

/// Socket, screw terminal, wall / rail mount

Sockets for extreme reliability, within long endurance applications and harsh environments

V23 Socket



Features

- Surface / wall and 35 mm rail mount
- Sturdy screw terminals
- No internal solderings / connections
- Suitable for all railway and industry D- & D-U relay series
- Touch proof IP20 or increased protection with optional adapter
- Height saving 35 mm rail mounting
- Up to two wires of 2.5 mm² per connection terminal (7.5 mm wide tabs)
- Positive mechanical keying
- Trifurcated female receiver for tight grip relay pin
- Clear terminal ID

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 mm², 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.

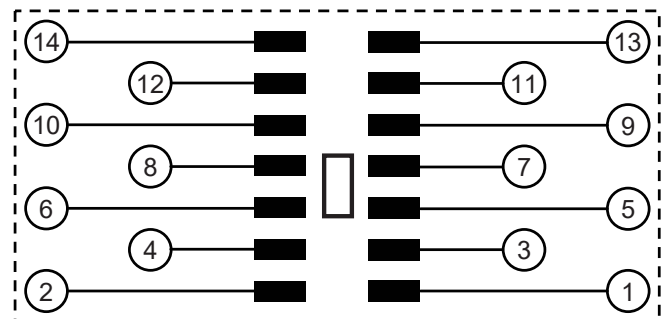
Application

The V23 relay socket is suitable for general railway and industry 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 railway and industry D- & D-U relay series.

Connection diagram

Top view



Railway compliancy

EN 50155
IEC 60571
EN 45545-2
NF F16-101/102
NF F 62-002

Industry compliancy

EN 60947-5-1
IEC 61810

Technical specifications

Technical characteristics

| | | |
|-----------------------------------|----------------------|--|
| Contact rating | | 10 A |
| Dielectric strength | IEC 60255, IEC 60571 | 3500 V, 50 Hz, 1 min |
| Protecting category | IEC 60529 | IP20 (or increased protection with optional adapter) |
| 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 ² maximum |
| Material | | Polyamide 66, 30% glass |
| Socket contacts | | Screw M3.5 |
| Max. torque value mounting screws | | 1 Nm |
| Max. torque value terminal screws | | 1 Nm |
| Accessories | | A104 Key receptable |



For more detailed technical specifications, drawings and ordering information, go to the product page on www.morssmitt.com

 **Over 10 million Mors Smitt relays in use in applications worldwide!**

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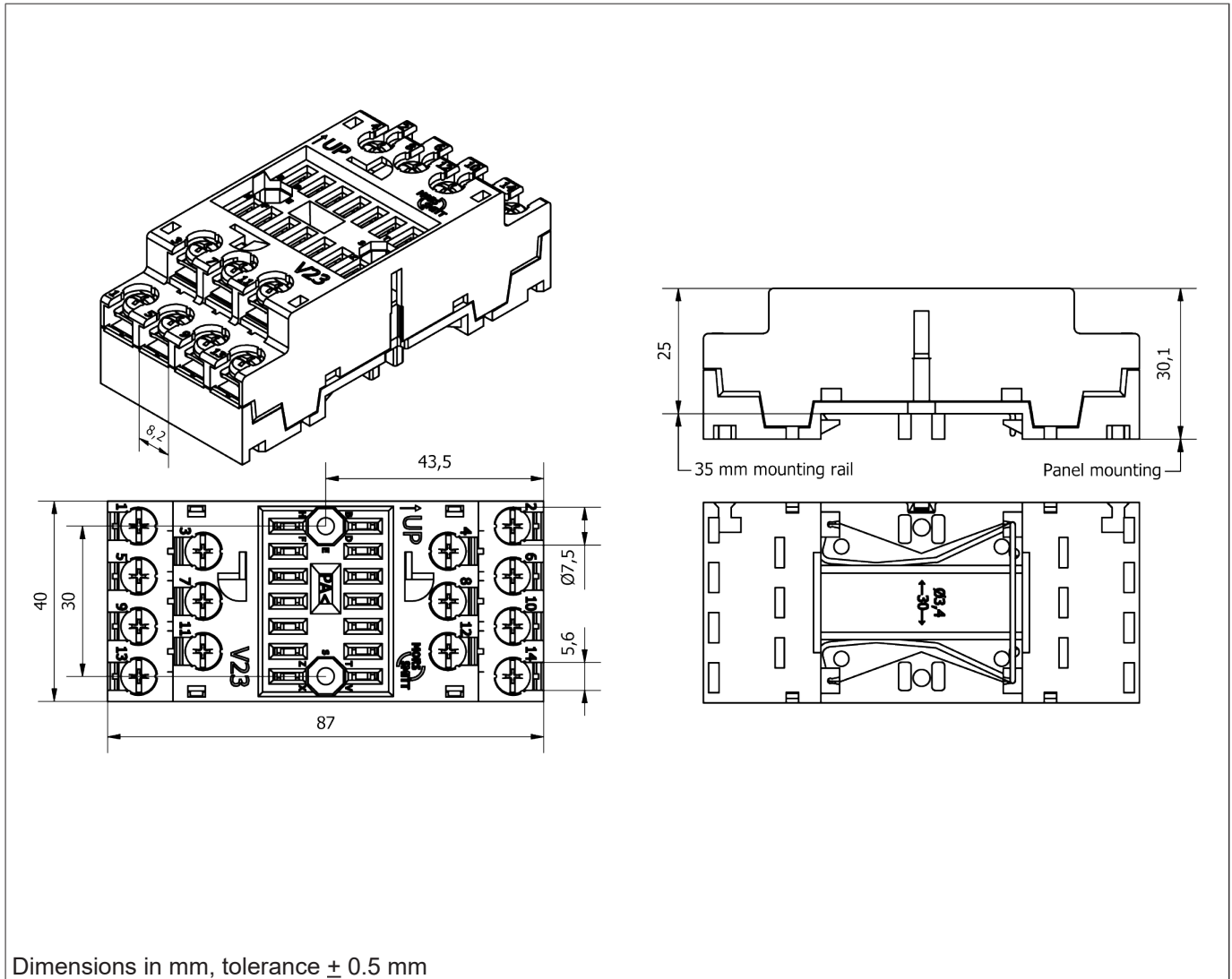
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Dimensions



