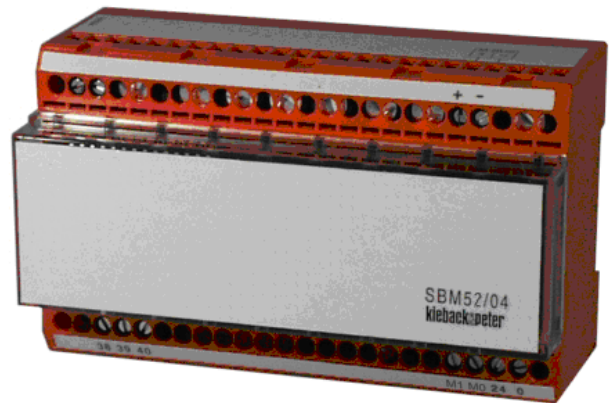


SBM52/04 Input/Output Module

For M-Bus with 99 meters

Application

The SBM52/04 is used to connect a maximum of 99 meters for external equipment to DDC controller DDC3000/DDC4000 via M-Bus in accordance with DIN EN 1434-3.



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Änderungen vorbehalten - Contents subject to change - Sous réserve de modifications - Reservado el derecho a modificación - Wijzigingen voorbehouden - Con riserva di modifiche - Innehåll som skall ändras - Změny vyhrazeny - Zmiany zastrzeżone - Возможны изменения - A változtatások jogát fenntartjuk - 保留未经通知而改动的权力

Important Information Regarding Product Safety

Safety Instructions

This data sheet contains information on installing and commissioning the product "SBM52/04". Each person who carries out work on this product must have read and understood this data sheet. If you have any questions that are not resolved by this data sheet, you can obtain further information from the supplier or manufacturer.

If the product is not used in accordance with this data sheet, the protection provided will be impaired.

Applicable regulations must be observed when installing and using the device. Within the EU, these include regulations regarding occupational safety and accident prevention as well as those from the VDE (Association for Electrical, Electronic & Information Technologies). If the device is used in other countries, it is the responsibility of the system installer or operator to comply with local regulations.

Mounting, installation and commissioning work on the devices may only be carried out by qualified technicians. Qualified technicians are persons who are familiar with the described product and who can assess given tasks and recognize possible dangers due to technical training, knowledge and experience as well as knowledge of the appropriate regulations.

Legend



WARNING

Indicates a hazard of medium risk which can result in death or severe bodily injury if it is not avoided.



CAUTION

Indicates a hazard of low risk which can result in minor or medium bodily injury if it is not avoided.



NOTICE

Indicates a hazard of medium risk which can result in material damage or malfunctions if it is not avoided.



NOTE

Indicates additional information that can simplify the work with the product for you.

Notes on Disposal

For disposal, the product is considered waste from electrical and electronic equipment (electronic waste) and must not be disposed of as household waste. Special treatment for specific components may be legally binding or ecologically sensible. The local and currently applicable legislation must be observed.

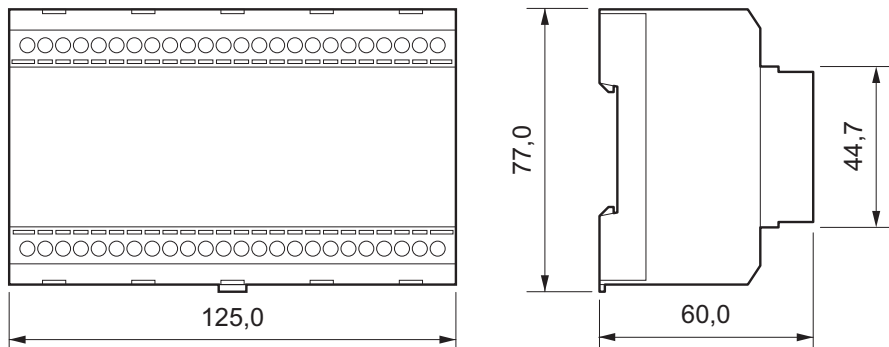
Item

SBM52/04 Input/output module on the switch cabinet bus with M-Bus input in accordance with DIN EN 1434-3 for a maximum of 99 meters

Technical Data

Nominal voltage	AC 24 V ± 10%, 5.4 VA An additional, electrically isolated power supply unit is needed if more than 8 M-Bus stations are used: AC 24 V ± 10%, 4.8 VA
Fuse	Electronic fuse protection for AC 24 V
Display and controls	<ul style="list-style-type: none"> ■ 4 LEDs in housing ■ Address switch in housing (See chapter “Displays and Controls”, page 7.)
Interfaces	<ul style="list-style-type: none"> ■ Switch cabinet bus, maximum 200 m ■ M-Bus, maximum 1000 m
Degree of protection	IP20
Ambient temperature	0 to 45 °C
Ambient humidity	20 to 80% r. h., non-condensing
Installation	Mounting rail DIN EN 50022 – 35 x 7.5 This device is intended for installation in a switch cabinet.
Dimensions	WxHxD mm 125 x 77 x 60

