

## SBM51/01 Gateway for Grundfos Pump Systems

### Application

The SBM51/01 Gateway for Grundfos Pump Systems integrates bus-capable pumps into the DDC3000 and DDC4000 automation and control systems.

Pumps with a Grundfos bus are supported, e.g. the UPE2000, TPE2000, and Magna series. One SBM51/01 integrates a maximum of 8 pumps.

The switch cabinet bus is used to communicate with the DDC system.



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### Information about the product description

The description contains information about use and installation of the product "SBM51/01 Gateway for Grundfos Pump Systems".

If you have any questions that are not covered by the product description, contact the supplier or manufacturer for further information.

The specified regulations/guidelines for installation and mounting are applicable for the Federal Republic of Germany. If the device is used in other countries, it is the personal responsibility of the system installer or operator to comply with local regulations.

Operating personnel are to be instructed according to the description of the technical data sheet.

### Safety instructions

Adhere to applicable regulations regarding occupational safety and accident prevention as well as those from the VDE (Association for Electrical, Electronic & Information Technologies) when mounting and using the devices.

Mounting, installation and commissioning work on the devices may only be carried out by qualified technicians. See the section "Qualified technicians". Each person who uses the devices must have read and understood the descriptions on the technical data sheet.

If the product is not used in accordance with the product description, the protection provided could be impaired.

#### Meanings of symbols on the technical data sheet



#### WARNING

This symbol indicates possible hazards. Follow all instructions to prevent injuries or death.

The following signal words are used:

- WARNING: Risk of serious injury or death
- CAUTION: Risk of minor injury



#### NOTICE

This symbol indicates possible sources of error. Follow these instructions to prevent material damage or malfunctions.



#### Note!

This symbol refers to information that can simplify the work with the product for you.

### Qualified technicians

In the context of the technical data sheet, qualified technicians are persons who are familiar with the described devices and who have the necessary qualifications for their job.

This includes, for example:

- Authorization to connect the devices in accordance with VDE regulations and the local power company's regulations, as well as authorization to switch on, off and enable devices according to in-house regulations.
- Knowledge of accident prevention regulations.
- Knowledge of the use of the devices within the system, etc.

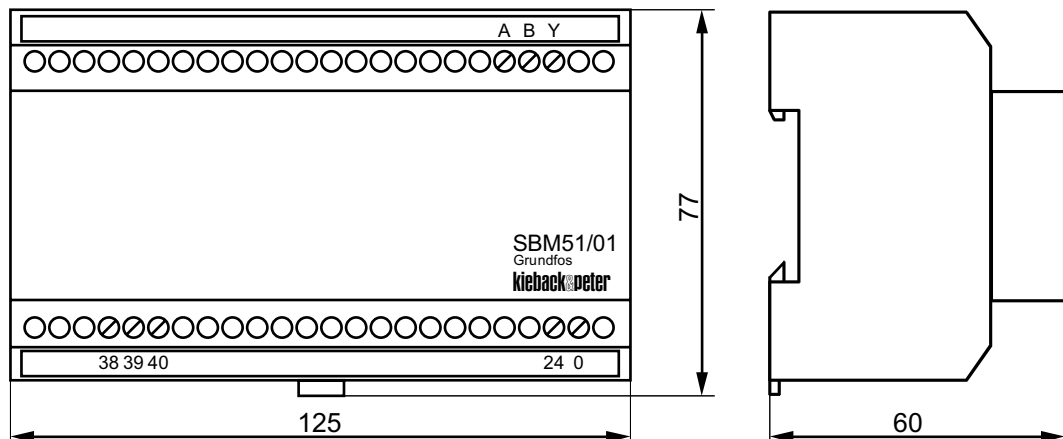
**Item**

SBM51/01

Gateway module for Grundfos pump systems

**Technical data**

Nominal voltage	AC 24 V $\pm$ 10%; approx. 5 VA
Fuse	Electronic fuse protection for AC 24 V
Display and controls	2 LEDs in housing: <ul style="list-style-type: none"> <li>■ LED BUSY green: flashes = data transfer over switch cabinet bus</li> <li>■ LED ERROR red: illuminated = switch cabinet bus error</li> </ul> Address switch in housing: addressing from 01 to 16 by means of 2 rotary switches
Interfaces	<ul style="list-style-type: none"> <li>■ DDC switch cabinet bus, maximum 200 m</li> <li>■ Grundfos bus (RS485), maximum 500 m</li> </ul>
Degree of protection	IP20
Ambient temperature	0 to 45 °C
Ambient humidity	20 to 80% r.h., non-condensing
Mounting	Mounting rail DIN EN 50022 This device is intended for installation in a switch cabinet.
Dimensions	WxHxD mm 125 x 77 x 60

**Dimensions****Connection****WARNING**

The building's wiring carries potentially life-threatening voltages. Only qualified technicians may connect the device and switch on the power. Please ensure that this process complies with VDE guidelines and local wiring regulations.

A shielded cable is required for connecting the switch cabinet bus to the DDC3000 and DDC4000 automation and control systems. The type of cable should be at least JY(St)Y 2x2x0.8 Lg. Both leads (terminals 39 and 40) must be twisted pairs. Ground (terminal 38) is to be connected to one of the free leads.

