

**Miniature PCB Relay PE bistable**

- 1pole 5 A, polarized bistable version
- 1 CO contact
- Sensitive version with 200 mW coil
- 4 kV coil-contact, Insulation according to IEC 255
- Ambient temperature 70 °C
- Low height 10.0 mm
- RoHS compliant (Directive 2002/95/EC) as per product date code 0352



F0221-A

**Applications**

Room thermostats, electricity meters, domotic devices, white goods, battery powered controls

**Approvals**

VDE REG.-Nr. 6656, **CE** us E214025  
Technical data of approved types on request

**Contact data**

Contact configuration	1 CO contact
Contact set	single contact
Type of interruption	micro disconnection
Rated current	5 A
Rated voltage / max.switching voltage AC	240/400 VAC
Maximum breaking capacity AC	1250 VA
Contact material	AgNi90/10
Mechanical endurance	5x10 <sup>6</sup> cycles
Rated frequency of operation with / without load	6 / 1200 min <sup>-1</sup>

**Contact ratings**

Type	Load	Cycles
PE014	5 A, 250 VAC, 85°C, resistive load, 6 min <sup>-1</sup> , 50% df, EN61810-1	1x10 <sup>5</sup>
PE014	5 A, 240 VAC resistive load, on NO or NC contact, UL508	1x10 <sup>5</sup>
PE014	5 A, 30 VDC resistive, 85°C, 6 min <sup>-1</sup> , 50% duty factor, EN61810-1	1x10 <sup>5</sup>

**Coil data**

Rated coil voltage range	2,2...48 VDC
Coil power	typ. 200 mW
Operative range	2
Reset voltage maximum, % of rated coil voltage	120% at -40°C
Minimum energization duration	20 ms
Information on reduced pulse duration with higher energization voltages on demand	
Maximum energization duration	1 min at <10% duty factor

**Coil versions, bistable, 1 coil**

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

All figures are given for coil without preenergization, at ambient temperature +23°C

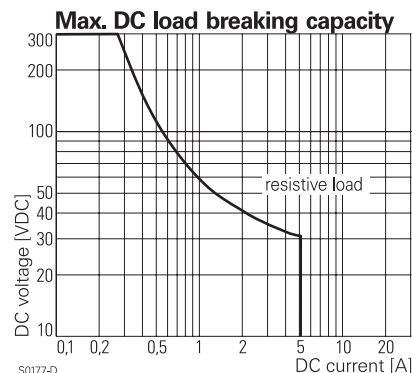
\*) Coil codes F.. and H.. have opposite polarity; refer to coil operation table

Other coil voltages on request

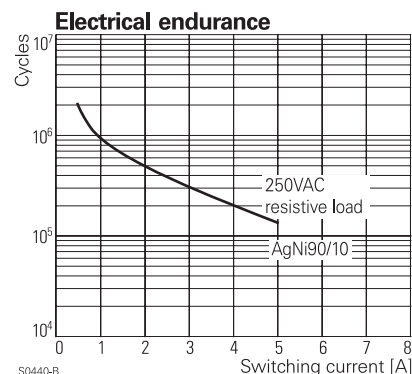
**Coils - operation**

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

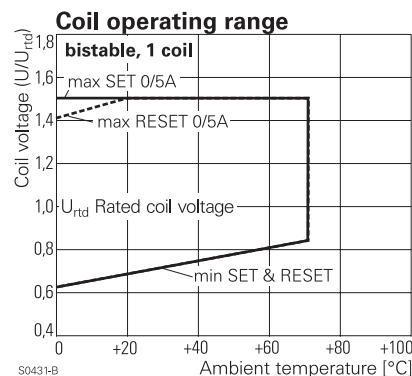
Contact position not defined at delivery



S0177-D



S0440-B



S0431-B

**Insulation**

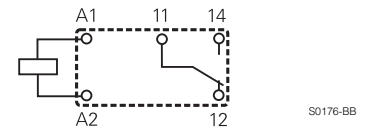
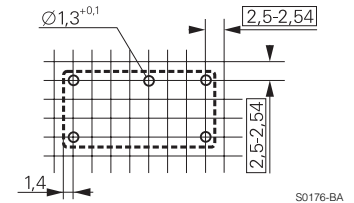
Dielectric strength coil-contact circuit	4000 V <sub>rms</sub>
open contact circuit	1000 V <sub>rms</sub>
Clearance / creepage coil-contact circuit	≥ 3,2 / 4 mm
Material group of insulation parts	IIIa
Tracking index of relay base	PTI 250
Insulation to IEC 60664-1	
Type of insulation coil-contact circuit	basic
open contact circuit	functional
Rated insulation voltage	250 V
Pollution degree	3
Rated voltage system	230 V
Overvoltage category	2
	400 V
	III

**Other data**

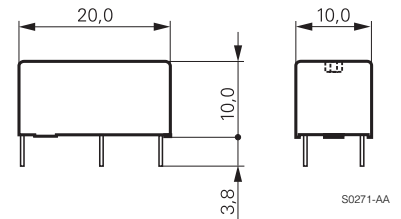
RoHS - Directive 2002/95/EC	compliant as per product date code 0352
Flammability class according to UL94	V-0
Ambient temperature range	-40...85°C, 70°C at 100% duty factor
Shock resistance (destruction)	> 100 g
Category of protection	RTII - flux proof (RTIII - wash tight on request)
Resistance to soldering heat flux-proof version	270°C / 10 s
Relay weight	5 g
Packaging unit	25/500 pcs

**PCB layout / terminal assignment**

Bottom view on solder pins



**Dimensions**



**Product key**

Type

Version

**0** flux proof

Contact configuration

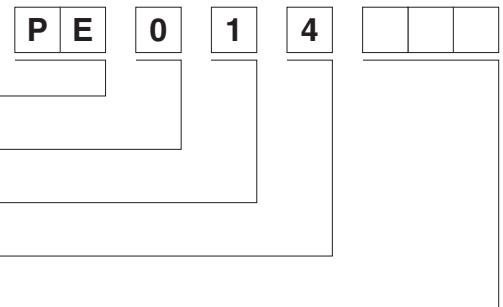
**1** 1 CO contact

Contact material

**4** AgNi 90/10

Coil

Coil code: please refer to coil versions table



Product key	Version	Contacts	Contact material	Coil	Coil	Part number
PE014F02	flux proof	1 CO contact	AgNi 90/10	bistable	2,2 VDC	9-1415389-1
PE014F03				1-coil	3 VDC	0-1415390-1
PE014F05				polarity F	5 VDC	1-1415390-1
PE014F06				200 mW	6 VDC	2-1415390-1
PE014F12					12 VDC	3-1415390-1
PE014F24					24 VDC	5-1415390-1
PE014H02				bistable	2,2 VDC	7-1415390-1
PE014H03				1-coil	3 VDC	8-1415390-1
PE014H05				polarity H	5 VDC	9-1415390-1
PE014H06				200 mW	6 VDC	0-1415391-1
PE014H12					12 VDC	1-1415391-1
PE014H24					24 VDC	2-1415391-1