

## Slimline PCB Relay PCN(H)

- 1 pole 5 A, 1 form A (NO) contact
- Only 5mm wide
- 5A switching current, load current up to 5A
- Sensitive coil 120mW (standard)
- Allows high function-/packing density
- Cadmium-free contacts
- Z type with reinforced insulation
- RoHS compliant (Directive 2002/95/EC)
- Anti-explosive version (meet ANSI/ISA-12.12.01)
- Bi-furcated contact version available

## Typical applications

PLC, temperature control, I/O modules.

#### **Approvals**

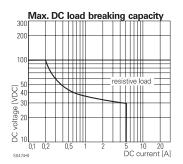
VDE REG.-Nr.40001589, UL E82292, CQC 08001026045 Technical data of approved types on request.

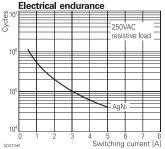
## **Contact Data**

Туре	PCN	PCNH			
Contact arrangement	1 from A (NO)				
Rated voltage	250VAC/30VDC				
Max. switching voltage	277VAC/125VDC	250VAC/125VDC			
Rated current	3A/5A	5A			
Limiting continuous current	5A	5A			
Breaking capacity max.	750VA (3A),				
	1250VA(5A)	1250VA(5A)			
Contact material	AgNi, gold plated	AgNI			
Contact style	bifurcated contact	single contact			
Min. recommended contact loa	ad				
(reference)	5VDC,	100mA			
Initial contact resistance (at 100	)mA,				
6VDC)	30mΩ	100mΩ			
Frequency of operation, with/w	ithout load 10/30	Omin <sup>-1</sup>			

#### Contact ratings

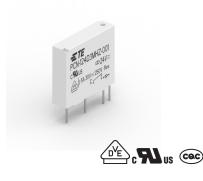
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Load	Cycles
IEC 61810	
PCN	
3A,250VAC, cos <b>q</b> =1, +70°C	100x10 <sup>3</sup>
3A/30VDC, L/R=0ms, +70°C	100x10 <sup>3</sup>
5A, 250VAC, cosφ=1, +85°C	30x10 <sup>3</sup>
5A 30VDC, L/R=0ms, +85°C	70x10 <sup>3</sup>
PCNH	
5A, 250VAC, cosφ=1, +85°C	10x10 <sup>3</sup>
5A 30VDC, L/R=0ms, +85°C	10x10 <sup>3</sup>





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Catalog and product specification according to IEC 61810-1 and to be used only together with the 'Definitions' section.



#### Contact ratings (continued)

UL 308		
PCN		
3A, 250VAC, resistive, +25°C		100x10 <sup>3</sup>
Pilot duty, B300, +25°C		6x10 <sup>3</sup>
Pilot duty, R300, +25°C		6x10 <sup>3</sup>
9A LRA, 1.5A FLA, 240VAC, +45°C		30x103
PCNH		
5A, 250VAC, resistive, +25°C		30x103
5A, 30VDC, resistive, +25°C		30x103
Pilot duty, B300, +25°C		6x10 <sup>3</sup>
Pilot duty, R300, +25°C		6x10 <sup>3</sup>
Mechanical endurance, DC coil	>10x10 <sup>6</sup> operations	

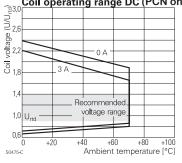
## Coil Data

Coil voltage range	3 to 24VDC	
Operative range, IEC 61810	1	
Coil insulation system according UL	Class F	

### Standard D coil version (120mW), DC coil (PCN and PCNH)

Stanuar	a D con vers	ion (120mw),		IN and POINT	<b>1</b> )
Coil	Rated	Operate	Release	Coil	Rated coil
code	voltage	voltage	voltage	resistance	power
	VDC	VDC	VDC	Ω±10%	mW
03	3	2.1	0.3	75	120
04	4.5	3.15	0.45	169	120
05	5	3.5	0.5	208	120
06	6	4.2	0.6	300	120
09	9	6.3	0.9	675	120
12	12	8.4	1.2	1200	120
18	18	12.6	1.8	2700	120
23	23.5	16.45	2.35	4602	120
24	24	16.8	2.4	4800	120

## Coil operating range DC (PCN only)



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Catalog product data, 'Definitions' section. application notes and all specifications are subject to change.

