

# SCHRACK SLIMLINE PCB RELAY SNR

## GENERAL PURPOSE RELAYS PCB RELAYS

### INTRODUCTION

TE Connectivity (TE)'s slim PCB relay with a width of 5 mm suitable for PCB mounting. Vertical version, flat pack version and for DIN rail socket (stronger coil terminal) available. One CO contact for 6 A.

### FEATURES

- 1 pole 6 A, 1 form C (CO), 1 form A (NO)
- Only 5 mm wide
- Flat pack version available
- Sensitive coil 170 mW
- 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

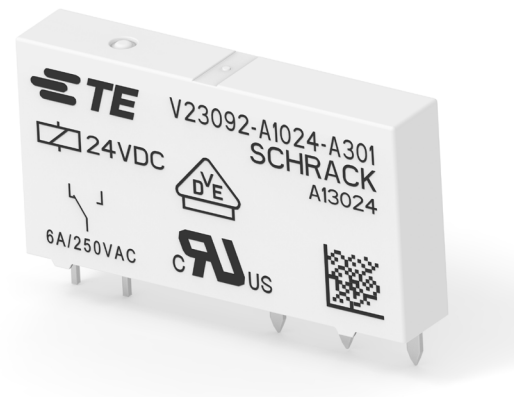
### APPLICATIONS

- Interface technology
- PLC's (programmable logic controller)
- Timers
- Centralized and decentralized heating control

### APPROVALS

- VDE Cert. No. 40010063
- UL E214025

Technical data of approved types on request.



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## PCB Relays

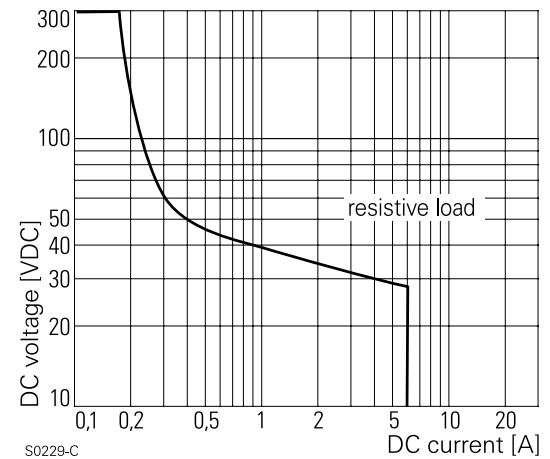
### CONTACT DATA

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

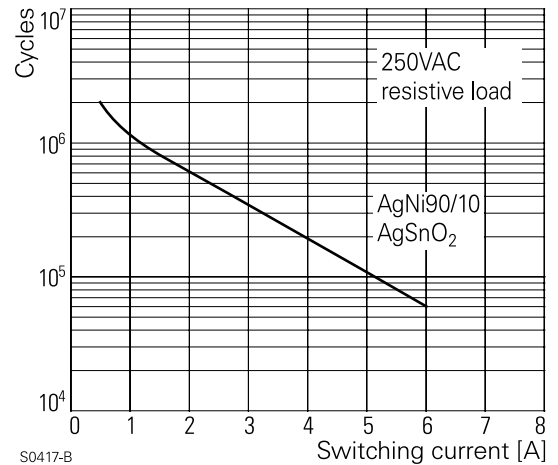
### CONTACT RATINGS

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

### MAX. DC LOAD BREAKING CAPACITY



### ELECTRICAL ENDURANCE



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## PCB Relays

### COIL DATA

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

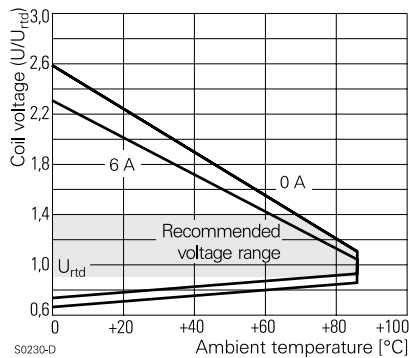
### COIL VERSIONS, DC COIL

| Coil code | Rated voltage VDC | Operate voltage VDC | Release voltage VDC | Coil resistance $\Omega \pm 10\%^{1)}$ | Rated coil 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  $\pm 15\%$ .

