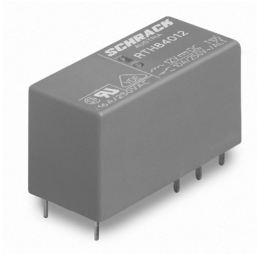


Power PCB Relay RTH 105 °C sensitive

1 pole 10 A, high-temperature version



F0178-C



Technical data of approved types on request

Features

- 1 N/O contact
- Sensitive coil 250 mW
- 5 kV / 10 mm coil-contact
- Protection class II (VDE 0700)
- Ambient temperature 105 °C at rated load
- Height 15.7 mm

Applications

Domestic appliances, heating control

Contact data

| | |
|---|-------------------|
| Configuration | 1 N/O contact |
| Type of contact | single contact |
| Rated current | 10 A |
| Rated voltage / max.breaking voltage AC | 250 Vac / 440 Vac |
| Maximum breaking capacity AC | 2500 VA |
| Make current (max. 4 s at duty cycle 10%) | 15 A |
| Contact material | AgNi 90/10 |

Contact ratings

| Type | Load | Operations |
|-------|--|---------------------|
| RTH84 | 12 A, 250 Vac, 105 °C, dry switching | >5x10 ⁵ |
| RTH84 | 10 A, 250 Vac, cyclical heat 105/40 °C | 2x10 ⁵ |
| RTH84 | 10 A, 250 Vac, 105 °C | 1.5x10 ⁵ |

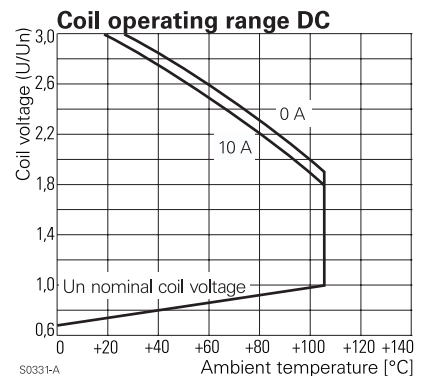
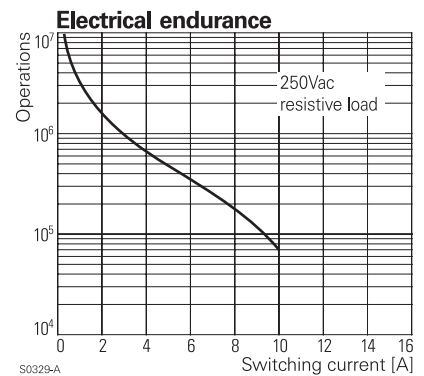
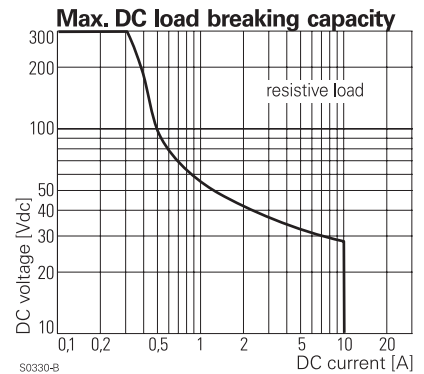
Coil data

| | |
|--------------------|------------|
| Nominal voltage | 5...60 Vdc |
| Nominal coil power | 250 mW |
| Operate category | 2 / b |

Coil versions, sensitive DC-coil

| Coil code | Nominal voltage Vdc | Pull-in voltage Vdc | Release voltage Vdc | Maximum voltage Vdc | Coil resistance Ω | Coil current mA |
|-----------|---------------------|---------------------|---------------------|---------------------|-------------------|-----------------|
| 012 | 12 | 9.0 | 1.2 | 36.0 | 576±10% | 20.8 |
| 024 | 24 | 18.0 | 2.4 | 72.0 | 2304±10% | 10.4 |

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



Power PCB Relay RTH 105°C sensitive

1 pole 10 A, high-temperature version

Insulation

| | | |
|---|----------------------|-----------------------|
| Dielectric strength | coil-contacts | 5000 V _{rms} |
| | open contact circuit | 1000 V _{rms} |
| Clearance / creepage | | 10 / 10 mm |
| Insulation to IEC 60664 | | |
| Voltage rating | | 250 V |
| Pollution degree | | 3 |
| Overvoltage category | | III |
| Insulation to VDE 0110b (2/79) | | |
| Insulation category / reference voltage | | C / 250 |

