

# RELAYS AND FUSES

ENGLISH

Relays

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Relay Sockets

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Fuses

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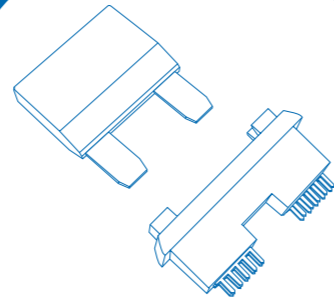
Fuse Holders and Boxes

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**miunske**  
SYSTEMS FOR COMMERCIAL VEHICLE ELECTRONICS

# SYSTEMS FOR COMMERCIAL VEHICLE ELECTRONICS



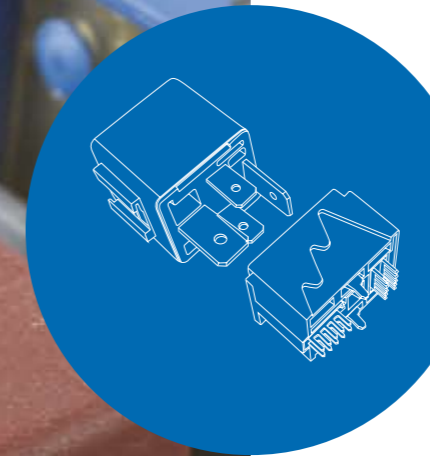
## Pioneering solutions for relays and fuses

How many relays, how many fuses would there be in a commercial vehicle? Five or ten, or rather fifty? Plenty of them, for sure! Because there are so many different types, designs or configurations of relays, fuses and associated holders, Miunske offers you a comprehensive assortment. Here is what you may expect:

- 1 **A full range of products** – you will find practically any type, design or configuration in our assortment. Need something more out of the ordinary? Just contact us. We are the right partner to talk to.
- 2 **In-house development and production** – many of the components in our product range have been developed in-house, and are produced in our own facilities. Here, innovation often comes in the details. Such as with our modular snap-in system for relay or fuse holders. The holders also snap together at the front, providing you with unlimited design options in series production while at the same time helping you respond with more flexibility to customer requests. Incidentally, Miunske is the only manufacturer that offers you relay sockets or fuse holders for printed circuit boards for a power range up to 70A for soldering systems.
- 3 **Board assembly** – Miunske is a system supplier for commercial vehicle electronics. In addition to relays and fuses, we offer a comprehensive range including items such as cables, lamps, onboard electronics or similar. Our board assembly shop will produce complete units for you.

