⁶ cycles
WG version	10x10 ⁶ cycles
Material	
RoHS - Directive 2002/95/EC	compliant as per product date code 0424
Resistance to heat and fire, WG-version	according EN60335, par.30
Environment	
Ambient temperature range	
all WG-versions:	-40...85°C
Standard 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

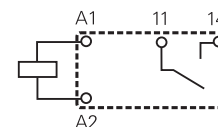
Bottom view on solder pins



S0550-AA

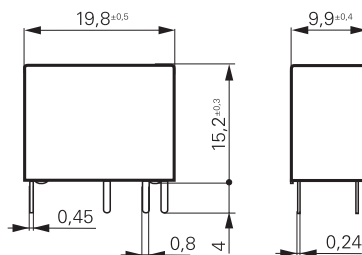


S0550-AB



S0550-AC

Dimensions



S0551-B

Miniature Power PCB Relay PCH (Continued)

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								

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