Dimensions



Connection

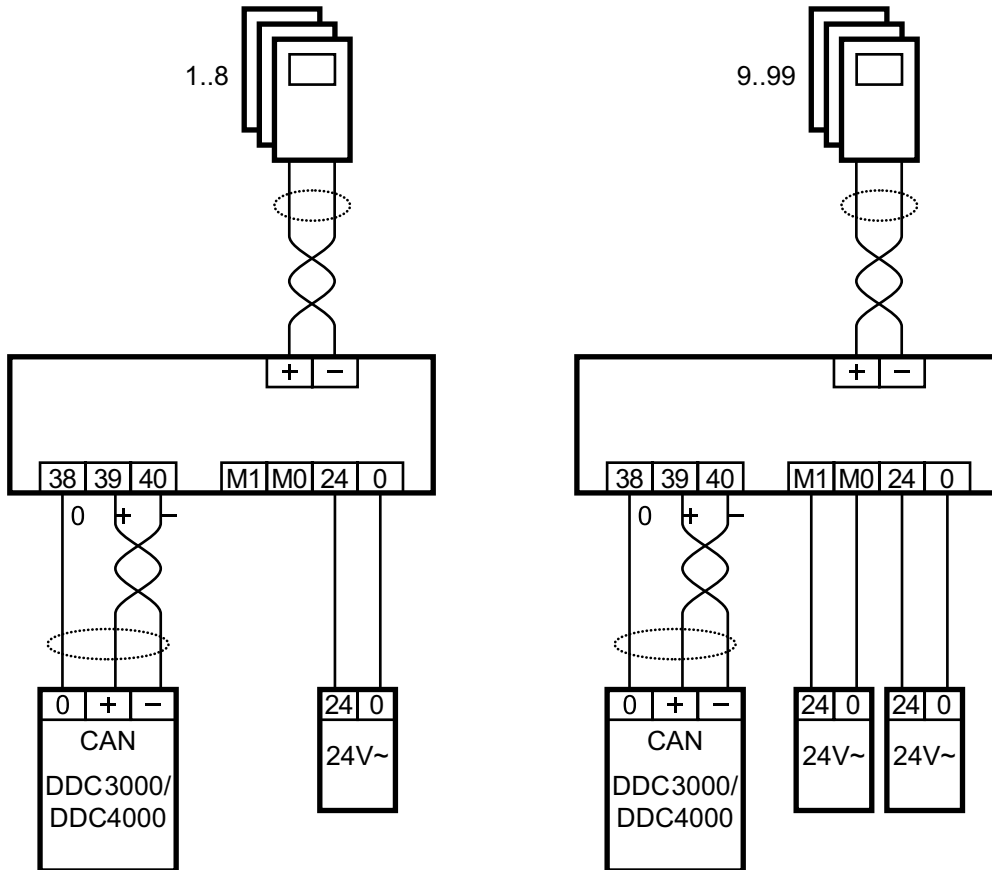


WARNING

Contact with live parts of electrical domestic installation can cause death due to electric shock. Only connect the device and switch on the power supply if you are qualified to do so. Be sure to comply with VDE guidelines and local wiring regulations.

M-Bus stations 1 to 8

M-Bus stations 9 to 99



Power supply

Terminals [24], [0]: power supply for module SBM52/04; AC 24 V ± 10%, 5.4 VA

Terminals [M1], [M0]: When there are more than 8 M-Bus stations, an additional, electrically isolated power supply unit is required for the M-Bus; AC 24 V ± 10%; 4.8 VA.



NOTE

The bus-systems switch cabinet bus (DDC3000) and CAN bus (DDC4000) are identical. Hence, all technical information relating to the switch cabinet bus also apply to the CAN bus.

Switch cabinet bus

When connecting the switch cabinet bus, use a cable of at least type JY(St)Y 2x2x0.8 Lg: two x two leads stranded into a pair, plastic insulation and an electrostatic shield with a lead diameter of at least 0.8 mm. Use a stranded pair of leads for the data lines (+ and -) and another free lead for the ground (0).

At the end of the switch cabinet bus (farthest point from the DDC controller), install a terminating resistor of about 180 ohms between both data lines (+ and -). The terminating resistor is included with the DDC controller.

The maximum cable length for the switch cabinet bus is 200 m.