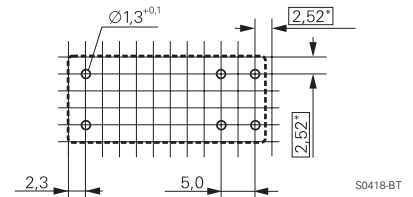
Other data

| | |
|--|--|
| Flammability class according to UL 94 | V-0 |
| Coil insulation system according to UL 1446 | Class F |
| Ambient temperature | -40...+105 °C |
| Mechanical life | 10x10 ⁶ operations |
| Max. switching rate at rated- / minimum load | 6 min ⁻¹ / 1200 min ⁻¹ |
| Operate- / release time | typ. 8 / 3 ms |
| Bounce time | typ. 2 ms |
| Vibration resistance | 5 g, 30...150 Hz |
| Shock resistance (destruction) | 100 g |
| Category of protection (IEC 61810) | RT II - flux proof |
| Relay weight | 14 g |
| Packaging unit | 20 / 500 pcs. |

PCB layout / terminal assignment

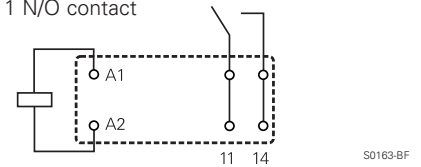
View on solder pins
Dimensions in mm

10 A, pinning 5 mm



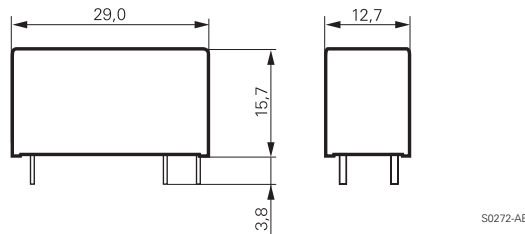
*) With the recommended PCB hole sizes a grid pattern from 2.5 mm to 2.54 mm can be used.

1 N/O contact



Dimensions

Dimensions in mm



Product key

Type

Version

H 10 A, pinning 5 mm, 105°C

Contacts

8 1 N/O contact

Contact material

4 AgNi 90/10

Coil

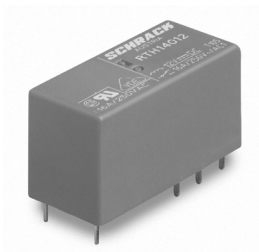
Coil code: please refer to coil versions table

R T H 8 4

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Power PCB Relay RTH 105 °C 16A

1 pole 16 A, high-temperature version



F0220-C

Features

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

Applications

Oven control, cooking plate control



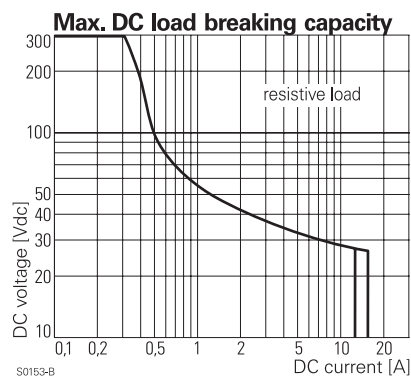
Technical data of approved types on request

Contact data

| | |
|---|--------------------------------|
| Configuration | 1 C/O contact or 1 N/O contact |
| Type of contact | single contact |
| Rated current | 16 A ¹⁾ |
| 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 ratings

| Type | Load | Operations | standard |
|-------|------------------------------------|--------------------------|-------------|
| RTH34 | 10 A, 250 Vac, 105 °C | 1.5x10 ⁵ | EN 61810/T1 |
| RTH34 | 16 A, 250 Vac, 105 °C | 2x10 ⁴ | |
| RTHH4 | 10 A, 250 Vac, 105 °C | typ. 3x10 ⁵ | |
| RTHH4 | 16 A ON / 8 A OFF, 250 Vac, 105 °C | typ. 2.5x10 ⁵ | |
| RTH4 | 16 A, 250 Vac, 105 °C, C/O contact | 2x10 ⁴ | EN 61810/T1 |



