

/// Socket, spring clamp terminal, wall / rail mount, 8 pole

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

V99 Socket



Description

The V99 is a surface / wall and 35 mm rail mount relay socket. The V99 socket has two spring terminals per relay contact, so looping/daisy chaining can be done on the socket and no external connector or terminal is needed.

The spring terminal makes quick connection possible by pressing the spring with a flat-bladed screwdriver and inserting the stripped wire. Solid and (fine) stranded wire up to 2.5 mm2 can be inserted. This quick & easy wiring method saves up to 75% wiring time compared with classic technology, like screw terminals.

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 V99 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 D8- and KDN-relay series.

Features

- Surface / wall and 35 mm rail mount
- Sturdy spring clamp terminals
- No internal solderings / connections
- Suitable for all railway and industry D8- and KDN-relay series
- Touch proof IP20
- Height saving 35 mm rail mounting
- Up to two wires of 2.5 mm² per relay contact
- Easy & quick installation (up to 75% reduction of wiring time)
- Positive mechanical keying
- Trifurcated female receiver for tight grip relay pin
- Clear terminal ID

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	
Mounting		Surface / wall and 35 mm rail	
Max. ambient temperature		80 °C	
Weight		186 g	
Dimensions		87 x 88 x 34.1 mm	
Wire size		0.08 - 2.5 mm ² maximum	
Wire stripping length		6 mm	
Material		Polyamide 66, 30% glass	
Socket contacts		Spring clamp terminal	
Max. torque value mounting 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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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





V29



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



Socket V99

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. 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.



Ordering codes

V29	V99	A104	

Article no.	Code	Description
338000610	V29	Spring clamp terminal relay socket
338003950	V99	Spring clamp terminal relay socket for 8 contact relays
378690100	A104	Key receptacle

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