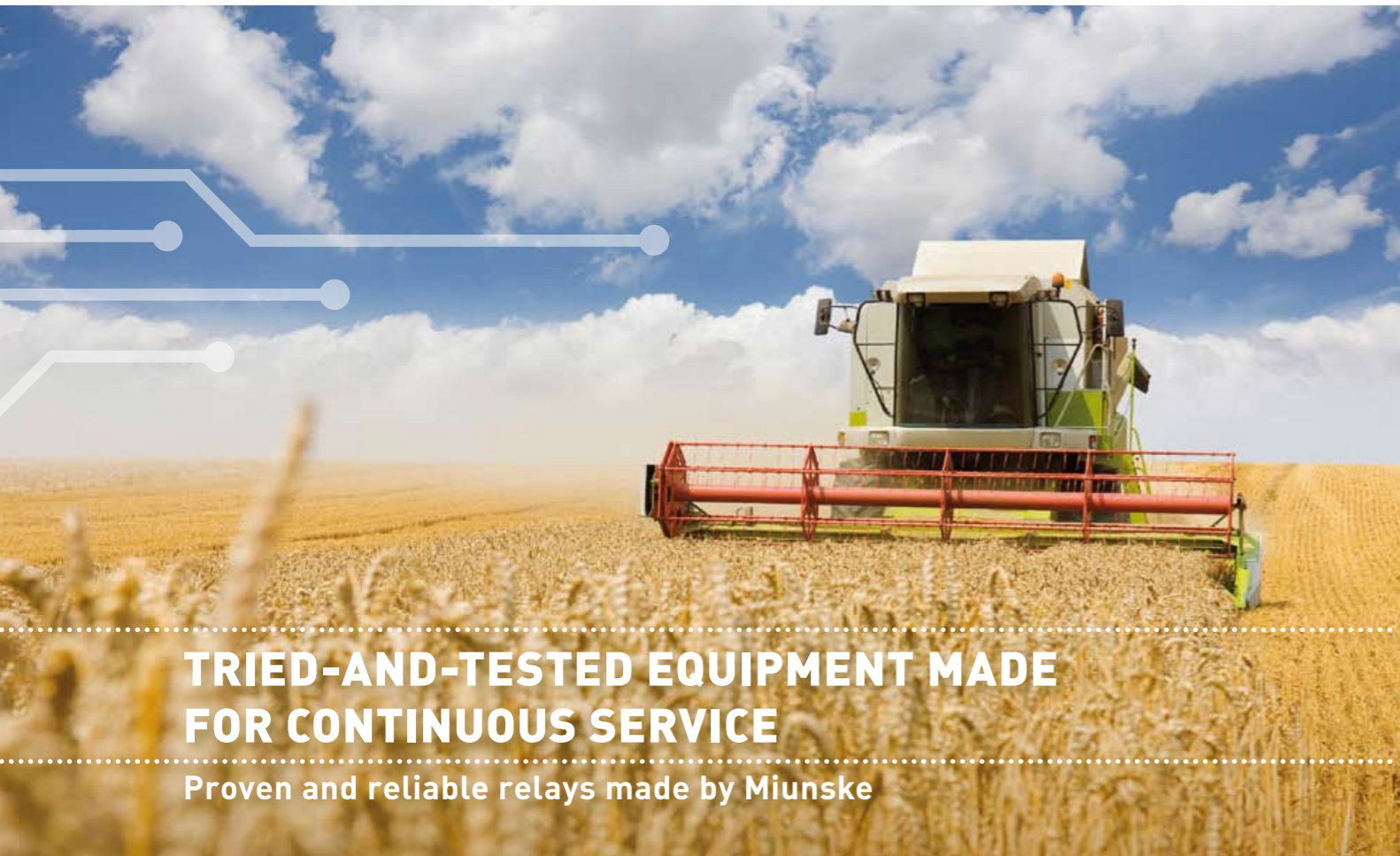
Benefit from our comprehensive range of products and services.

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## RELAYS AND FUSES

Relays	4
Relay Sockets	6
Fuses	8
Fuse Holders and Boxes	10



## TRIED-AND-TESTED EQUIPMENT MADE FOR CONTINUOUS SERVICE

Proven and reliable relays made by Miunske

### THE FULL RANGE: FROM CONVENTIONAL TO ELECTRONIC



Miunske offers you a large number of different relays of any power range or rated capacity: Micro, Standard or Power, designed as plug-in relays or circuit board relays.



You will get complete systems from a single source. We also offer matching sockets or holders in a wide variety of designs or configurations for any type of relay.



Conventional coil systems or electronic configuration; whichever you prefer, we will supply and deliver.

### CIRCUIT BOARD RELAYS



Miunske offers circuit board relays for direct mounting. These can be soldered directly onto the circuit board at low cost, without a socket.

Voltage ranges: 12V, 24V  
 Rated capacities: 1 A to 70 A  
 Option: sealed-in configuration

### SEMICONDUCTOR RELAYS



For applications with high switching frequencies or where silent operation is required, we offer wear-free semiconductor relays.

Voltage ranges: 9V to 30V  
 Rated capacities: 1 A to 20 A

### MICRO RELAYS



Compact micro relays made by Miunske will be used wherever there is lack of space.

Voltage ranges: 12V, 24V  
 Rated capacities: 10 A to 35 A  
 Option: sealed-in configuration

### STANDARD RELAYS



Standard relays are tried-and-tested; cost-efficient relays are available in a large number of designs or configurations from Miunske.

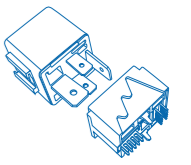
Voltage ranges: 12V, 24V  
 Rated capacities: 10 A to 60 A  
 Option: sealed-in configuration

### POWER RELAYS



Whenever large currents are to be switched, it's time to use our power relays. These relays are available with connector pins, or designed as plug-in relays.

