bürkert
FLUID CONTROL SYSTEMS

Type ME21

Software for Display

Software for Display
Software für Display
Logiciel pour l'écran

Operating Instructions - Software

Bedienungsanleitung - Software
Manuel d'utilisation - Logiciel

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Operating Instructions 1402/00_EU-ML_00810419 / Original DE

Software for Display Type ME21

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1 OPERATING INSTRUCTIONS

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

The operating instructions describe the display software for communication-capable Bürkert devices.

WARNING!

Safety Information.

Safety instructions and information for using the communication-capable devices / products may be found in the corresponding operating instructions.

Failure to observe these instructions may result in hazardous situations.

▸ 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.

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▸ Designates instructions for risk prevention.

→ Designates a procedure which you must carry out.

» Indicates a result.

1.2 Definitions of terms

The term "device" or "product" used in these instructions always refers to communication-capable devices or products.

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2 AUTHORIZED USE

Non-authorized use of the display software may be dangerous to people, nearby equipment, and the environment.

- The software is designed for the communication of Bürkert devices.
- Use according to the authorized data, operating conditions, and conditions of use specified in the contract documents and operating instructions of the corresponding devices / products.
- Use the software only in conjunction with third-party devices and components recommended and authorized by Bürkert.
- Correct installation and careful use and maintenance are essential for reliable and faultless operation.
- Use the software only as intended.

1. GENERAL INFORMATION

2.1 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

International

Contact addresses can be found on the Internet at:

www.burkert.com

2.2 Information on the Internet

The operating instructions and data sheets for device types can be found on the Internet at:

www.buerkert.com

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3 PRODUCT DESCRIPTION

3.1 Description

The display software for communication with Bürkert devices makes the setting and monitoring application-specific parameters a simple operation.

Features:

- Clear, straightforward menu interface for the display and change of parameters of various devices.
- The overall device status is indicated by a light element.

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4 USER INTERFACE

The user interface consists of a touchscreen, a button and the NAMUR light element in the screen frame.

Figure 1: Overview

Range	Description
NAMUR light element	Device status display in accordance with NAMUR NE 107.
Touchscreen	Display and operation
Button	Cancel without saving and change to start page (desktop 1 of x).

Table 1: Description of user interface

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4.1 Touchscreen areas

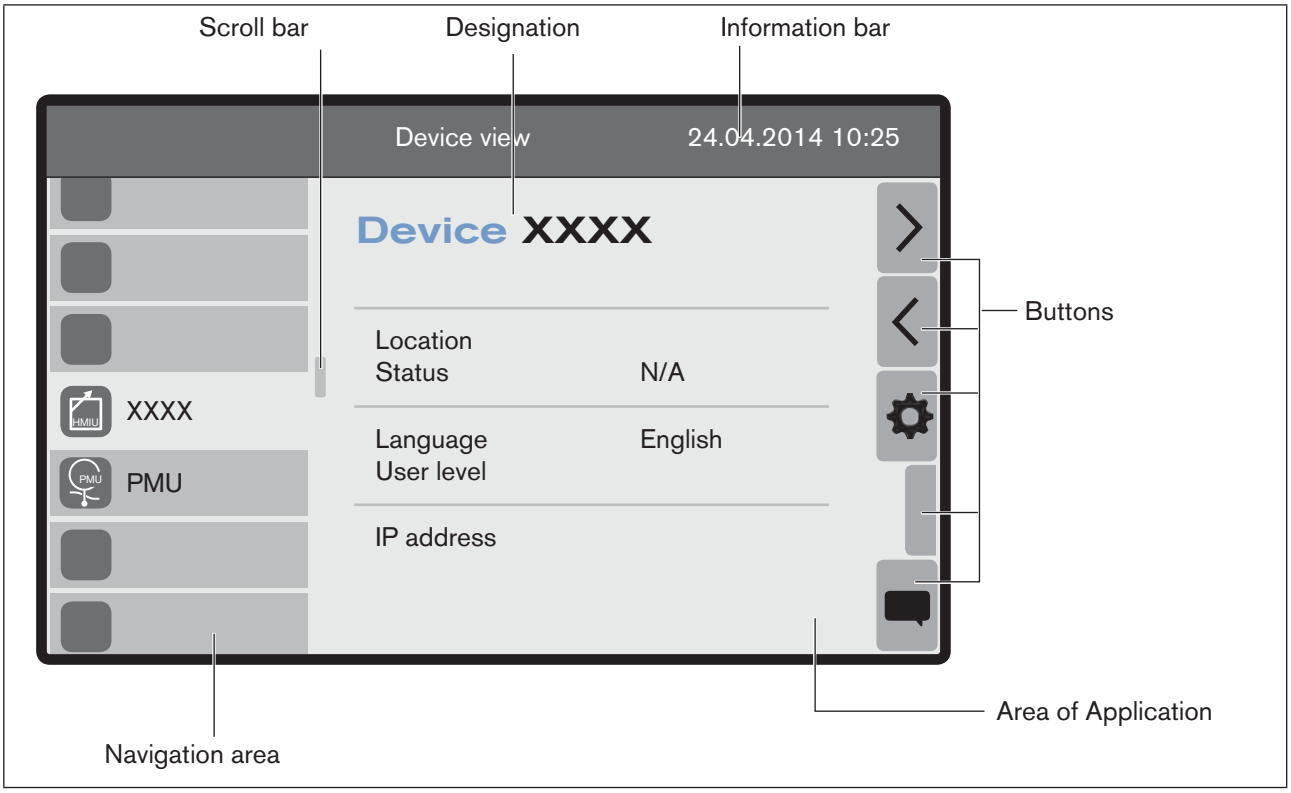

Figure 2: Touchscreen overview (example)

Range	Description
Information bar	Information / designation of the displayed view (and of the selected device) or device type and device name / time.
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.

Table 2: Description of touchscreen areas

A detailed description can be found in the corresponding chapter of these instructions.

