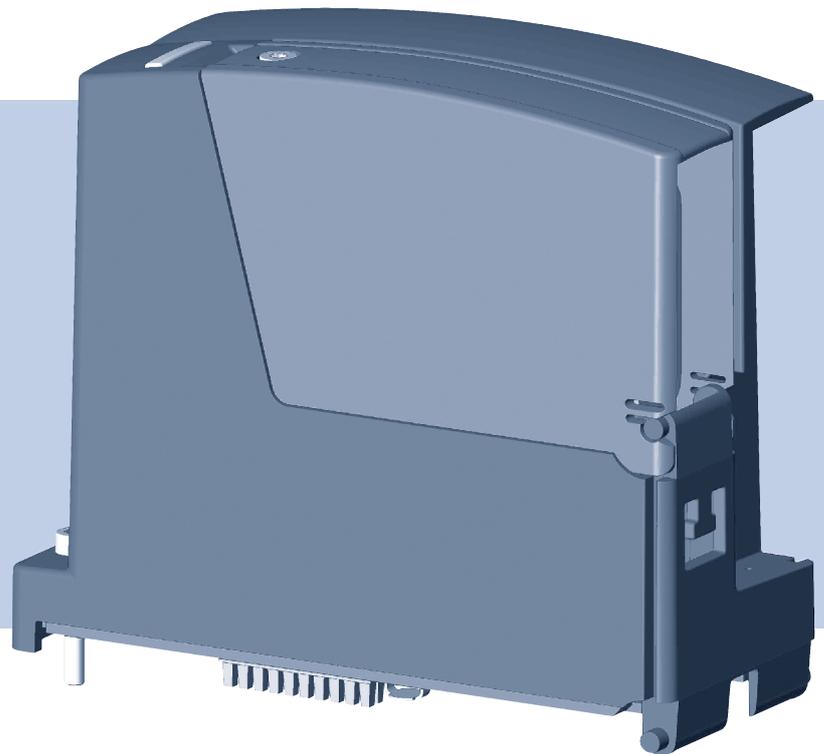


# Type ME25

## Controller module



Operating Instructions

Bedienungsanleitung  
Manuel d'utilisation

We reserve the right to make technical changes without notice.  
Technische Änderungen vorbehalten.  
Sous réserve de modifications techniques.

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Operating Instructions 1706/0€\_0WEDP\_00` F€Hì Î / Original DE

## Controller Module

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# 1 THE OPERATING INSTRUCTIONS

The operating instructions describe the entire life cycle of the device. Keep these instructions in a location which is easily accessible to every user and make these instructions available to every new owner of the device.

## Important Safety Information!

Read the operating instructions carefully and thoroughly. Study in particular the chapters entitled "[2 Intended Use](#)" and "[3 Basic safety instructions](#)".

- ▶ The operating instructions must be read and understood.

## 1.1 Symbols



### DANGER!

**Warns of an immediate danger!**

- ▶ Failure to observe the warning will result in a fatal or serious injury.



### WARNING!

**Warns of a potentially dangerous situation!**

- ▶ Failure to observe the warning may result in serious injuries or death.



### CAUTION!

**Warns of a possible danger!**

- ▶ Failure to observe this warning may result in a moderate or minor injury.

### NOTE!

**Warns of damage to property!**

- Failure to observe the warning may result in damage to the device or the equipment.



Indicates important additional information, tips and recommendations.



Refers to information in these operating instructions or in other documentation.

→ Designates a procedure which you must carry out.

## 1.2 Definition of the term "device"

→ In these instructions, the term "device" always refers to the controller module, Type ME25.

## 2 INTENDED USE

**Non-authorized use of the Type ME25 may be dangerous to people, nearby equipment and the environment.**

The controller module, Type ME25 includes a data logger that collects the physical measure data, from a system (e. g. Bürkert online analysis system, Type 8905) or from measuring instruments, via the bÜS interface and stores it on the internal memory card. The controller module Type ME25 in conjunction with a display can also be used for configuring the modules of a system.

- ▶ Use according to the authorized data, operating conditions and conditions of use specified in the contract documents and operating instructions.

### **Observe the following when using the device/product**

- ▶ Do not use outside.
- ▶ Use the device only in conjunction with third-party devices and components recommended and authorized by Bürkert.
- ▶ Use only when in perfect condition and always ensure proper storage, transportation, installation and operation.
- ▶ Use only as intended.

### 2.1 Restrictions

If exporting the system/device, observe any existing restrictions.

## 3 BASIC SAFETY INSTRUCTIONS

These safety instructions do not make allowance for any

- contingencies and events which may arise during the assembly, operation, and maintenance.
- local safety regulations – the operator is responsible for observing these regulations, also in relation to the installation personnel.



### General hazardous situations.

To prevent injuries:

- ▶ Do not make any internal or external changes on the device and do not subject it to mechanical stress.
- ▶ Secure the system from unintentional actuation.
- ▶ Only trained technicians may perform installation and maintenance work.
- ▶ After an interruption in the power supply, ensure that the process is restarted in a controlled manner.
- ▶ Observe the general rules of technology.

### NOTE!

#### Electrostatic sensitive components/modules!

The device contains electronic components which react sensitively to electrostatic discharge (ESD). Contact with electrostatically charged persons or objects are hazardous to these components. In the worst case scenario, they will be destroyed immediately or will fail after start-up.

- Observe the requirements in accordance with EN 61340-5-1 to minimize or avoid the possibility of damage caused by sudden electrostatic discharge!
- Do not touch electronic components while the supply voltage is switched on!

## **4 GENERAL INFORMATION**

### **4.1 Contact address**

#### **Germany**

Bürkert Fluid Control Systems  
Sales Center  
Christian-Bürkert-Str. 13-17  
D-74653 Ingelfingen  
Tel. + 49 (0) 7940 - 10 91 111  
Fax + 49 (0) 7940 - 10 91 448  
E-mail: [info@de.buerkert.com](mailto:info@de.buerkert.com)

#### **International**

Contact addresses can be found on the final pages of the printed operating instructions.

And also on the Internet at:

[www.burkert.com](http://www.burkert.com)

### **4.2 Warranty**

The warranty is only valid if the Type ME25 is used as intended in accordance with the specified application conditions.

### **4.3 Information on the Internet**

The operating instructions and data sheets for Type ME25 can be found on the Internet at:

[www.burkert.com](http://www.burkert.com)

## 4.4 List of licences and offer to provide source code of certain software

This product contains copyrighted software that is licensed under the General Public License (GPL, under the Lesser General Public License Version) GPL and/or other Free Open Source Software Licenses.

Such software in this product is distributed without any warranty to the extent permitted by the applicable law. Copies of these licenses are included in this product (see under büS function - diagnosis).

Where the applicable license entitles you to the source code of such software and/or other additional data, you may obtain it for a period of three years after our last shipment of the product either

1. for free by downloading it from <http://www.burkert.com> by entering your product type or
2. for the cost of reproduction and shipment, which is dependent on the preferred carrier and the location where you want to have it shipped to, by sending a request to:

Buerkert Werke GmbH  
F+E Embedded Systems  
Christian-Buerkert-Strasse 13-17  
74653 Ingelfingen  
Germany

In your request please provide the name, model number and version of the product for which you wish to obtain the corresponding source code and your contact details so that we can coordinate the terms and cost of shipment with you.

The source code will be distributed WITHOUT ANY WARRANTY and licensed under the same license as the corresponding binary/object code.

This offer is valid to anyone in receipt of this information.

Buerkert Werke GmbH is eager to duly provide complete source code as required under various Free Open Source Software licenses.

If however you encounter any problems in obtaining the full corresponding source code we would be much obliged if you give us a notification to the address mentioned above, stating the product and describing the problem.

## 5 DESCRIPTION OF THE DEVICE

The controller module, Type ME25 includes a data logger that collects the physical measure data, from a system (e. g. Bürkert online analysis system, Type 8905) or from measuring instruments, via the büS interface and stores it on the internal memory card.

The controller module, Type ME25 has an interface to the display and thus also allows for configuring modules connected in a system, such as e. g. sensor modules and electronics modules on the display.

### 5.1 Possible combinations

The controller module Type ME25 can only be operated within a system in combination with additional modules. For setting up a system comprising several modules, please contact your Bürkert sales office.

