

## Slimline PCB Relay SNR

- 1 pole 6A, 1 form C (CO), 1 form A (NO)
- Only 5mm wide
- Flat pack version available
- Sensitive coil 170mW
- Reinforced insulation (protection classII)
- Strong coil pins for DIN-rail socket
- Allows high function- / packaging density
- Cadmium-free contacts, AgNi 90/10 for AC-loads



F0140-D

### Typical applications

Interface technology, PLC's, timers, centralized and decentralized heating control



### Approvals

VDE Cert. No. 40010063, UL E214025  
Technical data of approved types on request

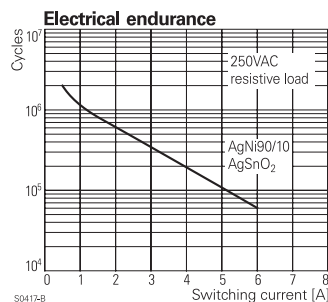
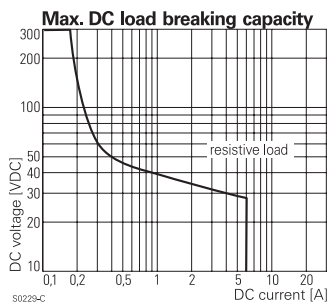
### Contact Data

|                                           |                                    |                                   |
|-------------------------------------------|------------------------------------|-----------------------------------|
| Contact arrangement                       | 1 form C (CO) or 1 form A (NO)     |                                   |
| Rated voltage                             | 250VAC                             |                                   |
| Max. switching voltage                    | 400VAC                             |                                   |
| Rated current                             | 6A                                 |                                   |
| Limiting making current, max 4s, df 10%   | 10A                                |                                   |
| Breaking capacity max.                    | 1500VA                             |                                   |
| Contact material                          | AgSnO <sub>2</sub> ,<br>AgNi 90/10 | AgSnO <sub>2</sub><br>gold plated |
| Min. recommended contact load             | 100mA, 12V                         | 50mW                              |
| Frequency of operation, with/without load | 6/1200min <sup>-1</sup>            |                                   |
| Operate/release time max.                 | 12/5ms                             |                                   |
| Bounce time max., form A/form B           | 3/8ms                              |                                   |

### Contact ratings

| Type                      | Contact  | Load                              | Cycles              |
|---------------------------|----------|-----------------------------------|---------------------|
| <b>EC 61810</b>           |          |                                   |                     |
| V23092-****-A301, -A801   | C (CO)   | 6A, 250VAC, cosφ=1, 85°C          | 5x10 <sup>3</sup>   |
| <b>UL 61810-1 (UL508)</b> |          |                                   |                     |
| V23092-****-A301, -A801   | A/B      | 6A, 250VAC, general purpose, 85°C | 6x10 <sup>3</sup>   |
| V23092-****-A301, -A801   | A/B (NO) | B300, 85°C                        | 6x10 <sup>3</sup>   |
| V23092-****-A301, -A801   | A/B      | R300, 85°C                        | 6x10 <sup>3</sup>   |
| <b>EN60730-1</b>          |          |                                   |                     |
| V23092-****-A302          | A (NO)   | 3A (1.5A), 250VAC, 85°C           | 100x10 <sup>3</sup> |
| V23092-****-A302, -A802   | A (NO)   | 5A (1.5A), 250VAC, 85°C           | 10x10 <sup>3</sup>  |

Mechanical endurance, DC coil 10x10<sup>6</sup> operations



### Coil Data

|                            |            |
|----------------------------|------------|
| Coil voltage range         | 5 to 60VDC |
| Operative range, IEC 61810 | 2          |

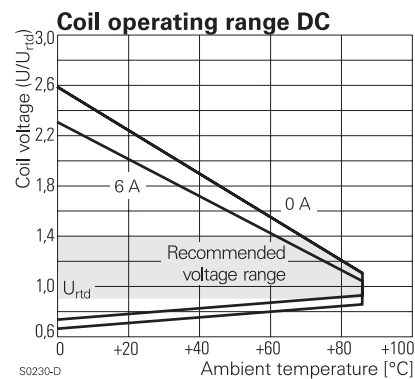
### Coil versions, DC coil

| Coil code | Rated voltage VDC | Operate voltage VDC | Release voltage VDC | Coil resistance Ω±10% <sup>1)</sup> | Rated power mW |
|-----------|-------------------|---------------------|---------------------|-------------------------------------|----------------|
| 005       | 5                 | 3.5                 | 0.25                | 147                                 | 170            |
| 012       | 12                | 8.4                 | 0.6                 | 848                                 | 170            |
| 024       | 24                | 16.8                | 1.2                 | 3390                                | 170            |
| 048       | 48                | 33.6                | 2.4                 | 10600 <sup>1)</sup>                 | 217            |
| 060       | 60                | 42.0                | 3.0                 | 20500 <sup>1)</sup>                 | 176            |

1) Coil resistance ±15%.

