

# Slim PCB Relay SNR

1 pole 6 A



F0140-C

## Features

- 1 C/O or 1 N/O contact
- Only 5 mm wide
- 6 A switching current
- Sensitive coil 170 mW
- 4 kV coil-contact, 6 / 8 mm clearance/creepage
- N/O version with 8 / 8 mm clearance/creepage on request
- Protection class II
- Allows high function-/packing density
- Cadmium-free contacts, AgNi 90/10 for AC-loads

## Applications

Centralized and decentralized heating control, extremely narrow interface elements, interface technology, timers, PLC's, I/O modules, I/O-ports



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                           | 6 A                               |                    |                    |
| Rated voltage / max.breaking voltage AC | 250 Vac / 440 Vac                 |                    |                    |
| Maximum breaking capacity AC            | 1500 VA                           |                    |                    |
| Contact material                        | AgSnO <sub>2</sub><br>gold plated | AgSnO <sub>2</sub> | AgSnO <sub>2</sub> |
| Minimum contact load                    | ≥10 mA<br>5 V                     | ≥100 mA<br>12 V    | ≥100 mA<br>12 V    |

## Contact ratings

| Type  | Load                     | Operations        |
|-------|--------------------------|-------------------|
| -A302 | 5 A, 250 Vac, resistive  | 1x10 <sup>5</sup> |
| -A302 | 2 A, 250 Vac, cosφ0.4    | 2x10 <sup>5</sup> |
| -A302 | 1 A, 24 Vdc, L / R=48 ms | 2x10 <sup>5</sup> |

## Coil data

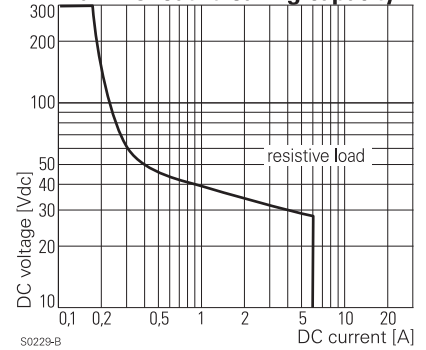
|                    |               |
|--------------------|---------------|
| Nominal voltage    | 5...48 Vdc    |
| Nominal coil power | 170 mW        |
| Operate power      | 75 mW...95 mW |
| Operate category   | 2 / b         |

## Coil versions

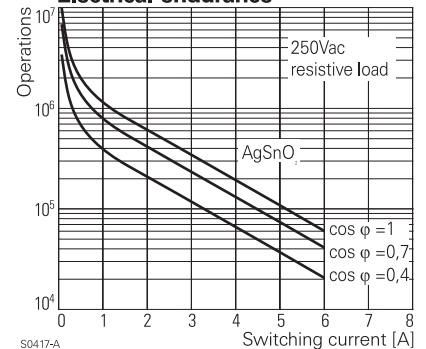
| Coil code | Nominal voltage Vdc | Pull-in voltage Vdc | Release voltage Vdc | Maximum voltage Vdc | Coil resistance Ω | Coil current mA |
|-----------|---------------------|---------------------|---------------------|---------------------|-------------------|-----------------|
| 005       | 5                   | 3.5                 | 0.25                | 11.2                | 147±10%           | 34.0            |
| 012       | 12                  | 8.4                 | 0.6                 | 26.8                | 848±10%           | 14.2            |
| 024       | 24                  | 16.8                | 1.2                 | 53.7                | 3390±10%          | 7.1             |
| 048       | 48                  | 33.6                | 2.4                 | 100.0               | 10600±15%         | 4.5             |

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

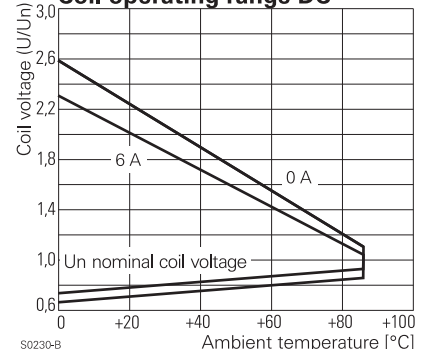
## Max. DC load breaking capacity



## Electrical endurance



## Coil operating range DC



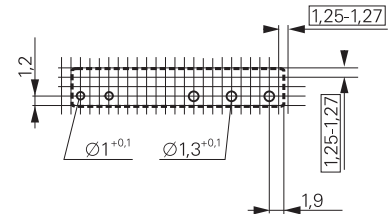
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| Insulation                               |   |                       |
|--|---|-----------------------|
| Dielectric strength                      | coil-contacts                           | 4000 V <sub>rms</sub> |
|  | open contact circuit                    | 1000 V <sub>rms</sub> |
| Surge voltage resistance                 | coil-contacts                           | 6000 V (1.2 / 50 μs)  |
| Clearance / creepage (standard)          |   | 6 / 8 mm              |
| Insulation to IEC 664/VDE 0110 (04 / 97) |   |                       |
|  | 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               |