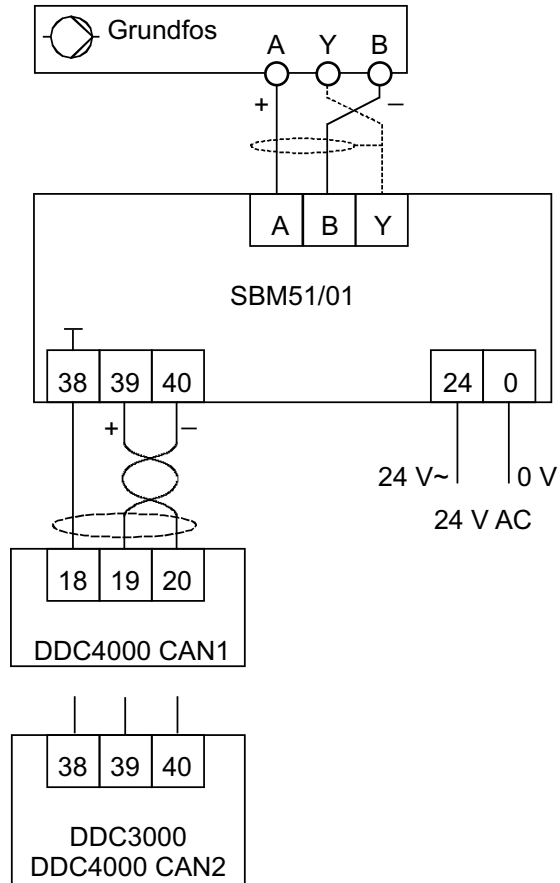
## Product description

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At the end of the switch cabinet bus (furthest point from the central unit, max. 200 m), the two connection lines must be fitted with a terminating resistor of about  $180\ \Omega$  (terminating resistor is included with the central unit).

A shielded cable with twisted leads is required for the connection to the Grundfos pump system.

Cable length maximum 500 m (according to pump manufacturer)

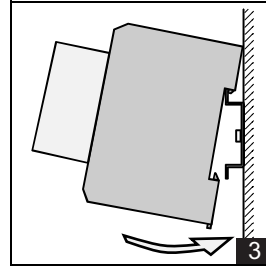
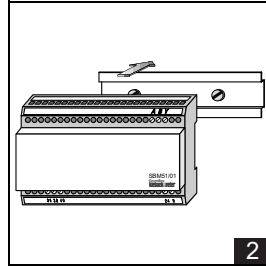
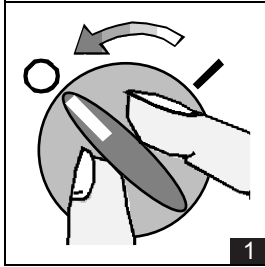


## Mounting



### WARNING

The building's wiring carries potentially life-threatening voltages. Mounting/demounting may only be carried out by qualified technicians when the power is switched off.



## Commissioning



### NOTICE

Power may only be switched on after the commissioning technician has finished configuring the DDC automation and control system and the device.

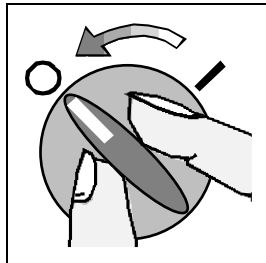
DDC configuration is described in the DDC3000 and DDC4000 project planning documentation.



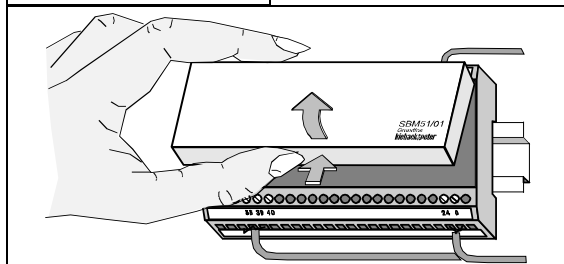
### NOTICE

This product description describes specific settings and function of the SBM51/01. In addition to these instructions, the product descriptions of other system components, such as the pumps, are to be observed. Before the commissioning of the SBM51/01, the data bus address of the pump must be configured.

## Setting the switch cabinet bus address

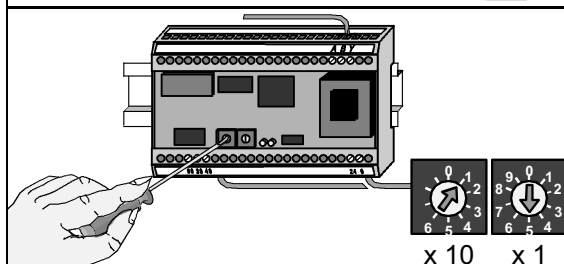


Disconnect the switch cabinet from the power.



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

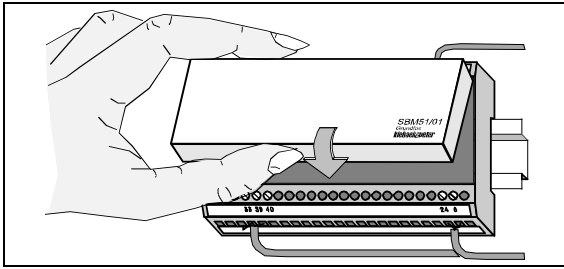
The rotary switches for setting the switch cabinet address are located inside the SBM51/01.



Set the first rotary switch to the first digit of the fieldbus address, the second rotary switch to the second digit.

The example shows the address 15.

Permitted range for the switch cabinet address: 01 to 16

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

**Switching on the power****WARNING**

The building's wiring carries potentially life-threatening voltages. Only qualified technicians may connect the device and switch on the power. Please ensure that this process complies 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 SBM51/01.