

# V23 socket - Screw terminal, wall/rail mount

## Datasheet



### Description

The V23 is a surface / wall and 35 mm rail mount relay socket. The V23 socket has one screw terminal per relay contact suitable for two wires up to 2.5 mm<sup>2</sup>, so looping/daisy chaining can be done on the socket and no external connector or terminal is needed.

The V23 relay socket has no internal soldering connections which makes it highly reliable.

To prevent fault relay placement the socket can be equipped with mechanical keying to accept only designated identical keyed relays.

Clear UP ↑ arrow for correct 35 mm rail mounting.

### Application

The V23 relay socket is suitable for general railway applications with a space saving design. Installation and replacement of relays is made easy and cost saving. No maintenance is required for the user.

Suitable for all D-U relay series.

### Features

- Surface / wall and 35 mm rail mount
- Sturdy screw terminals
- No internal solderings / connections
- Touch proof IP20
- Height saving 35 mm rail mounting
- Suitable for all D-U relay series
- Up to two wires of 2.5 mm<sup>2</sup> per connection terminal (7.5 mm wide tabs)
- Positive mechanical keying
- Trifurcated female receiver for tight grip relay pin
- Clear terminal ID

### Benefits

- Proven reliable
- Long term availability
- Easy to maintain
- Low life cycle cost
- No maintenance

### Railway compliancy

- EN 50155 Electronic equipment used on rolling stock for railway applications
- IEC 60571 Electronic equipment used on railway vehicles
- NF F 16-101/102, TS 45545-2 Fire behaviour - Railway rolling stock
- IEC 60715 Dimensions of low voltage switchgear and controlgear - mounting rail
- NF F 62-002 On-off contact relays and fixed connections