Voltage ranges: 12V, 24V  
 Rated capacities: 40 A to 300 A  
 Option: sealed-in configuration





## DOUBLE PARKING PERMITTED

The universal system for latching sockets made by Miunske

### LATCHING SYSTEMS FOR SERIES PRODUCTION – FOR RETROFITTING TO WORK



Miunske offers a universal system for all rated capacities, both for use in conventional wiring and on printed circuit boards. All relay sockets are made in-house and are PIN compatible with other solutions customary in the market. We will supply and deliver our relay sockets in your preferred color upon request.



Relay sockets made by Miunske interlock not only at the sides but also at the front. That way, additional relay sockets or fuse holders can be efficiently mounted, or, of course, retrofitted without any problems. Many possible combinations will give you maximum flexibility in your design.



The score will be 7:6 in your favor if you lack space. For standard relays, Miunske offers a particularly narrow relay socket. This will enable a total of seven relays to be arranged side by side where other sockets merely allow for six sockets.

### RELAY SOCKETS FOR THE CIRCUIT BOARD

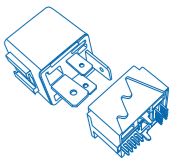


Miunske offers the complete range of circuit board sockets for micro relays, standard or power relays. Our newly developed contact elements facilitate up to 70A\* in relay sockets for power relays. This is innovation made by Miunske.

\* depending on the type of load and design



Our PC board sockets all come with Power-Timer-Contacts. Owing to its four different contact point, this configuration reduces the plugging or pulling forces and thus protects the printed circuit board against extreme bending loads. Moreover, the transfer resistance is minimized owing to the firm and secure lodging of the relays. This is real quality made by Miunske.



### RELAY SOCKETS FOR MICRO RELAYS



Sockets with a front-end latching socket and associated MiniVal fuse holder.

- 1 with screw-on mounting lug – optional
- 2 with a latching detent on the front end – optional
- 3 with a latching detent at the side

Contacts to be used: 2x6.3mm and 3x4.8mm

### RELAY SOCKETS FOR STANDARD RELAYS



Sockets with a front-end latching socket and associated UniVal fuse holder.

- 1 with screw-on mounting lug
- 2 with a latching detent on the front end – optional
- 3 with a latching detent at the side

These relay sockets are also available in a narrower configuration to take seven relays instead of six of the same width.  
Contacts to be used: 5 x 6.3mm und 4x2.8mm



Provide functional reliability through predefined pin assignment with detachable connections in the cable assembly through the use of our central connectors.

Contacts to be used: up to nine standard power timer contacts.

### RELAY SOCKETS FOR POWER RELAYS



Sockets with a front-end latching socket and associated MaxiVal fuse holder.

- 1 with screw-on mounting lug
- 2 with a latching detent on the front end – optional
- 3 with a latching detent at the side

Contacts to be used: 2x9.5mm und 2x6.3mm und 4x2.8mm



## FOR ANY APPLICATION

Tried-and-tested, reliable fuses made by Miunske

### FUSES OR AUTOMATIC CIRCUIT BREAKERS FOR ANY APPLICATION



Miunske offers a wide range of blade fuses of the MiniVal, UniVal or MaxiVal models.



Bolt-down fuses will help you rise to many challenges when it comes to fusing.



Miunske offers automatic circuit breakers of different types, designs or configurations for the most varied uses.