Coil data

| | |
|--------------------|-----------------------------|
| Nominal voltage | 5...60 Vdc |
| Nominal coil power | 400 mW ¹⁾ |
| Operate category | 90 - 110 % U _{nom} |

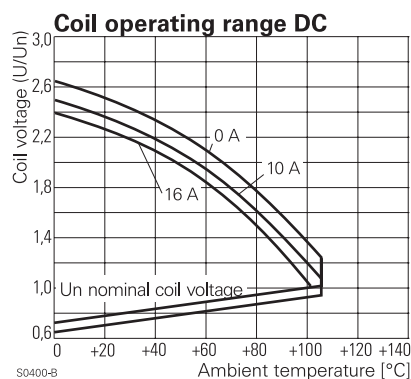
Coil versions, DC-coil

| Coil code | Nominal voltage Vdc | Pull-in voltage Vdc | Release voltage Vdc | Maximum voltage Vdc | Coil resistance Ω | Coil current mA |
|-----------|---------------------|---------------------|---------------------|---------------------|-------------------|-----------------|
| 009 | 9 | 6.3 | 0.9 | 22.9 | 203±10% | 44.3 |
| 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

¹⁾ Continuous thermal load > 10 A at 105°C requires reduction of coil power to 64% of nominal power after 100 ms



Power PCB Relay RTH 105 °C 16A

1 pole 16 A, high-temperature version

Insulation

| | | |
|---|----------------------|-----------------------|
| Dielectric strength | coil-contacts | 5000 V _{rms} |
| | open contact circuit | 1000 V _{rms} |
| Clearance / creepage | | 10 / 10 mm |
| Insulation to IEC 60664 | | |
| Voltage rating | | 250 V |
| Pollution degree | | 3 |
| Overvoltage category | | III |
| Insulation to VDE 0110b (2/79) | | |
| Insulation category / reference voltage | | C / 250 |

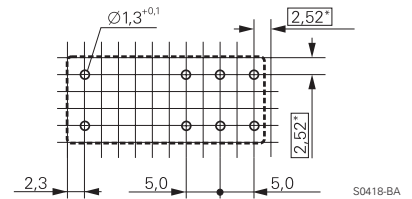
Other data

| | |
|--|--|
| Flammability class according to UL 94 | V-0 |
| Coil insulation system according to UL 1446 | Class F |
| Ambient temperature | -40...+105 °C |
| Mechanical life | 10x10 ⁶ operations |
| Max. switching rate at rated- / minimum load | 6 min ⁻¹ / 1200 min ⁻¹ |
| 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 |
| Category of protection (IEC 61810) | RT II - flux proof |
| Relay weight | 14 g |
| Packaging unit | 20 / 500 pcs. |

PCB layout / terminal assignment

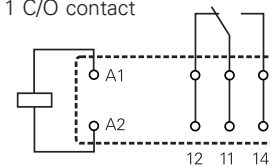
View on solder pins
Dimensions in mm

16 A, pinning 5 mm

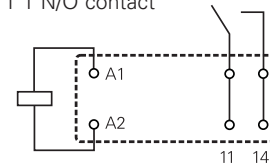


*) With the recommended PCB hole sizes a grid pattern from 2.5 mm to 2.54 mm can be used.

1 C/O contact

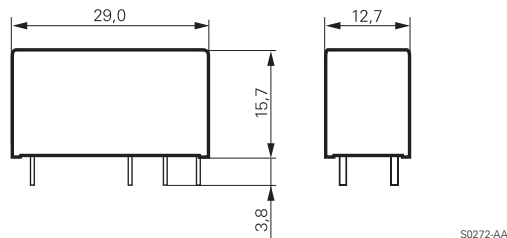


1 1 N/O contact



Dimensions

Dimensions in mm



Product key

Type

Version

H 16 A, pinning 5 mm, 105°C

Contacts

1 1 C/O contact

3 1 N/O contact

H 1 N/O contact "High Performance"

Contact material

4 AgNi 90/10

Coil

Coil code: please refer to coil versions table



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