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4.2 Operating structure

4.2.1 Overview

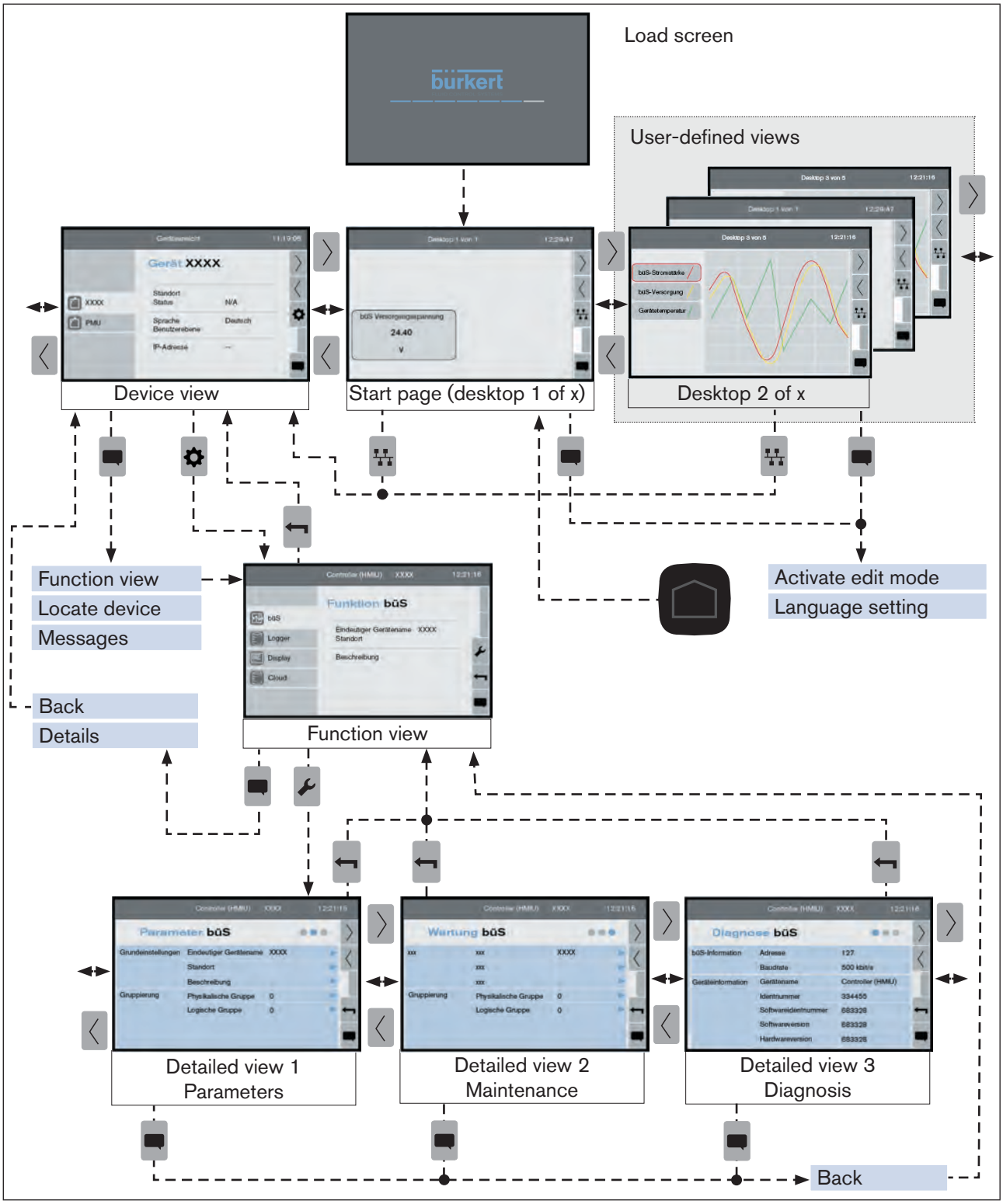

Figure 3: Operating structure

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Operation is in 3 levels with increasing level of detail.

The first level allows switching between the individual desktops by clicking on the arrows on the right-hand edge of the display. The desktop device view is predefined but the user can add further views.

Select device view to change from a selected device to its function view. For each device function there are now three views available. They show the device values for the selected function sorted according to parameters, maintenance and diagnosis.

Further settings can be activated via input assistants (overlaid dialogs).

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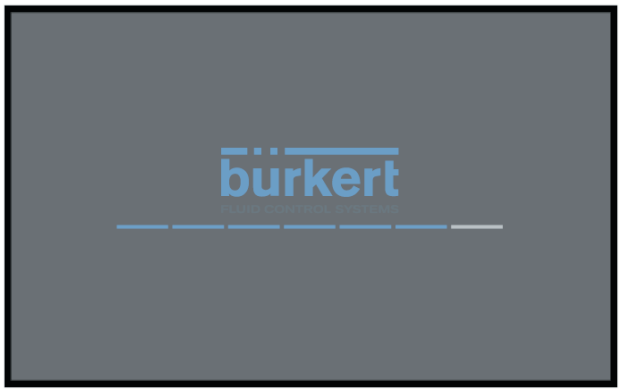
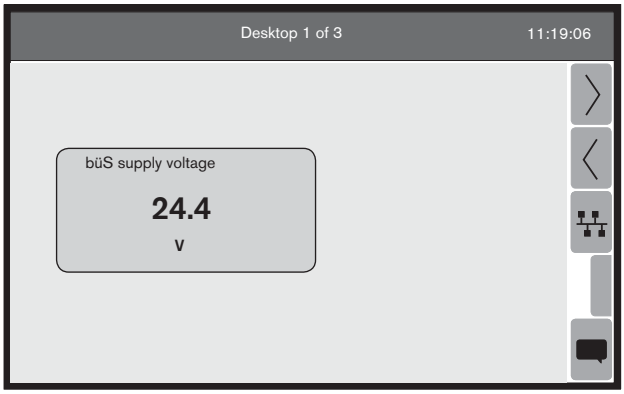
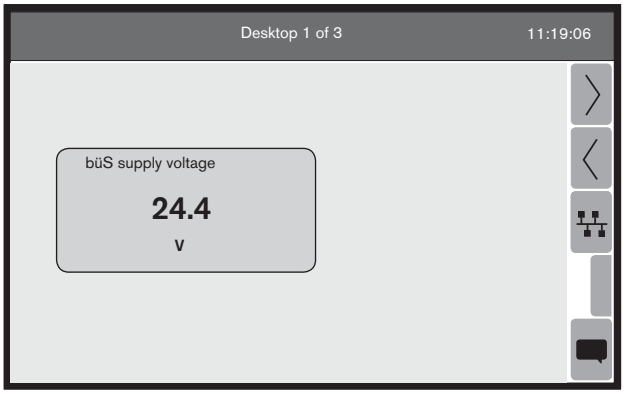
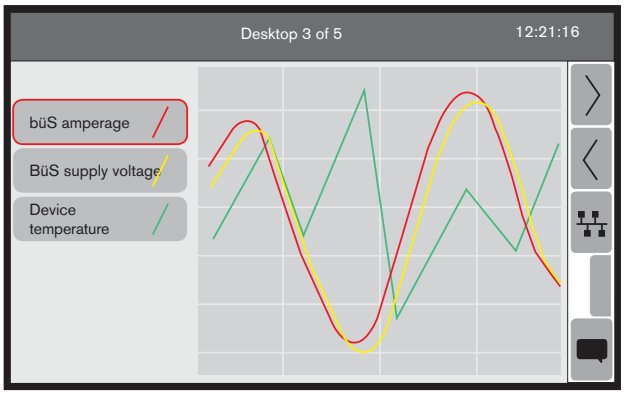
4.2.2 Description of views

	**Load screen**
	**Start page (desktop 1 of x)** View which appears ▪ after system start ▪ after pressing the button ▪ after a set time View for value widgets or graph widget.
	**Desktop x of x - user-defined view for value widgets** View for customizable area. Possible elements: ▪ Process values ▪ Graphical element Further user-defined views for value widgets can be produced by the user.
	**Desktop x of x - user-defined view for graph widget** View for presenting process values in graphs. Further user-defined views can be produced for the graph widget.

