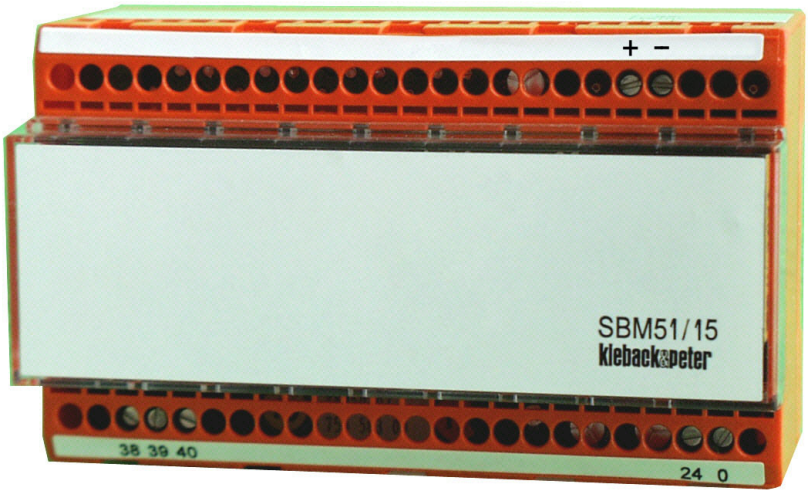
Device description

SBM51/15 Control Cabinet Bus Module
Belimo MP bus



Control Cabinet Bus Module SBM51/15 for the integration in the DDC3000 system of the Belimo MP bus with 8 servodrives of the series MFT/MFT2

Contents

Änderungen vorbehalten

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Notice on the device description

The description contains notices on the area of application and for the mounting of the Control Cabinet Bus Module SBM51/15.
Should questions arise that cannot be clarified with the help of the Device Description, further information should be obtained from suppliers or the manufacturer.
The supplied regulations/guidelines on the installation and mounting are valid for the Federal Republic of Germany.
For device areas of application outside the Federal Republic of Germany, the consultation of local regulations is the sole responsibility of the plant builder or operator.
The operating personnel should be trained in the information contained in the Technical Data Sheet.

Safety precautions

For mounting and for the area of application of the device, the valid work protection, accident prevention and VDE regulations must be observed.
For the installation of the device, the VDE legal provisions as well as the local regulations must be observed.
Mounting, installation and commissioning activities on the devices may only be carried out by qualified personnel, see section "Qualified personnel".
Every individual who installs a device must have read and understood the information in the Technical Data Sheet.

Symbol meaning within of the Technical Data Sheet:


Danger

Warning of dangerous electrical voltage


Warning

General warnings that must be observed


Notice

Additional important notices

Danger signifies that if not observed, life-threatening danger, severe bodily injury or considerable material damage might ensue.
Warning signifies that if not observed, bodily injury or property damage may occur.
Notice signifies that information is being presented that should receive particular notice.

Qualified personnel

Qualified personnel in the sense of the Technical Data Sheet are individuals who are familiar with the described devices and who have the corresponding necessary qualifications for their work.
Among these are, for example :

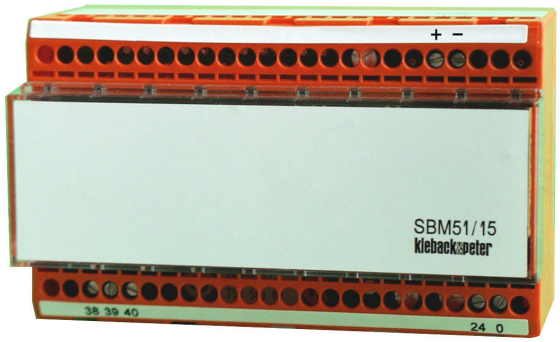
- authorization to make the connection to the device according to the VDE legal provisions and the local EVU-regulations as well as the authorization to make the inputs, switch OFF and ON the device taking due consideration of the company-internal regulations.
- knowledge of the regulations for the prevention of industrial accidents.
- knowledge of the area of application and the function of the device within of the plant system.
- etc...

