

Miniature PCB Relay PE

1 pole 5 A



Features

- 1 C/O contact
- Cadmium-free contacts
- Sensitive coil 200 mW
- 4 kV coil-contact
- Insulation according to IEC 255
- Ambient temperature 85 °C
- Low height 10.0 mm

Applications

Industrial electronics, white goods, measurement and control

F0169-B



Technical data of approved types on request

Contact data

Configuration	1 C/O contact
Type of contact	single contact
Rated current	5 A
Rated voltage / max. breaking voltage AC	250 Vac / 440 Vac
Maximum breaking capacity AC	1250 VA
Contact material	AgNi 90/10

Contact ratings

Type	Load	Operations	Standard
PE 014	5A, 250 Vac, on the C/O contact	10 ⁵	VDE 0435
PE 014	20/2A, 250Vac, cosφ=0.3, on the N/O contact	1.2x10 ⁵	AC 15
PE 014	5 A, 250 Vac, on the C/O contact	1.5x10 ⁵	

Coil data

Nominal voltage	5...48 Vdc
Nominal coil power	typ. 200 mW
Operate category	2 / b

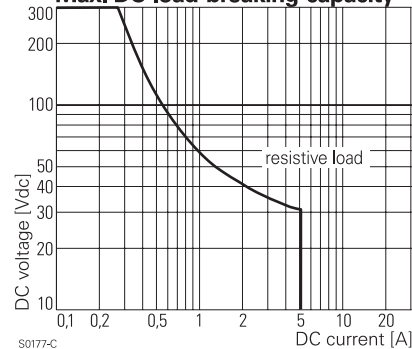
Coil versions, DC-coil

Coil code	Nominal voltage Vdc	Pull-in voltage Vdc	Release voltage Vdc	Maximum voltage Vdc	Coil resistance Ω	Coil current mA
005	5	3.8	0.5	13.2	125±10%	40.0
006	6	4.5	0.6	15.9	172±10%	34.9
012	12	9.0	1.2	31.8	685±10%	17.5
024	24	18.0	2.4	63.6	2725±10%	8.8
048	48	36.0	4.8	127.2	10970±10%	4.4

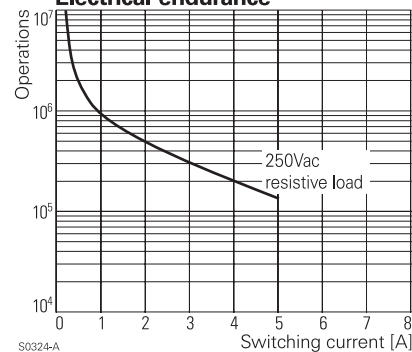
All figures are given for coil without preenergization, at ambient temperature +20 °C

Other coil voltages on request

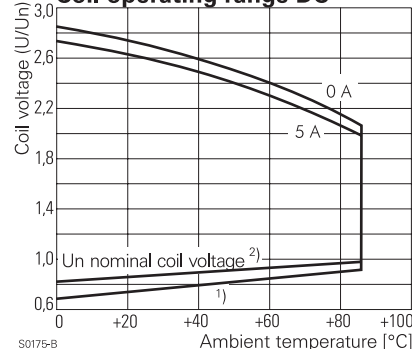
Max. DC load breaking capacity



Electrical endurance



Coil operating range DC



Miniature PCB Relay PE

1 pole 5 A

Insulation

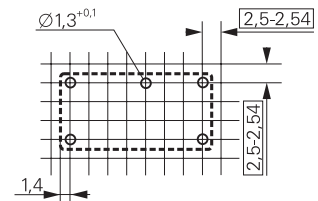
Dielectric strength	coil-contacts	4000 V _{rms}
	open contact circuit	1000 V _{rms}
Clearance / creepage		≥3.2 / 4 mm
Insulation to IEC 60664		
Voltage rating		250 V
Pollution degree		3
Overvoltage category		III
Tracking resistance of relay base		CTI 250