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

### COIL OPERATING RANGE DC



### INSULATION DATA

|                                    |               |
|------------------------------------|---------------|
| Initial dielectric strength        |               |
| between open contacts              | 1000 Vrms     |
| between contact and coil           | 4000 Vrms     |
| Clearance/creepage                 |               |
| between contact and coil           | $\geq 6/8$ mm |
| Material group of insulation parts | IIIa          |
| Tracking index of relay base       | PTI250        |

### ACCESSORIES

|                           |                                                      |
|---------------------------|------------------------------------------------------|
| For details see datasheet | <a href="#">Accessories Slim Interface Relay SNR</a> |
|---------------------------|------------------------------------------------------|

### OTHER DATA

|                                      |                                                                                                                                                                                                                    |
|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material compliance                  | EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at <a href="http://www.te.com/customer-support/rohssupportcenter">www.te.com/customer-support/rohssupportcenter</a> |
| Ambient temperature                  | -40 °C to +85 °C                                                                                                                                                                                                   |
| Category of environmental protection |                                                                                                                                                                                                                    |
| IEC 61810                            | RTIII - wash tight                                                                                                                                                                                                 |
| Vibration resistance (functional)    |                                                                                                                                                                                                                    |
| form A (NO)                          | 10g                                                                                                                                                                                                                |
| form B (NC)                          |                                                                                                                                                                                                                    |
| -X direction                         | 2g                                                                                                                                                                                                                 |
| -Y,Z direction                       | 5g                                                                                                                                                                                                                 |
|                                      |                                                                                                                                                                                                                    |
| Shock resistance (functional)        |                                                                                                                                                                                                                    |
| 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     |                                                                                                                                                                                                                    |
| IEC 60068-2-20                       | 260 °C/5 s <sup>2)</sup>                                                                                                                                                                                           |
| Packaging unit                       | tube/20 pcs., box/1000 pcs.                                                                                                                                                                                        |

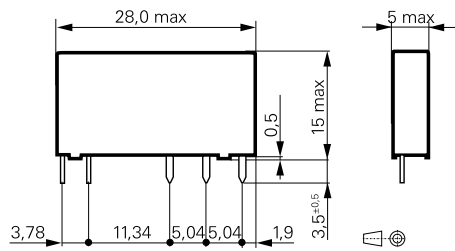
2) for flat pack version selective soldering is recommended

# SCHRACK Slimline PCB Relay SNR

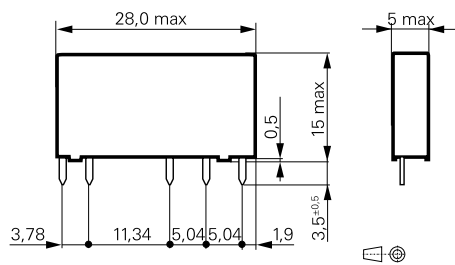
## PCB Relays

### DIMENSIONS (Unit: mm)

#### Vertical version

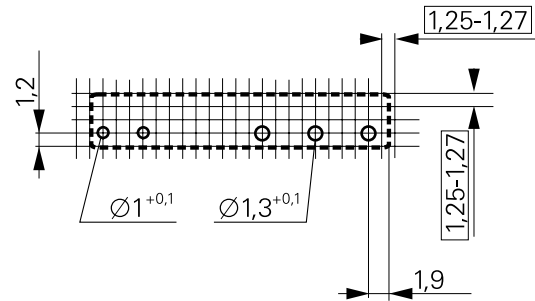


#### Version for DIN-rail socket

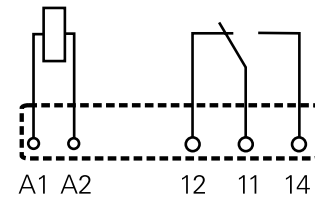


### PCB LAYOUT / TERMINAL ASSIGNMENT

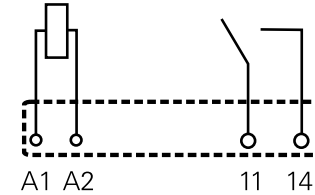
#### Bottom view on solder pins



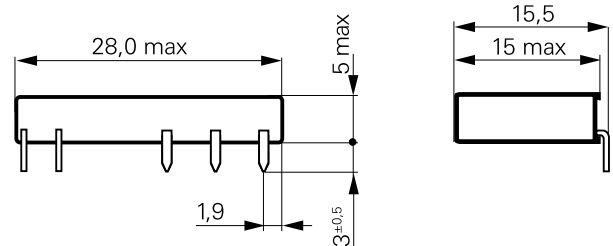
#### 1 form C contact (1 CO)