In the following, a system in minimum combination is shown as example.

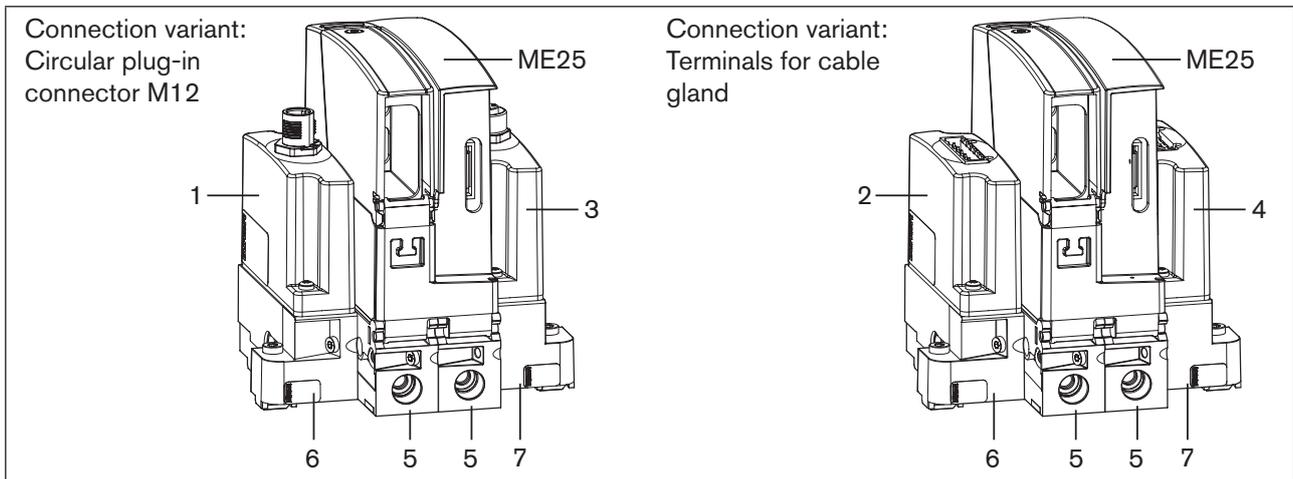


Figure 1: Example of a system: Minimum combination of Type ME25 with additional modules

Module	Designation	Types	Order no.
1	Input module (connection variant: circular plug-in connector M12)	ME29	00564825
2	Input module (connection variant: terminals)	ME29	00564826
3	Output module (connection variant: socket M12)	ME29	00564827
4	Output module (connection variant: terminals)	ME29	00564828
5	Backplane for Type ME25	BEF1	00564841
6	Backplane, left	BEF1	00564844
7	Backplane, right	BEF1	00564846

Table 1: Modules of a possible combination with Type ME25

## 6 TECHNICAL DATA

### 6.1 Conformity

The Type ME25 controller module conforms to the EC directives according to the EC Declaration of Conformity.

### 6.2 Standards

The applied standards, which are used to demonstrate compliance with the EC Directives, are listed in the EC type test certificate and/or the EC Declaration of Conformity.

### 6.3 Operating conditions



#### **WARNING!**

##### **Risk of injury**

Malfunction if used outside!

- ▶ Do not use Type ME25 outdoors and avoid heat sources which may cause the permissible temperature range to be exceeded.

#### **Permitted temperatures**

Ambient temperature: 0 ... +50 °C

### 6.4 Mechanical data

Dimensions: refer to data sheet for Type ME25

Housing material: Polycarbonate

### 6.5 Electrical data

Power supply: 18 - 35 V via the backplane BEF1  
UL devices: Power supply unit restricted to Class 2

Power consumption < 4 W  
If USB devices are connected, the power uptake will be increased by the power of the USB devices.

Degree of protection: IP 20 according to EN 60529 / IEC 60529  
(only if cables, plugs and sockets have been connected correctly)

### 6.5.1 Description of interfaces

The Type ME25 has the following interfaces:

- Interface for the connecting cable to the display
- Sockets for RJ45 plug-in connector, for the connection to the Ethernet network
- USB interface for data transmission
- Socket for mini USB plug, for factory service only

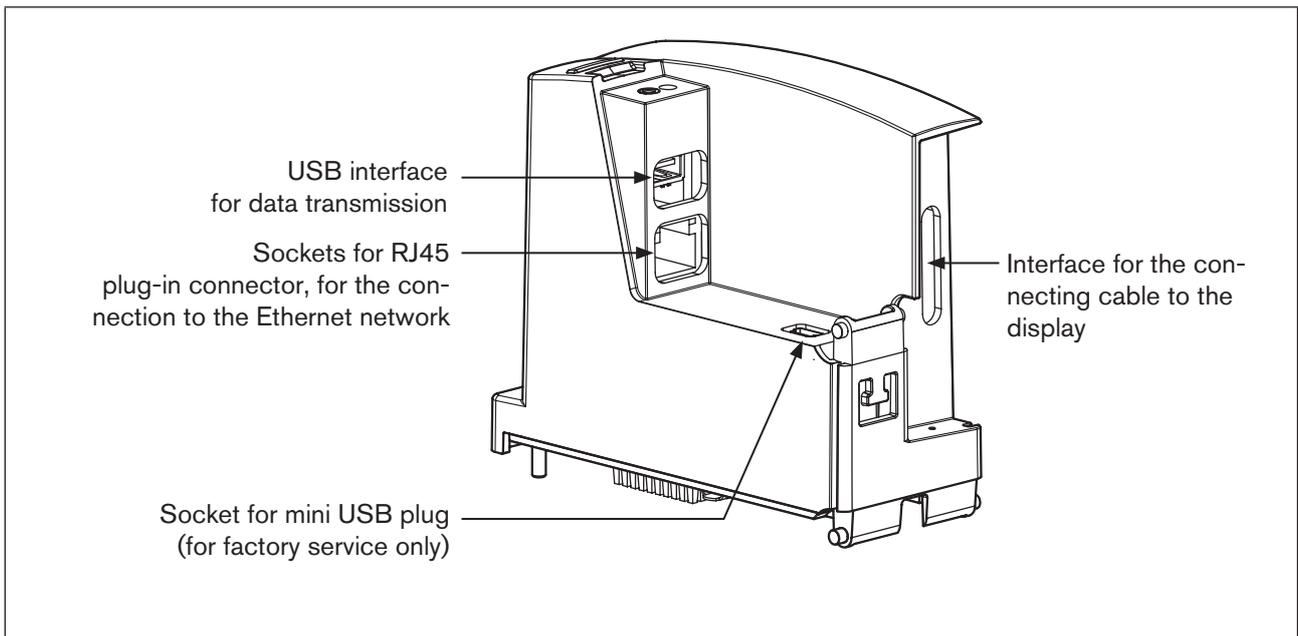


Figure 2: Type ME25; description of interfaces

**NOTE!**

**To ensure electromagnetic compatibility (EMC)**

- ▶ Only use shielded Ethernet cables

### 6.5.2 Electrical configuration

**Mini USB interface**

The socket for mini USB plugs is intended for factory service only.

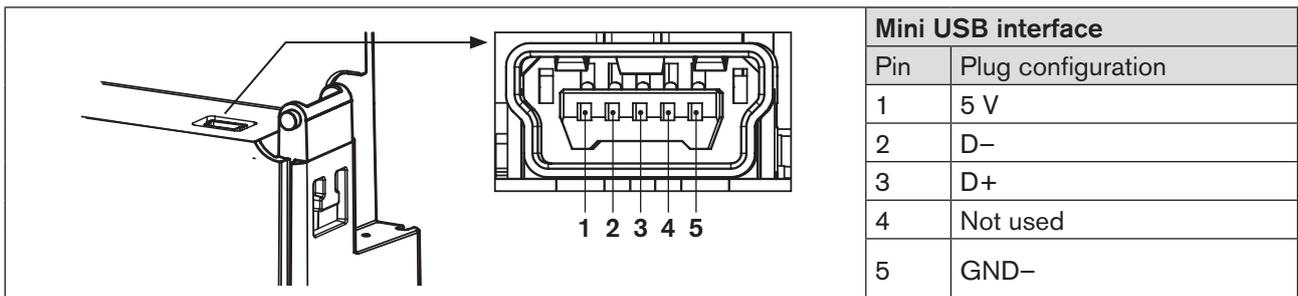


Figure 3: Mini USB interface configuration; for factory service

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## 7 INSTALLATION

### 7.1 Safety instructions



#### **WARNING!**

##### **Risk of injury from improper installation!**

- ▶ Installation may be carried out only by trained technicians and with the appropriate tools!
- ▶ Secure system against unintentional activation.
- ▶ Following installation, ensure a controlled restart.