All figures are given for coil without pre-energization, at ambient temperature +23°C.

Other coil voltages on request.



### Insulation Data

|                                    |                      |
|------------------------------------|----------------------|
| Initial dielectric strength        |                      |
| between open contacts              | 1000V <sub>rms</sub> |
| between contact and coil           | 4000V <sub>rms</sub> |
| Clearance/creepage                 |                      |
| between contact and coil           | ≥6/8mm               |
| Material group of insulation parts | IIIa                 |
| Tracking index of relay base       | PTI250               |

**Slimline PCB Relay SNR** (Continued)

**Other Data**

Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at [www.te.com/customersupport/rohssupportcenter](http://www.te.com/customersupport/rohssupportcenter)

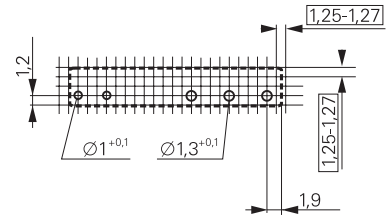
|                                                                 |                             |
|-----------------------------------------------------------------|-----------------------------|
| Ambient temperature                                             | -40 to +85°C                |
| Category of environmental protection                            | RTIII - wash tight          |
| IEC 61810                                                       |                             |
| Vibration resistance (functional),<br>form A (NO) / form B (NC) | 10/5g                       |
| Shock resistance (functional),<br>form A (NO) / form B (NC)     | 10/5g                       |
| Shock resistance (destructive)                                  | 30g                         |
| Terminal type                                                   | PCB-THT, plug-in            |
| Mounting                                                        | PCB, socket                 |
| Weight                                                          | 6g                          |
| Resistance to soldering heat THT<br>IEC 60068-2-20              | 260°C/5s <sup>2)</sup>      |
| Packaging unit                                                  | tube/20 pcs., box/1000 pcs. |
| 2) for flat pack version selective soldering is recommended     |                             |

**Accessories**

For details see datasheet [Accessories Slim Interface Relay SNR](#)

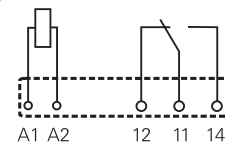
**PCB layout / terminal assignment**

Bottom view on solder pins



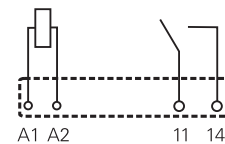
S0258-AA

1 form C contact (1 CO)



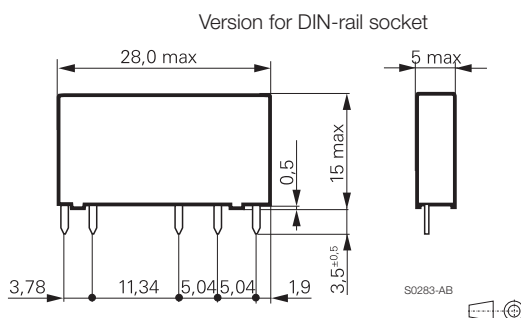
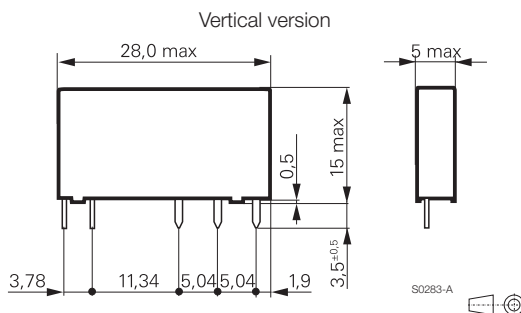
S0258-AB

1 form A contact (1 NO)

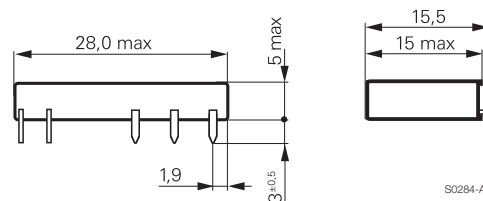


S0258-AC

**Dimensions**



Flat pack version<sup>2)</sup>



2) for flat pack version selective soldering is recommended

**Slimline PCB Relay SNR** (Continued)

**Product code structure**

Typical product code **V23092 -A 1 005 -A 3 01**

|                                                                                                        |                                 |
|--------------------------------------------------------------------------------------------------------|---------------------------------|
| <b>Type</b><br><b>V23092</b> Slimline PCB relay SNR                                                    |                                 |
| <b>Version</b><br><b>A</b> PCB, vertical version<br><b>S</b> Plug-in, vertical version                 | <b>B</b> PCB, flat pack version |
| <b>Version</b><br><b>1</b> Wash tight                                                                  |                                 |
| <b>Coil</b><br>Coil code: please refer to coil versions table                                          |                                 |
| <b>Contact system</b><br><b>A</b> Standard                                                             |                                 |
| <b>Contact material</b><br><b>2</b> AgSnO <sub>2</sub> , gold plated<br><b>8</b> AgNi 90/10            | <b>3</b> AgSnO <sub>2</sub>     |
| <b>Contact configuration</b><br><b>01</b> 1 form C contact (1 CO)<br><b>02</b> 1 form A contact (1 NO) |                                 |