Device description **Belimo MP bus**

Application

The Control Cabinet Bus Modules SBM51/15 is used in the DDC3000 system for the integration of maximum 8 bus-capable servodrives of the Belimo-servodrive series MTF/ MFT2.

The servodrives communicate with the DDC3000 system on the Control Cabinet bus and the Belimo MP-bus.



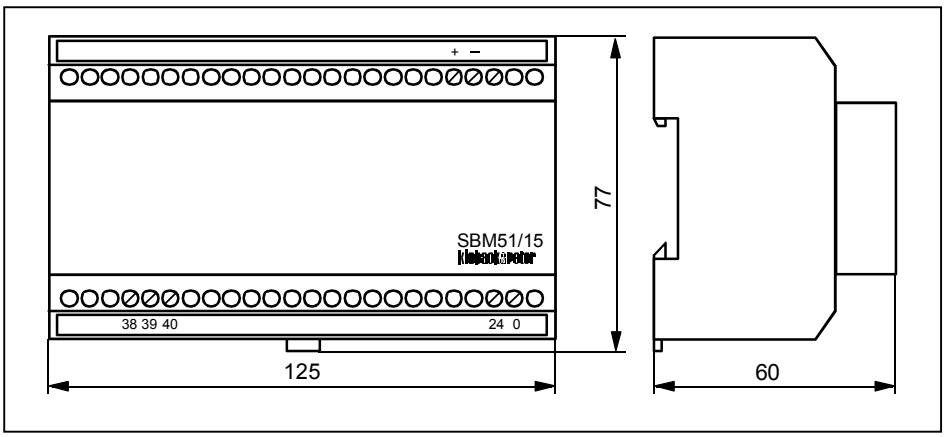
Type

SBM51/15	Control Cabinet Bus Module with Belimo-MP bus connection for the integration of a maximum of 8 bus-capable Belimo setting devices of the series MFT/MFT2 in the Kieback & Peter DDC3000 system

Technical data

Mains	24 V AC –15%/+10% / 5 VA at nominal voltage . If the am setting device connected to the Belimo-MP bus does not have its own voltage supply, the power requirements of the setting device should be kept in mind when selecting a transformer.
Bus connection	DDC Control Cabinet Bus, maximum 200 m
Interface	MP-Bus of the Firma Belimo with maximum 8 setting devices of the series MFT/MFT2
Fuse	electronic fuse for mains 24 V AC
Address switch	addressing 01..16 with 2 rotary switches
Displays	2 LED in the housing LED BUSY green: blinking = Control Cabinet Bus data transmission LED ERROR red: lit up = Control Cabinet Bus error
Ambient conditions	temperature 0..45°C humidity 20..80% rF, not condensing
Degree of enclosure protection	IP20
Mounting	switching cabinet mounting on a hat rail DIN EN 50022 – 35 x 7,5 (see reverse side)
Weight	300 g

Measurements



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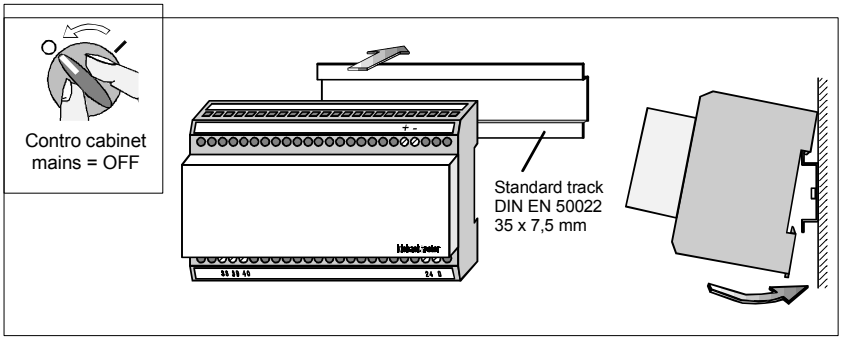
Mounting

Danger

Mounting may only be carried out in a control cabinet switched voltage-free by qualified personnel.