### 7.2 Mount Type ME25 on backplane Type BEF1

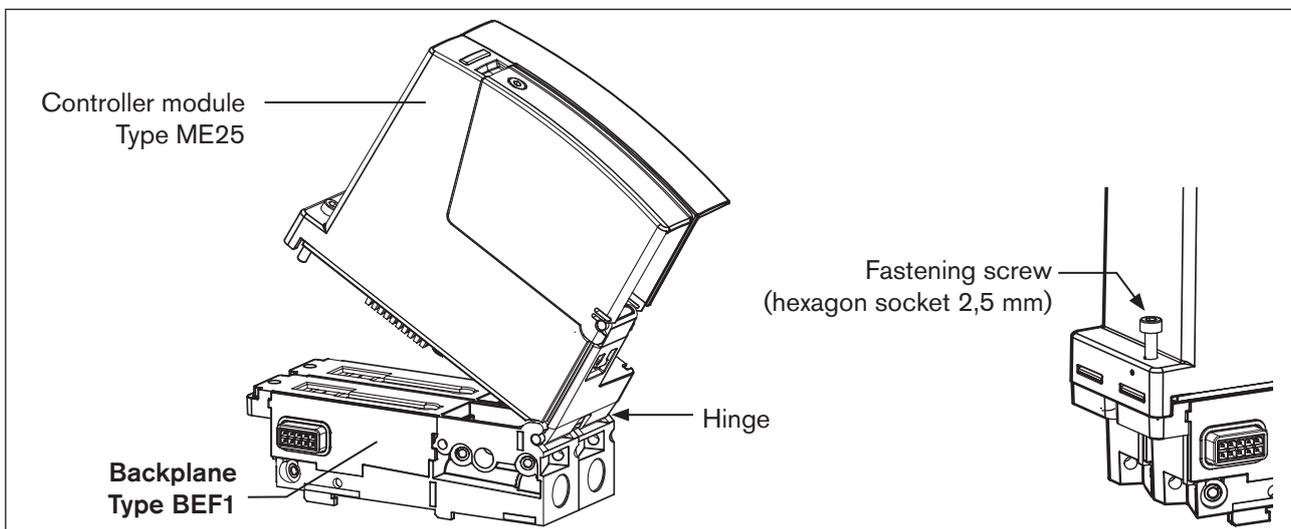


Figure 4: Mount controller module Type ME25 on backplane Type BEF1

- Insert hinge part of Type ME25 in counter piece of backplane Type BEF1.
- Press Type ME25 fully on the backplane.
- Tighten fastening screw (hexagon socket 2,5 mm). Max. torque 1 Nm.

The Type ME 25 is now connected to the power supply on the backplane Type BEF1.

#### **Type ME25 with display connection:**

If Type ME25 is to be connected to a display, a connection to the display must be established before voltage is applied.

- Plug connecting cable to the display in the designated interface (refer to [“Description of interfaces”, page 13](#)).
- Apply voltage.

#### **NOTE!**

- ▶ Use power supply unit with adequate power.

## 7.3 Access to interfaces USB and RJ45

Remove the cover to gain access to the interfaces:

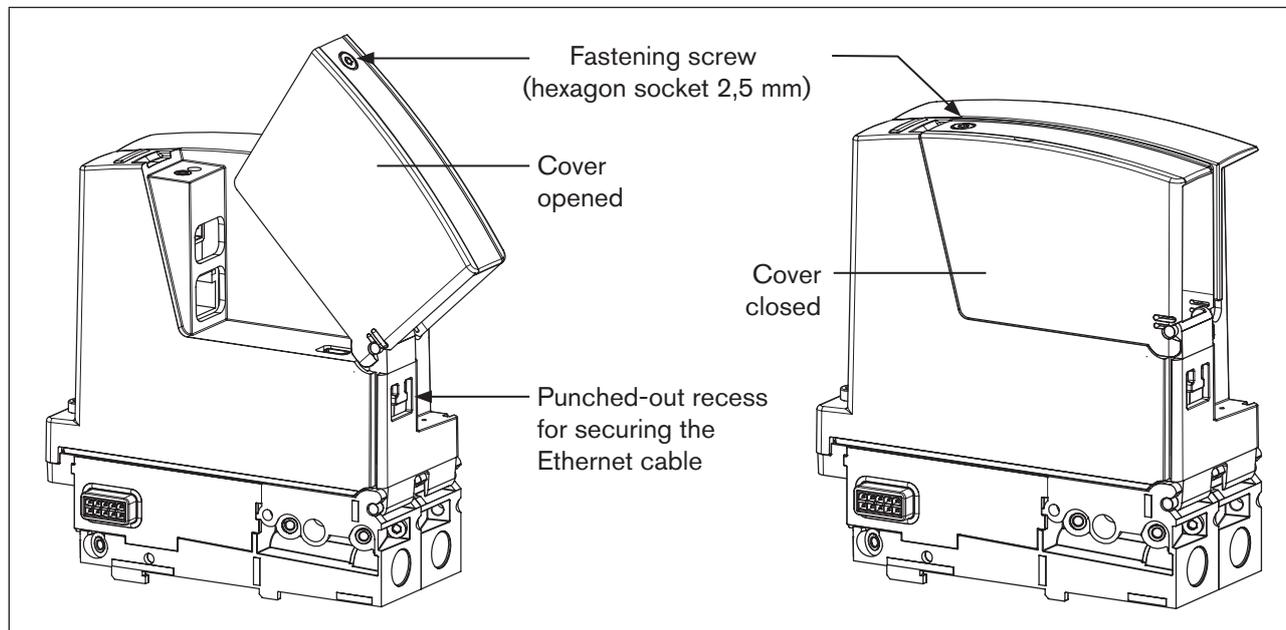


Figure 5: Access to interfaces USB and RJ45

→ Unscrew fastening screw (hexagon socket 2,5 mm) at the cover of Type ME25.

→ Open cover.

Data transmission:

→ Insert USB stick for data transmission in the designated interface.

Cable connection:

→ Insert cable through the hole on the rear side of the cover.

→ Plug Ethernet cable in the socket for plug-in connector RJ45.

→ Close cover and tighten fastening screw. Max. torque 1 Nm.

### NOTE!

**To ensure electromagnetic compatibility (EMC)**

- ▶ Only use shielded Ethernet cables

### Securing the Ethernet cable (strain relief):

For strain relief, a cable clip can be used to secure the Ethernet cable in the punched out recess underneath the cover.

## 8 START-UP

### 8.1 Safety instructions



#### **WARNING!**

##### **Risk of injury from improper operation!**

Improper operation may result in injuries as well as damage to the device and the area around it.

- ▶ Before start-up, ensure that the operating personnel are familiar with and completely understand the contents of the operating instructions.
- ▶ Observe the safety instructions and intended use.
- ▶ Only adequately trained personnel may start up the equipment/the device.

### 8.2 Basic settings

No basic configuration is required for the data logger in the controller module Type ME25. The Type ME25 can be delivered with a customized basic configuration ex factory.

How the basic configuration is changed is described in the following chapter entitled "[8.3 Configuration of Type ME25](#)".

### 8.3 Configuration of Type ME25

The configuration can be carried out using the display of the connected system or at the PC using the "Bürkert Communicator" software.

The "Bürkert Communicator" and the related general description are available on the Bürkert homepage.



The **büS** stick, which is available as accessory, is required for configuration using the "Bürkert Communicator". See Chapter "[12 Accessories](#)".



For configuration using the display of the system, refer to the chapter entitled "[9 Configuration using the display](#)".