#### 1 form A contact (1 NO)



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



2) for flat pack version selective soldering is recommended

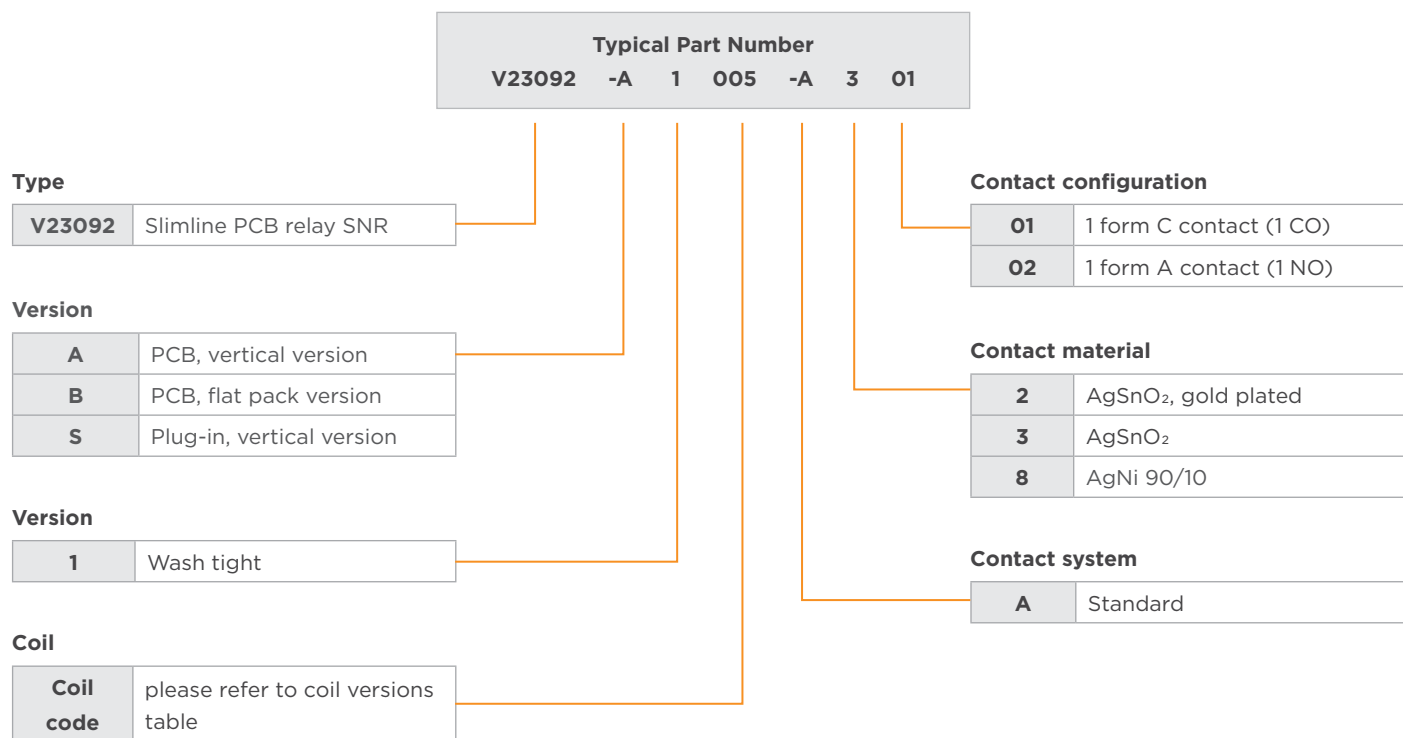
# SCHRACK Slimline PCB Relay SNR

## PCB Relays

### PRODUCT INFORMATION

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

## PRODUCT CODE STRUCTURE



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

### Notes:

1. Catalog and product specification according to IEC 61810-1 and to be used only together with the 'Definitions' section.
2. Catalog and product data is subject to the terms of the disclaimer and all chapters of the 'Definitions' section, available at <http://relays.te.com/definitions>
3. Catalog product data, 'Definitions' section, application notes and all specifications are subject to change.

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