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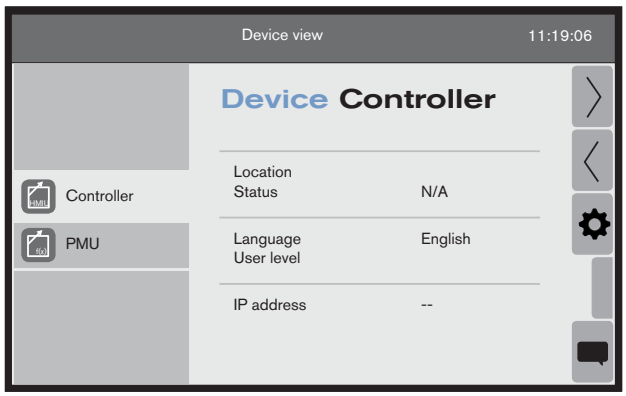
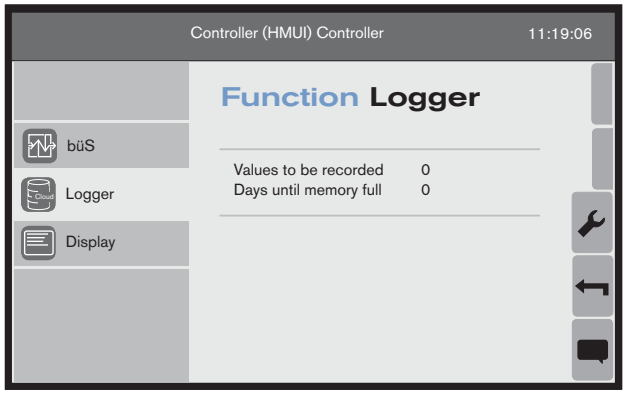


Device view

The connected devices are displayed and can be selected in the navigation area.

The data of the selected device is shown in the application area.

- Location Information
- Process values

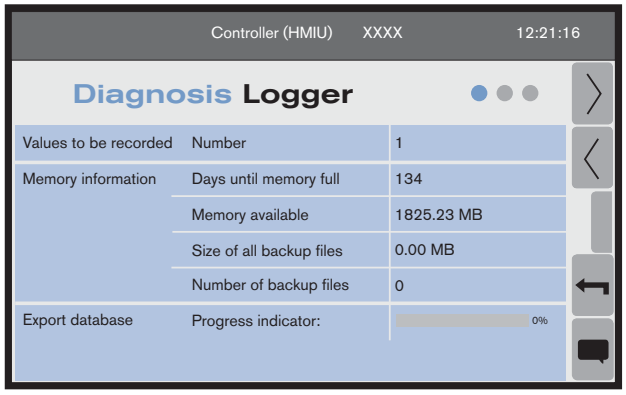


Function view

The functions of the device selected the navigation area are displayed and can be selected in the device view.

The data of the selected function is shown in the application area.

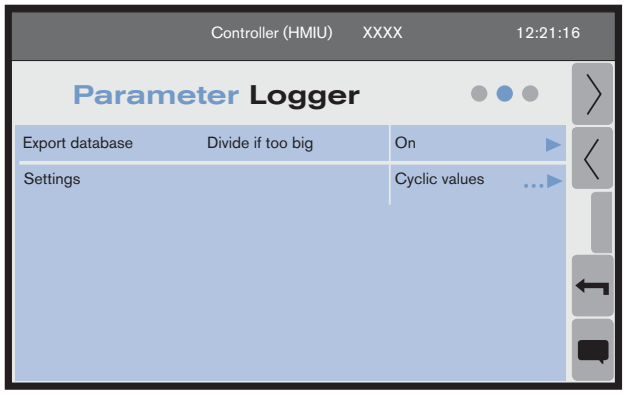
The  button can be used to switch to detail view 2 - Parameters, in which data can be changed.



Detailed view 1 - Diagnosis

Data presentation view.

The content depends on the functions selected in the function view and the device selected in the device view.



Detailed view 2 - Parameters

Data setting and appearance view.

The content depends on the functions selected in the function view and the device selected in the device view.

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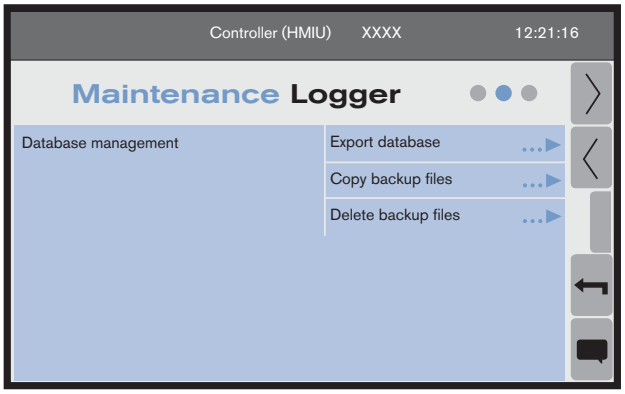
	**Detailed view 3 - Maintenance** View for setting and appearance of additional data and commands. The content depends on the functions selected in the function view and the device selected in the device view.

Table 3: Description of views

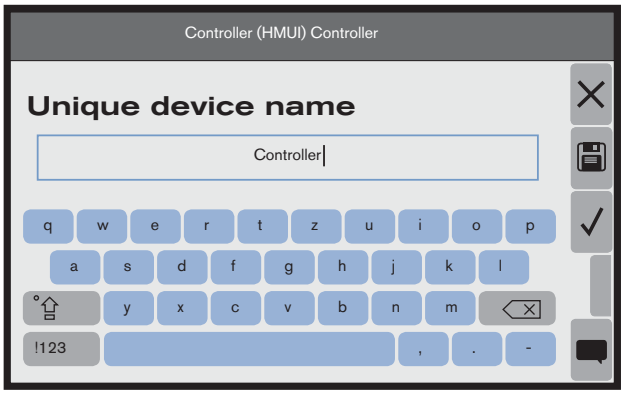
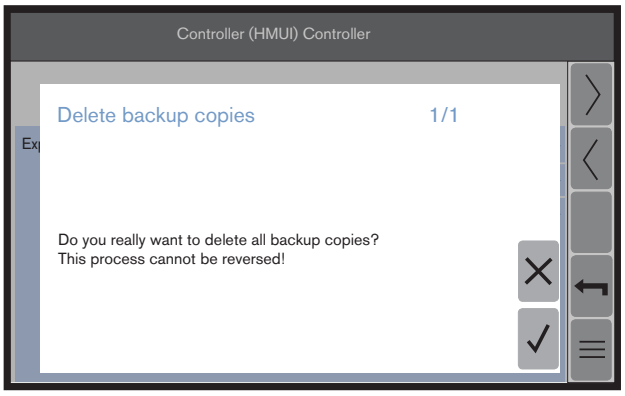
Input / input assistant views	
	**Input screen view** View for input of texts or values.
	**Input assistant view** View with input assistant for the user.