## 9 CONFIGURATION USING THE DISPLAY

### 9.1 Brief description of the user interface

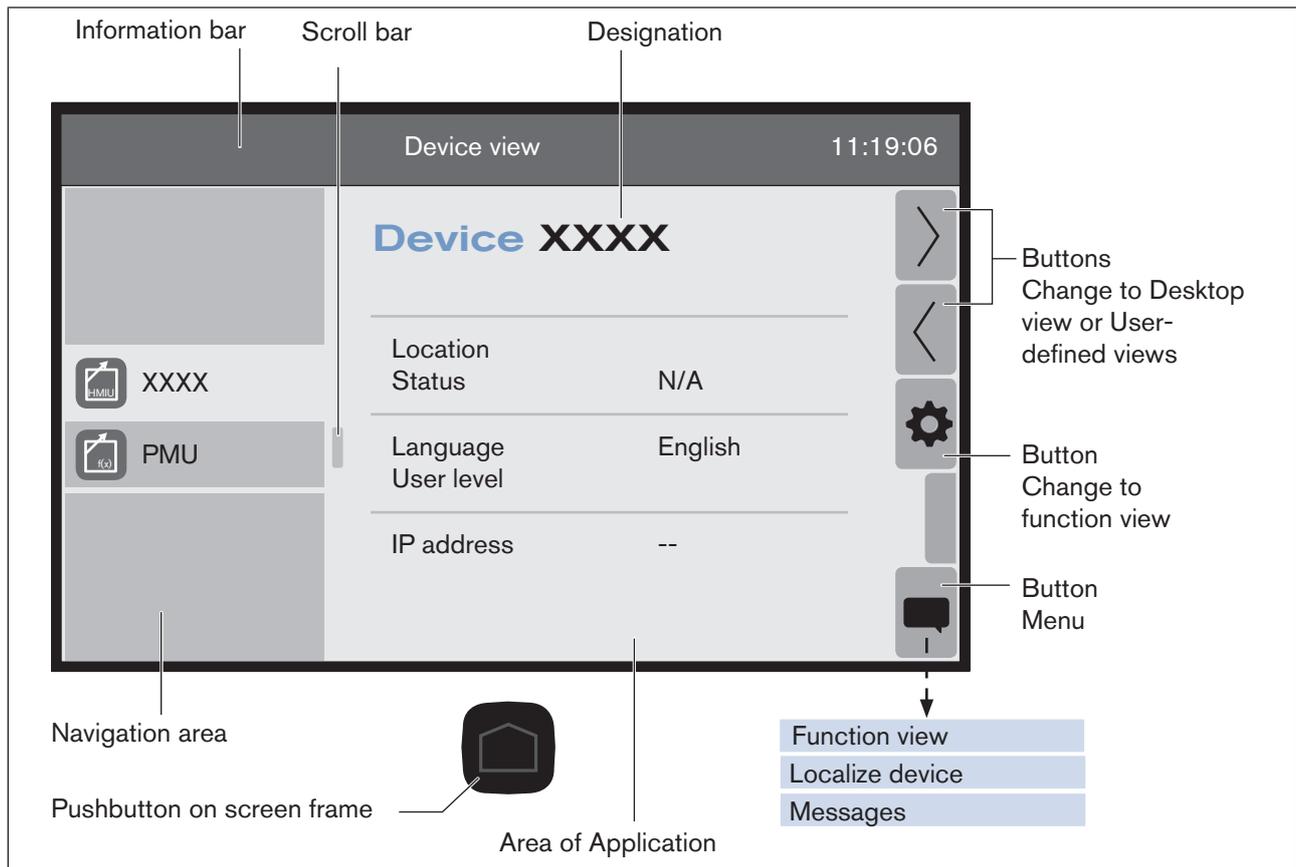


Figure 6: Device view of controller module (example)

Range	Description
Information bar	Designation of the shown view (and of the selected device) or device type and device name.
Buttons	Configuration of the buttons has been adapted to the view, e. g. Toggle views / Menu / ...
Designation and area of application	Designation corresponding to the view. Display of process values, graphs or input options in accordance with the selected view, device or function.
Navigation area	Selection of the connected devices or selection of functions according to the selected view. Is not included in the detailed views.
Scroll bar	Indicates the position on the screen. Is only available if the contents of the navigation area or area application are larger than the use interface.
Pushbutton	Abortion without saving and change to home screen (Desktop 1).

Table 2: Description of the areas

## 9.2 Functions / settings

### 9.2.1 Functions overview

Controller module functions:

	büS	Data and settings relating to Bürkert system bus, e. g. designation / identification / versions / grouping.
	Logger	Data is recorded and stored on storage medium. Programs for exporting data.
	Display	Data and settings relating to the display, e. g. language / representation / date format.
	USB	Data relating to the USB stick and software versions. Only available if USB stick is connected.
	Ethernet	Data relating to Ethernet. Only available if Ethernet connection has been established.

Table 3: Controller module functions

## 9.2.2 Procedure for making settings

Click button / List field	Command / Description
<p>→ Change to device view.</p> <p>→ Choose controller module in the navigation area.</p>	
<p>» The location information and the most important process data are shown in the area of application.</p>	
 <p>or</p>  <p>Function view</p> <p>xx</p> <p>xx</p>	<p>Change to function view.</p>
<p>» The display is located on the function view of the controller module.</p>	
<p>→ Choose function in the navigation area.</p>	
<p>» The data of the selected function is shown in the area of application.</p>	
 <p>or</p> <p>xx</p> <p>Details</p>	<p>Change to detailed view.</p>
<p>» The display is on the <i>Parameter</i> detailed view of the selected function.</p>	
 	<p>Toggle between Diagnosis - Parameter - Maintenance views.</p>
<p>→ Display and / or change settings.</p>	

## 9.3 büS function

Data and settings relating to Bürkert system bus.

e. g. designation / identification / versions / grouping.

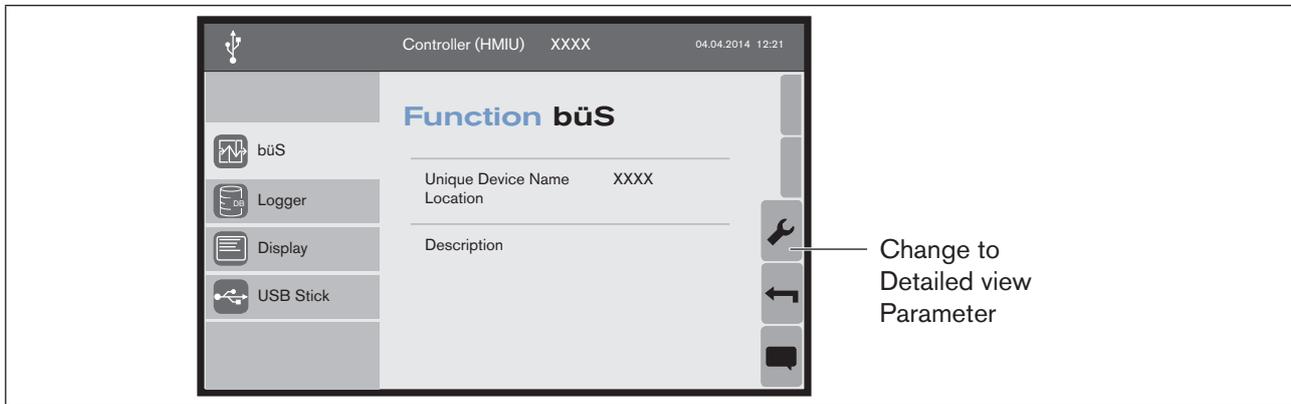
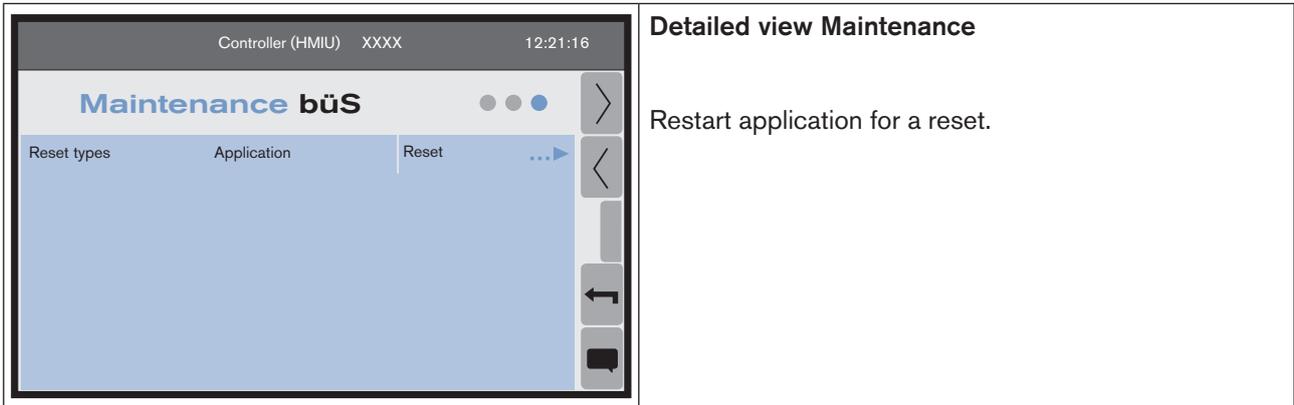