Railway compliancy

| | |
|----------------|--|
| EN 50155 | Railway applications - Rolling stock - Electronic equipment |
| IEC 60571 | Railway applications - Electronic equipment used on rolling stock |
| NF F16-101/102 | Railway rolling stock - Fire behavior |
| EN 45545-2 | Railway applications - Fire protection on railway vehicles Part 2: Requirements for fire behavior of materials and components |
| NF F 62-002 | Railway rolling stock - On-off contact relays and fixed connections |

Industry compliancy

| | |
|--------------|--|
| EN 60947-5-1 | Electromechanical control circuit devices and switching elements |
| IEC 61810 | Electromechanical elementary relays |

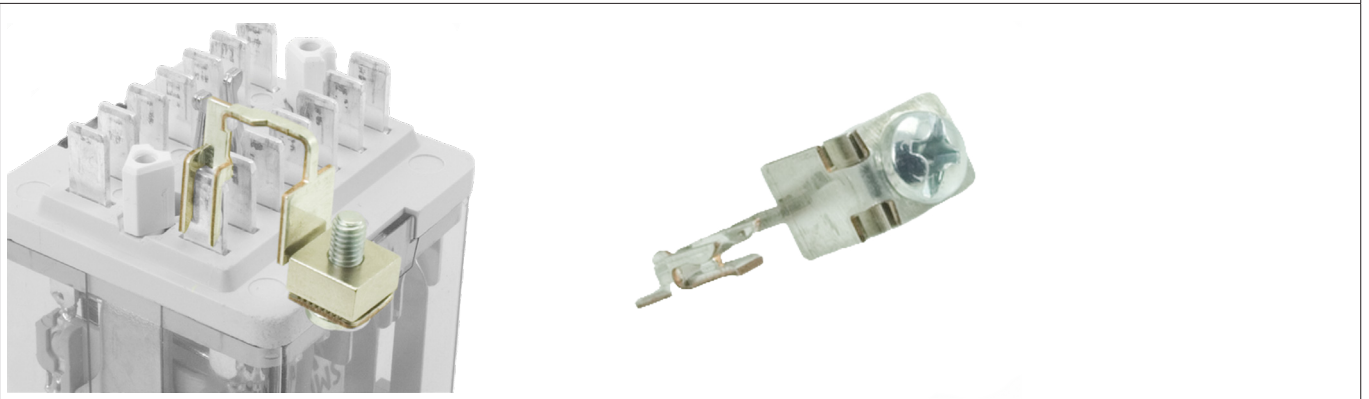
V93

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

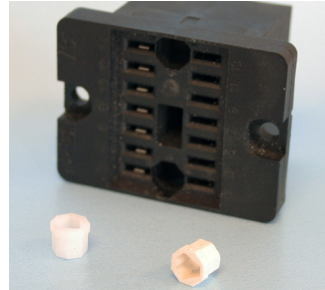


For detail see DS-V93 socket

Tri-furcated female receiver for tight grip relay pin



Mechanical keying relay and socket (optional)



