

SCHRACK MINIATURE PCB RELAY PE

GENERAL PURPOSE RELAYS PCB RELAYS

INTRODUCTION

TE Connectivity (TE)'s Miniature Power PCB Relays PE is general purpose relay designed for various types of loads (e.g., resistive, inductive) with low component height. The relay is designed as 1 pole 5A with contact variant 1 form C (CO) and as 1 pole 6A with contact variant 1 form A (NO).

Other advantages include: high initial dielectric strength, high temperature resistance and sensitive coil.

FEATURES

- 1 pole 5 A, 1 form C (CO) or 6A, 1 form A (NO) contact
- Cadmium-free contacts
- Sensitive coil 200mW
- Ambient temperature 85°C
- Low height 10.0mm
- Plastic materials according to IEC 60335-1 (domestic appliances)

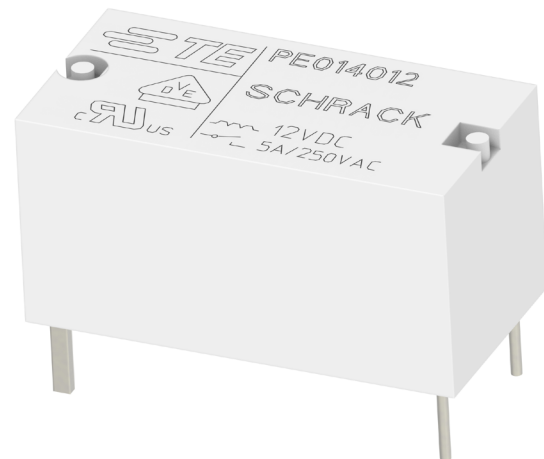
APPLICATIONS

- Industrial electronics
- White goods
- Measurement
- Control

APPROVALS

- VDE Cert. No. 40011901
- UL E214025

Technical data of approved types on request



SCHRACK Miniature PCB Relay PE

General Purpose Relays | PCB Relays

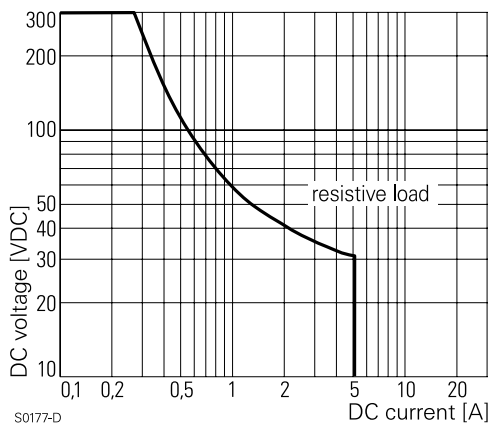
CONTACT DATA

Contact arrangement	1 form C (CO) or 1 form A (NO)
Rated voltage	250VAC
Max. switching voltage	400VAC
Rated current	5A (CO - types) 6A (NO - types)
Breaking capacity max.	1250VA (CO - types) 1500VA (NO - types)
Contact material	AgNi 90/10, AgSnO ₂
Frequency of operation with/without load	360/72000 ops/h
Operate/release time	typ. 8/8ms
Bounce time, form A/form B	typ. 4/6ms

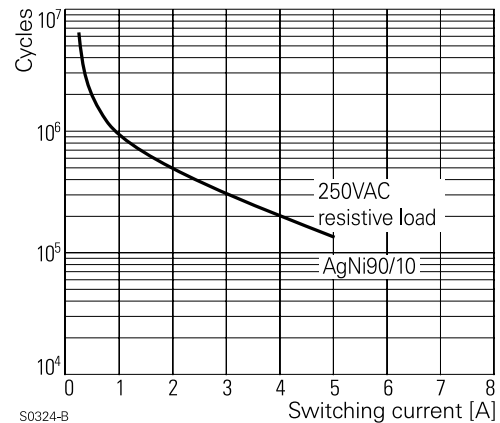
CONTACT RATINGS

Type	Contact	Load	Cycles
IEC 61810			
PE013	C (CO)	5A, 250VAC, $\cos\phi=1$, 85°C	30x10 ³
PE014/ PE015	C (CO)	5A, 250VAC, $\cos\phi=1$, 85°C	100x10 ³
PE014	A (NO)	5A, 30VDC, 0ms, 85°C	100x10 ³
PE015	A (NO)	1,5A, 30VDC, 900/h, 50% DF	100x10 ³
PE034	A (NO)	6A, 250VAC, $\cos\phi=1$, 70°C	50x10 ³
UL61810-1 (UL 508)			
PE013	C (CO)	5A, 240VAC, resistive, 85°C	30x10 ³
PE014/ PE015	C (CO)	5A, 250VAC, resistive, 85°C	100x10 ³
PE014	A (NO)	5A, 30VDC, resistive, 85°C	100x10 ³
PE034	A (NO)	6A, 250VAC, resistive, 70°C	100x10 ³
PE514	C (CO)	5A, 250VAC, resistive, 85°C	10x10 ³
Mechanical endurance		>15x10 ⁶ operations	