NO version with 8/8mm clearance and creepage and other types on request

| Product code      | Version          | Contact arrangement   | Contact material                 | Coil  | Part number |
|-------------------|------------------|-----------------------|----------------------------------|-------|-------------|
| V23092-A1005-A201 | PCB              | 1 form C (CO) contact | AgSnO <sub>2</sub> , gold plated | 5VDC  | 1393236-1   |
| V23092-A1005-A202 | vertical version | 1 form A (NO) contact |                                  |       | 8-1415067-1 |
| V23092-A1005-A301 | wash tight       | 1 form C (CO) contact | AgSnO <sub>2</sub>               |       | 1393236-2   |
| V23092-A1005-A302 |                  | 1 form A (NO) contact |                                  |       | 9-1415067-1 |
| V23092-A1005-A801 |                  | 1 form C (CO) contact | AgNi 90/10                       |       | 1-1415068-1 |
| V23092-A1005-A802 |                  | 1 form A (NO) contact |                                  |       | 1415068-1   |
| V23092-A1012-A201 |                  | 1 form C (CO) contact | AgSnO <sub>2</sub> , gold plated | 12VDC | 1393236-4   |
| V23092-A1012-A202 |                  | 1 form A (NO) contact |                                  |       | 1393236-5   |
| V23092-A1012-A301 |                  | 1 form C (CO) contact | AgSnO <sub>2</sub>               |       | 1393236-7   |
| V23092-A1012-A302 |                  | 1 form A (NO) contact |                                  |       | 1393236-8   |
| V23092-A1012-A801 |                  | 1 form C (CO) contact | AgNi 90/10                       |       | 1-1393236-3 |
| V23092-A1012-A802 |                  | 1 form A (NO) contact |                                  |       | 2-1415068-1 |
| V23092-A1024-A201 |                  | 1 form C (CO) contact | AgSnO <sub>2</sub> , gold plated | 24VDC | 2-1393236-1 |
| V23092-A1024-A202 |                  | 1 form A (NO) contact |                                  |       | 2-1393236-2 |
| V23092-A1024-A301 |                  | 1 form C (CO) contact | AgSnO <sub>2</sub>               |       | 2-1393236-4 |
| V23092-A1024-A302 |                  | 1 form A (NO) contact |                                  |       | 2-1393236-5 |
| V23092-A1024-A801 |                  | 1 form C (CO) contact | AgNi 90/10                       |       | 3-1393236-0 |
| V23092-A1024-A802 |                  | 1 form A (NO) contact |                                  |       | 5-1415063-1 |
| V23092-A1048-A201 |                  | 1 form C (CO) contact | AgSnO <sub>2</sub> , gold plated | 48VDC | 3-1393236-5 |
| V23092-A1048-A202 |                  | 1 form A (NO) contact |                                  |       | 3-1393236-6 |
| V23092-A1048-A301 |                  | 1 form C (CO) contact | AgSnO <sub>2</sub>               |       | 3-1393236-7 |
| V23092-A1048-A302 |                  | 1 form A (NO) contact |                                  |       | 3-1393236-8 |
| V23092-A1048-A801 |                  | 1 form C (CO) contact | AgNi 90/10                       |       | 3-1393236-9 |
| V23092-A1048-A802 |                  | 1 form A (NO) contact |                                  |       | 3-1415068-1 |
| V23092-S1005-A201 | Plug-in          | 1 form C (CO) contact | AgSnO <sub>2</sub> , gold plated | 5VDC  | 1956024-9   |
| V23092-S1005-A301 | vertical version |                       | AgSnO <sub>2</sub>               |       | 1-1956024-0 |
| V23092-S1012-A201 | wash tight       |                       | AgSnO <sub>2</sub> , gold plated | 12VDC | 1956024-1   |
| V23092-S1012-A301 |                  |                       | AgSnO <sub>2</sub>               |       | 1956024-2   |
| V23092-S1024-A201 |                  |                       | AgSnO <sub>2</sub> , gold plated | 24VDC | 1956024-3   |
| V23092-S1024-A301 |                  |                       | AgSnO <sub>2</sub>               |       | 1956024-4   |
| V23092-S1048-A201 |                  |                       | AgSnO <sub>2</sub> , gold plated | 48VDC | 1956024-5   |
| V23092-S1048-A301 |                  |                       | AgSnO <sub>2</sub>               |       | 1956024-6   |
| V23092-S1060-A201 |                  |                       | AgSnO <sub>2</sub> , gold plated | 60VDC | 1956024-7   |
| V23092-S1060-A301 |                  |                       | AgSnO <sub>2</sub>               |       | 1956024-8   |

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