

# Power PCB Relay RT1 bistable

1 pole 16 A, polarized bistable version



- 1 C/O contact
- Bistable with 1 or 2 coils
- 5 kV / 10 mm coil-contact
- Height 15.7 mm
- Cadmium-free contacts
- Protection class II (VDE 0700)

## Applications

Battery powered equipment or applications with "memory function" (e.g. mains failure)

F0176-B



Technical data of approved types on request

## Contact data

Configuration	1 C/O contact
Type of contact	single contact
Rated current	16 A
Rated voltage / max. breaking voltage	250 Vac / 440 Vac
Rated breaking capacity	4000 VA
Make current (max. 4 s at duty cycle 10%)	30 A
Contact material	AgNi 90/10

## Coil data

Coil data	1 coil	2 coils
Nominal voltage	5...24 Vdc	
Nominal coil power	typ. 400 mW	typ. 600 mW
Minimum energization time	30 ms	
Information on reduced pulse duration with higher energization voltages on demand		
Reset voltage max.	120 % U <sub>nom</sub>	150 % U <sub>nom</sub>

## Coil versions, bistable

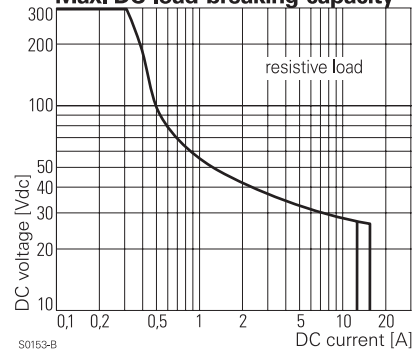
Coil code	Nominal voltage Vdc	Pull-in voltage Vdc	Reset voltage Vdc	Coil resistance $\Omega$	Coil current mA
<b>bistable, 1 coil</b>					
A05	5	3.5	3.5	$62 \pm 10\%$	80.0
A06	6	4.2	4.2	$90 \pm 10\%$	66.7
<b>A12</b>	<b>12</b>	<b>8.4</b>	<b>8.4</b>	<b><math>360 \pm 10\%</math></b>	<b>33.3</b>
<b>A24</b>	<b>24</b>	<b>16.8</b>	<b>16.8</b>	<b><math>1440 \pm 10\%</math></b>	<b>16.7</b>
<b>bistable, 2 coils</b>					
F05	5	3.5	3.5	$42 \pm 10\%$	120.0
F06	6	4.2	4.2	$55 \pm 10\%$	110.0
<b>F12</b>	<b>12</b>	<b>8.4</b>	<b>8.4</b>	<b><math>240 \pm 10\%</math></b>	<b>50.0</b>
<b>F24</b>	<b>24</b>	<b>16.8</b>	<b>16.8</b>	<b><math>886 \pm 10\%</math></b>	<b>27.0</b>

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

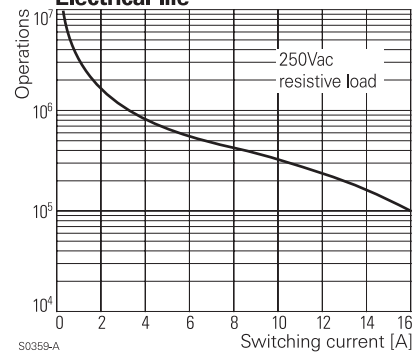
## Coils - operation

Version	1 coil		2 coils		
Coil terminals	A1	A2	A1	A3	A2
Pull-in	+	-		+	-
Reset	-	+	-	+	
Contact position not defined at delivery					

## Max. DC load breaking capacity



## Electrical life



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## Insulation

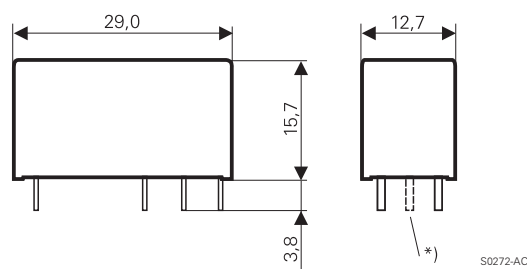
Dielectric strength coil-contacts	5000 V <sub>rms</sub>
open contact circuit	1000 V <sub>rms</sub>
Clearance / creepage	10 / 10 mm
Insulation to IEC 664/VDE 0110 (1/89)	
Voltage rating	250 V
Pollution degree	3
Overvoltage category	III
Insulation to VDE 0110b (2/79)	
Insulation category / reference voltage	C / 250
Tracking resistance of relay base	CTI 250

## Other data

Flammability class UL	V-0
Ambient temperature	-40...+85 °C
Mechanical life	5x10 <sup>6</sup> operations
Max. switching rate at rated- / minimum load	6 min <sup>-1</sup> / 600 min <sup>-1</sup>
Operate- / release time	typ. 5 / 4 ms
Bounce time N/O contact/N/C contact	typ. 1 / 3 ms
Vibration resistance / shock resistance	
open N/O contact	3 / 5 g
closed N/C contact	6 / 15 g
Shock resistance (destruction)	100 g
Protection category	IP40
Relay weight	13 g
Packaging unit	1 coil 20 / 500pcs. 2 coils 25 / 100pcs.
Accessories	see accessories RT

## Dimensions

Dimensions in mm

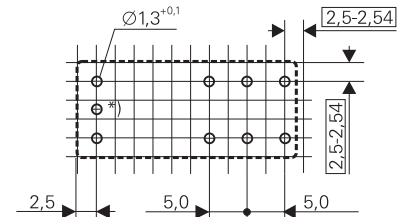


S0272-AC

## PCB layout / terminal assignment

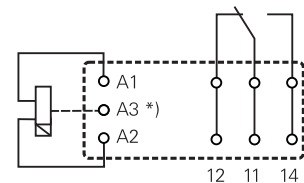
View on solder pins  
Dimensions in mm

16 A, pinning 5 mm



S0163-CM

1 C/O contact



S0163-BI

Indicated contact position during or after coil energization with reset voltage.

\*) for 2 coil version only

## Ordering key

Type

Version

**3** 16 A, pinning 5 mm, flux-tight

Contacts

**1** 1 C/O contact

Contact material

**4** AgNi 90/10

Coil

Coil code: please refer to coil versions table, preferred types in bold print