Table 4: Input screen / input assistant views

A detailed description of the views can be found in the relevant chapter of these instructions.

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4.2.3 Description of buttons

Button	Command / Description
	Change view Desktop 1 of x ➡ (Desktop 2 of x -... ➡) Device view ➡ Desktop 1 of x Diagnosis ➡ Parameters ➡ Maintenance ➡ Diagnosis Available only in desktop views, device view and detailed views.
	Change view Desktop 1 of x ➡ Device view ➡ (Desktop 2 of x -... ➡) Desktop 1 of x Diagnosis ➡ Parameters ➡ Maintenance ➡ Diagnosis Available only in desktop views, device view and detailed views.
	Change to device view Available only in desktop 1 and user-defined views
	Change to function view Available only in device view.
	Open menu
	Change to Detailed view 2 - Parameters Available only in function view.
	Back
	Cancel and exit.
	Save changes (back up). Input screen, option field remains active. Note: If you exit an input mask using cancel, saved changes are retained.
	Save and exit

Table 5: Description of buttons

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5 DESKTOP VIEW

The user can customize the desktop with objects (values, graphical elements or graphs).

- "Desktop 1 of x" is the start page after activation.
- Further (user-defined) desktop views can be produced by the user.
- Press and hold the button for 1 minute to switch to the start page (desktop 1 of x).

There are two types of desktop view:

- Desktop view for value widgets — for customizing desktop with values and graphical elements
- Desktop view for graph widgets — for presenting process values in graphs.

Customize desktop for value widgets, see “9.3 Customize desktop - value widgets.”, page 28.

Customize desktop for graph widgets, see “9.4 Customize desktop - graph widget.”, page 33.

Add / remove desktop see “9.5 Add / remove desktop”, page 35.

Set language (see “9.1 Set language”, page 26)

5.1 Desktop view for value widgets

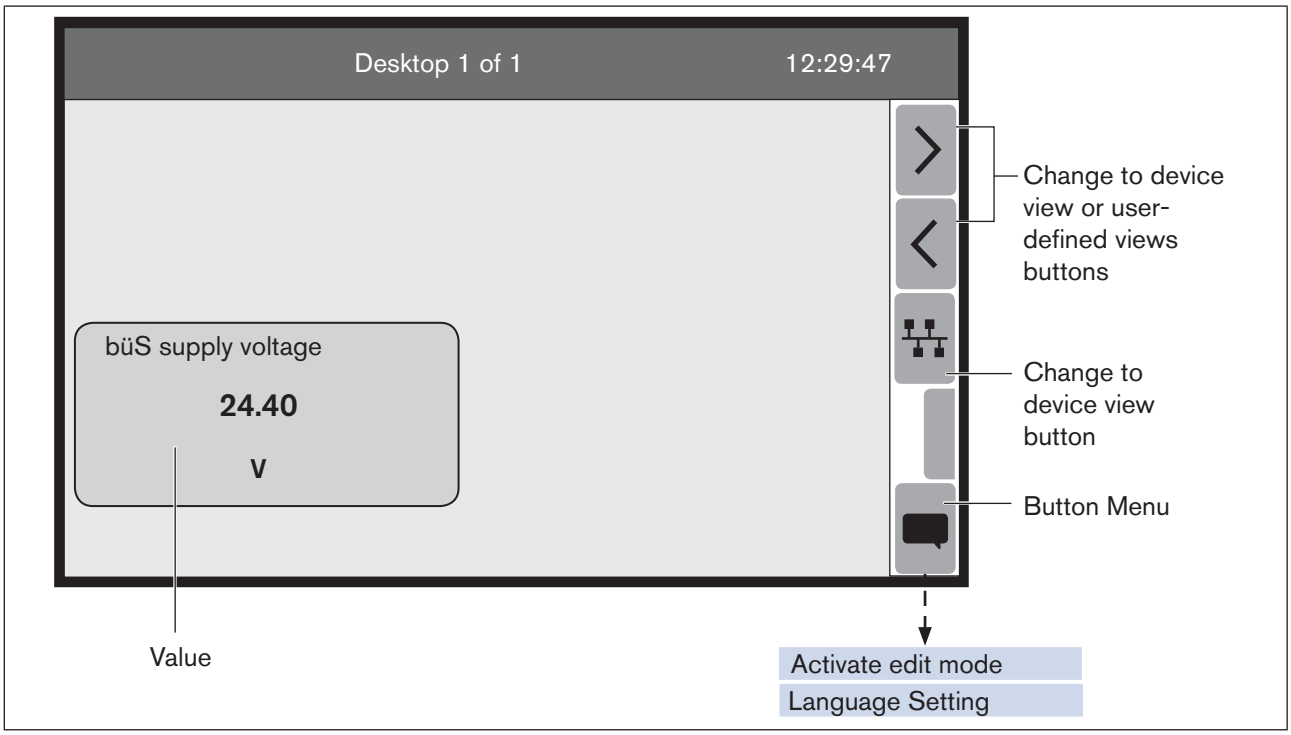

Figure 4: Desktop view for value widgets (example)

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Possible actions:

- Change to Desktop 1 of x, device view or user-defined views (if available).
- Customize the desktop with objects (values or graphical elements) or change appearance.
- Add / remove desktop (user-defined views).
- Set language.

5.2 Desktop view for graph widget

The desktop view for graphs shows user-defined process values.