MAX. DC LOAD BREAKING CAPACITY



ELECTRICAL ENDURANCE



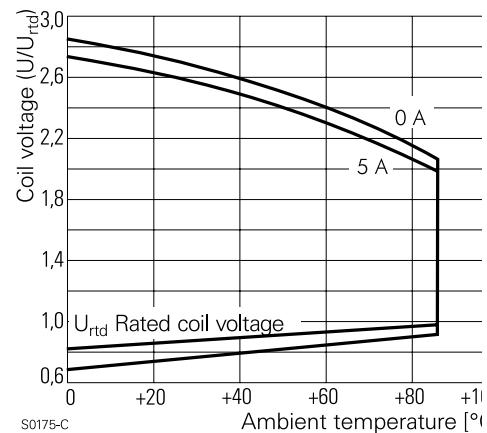
COIL DATA

Coil voltage range	5 to 48 VDC
Operative range, IEC 61810	2

COIL VERSIONS, DC COIL

Coil code	Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance $\Omega\pm 10\%$	Rated coil power mW
3	3	2.25	0.3	45	200
5	5	3.8	0.5	125	200
6	6	4.5	0.6	172	209
9	9	6.8	0.9	405	200
12	12	9.0	1.2	685	210
24	24	18.0	2.4	2725	211
48	48	36.0	4.8	10970	210

COIL OPERATING RANGE DC



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

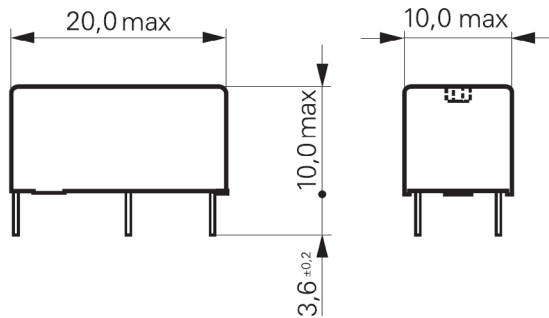
SCHRACK Miniature PCB Relay PE

General Purpose Relays | PCB Relays

INSULATION DATA

Initial dielectric strength	
Between open contacts	1000V _{rms}
Between contact and coil	4000V _{rms}
Initial insulation resistance	
Open contact circuit	>10x10 ⁹ Ω
Coil-contact circuit	>10x10 ⁹ Ω
Clearance/creepage	
Between contact and coil	≥3.2/4mm
Material group of insulation parts	IIIa
Tracking index of relay base	PTI250V

DIMENSIONS (UNIT: mm)



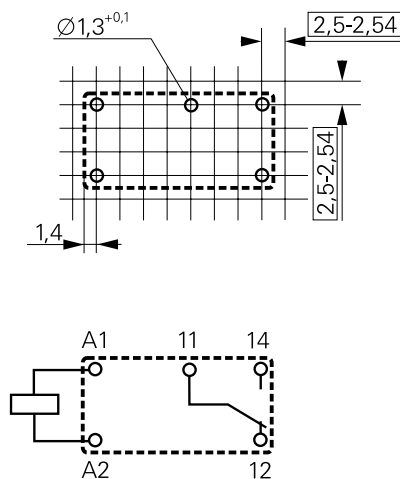
OTHER DATA

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
Ambient temperature	-40 to +85°C
Category of environmental protection	
IEC 61810	RTII - flux proof RTIII - wash tight
Vibration resistance (functional), form A/form B	>15/5g
Shock resistance (destructive)	>100g
Shock resistance (functional/ 11ms), form A/form B	>15/5g
Terminal type	PCB-THT
Weight	5g
Resistance to soldering heat THT	
IEC 60068-2-20	260°C/10s (flux proof version)
IEC 60068-2-20	260°C/5s (wash tight version)
Packaging/unit	tube/25 pcs., box/500 pcs.