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# Slimline PCB Relay PCN(H) (Continued)

## Sensitive L coil version (100mW), DC coil (PCN only)

Coil	Rated	Operate	Release	Coil	Rated coil
code	voltage	voltage	voltage	resistance	power
	VDC	VDC	VDC	Ω±10%	mW
03	3	2.1	0.3	90	100
04	4.5	3.15	0.45	202	100
05	5	3.5	0.5	250	100
06	6	4.2	0.6	360	100
09	9	6.3	0.9	810	100
12	12	8.4	1.2	1440	100
18	18	12.6	1.8	3240	100
23	23.5	16.45	2.35	5522	100
24	24	16.8	2.4	5760	100

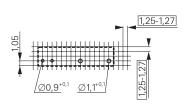
#### High performance H coil version (180mW), DC coil (PCNH only)

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Coil	Rated	Operate	Release	Coil	Rated coil
code	voltage	voltage	voltage	resistance	power
	VDC	VDC	VDC	Ω±10%	mW
03	3	2.1	0.3	50	180
04	4.5	3.15	0.45	112.5	180
05	5	3.5	0.5	139	180
06	6	4.2	0.6	200	180
09	9	6.3	0.9	450	180
12	12	8.4	1.2	800	180
18	18	12.6	1.8	1800	180
24	24	16.8	2.4	3200	180

All figures are given for coil without pre-energization, at ambient temperature +23°C. Sensitive coil is for 3A only.

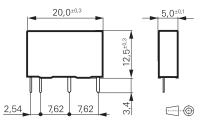
## PCB layout / terminal assignment

Bottom view on solder pins





## Dimensions



# Insulation Data Initial dielectric strength between open contacts 750Vrms between contact and coil 3000Vrms Initial surge withstand voltage between contact and coil 4000V (standard) Clearance/creepage between contact and coil >3.5mm Tracking index of relay base PTI 600 (reinforce) PTI 175 (general)

#### **Other Data**

Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at

www.te.c	com/customersupport/rohssupportcenter
Ambient temperature	-40 to 85°C
Category of environmental protecti	on
IEC 61810	RTIII - wash tight
Vibration resistance (functional)	10 to 55Hz, 1.5mm
Vibration resistance (destructive)	10 to 55Hz, 1.5mm
Shock resistance (functional)	
IEC 60068-2-27 (half sine)	min. 98m/s², 11ms
Shock resistance (destructive)	min. 980m/s², 6ms
Terminal type	PCB-THT
Resistance to soldering heat THT	
IEC 60068-2-20	260°C/5s
Packaging/unit	box/2000 pcs.

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# OEG



# OEG

# Slimline PCB Relay PCN(H) (Continued)

Product code structure	Typical product code	PCN	1	05	D	3	м	Н	z	,001
Type PCN PCN small slim power PCB F PCNH PCNH small slim power PCB										
Number of poles										
1 1pole										
Coil				-						
Coil code: please refer to coil versions	s table (e.g. 05=5VDC)									
Coil version					-					
D standard 120mW L	high sensitivity 100mW	H hi	gher perforr	mance 18	30mW					
Contact material						_				
3 AgNi										
Contact arrangement										
M 1 form A, 1 NO contact										
Enclosure								_		
H RTIII - wash tight bla	nk RTII - flux proof									
Insulation										
Z Reinforced insulation (tracking res	sistance of relay base, case PT	I 600)								
Version	· · ·	, ,								_
Suffix										
,00000-99999 Customer code										
,										

Product code	Contact	Coil voltage	Cont. material	Enclosure	Rating	Rating	Part Number
PCN-105D3MH,000	1- pole	5VDC	120mW	AgNi	RTIII - wash tight	3A -	1-1461491-2
PCN-124D3MH,000		24VDC			anti-explosive		1-1461491-8
PCN-105D3MHF,000		5VDC					1649771-3
PCN-124D3MHZ-S,000		24VDC					1721449-9
PCN-105D3MHZ,000		5VDC					3-1461491-0
PCN-106D3MHZ,000		6VDC					3-1461491-1
PCN-112D3MHZ,000		12VDC					3-1461491-3
PCN-123D3MHZ,000		23VDC					3-1461491-5
PCN-124D3MHZ,000		24VDC					3-1461491-6
PCN-124D3MHYZ,000B		24VDC					3-1461917-6
PCN-103L3MHZ		3VDC	100mW				2-1721066-5
PCN-105L3MHZ		5VDC					2-1721066-7
PCN-103L3MHZ,000B		3VDC					1721066-9
PCN-105L3MHZ,01300		5VDC					4-1721066-1
PCN-124D3MH		24VDC	120mW			5A	1721192-1
PCN-124D3MHZ,001		24VDC					3-1461491-8
PCN-109D3MHZ,100		9VDC					1721095-5
PCN-124D3MHZ,100		24VDC					1721095-9
PCNH-112D3MHZ,000		12VDC					1649386-5
PCNH-112H3MHZ		12VDC	180mW				1721126-5
PCNH-124H3MHZF,00000		24VDC					2-1721520-0
PCNH-118H3MHZF,00000		18VDC					2071417-1

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