**NOTE**

If a DDC4000 is connected to the device, the corresponding CAN bus has to have a data rate of 40 kBd. To change the settings, use the system variable "SY_CAN.xx".

M-Bus

The m-bus is specified in DIN EN 1434-3.

When connecting the m-bus, use a cable of at least type JY(St)Y 1x2x0.8 Lg: two wires, twisted to a pair with plastic insulation and an electrostatic shield with a wire diameter of at least 0.8 mm. Use a stranded pair of wires for the data lines (+ and -). Both wires can be interchanged.

The maximum cable length for the M-Bus is 1000 m.

Mounting



WARNING

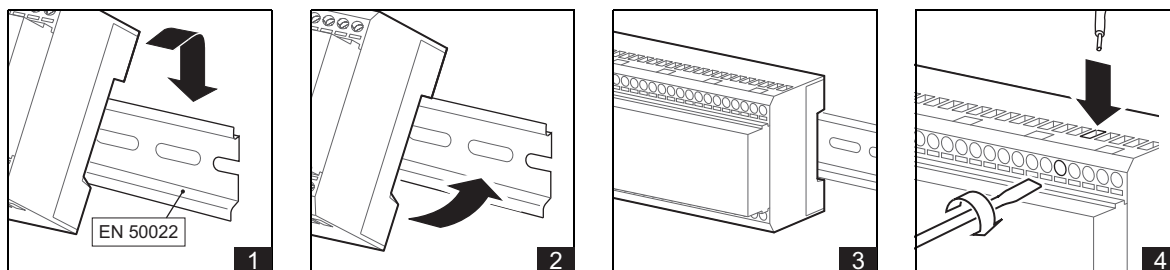
Contact with live parts of electrical domestic installation can cause death due to electric shock. Mounting/removal may only be carried out when power is switched off.



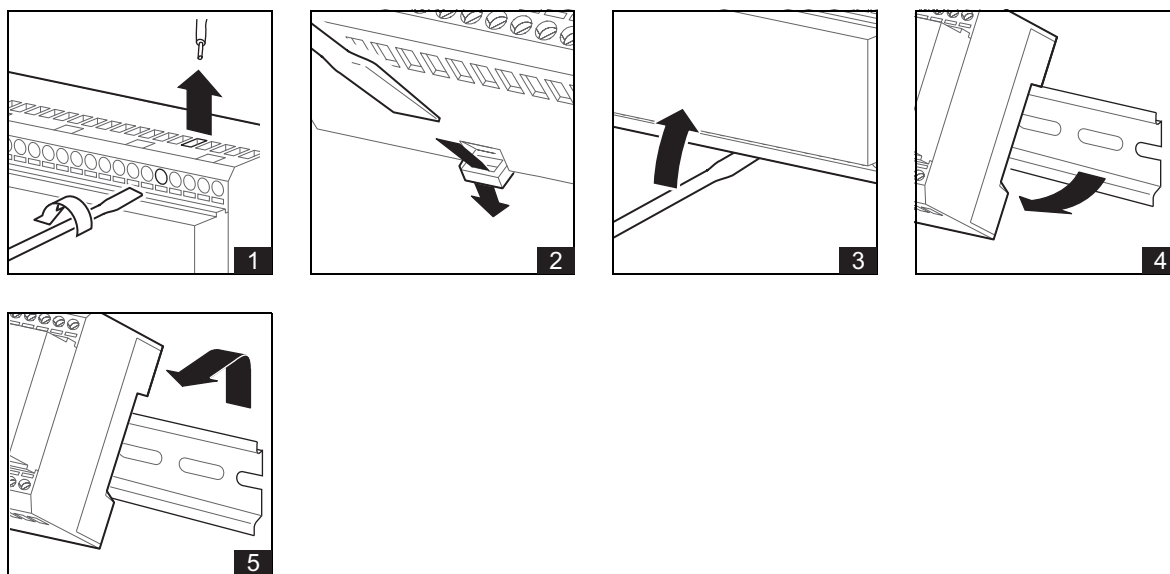
NOTICE

Switching on the power supply of unparameterized products can lead to unforeseen consequences such as malfunctions or material damage.

Switch on the power only after the device has been configured by the commissioning technician.



Removal



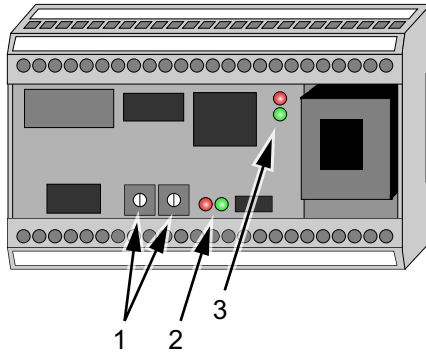
Commissioning



NOTICE

Power may only be switched on after the DDC controller and device have been configured by the commissioning technician.