Other data

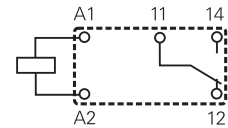
Flammability class according to UL 94	V-0
Ambient temperature	-40...+85 °C
Mechanical life	15x10 ⁶ operations
Max. switching rate at rated- / minimum load	6 min ⁻¹ / 1200 min ⁻¹
Operate- / release time	typ. 5 / 2 ms
Bounce time N/O contact/N/C contact	typ. 1 / 5 ms
Vibration resistance N/O contact/N/C contact	>15 / 5 g
Shock resistance (destruction)	>100 g
Category of protection (IEC 61810)	RT II - flux proof, RT III - wash tight
Relay weight	5 g
Packaging unit	25 / 500 pcs.

PCB layout / terminal assignment

View on solder pins
Dimensions in mm



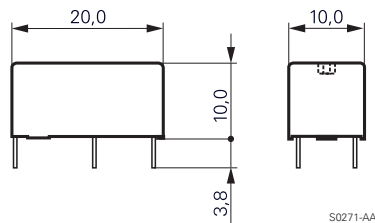
S0176-BA



S0176-BB

Dimensions

Dimensions in mm



S0271-AA

Product key

Type

Version

0 flux proof *)

5 wash tight

Contacts

1 1 C/O contact

Contact material

4 AgNi 90/10

Coil

Coil code: please refer to coil versions table

PE 0 1 4

Rights to change data / design reserved

Miniature PCB Relay PE bistable

1pole 5 A, polarized bistable version



Features

- 1 C/O contact
- Cadmium-free contacts
- 4 kV coil-contact
- Insulation according to IEC 255
- Ambient temperature 70 °C
- Low height 10.0 mm

Applications

Room thermostats, electricity meters, domotic devices and white goods

F0221-A



Technical data of approved types on request

Contact data

Configuration	1 C/O contact
Type of contact	single contact
Rated current	5 A
Rated voltage / max. breaking voltage AC	250 Vac / 440 Vac
Maximum breaking capacity AC	1250 VA
Contact material	AgNi 90/10

Contact ratings

Type	Load	Operations	Standard
PE 014	5A, 250 Vac, on the C/O contact	10 ⁵	VDE 0435

Coil data

Nominal voltage	3...48 Vdc
Nominal coil power	typ. 360 mW
Minimum energization time	20 ms
Information on reduced pulse duration with higher energization voltages on demand	
Max. energization time	1 min at <10% duty cycle
Reset voltage max.	120 % U _{nom} at -40 °C

Coil versions, bistable, 1 coil, 360 mW

Coil code*	Nominal voltage Vdc	Pull-in voltage Vdc	Reset voltage Vdc	Coil resistance Ω	Coil current mA
A03 C03	3	2.25	2.25	25±10%	120.0
A05 C05	5	3.75	3.75	69±10%	72.0
A06 C06	6	4.5	4.5	100±10%	60.0
A12 C12	12	9.0	9.0	400±10%	30.0
A24 C24	24	18.0	18.0	1600±10%	15.0

All figures are given for coil without preenergization, at ambient temperature +20 °C

* Coil codes A.. and C.. have opposite polarity; refer to coil operation table

Other coil voltages on request

Coil versions, bistable, 1 coil, 200 mW

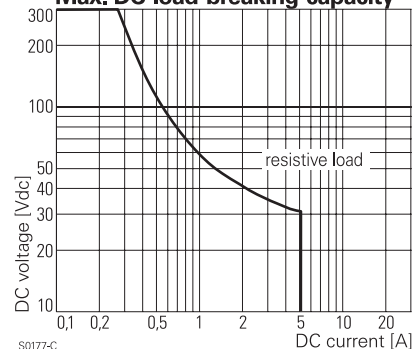
Coil code*	Nominal voltage Vdc	Pull-in voltage Vdc	Reset voltage Vdc	Coil resistance Ω	Coil current mA
F02 H02	2.2	1.65	1.65	22±10%	100.0
F03 H03	3	2.25	2.25	41±10%	73.3
F05 H05	5	3.75	3.75	125±10%	40.0
F06 H16	6	4.5	4.5	180±10%	33.3
F12 H12	12	9.0	9.0	650±10%	18.3
F 24 H24	24	18.0	18.0	2780±10%	8.8