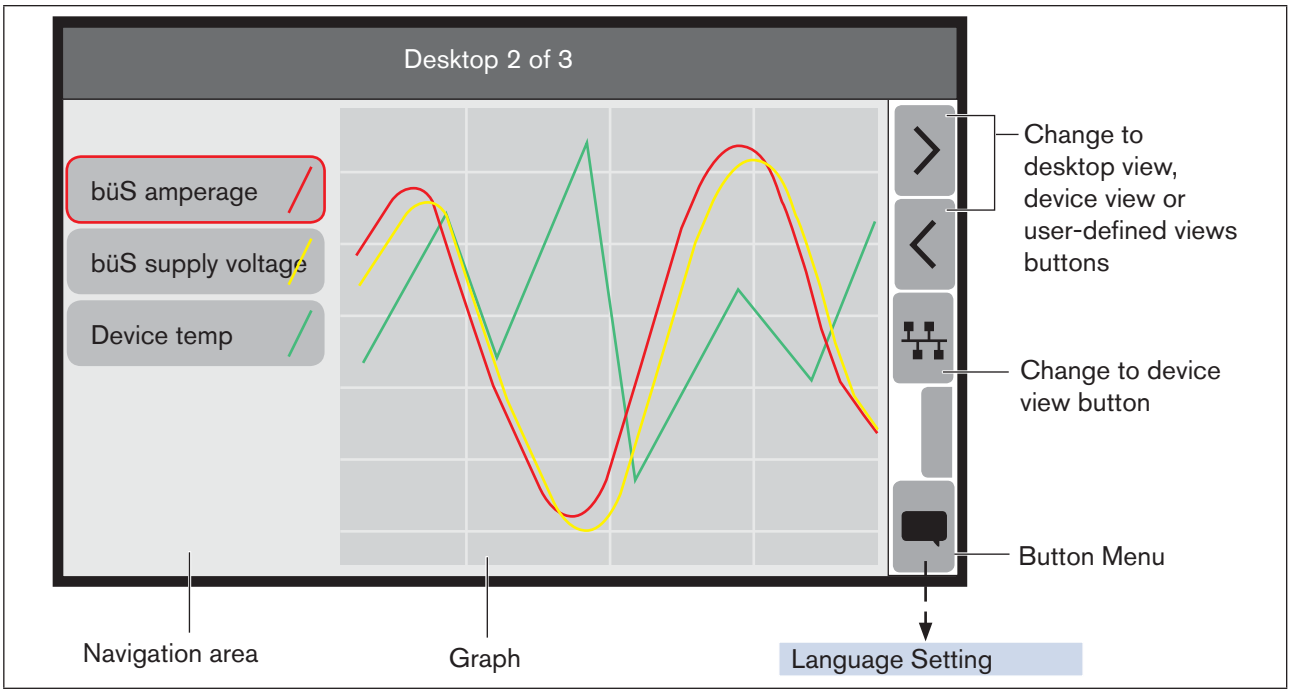

Figure 5: Graph view (example)

Possible actions:

- Change to Desktop 1 of x , device view or user-defined views after activation (if available).
- The graph selected in the navigation area appears in the foreground.
- Customize desktop with graphs.
- Add / remove desktop (user-defined views).
- Set language.

Desktop views for graph widget cannot be changed once graphs have been saved (only deleted).

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6 DEVICE VIEW

The device view provides an overview of the connected devices.

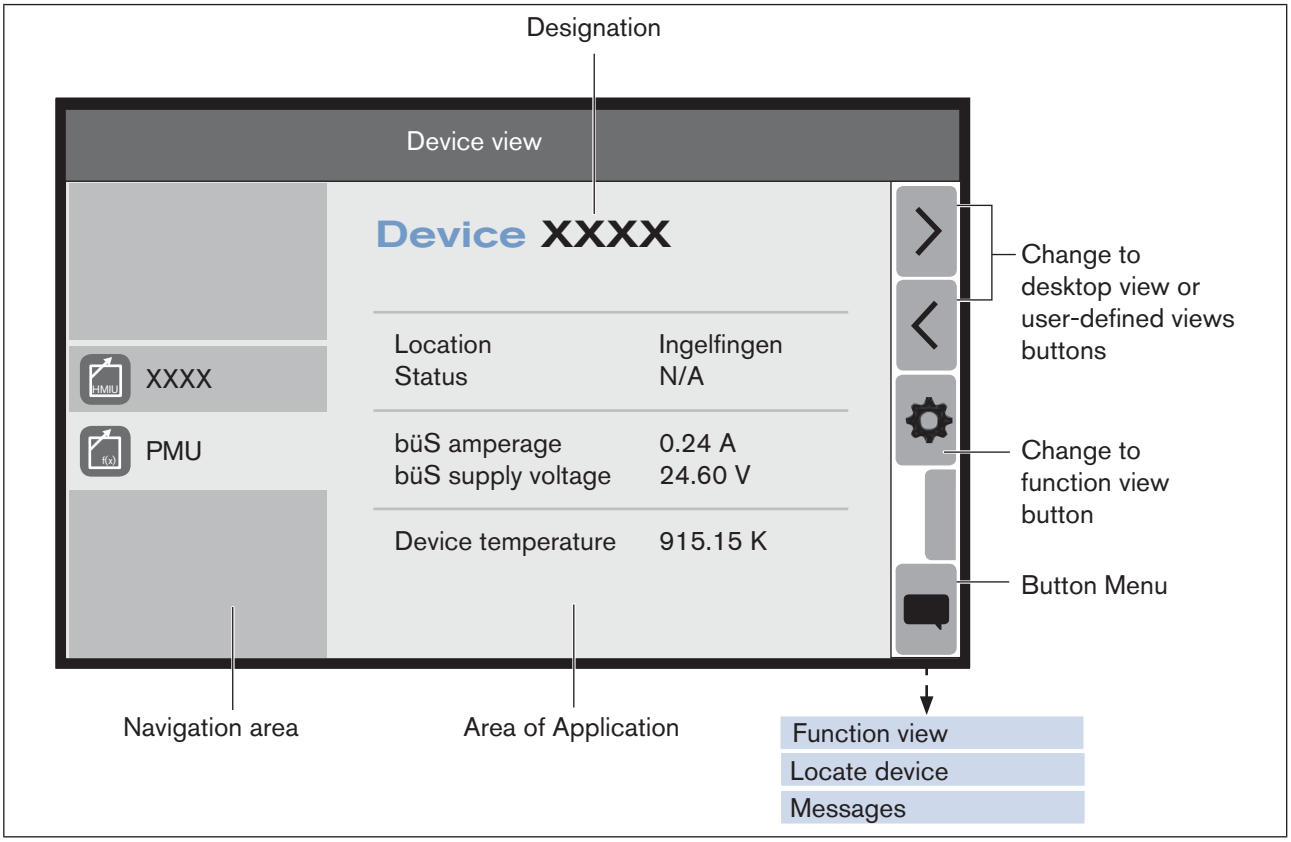

Figure 6: Device view (example)

The devices can be selected in the navigation area. The location information and process data are shown in the application area.

Possible actions:

- Change to Desktop 1 or user-defined views (if available).
- Select connected devices in the navigation area and display the associated data in the application area:
- Change to the function view of the selected device.
- Localize selected device (LED display on device).
- Display error messages (Messages)

Localize device, see “9.2 Localize device”, page 27.

Error messages, see “10 Error messages”, page 37.

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7 FUNCTION VIEW

The function view displays the device functions, selected previously in the device view, in the navigation area.