Figure 7: büS function view - controller module (example)

### 9.3.1 Detailed views in the büS function

	<p><b>Detailed view büS parameter</b></p> <p>Option for setting user-specific data for device identification.</p> <ul style="list-style-type: none"> <li>▪ Designation and description</li> <li>▪ Location</li> <li>▪ Grouping setting</li> </ul> <p>▶ opens an input screen. → Make settings.</p>
	<p><b>Detailed view Diagnosis büS</b></p> <p>Representation of büS information and device information.</p> <ul style="list-style-type: none"> <li>▪ Address and baud rate</li> <li>▪ Device name and device identification</li> <li>▪ Software and hardware information</li> <li>▪ Information relating to the TFT</li> <li>▪ Device driver information</li> </ul> <p>No changes by user are possible.</p>



**Detailed view Maintenance**

Restart application for a reset.

Table 4: Detailed views büS

## 9.4 Logger function

In the Logger function, data is recorded and stored on a micro SD card. The stored data can be exported.

During export, a backup of the current database is created and recording starts once again with an empty database. To ensure that sufficient data can be stored, it is recommended to delete older backups on a regular basis.

The exported data can be converted to CSV files using the Communicator.



The Logger only appears on the display if a micro SD card has been inserted in the controller module.

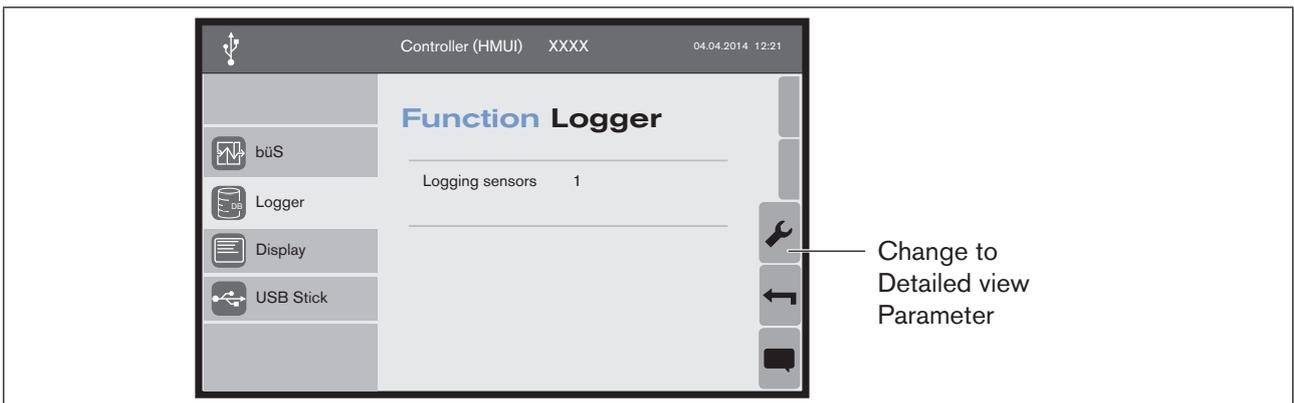


Figure 8: Logger function view - controller module (example)

## 9.4.1 Detailed views in the Logger function

	<p><b>Detailed view Logger parameter</b></p> <p>Setting option to choose which data is to be stored cyclically.</p> <ul style="list-style-type: none"> <li>Choose values (refer to <a href="#">“9.4.2”</a>)</li> <li>Setting for database export (refer to <a href="#">“9.4.3”</a>)</li> </ul> <p>▶ opens an input screen.          ...▶ opens an input wizard.          → Make settings.</p>
	<p><b>Detailed view Logger diagnosis</b></p> <p>Information relating to the recorded values, the memory card (micro SD card) and the database export.</p> <p>No changes by user are possible.</p>
	<p><b>Detailed view Logger maintenance</b></p> <p>Add-on programs for exporting database, copying or deleting backup file (refer to <a href="#">“9.4.4”</a>).</p> <p>...▶ opens an input wizard.          → Make settings.</p>

Table 5: Detailed views Logger

## 9.4.2 Choosing values and settings for Logger

In **Logger / Settings / Cyclic values ...**, it is possible to choose the data that the Logger should record and to store it in a database on the micro SD card.

A filter can be used to define if and from what percentage deviation from the last recorded value the Logger is to log the next value.

→ Choose measure value in the navigation area.

→ Choose **Logging**

Possible selection:

**off**

**all values** – data volume can be very large here depending on the device.

**filtered** – a new value is saved only if it differs by a user-selected percentage from the last saved value.

**Interval** – the value is saved periodically. If minimum-and-maximum-value-saving is active, the highest and lowest values from the previous time interval are saved at the same time as the actual value.

→ Set parameters: **Filter percent** or **Interval**.

The significance of the parameters varies depending on the preset protocol type:

**Filter percent** – the percentage setting defines the maximum positive and the negative deviation from the last saved values beyond which the actual value is saved.

The range which is monitored is always relative to the last saved value.

**Interval** – time in seconds during which the current value is saved.

## 9.4.3 Divide database for export

If the database is too big for further processing on an USB stick, it is possible to divide the database during export (> 2 GB).

In **Database management / Divide during export if ...**, choose On or Off.

## 9.4.4 Export Database / backup files

**Export Database ...**

If a USB stick has been connected to Type ME25, the database can be copied to the USB stick. At the same time, a backup file of the copied database is generated on the micro SD card. The content of the current database is deleted on the micro SD card.

**Copy backup files ...**

Copies the backup files that exist on the micro SD card to the USB stick.

**Clear backup files ...**

Deletes all backup files that exist on the micro SD card.

Note:

If ► On is selected in **Export Database / Divide if too big**, two additional files are copied on the USB stick during export, which will merge the divided database:

- Merging at current storage position.
- Merging in the "Desktop" folder of a PC.

## 9.5 Display function

In the Display function, data and settings relating to the display are shown.

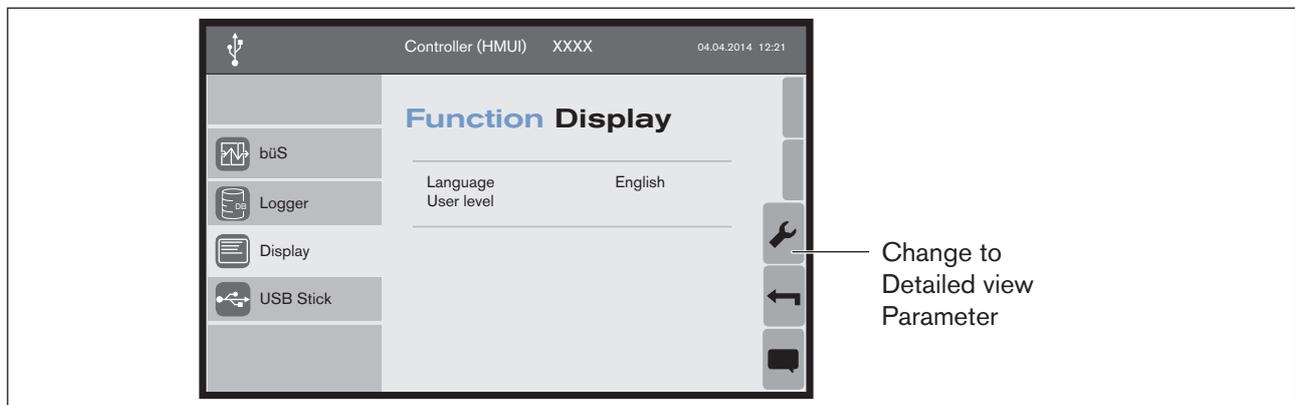


Figure 9: Display function view - controller module (example)