Displays and Controls

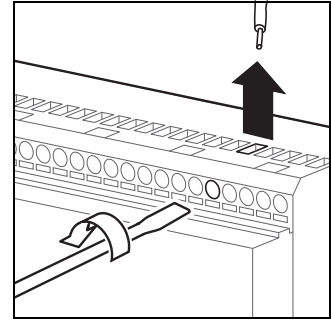


- 1 Rotary switch for setting the switch cabinet bus
- 2 Switch cabinet bus LED
- 3 M-Bus LED

LED	Signal	Meaning
Switch cabinet bus LED	Flashing green	Data transmission
Switch cabinet bus LED	Red	Bus error or duplicate address
Switch cabinet bus LED	Flashing red	Incorrect or duplicate address
M-Bus LED	Flashing green	Data transmission
M-Bus LED	Red	M-Bus off
M-Bus LED	Flashing red	Bus error

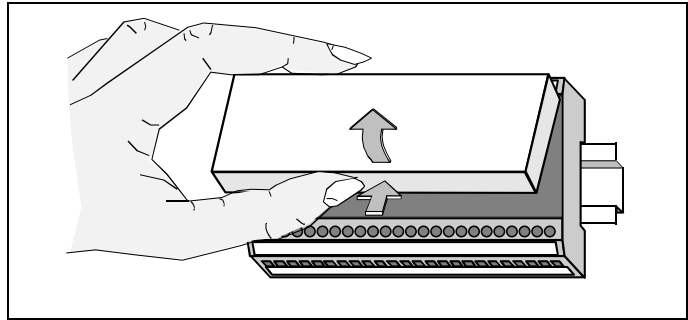
Setting the Switch Cabinet Bus Address

- ▶ Disconnect the power supply of the SBM52/04.



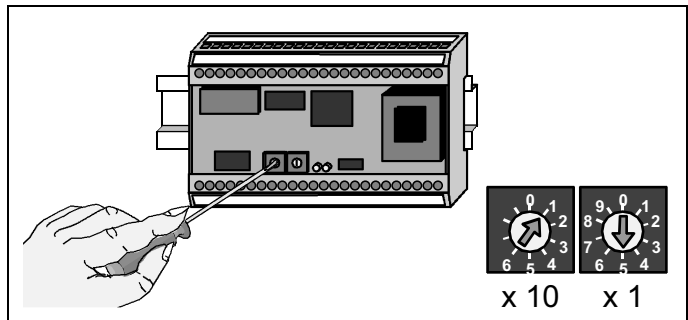
- ▶ Press the lower edge of the front cover and remove the cover.

The rotary switches for setting the switch cabinet bus are located inside the SBM52/04.

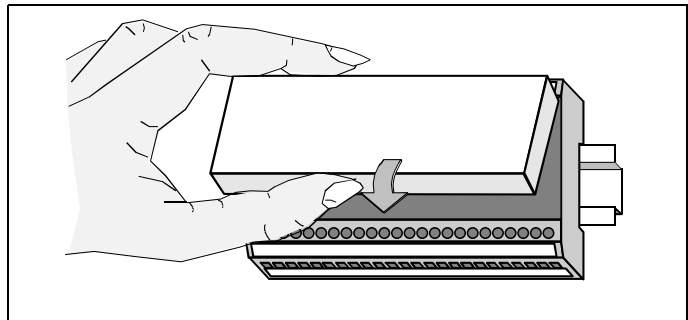


- ▶ Set the first rotary switch to the first number of the switch cabinet bus, the second rotary switch to the second number.

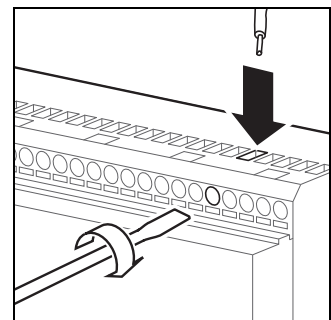
The example shows the address "15". Permitted range for the switch cabinet bus: 01 to 16



- ▶ Insert the front cover along the top edge and lock it in with the bottom edge.



- ▶ Switch back on the power supply of the SBM52/04.



Switching on the Power

**WARNING**

Contact with live parts of electrical domestic installation can cause death due to electric shock.

Only connect the device and switch on the power supply if you are qualified to do so. Be sure to comply with VDE guidelines and local wiring regulations.

Before switching on the power, ensure that the device has been mounted correctly and check the electrical connection.

After turning on the power, check the transmission function of the SBM52/04.