# V23 socket

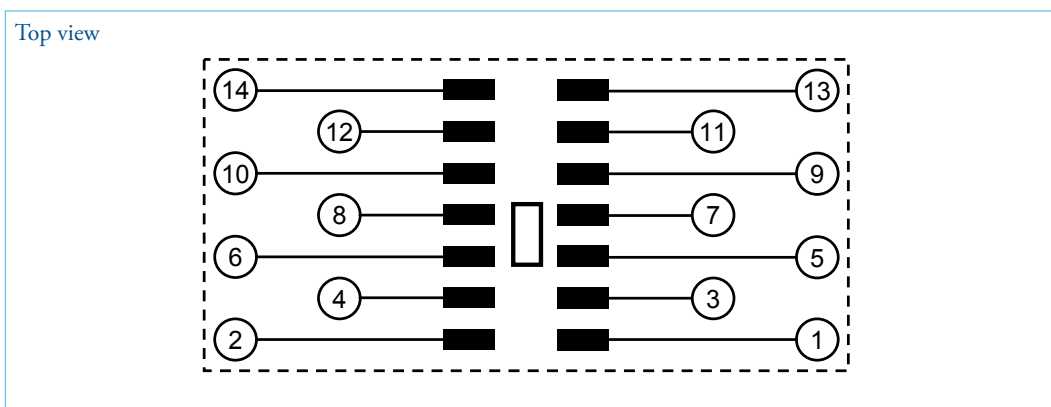
## Technical specifications



## Technical characteristics

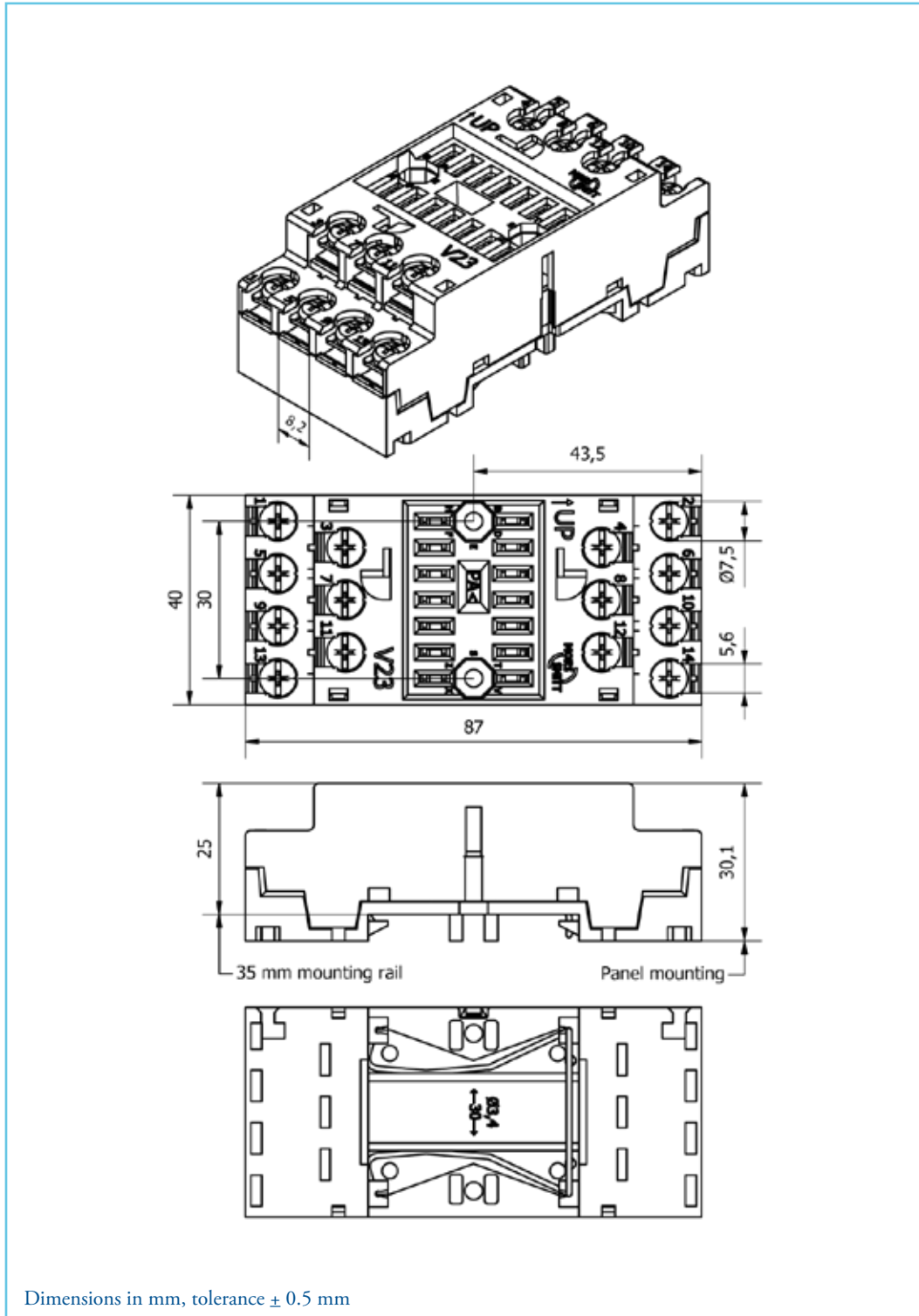
|                                   |                                       |
|-----------------------------------|---------------------------------------|
| Contact rating                    | 10 A                                  |
| Dielectric strength               | IEC 60255/60571, 3500 V, 50 Hz, 1 min |
| Protecting category               | IEC 60529 , IP20                      |
| Mounting                          | Surface / wall and 35 mm rail         |
| Max. ambient temperature          | 80 °C                                 |
| Weight                            | 122 g                                 |
| Dimensions                        | 87 x 40 x 30 mm                       |
| Wire size                         | 2.5 mm <sup>2</sup> maximum           |
| Material                          | Polyamide 66, 30% glass               |
| Socket contacts                   | Screw                                 |
| Max. torque value mounting screws | 1 Nm                                  |
| Max. torque value terminal screws | 1 Nm                                  |
| Accessories                       | A104 Key receptacle                   |

## Connection diagram



# V23 socket

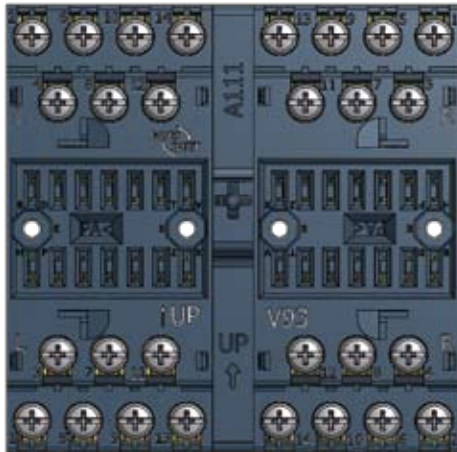
## Drawings & dimensions



# V23 socket

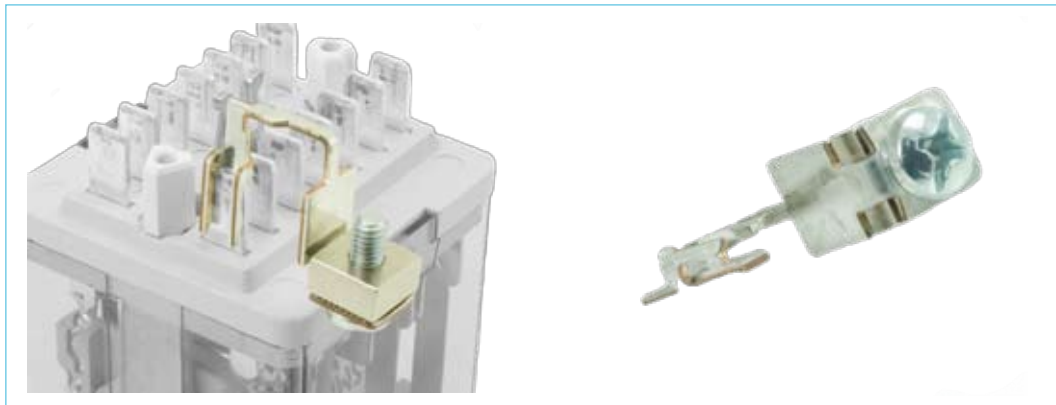
## Technical specifications

V93 screw terminal for 8 contact relays (D8 or KDN series).