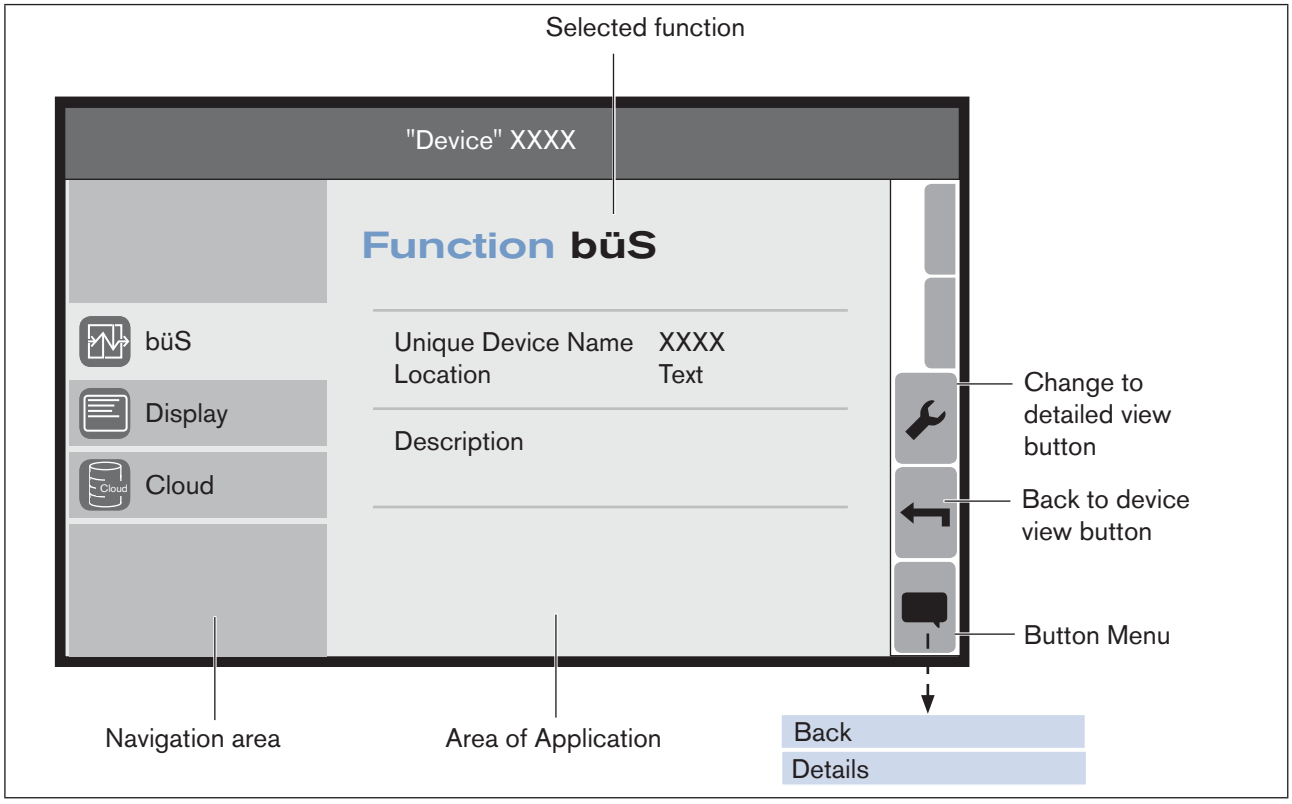

Figure 7: Function view (example)

The functions can be selected in the navigation area. The associated data are then displayed in the application area.

Possible actions:

- Select function in the navigation area and display the associated data in the application area:
- Change the selected function and carry out settings in detailed view 2 - Parameters.
- Change back to device view.

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8 DETAILED VIEWS

The detailed views display information and settings of the selected functions (function view) and the selected device (device view).

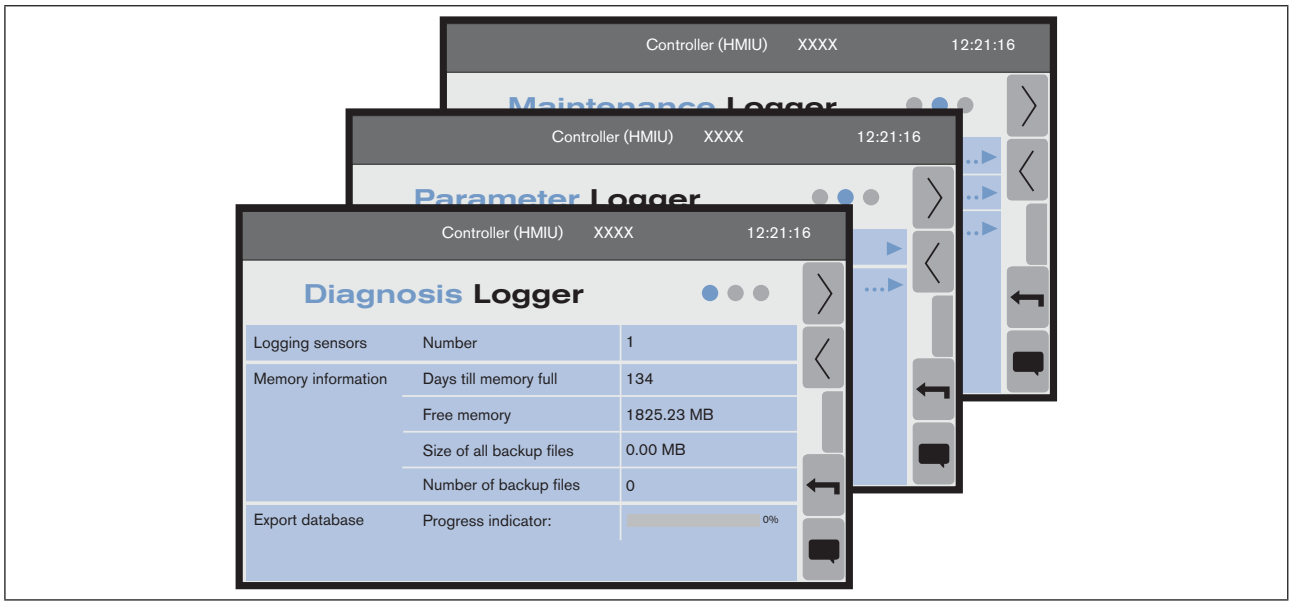

Figure 8: Function view (example)

If settings can be changed by the user, they will be identified by the following icons:

Symbol	Command / Description
▶	Opens an input screen.
...▶	Opens an input assistant.

Available detailed views:

- Detailed view 1 - Diagnosis Information, settings and values
- Detailed view 2 - Parameters Settings which can be changed
- Detailed view 3 - Maintenance Advanced settings and commands

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8.1 Detailed view 1 - Diagnosis

The detailed view 'Diagnosis' displays information and settings or values for the selected device, e.g. bus information, device information or status information.

