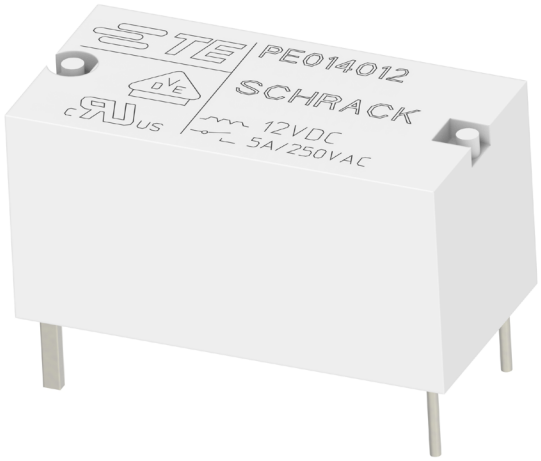
SCHRACK MINIATURE PCB RELAY PE

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 6 A 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 6 A, 1 form A (NO) contact
- Cadmium-free contacts
- Sensitive coil 200 mW
- Ambient temperature 85°C
- Low height 10.0 mm
- 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

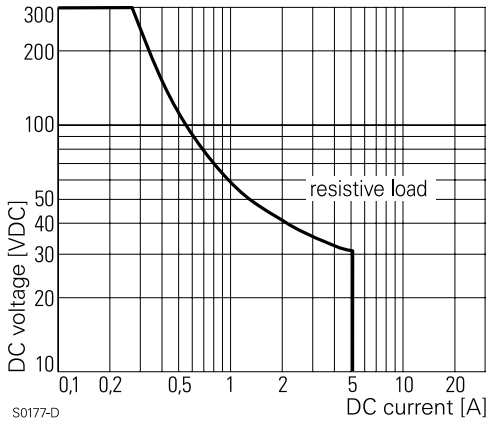
CONTACT DATA

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

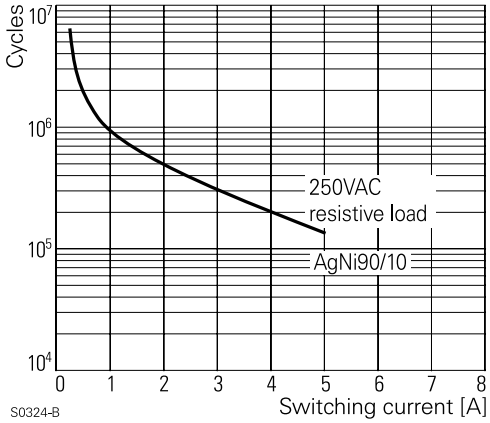
CONTACT RATINGS

Type	Contact	Load	Cycles
IEC 61810			
PE013	C (CO)	5A, 250VAC, cosφ=1, 85°C	$30x10^3$
PE014/ PE015	C (CO)	5A, 250VAC, cosφ=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, cosφ=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



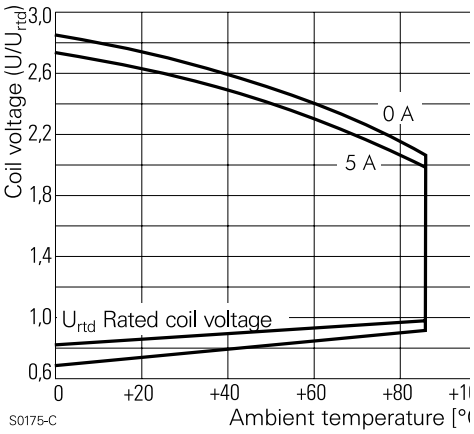
COIL DATA

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 Ω±10%	Rated coil power mW
003	3	2.25	0.3	45	200
005	5	3.8	0.5	125	200
006	6	4.5	0.6	172	209
009	9	6.8	0.9	405	200
012	12	9.0	1.2	685	210
024	24	18.0	2.4	2725	211
048	48	36.0	4.8	10970	210