## PCB layout / terminal assignment

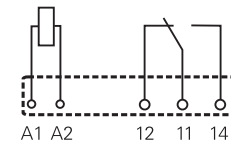
View on solder pins  
Dimensions in mm



S0258-AA

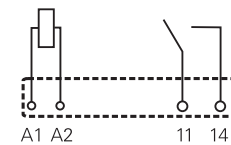
| Other data                                   |  |
|--|--|
| Flammability class according to UL 94        | V-0                                      |
| Ambient temperature                          | -40...+85 °C                             |
| Mechanical life                              | 10x10 <sup>6</sup> operations            |
| Max. switching rate at rated- / minimum load | 6 min <sup>-1</sup> / 20 s <sup>-1</sup> |
| Operate- / release time                      | 5 / 2.5 ms                               |
| Bounce time N/O contact/N/C contact          | 1.5 / 5 ms                               |
| Category of protection (IEC 61810)           | RT III - wash tight                      |
| Relay weight                                 | 6 g                                      |
| Packaging unit                               | 20 / 1000 pcs.                           |
| Accessories                                  | see accessories SNR                      |

1 C/O contact



S0258-AB

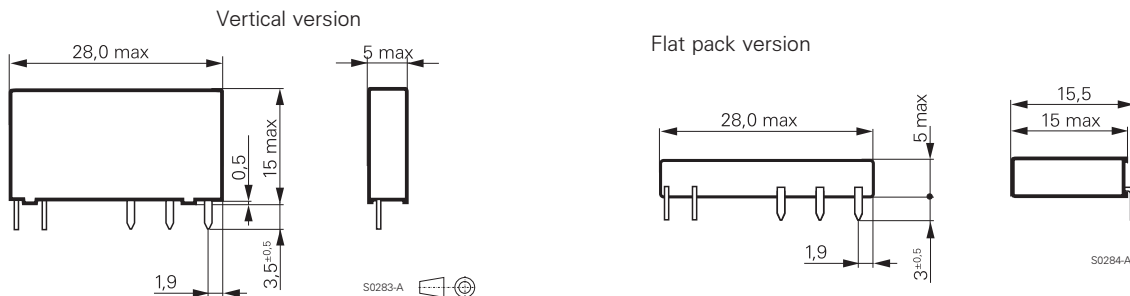
1 N/O contact



S0258-AC

## Dimensions

Dimensions in mm



S0283-A

S0284-A

## Product key

V 2 3 0 9 2 - 1 - A

Type

Version

**A** PCB vertical version

**B** PCB flat pack version

Version

**1** wash tight

Coil

Coil code: please refer to coil versions table

Contact system

**A** standard

Contact material

**2** AgSnO<sub>2</sub>, gold plated

**3** AgSnO<sub>2</sub>

**8** AgNi 90/10

Contact configuration

**01** 1 C/O contact

**02** 1 N/O contact

N/O version with 8/8mm clearance and creepage and other types on request

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| Product key       | Version          | Contacts      | Contact material | Coil   | Part number |
|-------------------|------------------|---------------|------------------|--------|-------------|
| V23092-A1005-A201 | PCB              | 1 C/O contact | AgSnO, gold pl.  | 5 Vdc  | 0-1393236-1 |
| V23092-A1005-A202 | vertical version | 1 N/O contact |                  |        | 8-1415067-1 |
| V23092-A1005-A301 | wash tight       | 1 C/O contact | AgSnO            |        | 0-1393236-2 |
| V23092-A1005-A302 |                  | 1 N/O contact |                  |        | 9-1415067-1 |
| V23092-A1005-A801 |                  | 1 C/O contact | AgNi 90/10       |        | 1-1415068-1 |
| V23092-A1005-A802 |                  | 1 N/O contact |                  |        | 0-1415068-1 |
| V23092-A1012-A201 |                  | 1 C/O contact | AgSnO, gold pl.  | 12 Vdc | 0-1393236-4 |
| V23092-A1012-A202 |                  | 1 N/O contact |                  |        | 0-1393236-5 |
| V23092-A1012-A301 |                  | 1 C/O contact | AgSnO            |        | 0-1393236-7 |
| V23092-A1012-A302 |                  | 1 N/O contact |                  |        | 0-1393236-8 |
| V23092-A1012-A801 |                  | 1 C/O contact | AgNi 90/10       |        | 1-1393236-3 |
| V23092-A1012-A802 |                  | 1 N/O contact |                  |        | 2-1415068-1 |
| V23092-A1024-A201 |                  | 1 C/O contact | AgSnO, gold pl.  | 24 Vdc | 2-1393236-1 |
| V23092-A1024-A202 |                  | 1 N/O contact |                  |        | 2-1393236-2 |
| V23092-A1024-A301 |                  | 1 C/O contact | AgSnO            |        | 2-1393236-4 |
| V23092-A1024-A302 |                  | 1 N/O contact |                  |        | 2-1393236-5 |
| V23092-A1024-A801 |                  | 1 C/O contact | AgNi 90/10       |        | 3-1393236-0 |
| V23092-A1024-A802 |                  | 1 N/O contact |                  |        | 5-1415063-1 |
| V23092-A1048-A201 |                  | 1 C/O contact | AgSnO, gold pl.  | 48 Vdc | 3-1393236-5 |
| V23092-A1048-A202 |                  | 1 N/O contact |                  |        | 3-1393236-6 |
| V23092-A1048-A301 |                  | 1 C/O contact | AgSnO            |        | 3-1393236-7 |
| V23092-A1048-A302 |                  | 1 N/O contact |                  |        | 3-1393236-8 |
| V23092-A1048-A801 |                  | 1 C/O contact | AgNi 90/10       |        | 3-1393236-9 |
| V23092-A1048-A802 |                  | 1 N/O contact |                  |        | 3-1415068-1 |