No changes by the user are possible here.

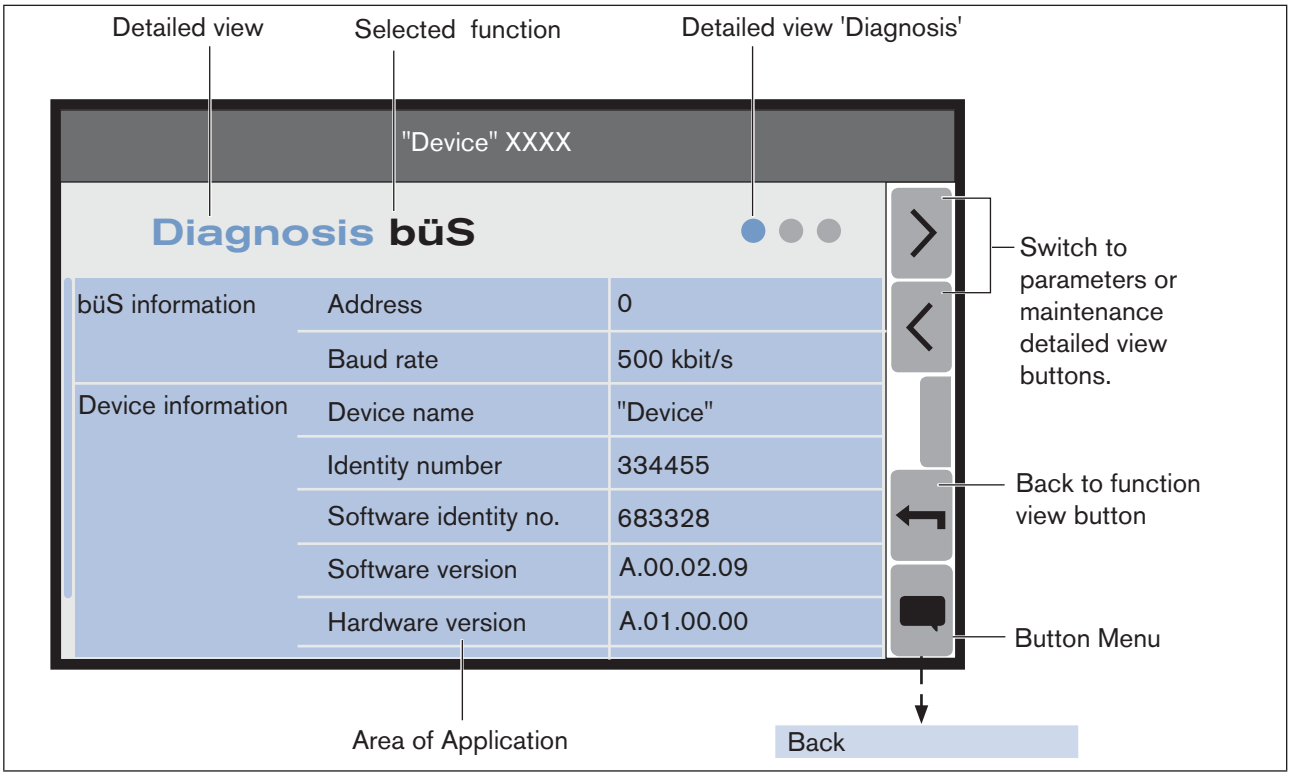

Figure 9: Detailed view 1 - Diagnosis (example)

Possible actions:

- Display of information.
- Change to Parameters or Maintenance detailed view.
- Switch back to function view.

The content of this view depends on the functions selected in the function view and the device selected in the device view.

A detailed description of the view can be found in the operating instructions for the connected devices.

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8.2 Detailed view 2 - Parameters

The detailed view 'Parameters' displays settings for the selected device. The settings can be changed by the user via input screens or input assistants.

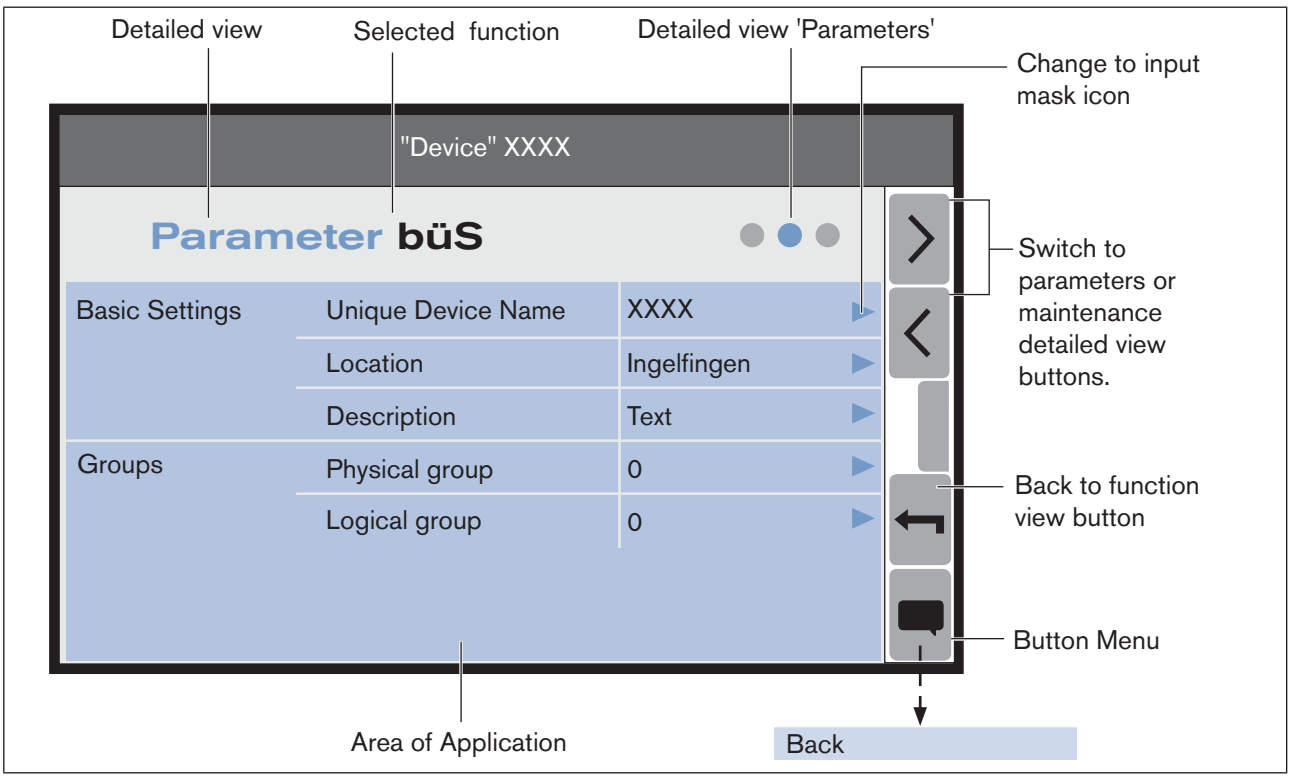

Figure 10: Detailed view 2 - Parameters (example)

Possible actions:

- Display of value settings
- Change settings (via input screen or input assistant).
- Change to Parameters or Maintenance detailed view.
- Switch back to function view.