### 9.5.1 Detailed views in the display function

	<p><b>Detailed view Display parameter</b></p> <p>Change display settings to:</p> <ul style="list-style-type: none"> <li>▪ Language</li> <li>▪ Brightness (refer to "9.5.3")</li> <li>▪ Animation (refer to "9.5.4")</li> <li>▪ Time setting for returning to home screen (Desktop 1) (refer to "9.5.2")</li> </ul> <p>▶ opens an input screen. → Make settings.</p>
	<p><b>Detailed view Display Diagnosis</b></p> <p>Representation of the display settings</p> <ul style="list-style-type: none"> <li>▪ Number of Desktops</li> <li>▪ Number of users</li> </ul> <p>No changes by user are possible.</p>
	<p><b>Detailed view Display maintenance</b></p> <p>Change display settings to:</p> <ul style="list-style-type: none"> <li>▪ Date and Time 12/24-Hour-Format, Date format, Display</li> <li>Remote access On / Off (refer to "9.5.5")</li> </ul> <p>▶ opens an input screen. ...▶ opens an input wizard. → Make settings.</p>

Table 6: Detailed views Display

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## 9.5.2 Setting: Time setting for returning to home screen (Desktop 1)

If the touchscreen is not touched for 15 min, the display automatically returns to the home screen (Desktop 1).

Change the time span in setting **Return to home screen / Timeout** ▶.

## 9.5.3 Setting: Change display brightness and brightness dimmed On / Off

The display has two brightness settings:

**Brightness normal**      Brightness of the display during processing by user

**Brightness dimmed**      Brightness of the display after time span without touching has expired (return to home screen (Desktop 1)).

Use the setting **Brightness dimmed On** ▶ to switch dimming of brightness on and off.

## 9.5.4 Setting: Animation

Use **Animation On** ▶ to set the transition when toggling between the views to two types:

**Animation On** ▶      On      Transition by moving (left / right and top / bottom)

**Animation On** ▶      Off      Transition by jumping

## 9.5.5 Remote access

If a connection to a network has been established, it is possible to access the display via port 5901 using a VNC client. Access is solely via the company network.

## 9.6 USB function

The function is available only when a USB storage medium is connected.

The USB storage medium must be formatted with FAT32, ext2 oder ext3. Supports USB characteristics up to V2.0. The interface can supply up to 0.5A. USB sticks and external hard drives can be connected.

Data and information relating to the USB stick and software versions.  
e. g. designation / storage capacity / update versions

→ Insert USB stick in the designated interface of Type ME25 or on the back of the TFT screen.

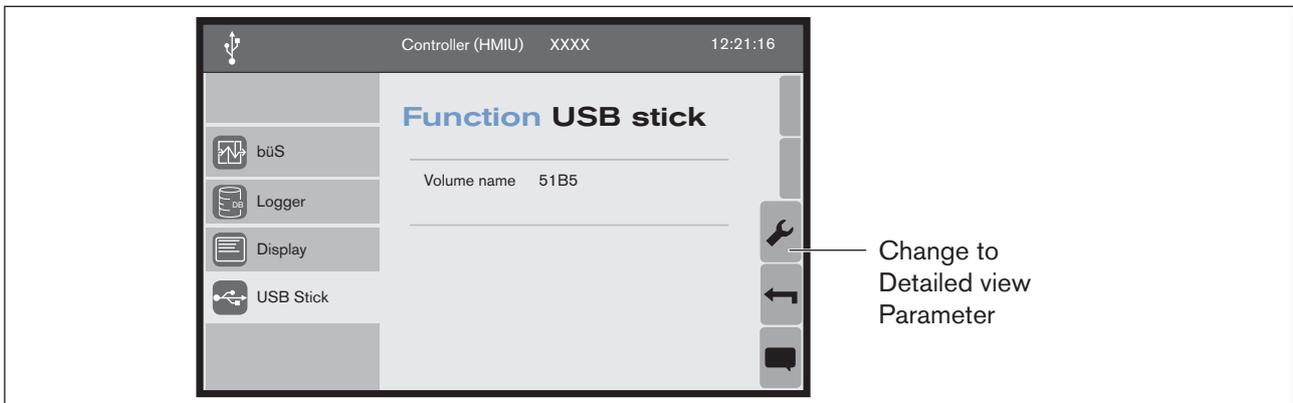


Figure 10: USB function view - controller module (example)

### 9.6.1 Detailed views in the USB function

	<p>Detailed view USB Diagnosis</p> <p>Representation of the information relating to the USB stick.</p> <ul style="list-style-type: none"> <li>▪ Device name</li> <li>▪ Storage capacity and storage allocation</li> <li>▪ Designation of the interface</li> </ul> <p>No changes by user are possible.</p>
	<p>Detailed view USB maintenance</p> <p>Representation of the information relating to the software versions.</p> <ul style="list-style-type: none"> <li>▪ Application and system</li> <li>▪ Update versions</li> </ul> <p> opens an input wizard.</p>

Table 7: USB detailed views

## 9.6.2 Update Software

If an update is available for the attached USB storage medium, **Update / Install...** appears and the input wizard guides the user through the software installation.

## 9.7 Ethernet function



Function is only available if connection to Ethernet has been established.

Data relating to the Ethernet.

e. g. designation / IP address

→ Plug Ethernet in the designated interface on Type ME25.

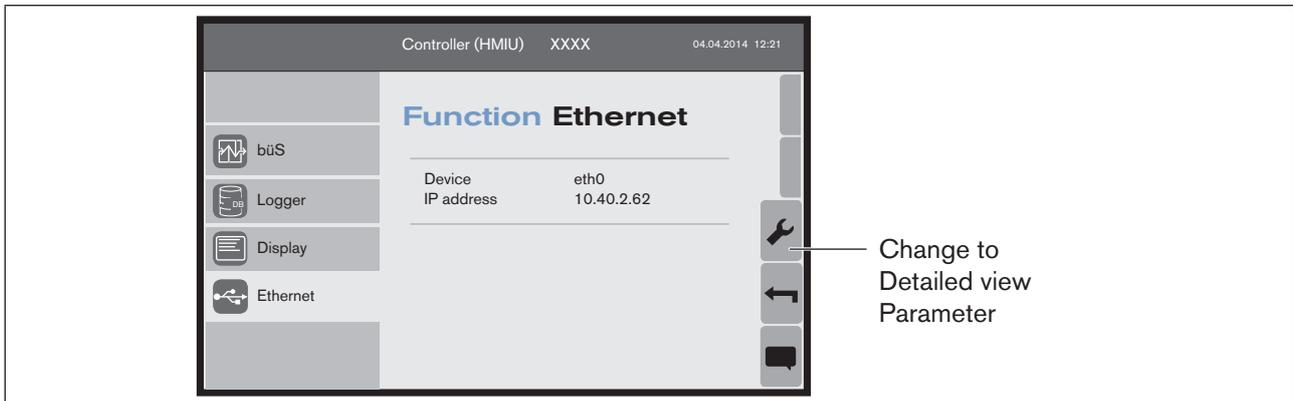


Figure 11: Ethernet function view - controller module (example)

### 9.7.1 Detailed views in the Ethernet function

	<p><b>Detailed view Ethernet Diagnosis</b></p> <p>Representation of the information relating to the Ethernet.</p> <ul style="list-style-type: none"> <li>IP address</li> <li>The MAC address can be found on the label on the module housing.</li> </ul> <p>No changes by user are possible.</p>
--	--

Table 8: Ethernet detailed views

## 10 OPERATION

### 10.1 Display elements

The LED display elements provide information on the device status and the Ethernet network connection.