Installation

Danger

The electrical installation and the device connection may only be carried out by qualified personnel, e.g. by an electric technician in a control cabinet that has been switched to a voltage-free state.

The mains connection may only be carried out after device setting by the commissioning technician/engineer.

The VDE legal provisions and the local regulations should be observed.

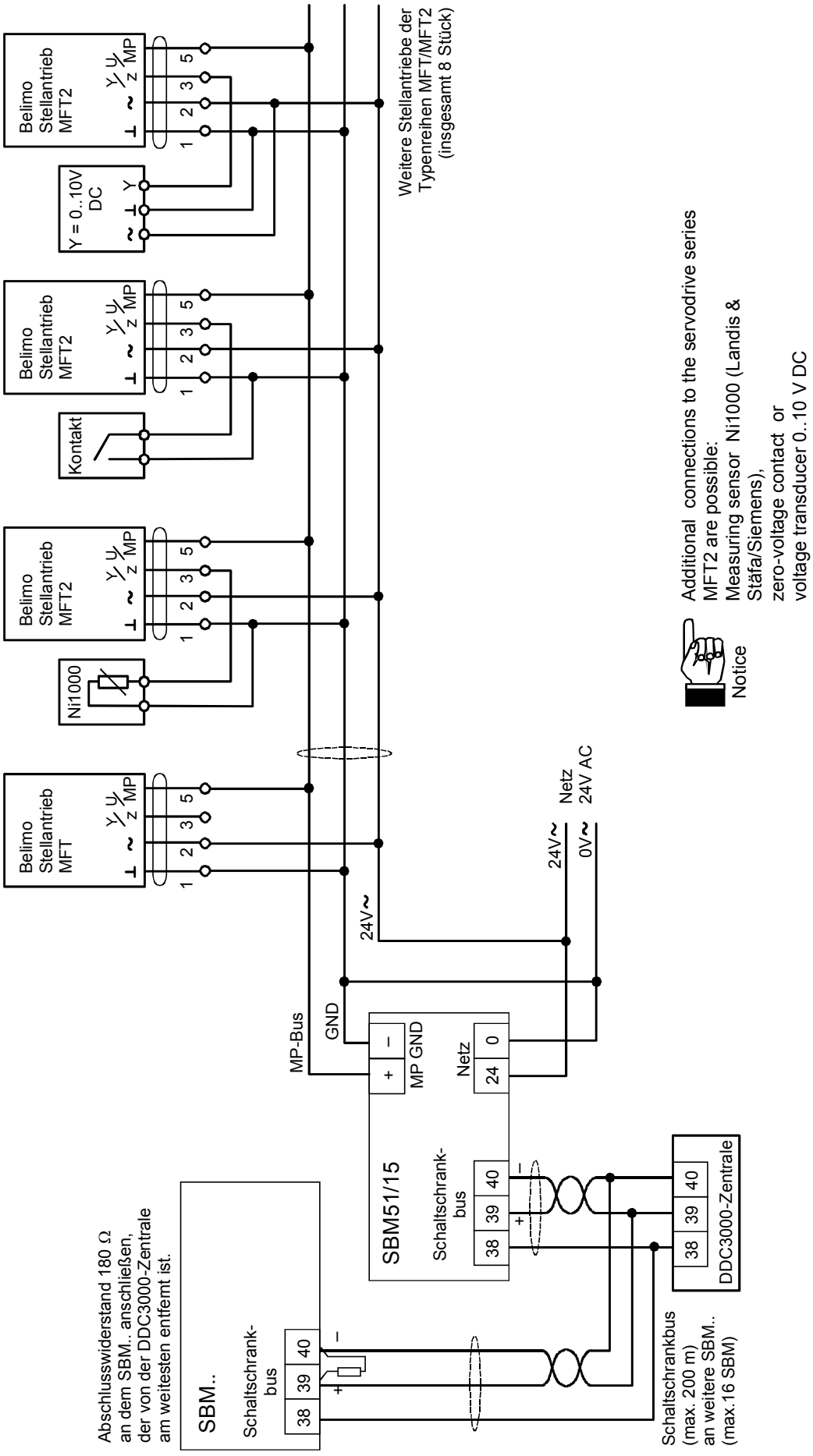
- An isolated cable is required for the connection of the Control Cabinet Bus in the DDC3000 system, Cable type at least JY(St)Y 2x2x0,8 Lg.
  Both lines (terminals 39 and 40) must be in the form of twisted pairs.
  The earth connection (terminal 38) should be put on one of the remaining free lines.
  At the end of the Control Cabinet Bus (most distant point from the Central Control Unit, max. 200 m), a terminating resistor ca. 180 Ω must be included on both data lines one time (terminating resistor for the Central Control Unit is included in the accessory pack).