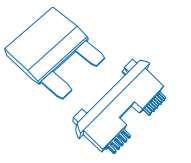
### BLADE FUSES OF THE MINIVAL, UNIVAL OR MAXIVAL SERIES



We have just the right blade fuse for any use of the following rated capacities:

- LowProfile: 2A to 30A
- MiniVal: 2A to 30A
- UniVal\*: 1A to 40A
- MaxiVal: 20A to 100A

*\* optionally including LED blowout indicator*



### BOLT-DOWN FUSES OF THE MIDIVAL, MEGAVAL OR POWERVAL SERIES



For larger power levels, we supply and deliver Bolt-down fuses or metal strip fuses of the following rated capacities:

- MidiVal: 30A to 125A
- MegaVal: 100A to 500A
- PowerVal: CAL.1 to CAL.5
- Metal strip fuses: 20A to 500A

### AUTOMATIC CIRCUIT BREAKERS OF DIFFERENT DESIGNS OR CONFIGURATIONS



Be it a single-pole thermal cut-out similar to blade fuses, thermal magnetic circuit breakers or combined circuit breakers and on/off switches, Miunske offers a wide range of circuit breakers or cut-outs including associated holders.

## More Information

You will find a large number of our products in our [product catalog](#). If you cannot find what you are looking for, just contact our technical staff.

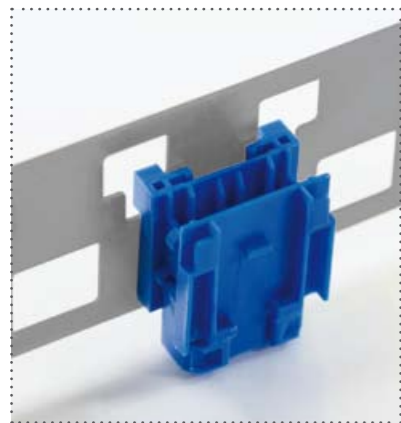
Phone: +49 (0) 359 38/9800-0 | E-mail: [info@miunske.com](mailto:info@miunske.com)



## WE KEEP SAFETY UP

The comprehensive Miunske fuse-holding range

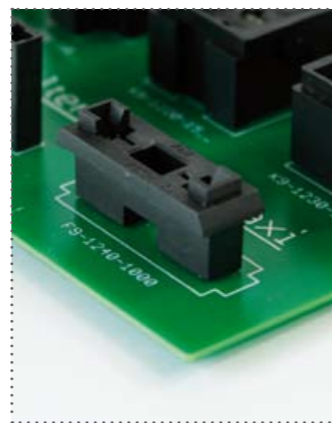
### LATCHING-IN, BOLTING, SOLDERING – MIUNSKЕ HAS SOMETHING ON OFFER FOR EVERY APPLICATION



Be it fuse holders for latching in a wall mount or relay socket,...



... be it fuse holders for bolting,...



... or be it fuse holders for soldering on the circuit board, Miunske offers a complete range of items, most of which are produced in-house, for any customary rated capacity.

### HOLDERS FOR FUSES OR AUTOMATIC CIRCUIT BREAKERS FOR THE MOST VARIED USES OR RATED CAPACITIES



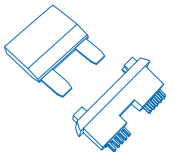
Fuse holders for blade fuses of the MiniVal, UniVal or MaxiVal models: Miunske offers a wide selection of fuse holders and accessories for these types of fuses.



Our universal fuse holders are designed to take and hold fuses of the MidiVal, MegaVal or PowerVal series, or metal stripe fuses. They can be interlocked. They are available with different covers, and with a lug for different kinds of mounting.



Our power fuse holders are available in single or double configuration, including or excluding a ceramic body, and designed to hold metal strip fuses. **Make the most of our in-house products!**



### THE NEW MIUNSKЕ RANGE FOR PRINTED CIRCUIT BOARDS



Miunske offers its MiniVal fuse holders for fuses or cut-outs and for rated currents up to 30A\*. These holders can be interlinked through their side latching detents.



Our UniVal fuse holders are designed to hold UniVal fuses or cut-outs including or excluding a latch. They are conceived for uses with up to 40A\*, and available in two PIN variants.



Owing to its soldering contacts specifically conceived for high currents, our MaxiVal fuse holder is designed for use on printed circuit boards to fuse currents up to 70A\* \* depending on the type of load or design

### FUSE BOXES, POWER DISTRIBUTORS, MODULAR SYSTEMS



Miunske offers a wide range of fuse boxes, power distributors or relay and terminal boxes as stand-alone products, prefabricated or integrated in assemblies.



Branch

BM-B-0036B



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