Overview:

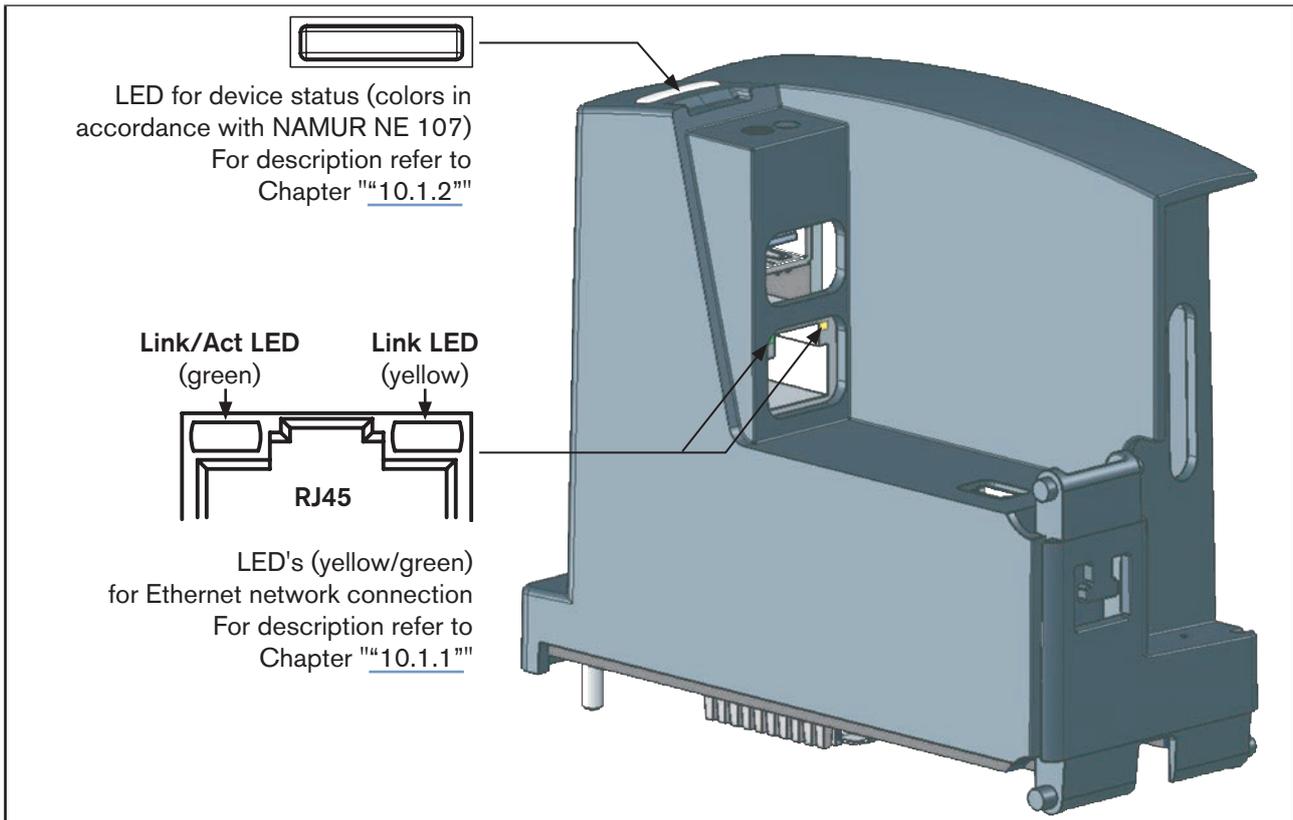


Figure 12: Display elements overview; controller module, Type ME25

#### 10.1.1 LED for Ethernet network connection

Description:

LED status		Description / cause of error	Procedure
Link/Act LED (green)	Active	Data is being transmitted.	
	Not active	No connection to the network has been established.	Check cable.
Link LED (yellow)	Active	Connection to the network has been established.	-
	Not active	No connection to the network has been established.	Check cable.

Table 9: Description of LED display; Ethernet network connection

## 10.1.2 LED for device status

The LED that indicates the device status change color and status in accordance with NAMUR NE 107.

If several device statuses exist simultaneously, the device status with the highest priority is displayed. The priority is determined by the severity of the deviation from standard operation (red LED = error = highest priority).

Display in accordance with (NE 107)		Description	Meaning
<b>Color</b>	Red	Error	Malfunction Device function is not ensured.
	Orange	Warning	Ambient or process conditions for the device are outside the permissible ranges. It cannot be excluded that device is damaged.
	Yellow	Out of Specification	Ambient or process conditions for the device are outside the permissible ranges. Data sheet values cannot be complied with.
	Blue	Maintenance required	Based on a running diagnostic, the device has detected and corrected a deviation. Device functionality restricted.
	Green	Diagnostic active	Device functionality disabled. Execution of diagnostic functions.
	White	Normal operation	Device is running within its specifications.
<b>Status</b>	Illuminated	Device is in AUTOMATIC operating state.	Device is in standard operation.
	Flashing	Device is in HAND/MANUAL operating state	Device in manual operation.
	Flashing rapidly	Identification	Serves for identification of a device in the bÜS network.  The device was selected using the "Bürkert Communicator" software or on a display.

Table 10: Description of LED display; device status

## 10.2 Removable data storage

The controller module Type ME25 has a removable data storage in the size of a micro SD card, on which device-specific data is stored.

Upon delivery, the micro SD card is inserted in the device.

Using the micro SD card, it is possible to exchange the specific data of devices having the same Ident number. For example for transmitting the data of a defective device to a new device.

The user settings are stored on the micro SD card.

If device-specific data is available on the inserted micro SD card, the device will take over this data.

If no device-specific data is available on the micro SD card, the device will store its own data on it.

### NOTE!

**Do not use a standard micro SD card for the device.**

The SD card is a special industry version with various write-cycle options, i.e. increased shelf life and reliability.

The card status can also be monitored.

If the card is not formatted with the ext2 file system, it will be formatted on connection, i.e. any data on the card will be lost.

Please order the micro SD card for the Type ME25 via your Bürkert sales department.

See Chapter "[12 Accessories](#)".

**Replacing the micro SD card:**

See "[4. Replacing the micro SD card:](#)", page 33.

# 11 MAINTENANCE

## 11.1 Safety instructions



### WARNING!

#### Risk of injury from improper maintenance!

- ▶ Maintenance may be carried out only by trained technicians and with the appropriate tools!
- ▶ Secure system against unintentional activation.
- ▶ Following maintenance, ensure a controlled restart.

## 11.2 Replacing the device

To replace the controller module ME25, proceed as follows.

### ▶ 1. Switch off supply voltage!

### 2. Remove Ethernet cable.

- If Ethernet cable has been secured at the housing for strain relief, remove securing device.
- Unscrew fastening screw at the cover of Type ME25.
- Open cover.
- Pull out and remove Ethernet cable from the socket.

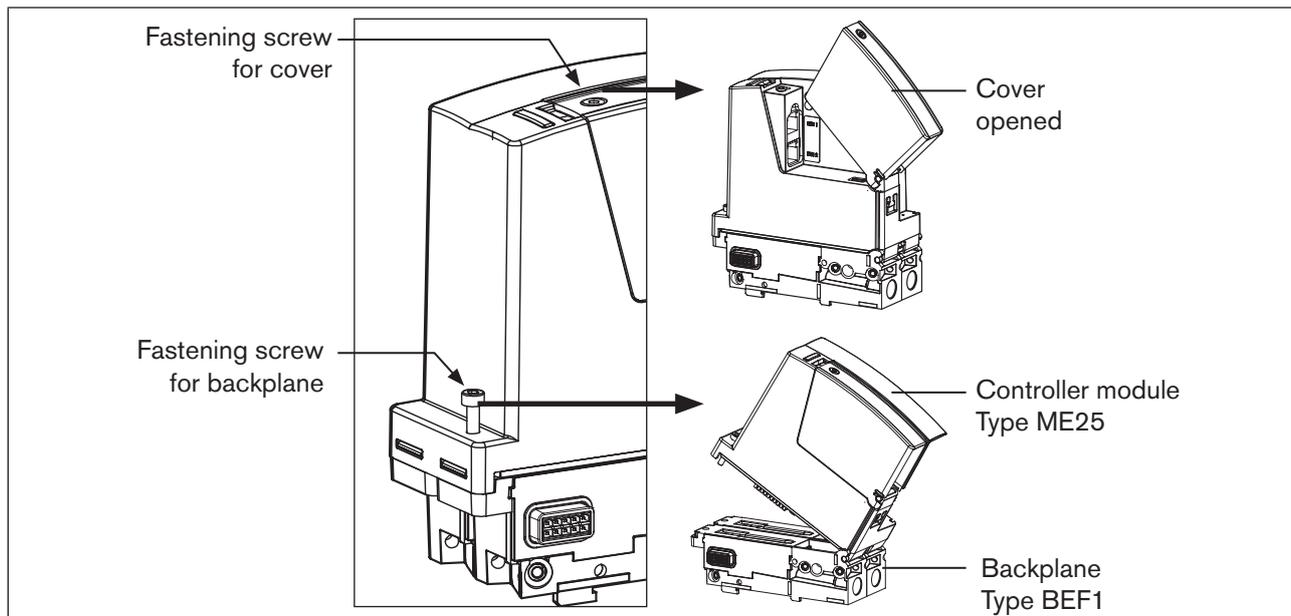


Figure 13: Replacing the device; controller module Type ME25

### 3. Remove controller module Type ME25 from backplane Type BEF1.

- Unscrew fastening screw on the rear of the housing and remove Type ME25.