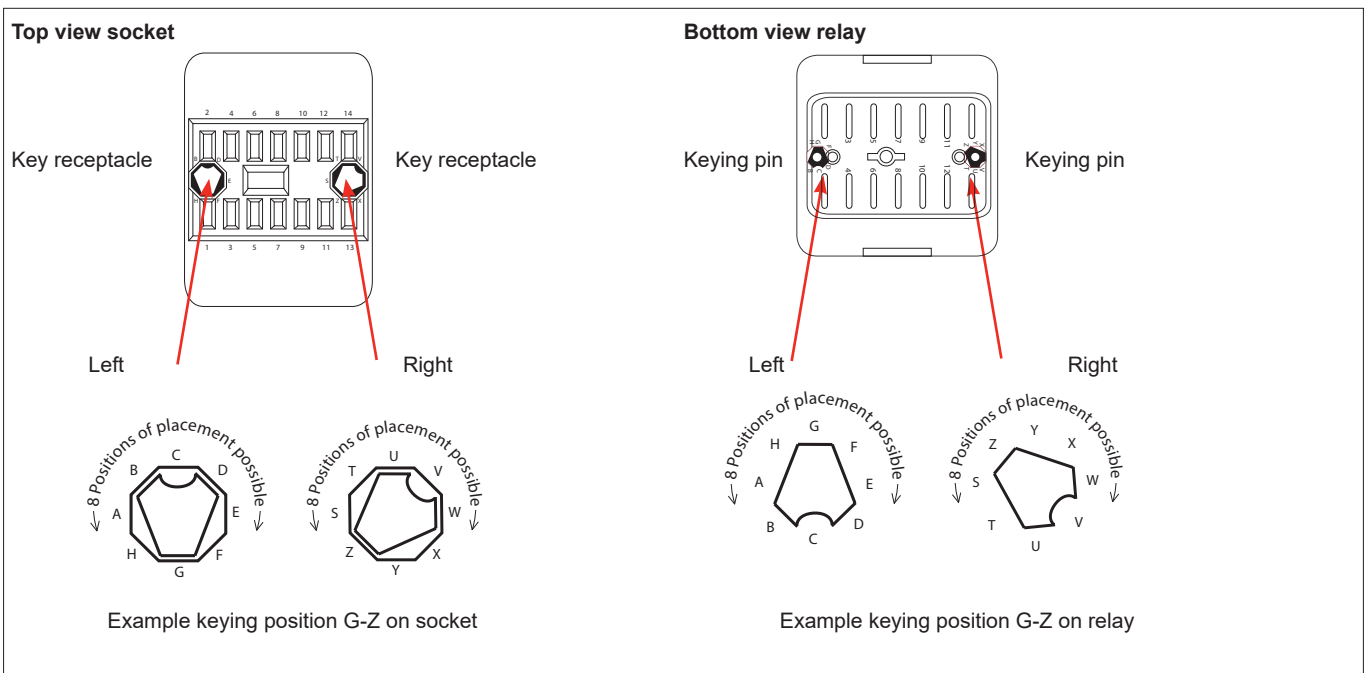
Function:

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

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

The D-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 examples.



Installation and 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.

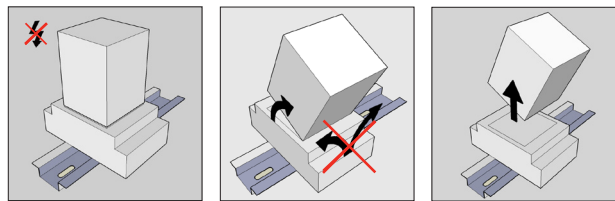
No external retaining clip needed as the 'snap-lock' will hold the relay into the socket under all circumstances and mounting directions (according shock & vibration requirements IEC 61373, Category I, Class B, Body mounted). If regulations require an external retaining clip, this is available as well.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

The socket is designed to keep the relays in place on the rail, but not to avoid any sideways movement on the rail. Both the socket and the rail have dimensional tolerances, so depending on how these tolerances stack up, the socket can sometimes slide more or less. This can be prevented by commercially available end stops not manufactured by Mors Smitt. This prevents any sliding of the relay sockets or any other items installed along the rail.

Warning!

- To remove relays from the socket, employ up and down lever movements. Sideways 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.

Socket V23

Ordering codes



| Article no. | Code | Description |
|-------------|------|--|
| 338000580 | V23 | Screw terminal relay socket |
| 338003930 | V93 | Screw terminal relay socket for 8 contact relays |
| 378690100 | A104 | Key receptacle |
| 501441017 | A031 | Protection cover for increased protection |

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