

# Power PCB Relay RTH 105°C 16A

1 pole 16 A, high-temperature version



- 1 C/O or N/O contact
- Sensitive coil 400 mW
- 5 kV / 10 mm coil-contact
- Protection class III (VDE 0700)
- Ambient temperature 105°C at rated load
- Height 15.7 mm

Applications  
Oven control

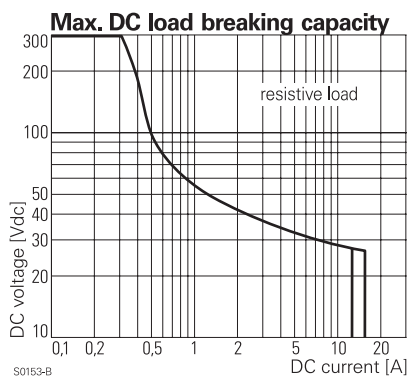
F0179-B



Technical data of approved types on request

### Contact data

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



### Contact life

Type	Load	Operations	Standard
RTH34	10 A, 250 Vac, 105 °C	150,000	EN61810/T1
RTH34	16 A, 250 Vac, 105 °C	20x10 <sup>3</sup>	
RTHH4	10 A, 250 Vac, 105 °C	typ. 3x10 <sup>5</sup>	
RTHH4	16 A on / 8 A off, 250 Vac, 105 °C	typ. 2.5x10 <sup>5</sup>	

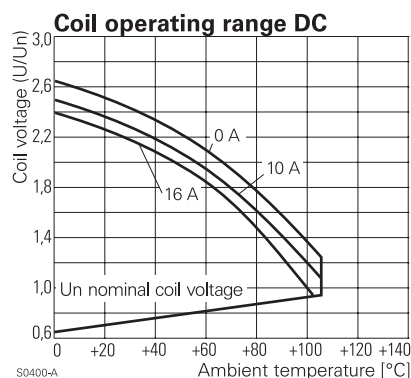
### Coil data

Nominal voltage	5...60 Vdc
Nominal coil power	400 mW <sup>1)</sup>
Operate category	90...10% U <sub>nom</sub>

### Coil versions

Coil code	Nominal voltage Vdc	Pull-in voltage Vdc	Release voltage Vdc	Maximum voltage Vdc	Coil resistance Ω	Coil current mA
012	12	8.4	1.2	30.6	360±10%	33.3
024	24	16.8	2.4	61.2	1440±10%	16.7

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



<sup>1)</sup> continuous thermal load > 10A @ 105°C requires reduction of coil power to 64% of nominal coil power after 100ms

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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

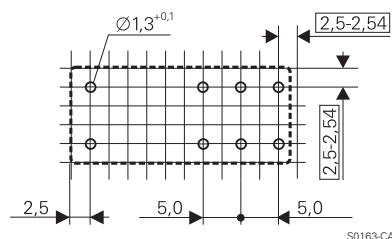
## Other data

Flammability class UL	V-0
Ambient temperature	-40...+105 °C
Mechanical life	10x10 <sup>6</sup> operations
Max. switching rate at rated- / minimum load	6 min <sup>-1</sup> / 1200 min <sup>-1</sup>
Operate- / release time	typ. 7 / 3 ms
Bounce time N/O contact / N/C contact	typ. 1 / 3 ms
Vibration resistance N/O / N/C contact	20 / 5 g, 30...150 Hz
Shock resistance (destruction)	100 g
Protection category	IP 40
Relay weight	14 g
Packaging unit	20 / 500 pcs.

## PCB layout / terminal assignment

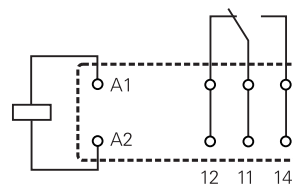
View on solder pins  
Dimensions in mm

16 A, pinning 5 mm



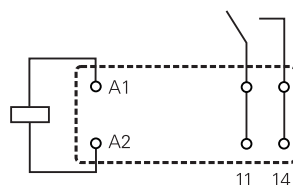
S0163-CA

1 C/O contact



S0163-BE

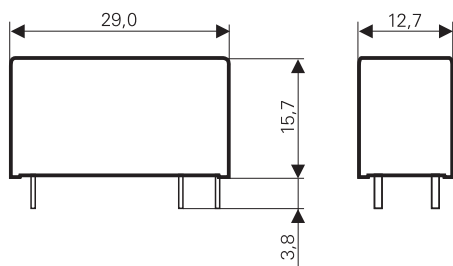
1 N/O contact



S0163-BF

## Dimensions

Dimensions in mm



S0272-AE

## Ordering key

Type	<b>R</b>	<b>T</b>	<b>H</b>		<b>4</b>		
Version	<b>H</b> 16 A, pinning 5 mm, 105°C						
Contacts	<b>1</b> 1 C/O contact		<b>3</b> 1 N/O contact		<b>H</b> 1 N/O contact "High Performance"		
Contact material	<b>4</b> AgNi 90/10						
Coil	Coil code: please refer to coil versions table						