All figures are given for coil without preenergization, at ambient temperature +20 °C

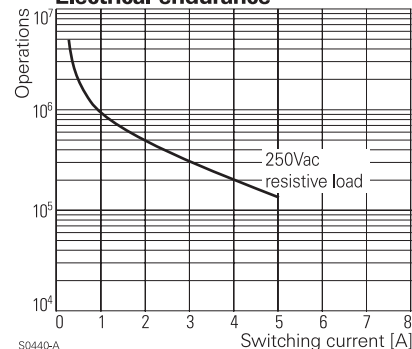
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Other coil voltages on request

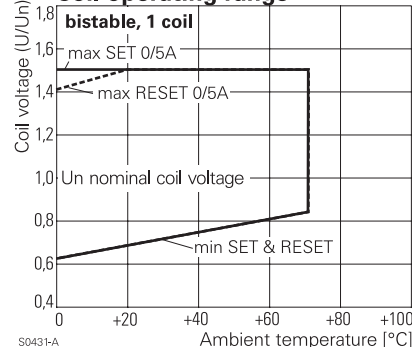
Max. DC load breaking capacity



Electrical endurance



Coil operating range



Miniature PCB Relay PE bistable

1pole 5 A, polarized bistable version

Coils - operation

version	A..		C..	
coil terminals	A1	A2	A1	A2
pull-in	+	-	-	+
reset	-	+	+	-

Contact position not defined at delivery

Insulation

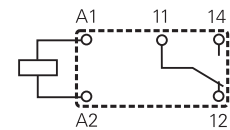
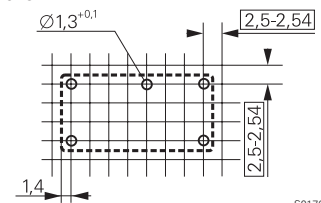
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Voltage rating		250 V
Pollution degree		3
Overvoltage category		III
Tracking resistance of relay base		CTI 250

Other data

Flammability class according to UL 94	V-0
Ambient temperature	-40...+70 °C
Mechanical life	5×10 ⁶ operations
Max. switching rate at rated- / minimum load	6 min ⁻¹ / 1200 min ⁻¹
Shock resistance (destruction)	>100 g
Category of protection (IEC 61810)	RT II - flux proof, RT III - wash tight
Relay weight	5 g
Packaging unit	25 / 500 pcs.

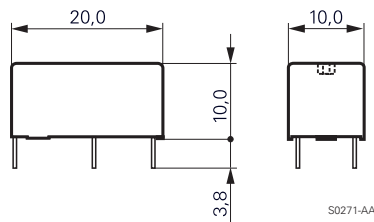
PCB layout / terminal assignment

View on solder pins
Dimensions in mm



Dimensions

Dimensions in mm



Product key

Type

Version

0 flux proof *)

5 wash tight

Contacts

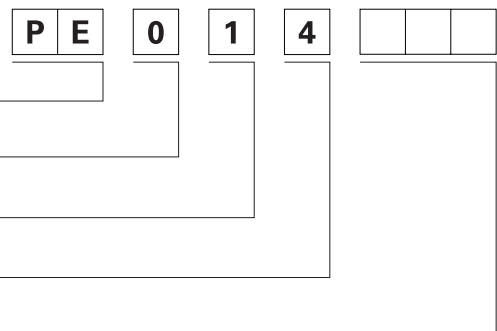
1 1 C/O contact

Contact material

4 AgNi 90/10

Coil

Coil code: please refer to coil versions table



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