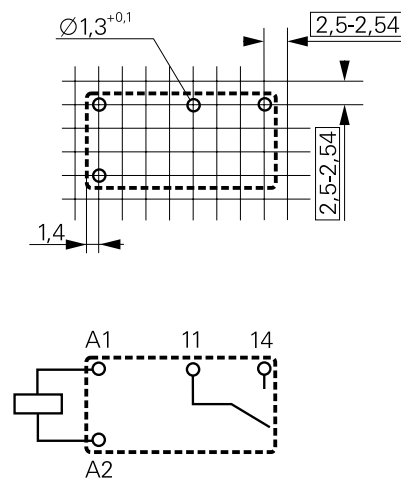
PCB LAYOUT / TERMINAL ASSIGNMENT

Bottom view on solder pins

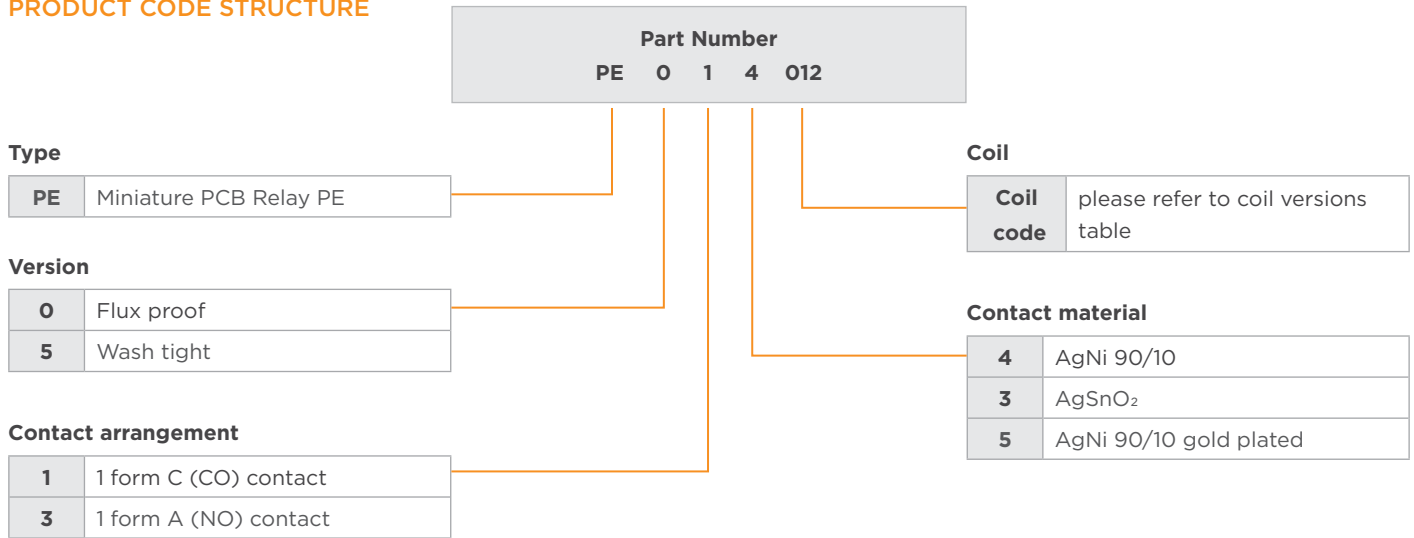
1 form C (CO) version



1 form A (NO) version



PRODUCT CODE STRUCTURE



PRODUCT INFORMATION

Product code	Version	Contacts	Contact material	Coil	TE Part Number
PE013012	flux proof	1 form C 1 CO contact	AgSnO ₂	12VDC	7-1415539-4
PE014005			5VDC	1393219-3	
PE014006			6VDC	1393219-4	
PE014012			12VDC	1393219-6	
PE014024			24VDC	1-1393219-0	
PE014048			48VDC	1-1393219-3	
PE015012			12VDC	1-1393219-4	
PE015024		24VDC	1-1393219-5		
PE034005		1 form A 1 NO contact	AgNi 90/10	5VDC	4-1415535-6
PE034006				6VDC	4-1415535-7
PE034012				12VDC	4-1415535-9
PE034024				24VDC	5-1415535-1
PE034048				48VDC	5-1415535-2
PE514012		wash tight	1 form C 1 CO contact	AgNi 90/10	12VDC
PE514024	24VDC			2-1393219-2	
PE515005	5VDC			7-1415542-8	
PE515012	12VDC		7-1415543-1		
PE515024	AgNi 90/10 gold plated		24VDC	7-1415543-2	

te.com

©2024 TE Connectivity Ltd. family of companies. All Rights Reserved.

TE Connectivity, TE connectivity (logo) and Every Connection Counts are trademarks owned or licensed by the TE Connectivity family of companies. All other logos, products and/or company names referred to herein might be trademarks of their respective owners.

While TE has made every reasonable effort to ensure the accuracy of the information in this document, owned or licensed by the TE Connectivity family of companies. TE does not guarantee that it is error-free, nor does TE make any other representation, warranty or guarantee that the information is accurate, correct, reliable or current. TE reserves the right to make any changes to the information contained herein without prior notice. TE Connectivity assumes only those obligations set forth in the terms and conditions for this product and shall in no event be liable for any incidental, indirect, or consequential damages arising out of the sale, resale, use, or misapplication of the product. TE expressly disclaims any implied warranties with respect to the information contained herein, including, but not limited to, implied warranties of merchantability or fitness for a particular purpose. Dimensions, specifications and/or information contained herein are for reference purposes only and are subject to change without notice. Consult TE for the latest dimensions, specifications and/or information. Users of TE Connectivity products must make their own assessment as to whether the respective product is suitable for the respective desired application.

03/24 ED