#### 4. Replacing the micro SD card:

→ Take out the micro SD card at the bottom of Type ME25 and insert it in replacement device.

⚠ The replacement device must have the same ID no. as the device from which the memory card was taken.

⚠ Insert card in correct orientation!

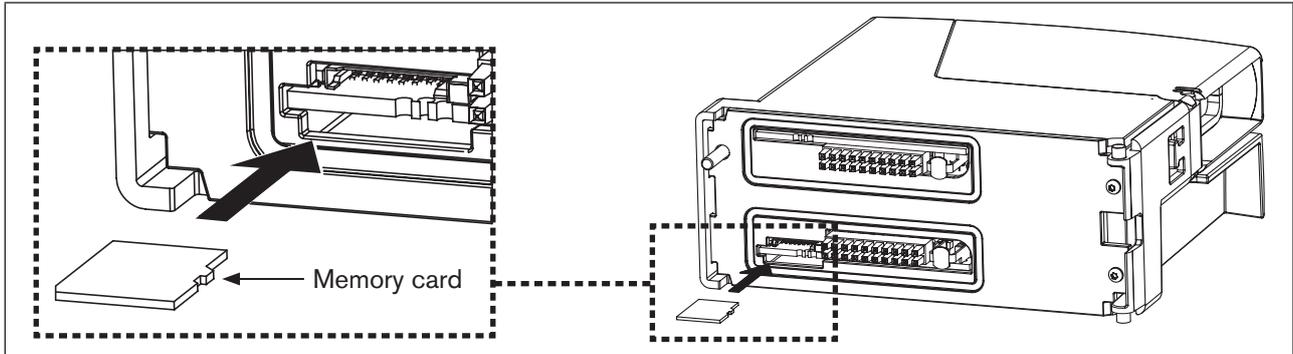


Figure 14: Replacing the micro SD card; controller module Type ME25

#### 5. Mount replacement device

→ Insert hinge part of Type ME25 in counter piece of backplane Type BEF1.

→ Press Type ME25 fully down.

→ Tighten fastening screw for backplane. Max. torque 1 Nm.

→ Unscrew fastening screw at the cover of Type ME25.

→ Open cover.

→ Insert Ethernet cable through the hole on the rear side of the cover.

→ Plug Ethernet cable in the socket for plug-in connector RJ45.

→ Close cover and tighten fastening screw. Max. torque 1 Nm.

The Type ME 25 is now connected to the power supply on the backplane Type BEF1.

#### Type ME25 with display connection:

If Type ME25 is to be connected to a display, a connection to the display must be established before voltage is applied.

→ Plug connecting cable to the display in the designated interface (refer to [“Description of interfaces”, page 13](#)).

→ Apply supply voltage.

#### Securing the Ethernet cable (strain relief):

For strain relief, a cable clip can be used to secure the Ethernet cable in the punched out recess underneath the cover.

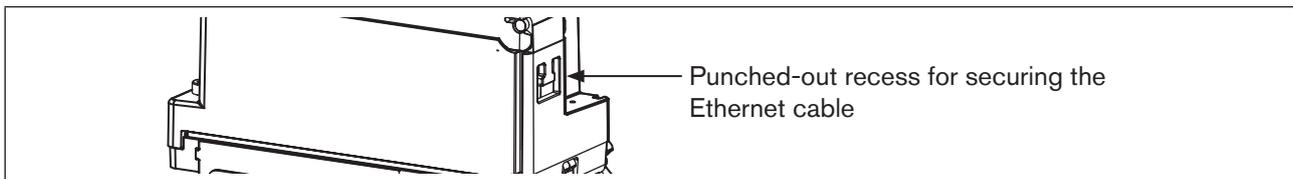


Figure 15: Strain relief for Ethernet cable; controller module Type ME25

## 11.3 Device status / troubleshooting

### 11.4 Display of the device status

The controller module Type ME25 is provided with an LED for displaying the device status; it changes its color and the status in accordance with NAMUR NE 107.

If several device statuses exist simultaneously, the device status with the highest priority is displayed.

The priority is determined by the severity of the deviation from standard operation (red LED = error = highest priority).

LED display in accordance with (NE 107)	Description	Procedure
No color	No power is supplied to the device.	Connect device to power supply.
Flashing rapidly (applies to all colors)	The device was selected using the "Bürkert Communicator" software or on a display.	De-select the device.
White / Illuminated	Operating program has been started.	
White / Flashing		
Red / Illuminated	Operating program has not yet been started.	Device requires maintenance – contact the manufacturer.
Orange / Illuminated		
Yellow / Illuminated		
Blue / Illuminated		
Green / Illuminated		

Table 11: Description: LED display of device status and procedures

LED status		Description / cause of error	Procedure
Link/ Act LED	Active	Rapid flashing: Data is being transmitted.	
	Not active	No connection to the network has been established.	Check cable.
Link LED	Active	Connection to the network has been established.	-
	Not active	No connection to the network has been established.	Check cable.

Table 12: Description: Displays of the LED's for network connection

## 11.5 Troubleshooting

Problem	Possible cause	Procedure
The NAMUR LED goes off periodically.	The power supply collapses periodically – the device implements a reset each time.	Use power supply with adequate power.
	The drop in power in the connecting cable is too great.	Increase cable cross-section. Reduce cable length.
Replacement device fails to take over values from micro SD card from the defective device.	The device Ident number of the replacement device and the defective device differ.	Values can only be transmitted between devices having the same Ident number.
	The micro SD card is defective. The device was unable to write any values on the micro SD card.	Replace the micro SD card (refer to chapter “ <a href="#">12 Accessories</a> ”) and retry transmitting the parameters of the defective device to the card. (refer to chapter “ <a href="#">10.2 Removable data storage</a> ”).
Replacement device fails to take over all values from micro SD card from the defective device.	The EDS device description between the replacement device and the defective device differs.	Only the existing values of the defective device can be transferred to the replacement device. New values of the replacement device must be parameterized using the "Bürkert Communicator" software.

Table 13: Troubleshooting

## 12 ACCESSORIES

### CAUTION!

#### Risk of injury and/or damage by the use of incorrect parts!

Incorrect accessories and unsuitable spare parts may cause injuries and damage the device and the surrounding area.

- Use original accessories and original spare parts from Bürkert only.

Accessories	Order no.
büS stick with cable (socket M12)	00772551
büS stick set (including power supply unit) and "Bürkert Communicator" software	00772426
Micro SD card	00564555

## 13 PACKAGING AND TRANSPORT

### NOTE!

#### Transport damage!

Inadequately protected devices may be damaged during transportation.

- Protect the device against moisture and dirt in shock-resistant packaging during transportation.
- Prevent the temperature from exceeding or dropping below the permitted storage temperature.

## 14 STORAGE

### NOTE!

#### Incorrect storage may damage the device.

- Store the device in a dry and dust-free location!
- Storage temperature: -40 °C ... +60 °C.

## 15 DISPOSAL

### NOTE!

#### Damage to the environment caused by parts contaminated with media.

- Dispose of the device and packaging in an environmentally friendly manner.
- Observe applicable disposal and environmental regulations.



Observe the national waste disposal regulations.

