Miniature PCB Relay PE bistable

- **1pole 5 A, polarized bistable version**
- **1 form C (CO) or 1 form A (NO) contact**
- **Sensitive version with 200mW coil**
- **Ambient temperature 70°C**
- **Low height 10.0mm**
- **Plastic materials according to IEC 60335-1 (domestic appliances)**

Typical applications
Room thermostats, electricity meters, home automation, white goods, battery powered controls.

Approvals

VDE Cert. No. 40011901 (for AgNi90/10 contacts only), UL E214025
Technical data of approved types on request.

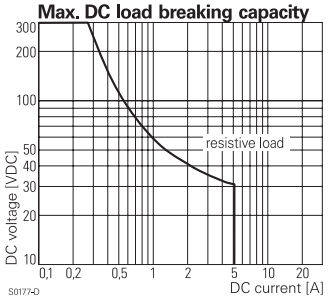
Contact Data

Contact arrangement	1 form C (CO) or 1 form A (NO)
Rated voltage	250VAC
Max. switching voltage	400VAC
Rated current	5A
Breaking capacity max.	1250VA
Contact material	AgNi 90/10, $AgSnO_2$
Frequency of operation, with/without load	360/72000 ops/h
Set/reset time	typ. 8/8ms
Bounce time, form A/form B	4/7ms

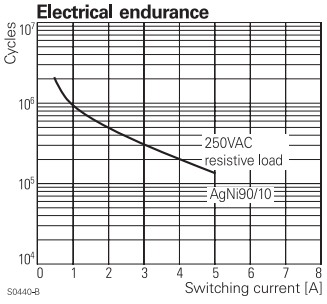
Contact ratings

Type	Contact	Load	Cycles
IEC 61810			
PE014	C (CO)	5A, 250VAC, cosφ=1, 85°C	$100x10^3$
PE014	A (NO)	5A, 30VDC, 0 ms, 85°C	$100x10^3$
UL 508			
PE013	C (CO)	5A, 240VAC, resistive, 85°C	$30x10^3$
PE033	N (NO)	5A, 240VAC, resistive, 85°C	$50x10^3$
PE014	C/A/B	5A, 240VAC, resistive, 85°C	$100x10^3$
Mechanical endurance		>$5x10^6$ operations.	

Max. DC load breaking capacity



Electrical endurance



Coil Data

Magnetic system	bistable, polarized
Coil voltage range	2.2 to 48VDC
Operative range, IEC 61810	2
Reset voltage max., % of rated coil voltage	120% at -40°C
Min./Max. energization duration	20ms[1]/1min at <10% duty factor

1) Information on reduced pulse duration with higher energization voltages on demand.

Coil versions, bistable 1 coil

Coil code[2]		Rated voltage VDC	Set voltage VDC	Reset voltage VDC	Coil resistance Ω±10%	Rated coil power mW
F02	H02	2.2	1.65	1.65	22	220
F03	H03	3	2.25	2.25	41	220
F05	H05	5	3.75	3.75	125	200
F06	H06	6	4.5	4.5	180	200
F12	H12	12	9.0	9.0	650	222
F24	H24	24	18.0	18.0	2750	209

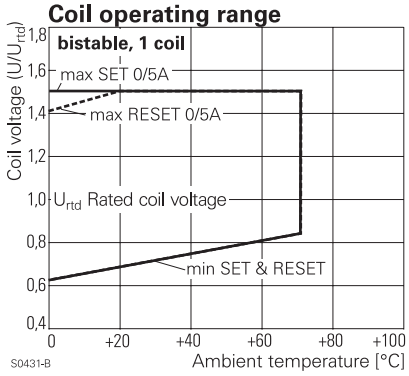
2) Coil codes F.. and H..have opposite polarity; refer to coil operation table.
All figures are given for coil without pre-energization, at ambient temperature +23°C.
Other coil voltages on request.

Coils - operation

Version	F..		H..	
Coil terminals	A1	A2	A1	A2
Operate	+	-	-	+
Reset	-	+	+	-

Contact position not defined at delivery

Coil operating range

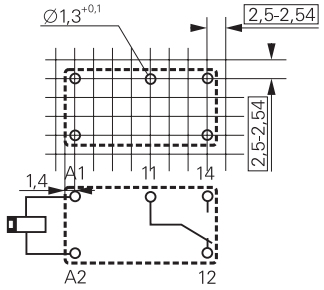


Miniature PCB Relay PE bistable (Continued)

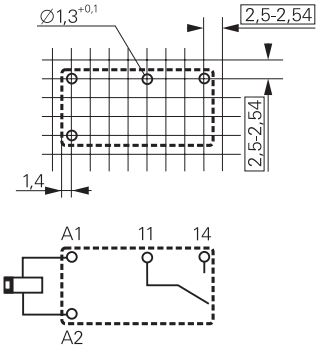
Insulation Data	
Initial dielectric strength	
between open contacts	1000V$_{rms}$
between contact and coil	4000V$_{rms}$
Initial insulation resistance	
open contact circuit	>10x10^{9}Ω
coil-contact circuit	>10x10^{9}Ω
Clearance/creepage	
between contact and coil	≥3.2/4mm
Material group of insulation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

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 70°C at 100% duty factor
Category of environmental protection	
IEC 61810	RTII - flux proof (RTIII - wash tight on request)
Shock resistance (destructive)	>100g
Terminal type	PCB-THT
Resistance to soldering heat THT	
IEC 60068-2-20	260°C/10s (flux proof version)
Packaging/unit	tube/25 pcs., box/500 pcs.

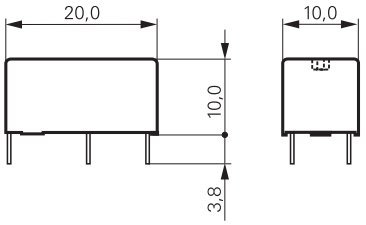
PCB 1 form C (CO) version



1 form A (NO) version



Dimensions



Product code structure

Typical product code: **PE 0 1 4 F12**

Type
PE Miniature PCB Relay PE bistable

Version
0 Flux proof

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

Contact material
4 AgNi 90/10
3 AgSnO$_2$

Coil
Coil code: please refer to coil versions table

Product code	Version	Contacts	Contact material	Coil	Part number
PE014F02	flux proof	1 form C	AgNi 90/10	bistable	9-1415389-1
PE014F03		1 CO contact		1-coil	1415390-1
PE014F05				polarity F	1-1415390-1
PE014F06				200mW	2-1415390-1
PE014F12					3-1415390-1
PE014F24					5-1415390-1
PE014H02				bistable	7-1415390-1
PE014H03				1-coil	8-1415390-1
PE014H05				polarity H	9-1415390-1
PE014H06				200mW	1415391-1
PE014H12					1-1415391-1
PE014H24					2-1415391-1
PE034F12		1formA 1 NO contact		bistable 1 coil polarity F 200 mW	1415544-4

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