- Use a shielded cable for the connection to the Belimo MP bus system.

  A measuring sensor Ni1000 (Landis & Stäfa, Siemens) for temperature measuring, a voltage transducer 0..10 V DC or a zero-voltage contact can be connected to the Belimo-setting devices of the series MFT2.

  The connection and installation notice of the device description from Belimo is of primary importance for the installation of the Belimo MP bus with the setting device connections,.

Connection example with common power supply 24 V AC for the Control Cabinet Bus Module
SBM51/15 and for the Servodrives MFT/MFT2.



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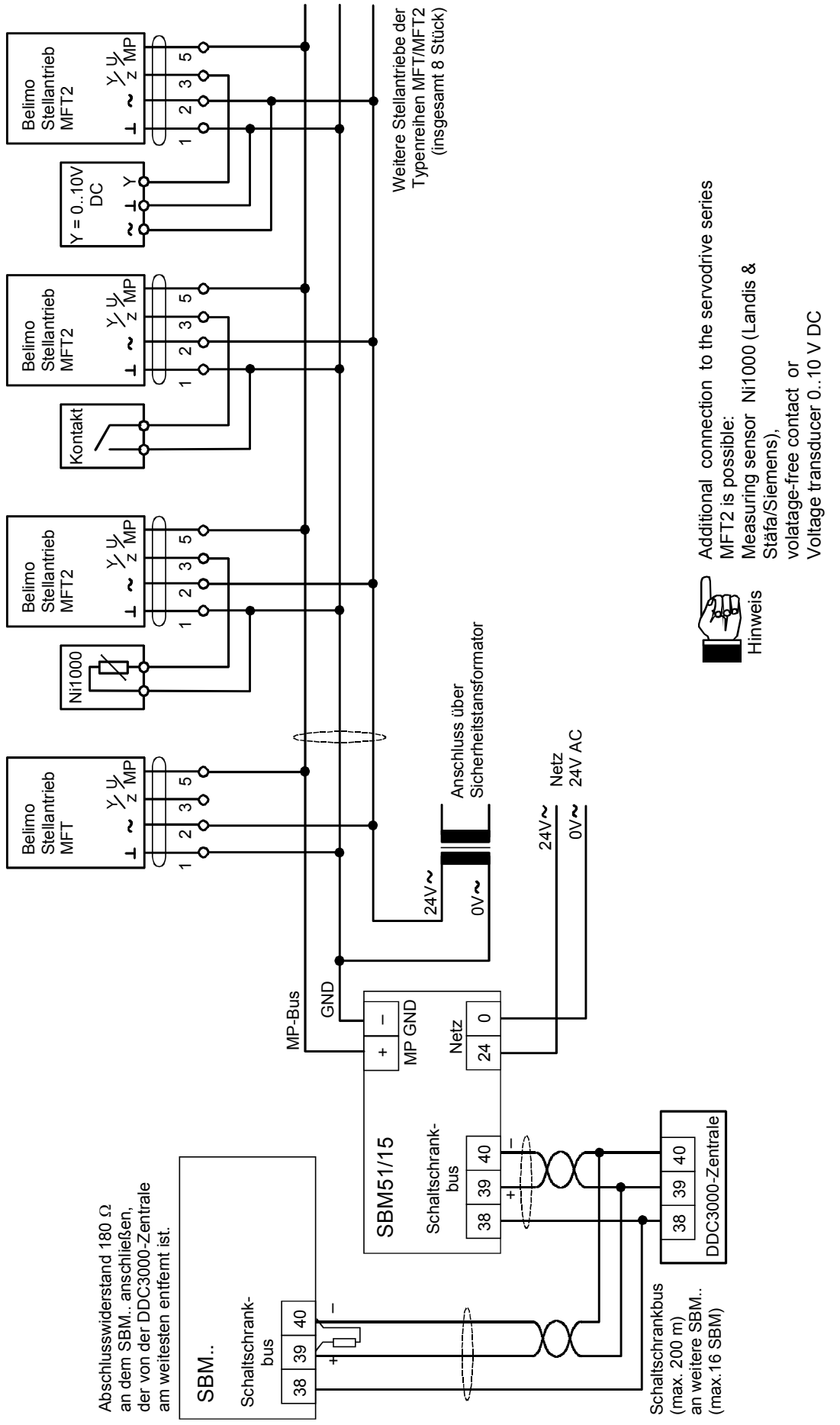
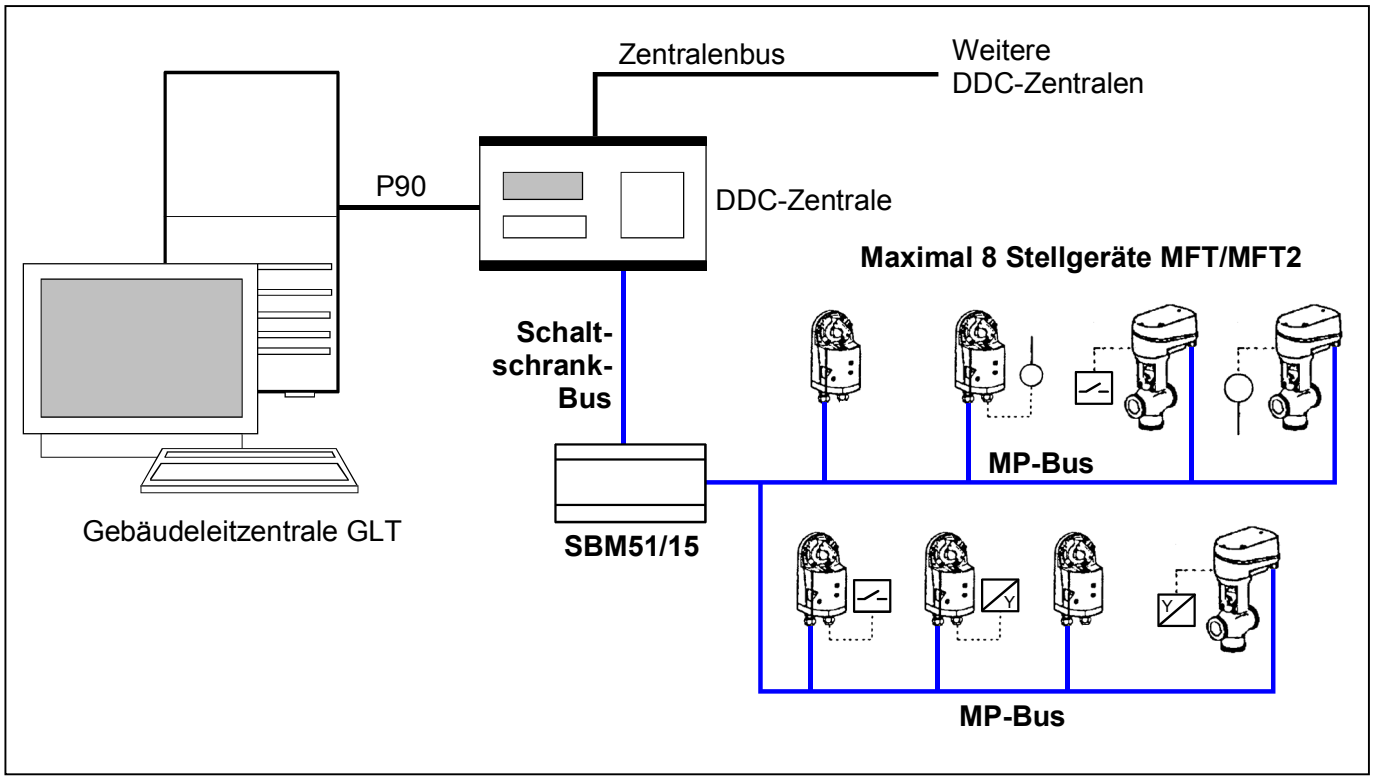
Connection example with separate power supply 24 V AC for the Control Cabinet Bus Module
SBM51/15 and for the MFT/MFT2 servodrives.