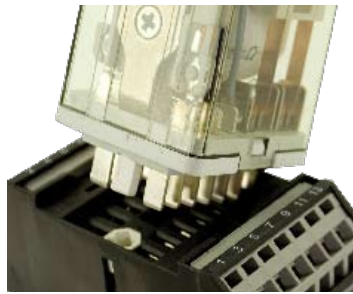
For details see datasheet V93.

## Tri-furcated female receiver for tight grip relay pin



# V23 socket Keying

## Mechanical keying relay and socket (optional)



Function:

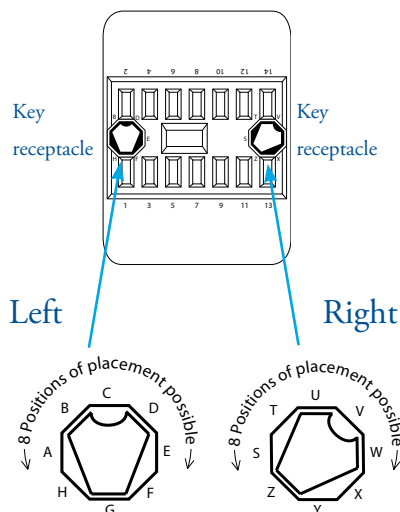
- To prevent wrong installation
- To prevent damage to equipment
- To prevent unsafe situations

Using keyed relays and sockets prevents a relay being inserted in a wrong socket. For example it prevents placing a 24 VDC relay in a 110 VDC circuit. Positive discrimination is possible per different function, coil voltage, timing, monitoring, safety and non-safety.

The D-Series relay socket keying option gives  $8 \times 8 = 64$  possibilities. Upon ordering the customer simply indicates the need for the optional keying. Mors Smitt will assign a code to the relay and fix the pins into the relay. The sockets are supplied with loose key receptacles. Inserting the keys into the socket is very simple and self explaining.

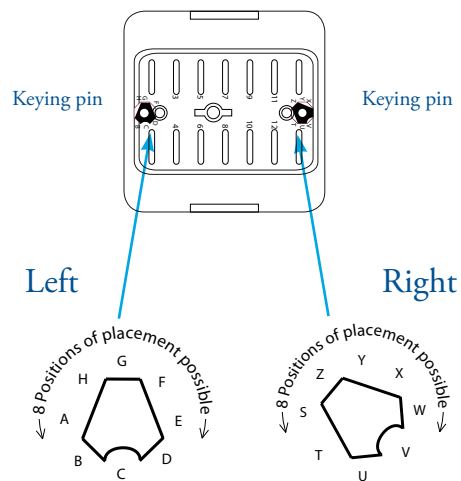
Remark: Sockets and relay shown are only examples.

Top view socket



Example keying position G-Z on socket

Bottom view relay



Example keying position G-Z on relay



# V23 socket Instructions

## Installation & inspection

### Installation

Before installation or working on the relay: disconnect the power supply first!

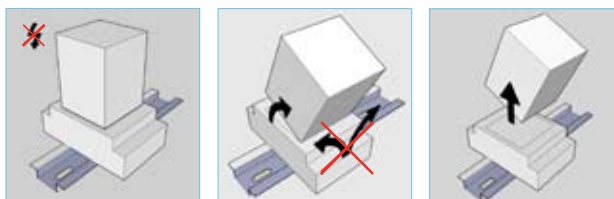
Install socket and connect wiring according to the terminal identification. Plug relay into the socket ensuring there is no gap between the bottom of relay and the socket. Reverse installation into the socket is not possible due to the mechanical blocking snap-lock feature.

No external retaining clip needed as the 'snap-lock' will hold the relay into the socket under all circumstances and mounting directions (according shock & vibration requirements IEC 61373, Category I, Class B, Body mounted). If regulations require an external retaining clip, this is available as well. For more information see the datasheet of the retaining clips.

When rail mounting is used, always mount the socket in the direction of the UP arrow.

#### Warning!

- To remove relays from the socket, employ up and down lever movements. Sideway movement may cause damage to the coil wires.



When plugging the relay into the socket, the female trifurcated receivers will automatically cut through the corrosion on the pins and guarantee a reliable connection.

### Inspection

If the socket does not work after inspection of the correct wiring and relay connection, replace the unit with a similar model.

When returning products for investigation, please provide all information on the RMA form. Send defective products back to the manufacturer for repair or replacement. Normal wear and tear or external causes are excluded from warranty.



# V23 socket

## Ordering possibilities



V23



V93



A104

| Article nr | Code | Description                                      |
|------------|------|--|
| 338000580  | V23  | Screw terminal relay socket                      |
| 338003900  | V93  | Screw terminal relay socket for 8 contact relays |
| 378690100  | A104 | Key receptacle                                   |





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