COIL OPERATING RANGE DC

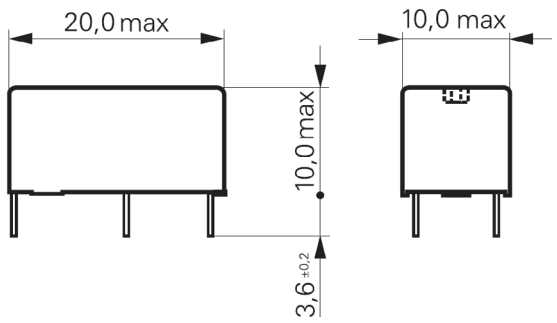


All figures are given for coil without pre-energization, at ambient temperature +23°C. Other coil voltages on request.

INSULATION DATA

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

DIMENSIONS (UNIT: mm)



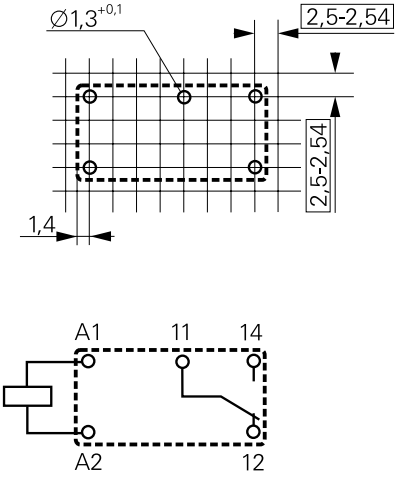
OTHER DATA

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), formA/ 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.

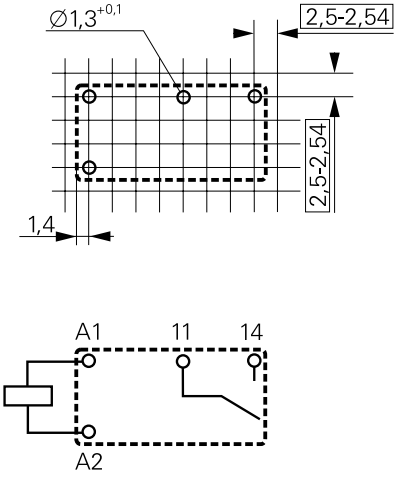
PCB LAYOUT / TERMINAL ASSIGNMENT

Bottom view on solder pins

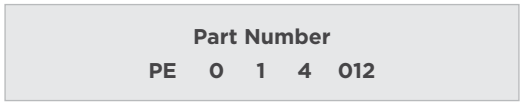
1 form C (CO) version



1 form A (NO) version



PRODUCT CODE STRUCTURE



Type

PE	Miniature PCB Relay PE

Version

0	Flux proof
5	Wash tight

Contact arrangement

1	1 form C (CO) contact
3	1 form A (NO) contact

Coil

Coil code	please refer to coil versions table

Contact material

4	AgNi 90/10
3	$AgSnO_2$
5	AgNi 90/10 gold plated

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			AgNi 90/10	5VDC	1393219-3
PE014006				6VDC	1393219-4
PE014012				12VDC	1393219-6
PE014024				24VDC	1-1393219-0
PE014048				48VDC	1-1393219-3
PE015012			AgNi 90/10 gold plated	12VDC	1-1393219-4
PE015024				24VDC	1-1393219-5
PE034005		1 form A 1 NO contact	AgNi 90/10	5VDC	4-1415535-6
PE034012				12VDC	4-1415535-9
PE034024				24VDC	5-1415535-1
PE514012	wash tight	1 form C 1 CO contact	AgNi 90/10	12VDC	2-1393219-0
PE514024				24VDC	2-1393219-2
PE515005			AgNi 90/10 gold plated	5VDC	7-1415542-8
PE515012				12VDC	7-1415543-1
PE515024				24VDC	7-1415543-2

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