Principle of connection



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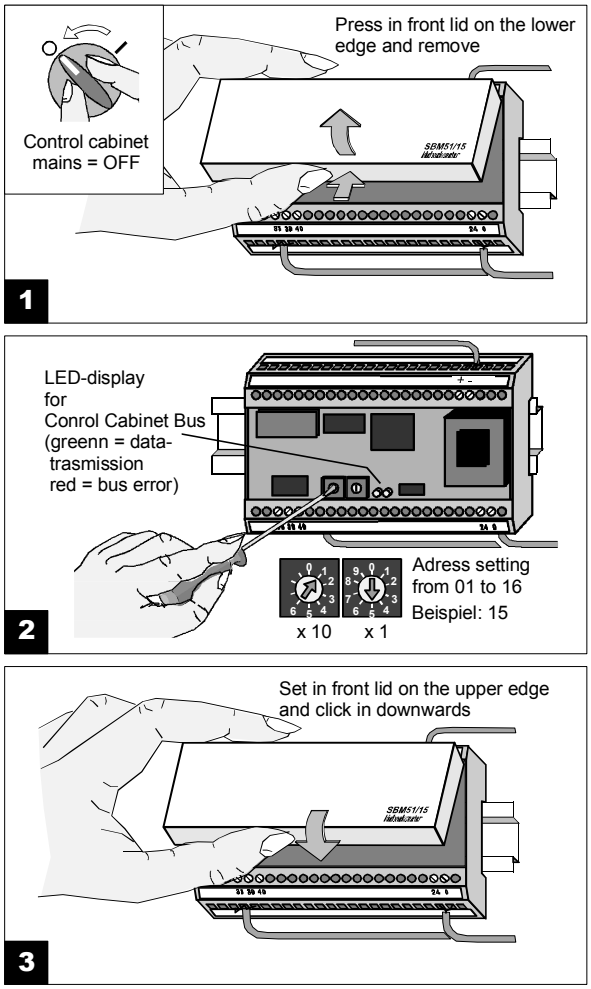
Commissioning

Warning

Commissioning including switching on of the mains voltage may be carried out only after DDC parameterization and the setting of the Control Cabinet Bus address by the commissioning technician/engineer.

- The DDC parameterization is described in the plant configuration documentation of DDC3000.
- Before switching ON the mains voltage 24 V AC, the electrical installation with the connections should be tested.
- The setting of the Control Cabinet Bus address 01 to 16 done with both address switches under of the front lid:



- After the device setting, test the functions of the Control Cabinet Bus Module SBM51/15 with the connected inputs and outputs.