The content of this view depends on the functions selected in the function view and the device selected in the device view.

A detailed description of the view and the required settings can be found in the operating instructions for the connected devices.

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8.3 Detailed view 3 - Maintenance

The detailed view 'Maintenance' displays additional settings and commands for the selected device. The settings or commands can be changed or entered by the user via input screens or input assistants.

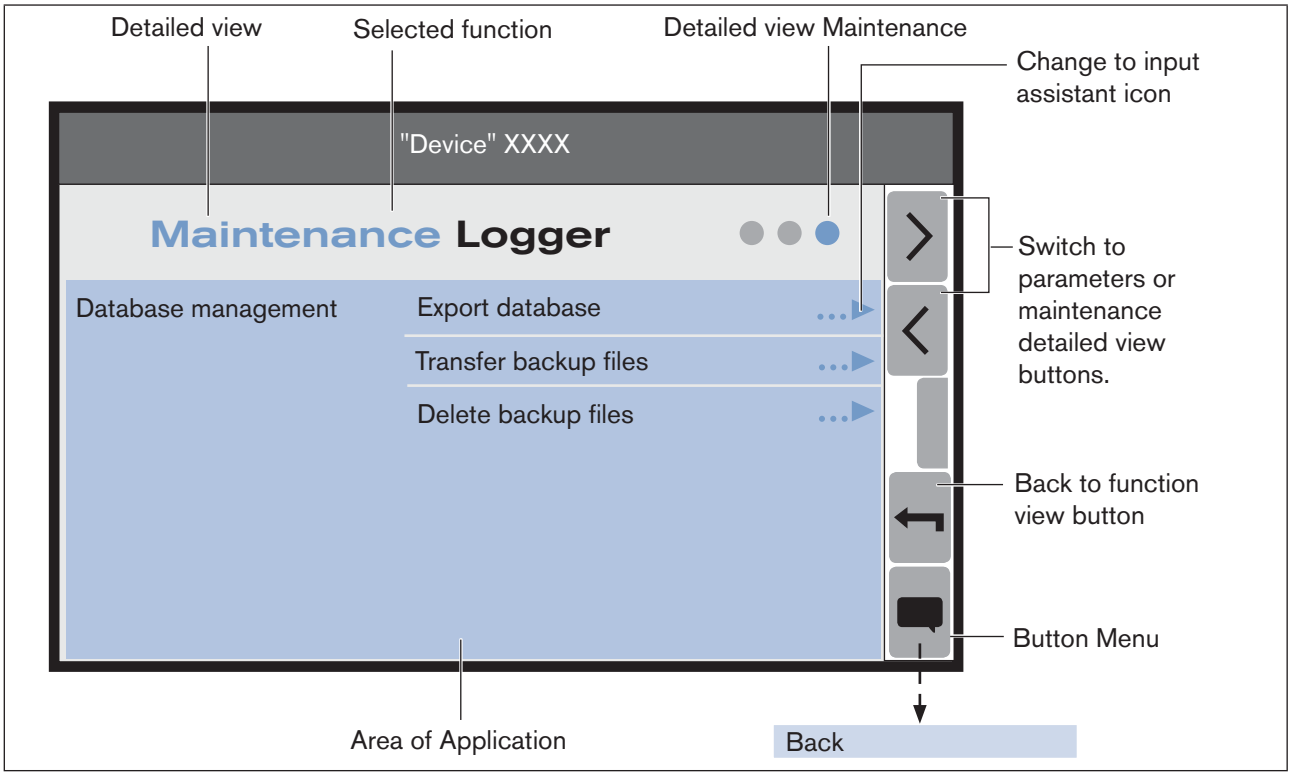

Figure 11: Detailed view 3 - Maintenance (example)

Possible actions:

- Change settings (via input screen or input assistant).
- Carry out commands (via input assistants).
- Change to Parameters or Maintenance detailed view.
- Switch back to function view.

The content of this view depends on the functions selected in the function view and the device selected in the device view.

A detailed description of the view and the required settings can be found in the operating instructions for the connected devices.

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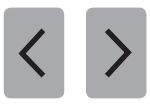
9 SETTINGS AND OPERATION

The user can change settings for the connected devices in the detailed views of the selected functions.

Switching to detailed views:

Click button / List field	Command / Description
→ Change to device view. → Select device in the navigation area.	
● The location information and the most important process data are shown in the application area.	
 or  Function view xx xx xx	Change to function view.
● The display is located on the function view of the device.	
→ Choose function in the navigation area.	
● The data of the selected function are shown in the application area.	
 or Details xx	Change to detailed view.
● The display is on the detailed view 2 - *Parameters* of the selected function.	
	Toggle between Diagnosis - Parameter - Maintenance views.
→ Display and / or change settings.	

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9.1 Set language

The language can be set on the touchscreen in desktop 1 or in user-defined views (if available).

Click button / List field	Command / Description
The touchscreen must be situated on Desktop 1 or on a user-defined view.	
 xx Language Setting	Select language setting.
○ English ● German ○ French ○ xx	Select language.
	Save and back.
The preferred language is set. The touchscreen is situated on the output view.	

The language can also be changed in the function display of the ME25-type controller module.

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9.2 Localize device

This command enables the user to identify the device selected in the navigation area with a flashing LED (on the device).

Click button / List field	Command / Description
The touchscreen must be situated on the device view.	
→ Select device in the navigation area.	
 xx Locate device xx xx	Select command.
The status LED on the selected device flashes for approx. XX min.	

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9.3 Customize desktop - value widgets

9.3.1 Add, change or delete objects

Procedure:

→ Change to value widgets on desktop view.

→ Change to edit mode.

→ Add object (value or graphical element) / change object / delete object.

→ Exit edit mode.

Change to edit mode:

Click button / List field	Command / Description
→ Change to desktop view.	
	Open menu.
Activate edit mode	Activate edit mode. » The application area is outlined in red:
» Edit mode is active.	

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Add object (value or graphical element).

Click button / List field	Command / Description
Edit mode must be active.	
	Open menu.
Select image Add value xx xx	Select command.
○ No Image ○ Fig. 1 ● Fig. 2 ○ Fig. 3 ○ Fig. 4 	Select image / value in option field or with input assistant.
	Save and back to desktop. Edit mode remains active.
Object (value or graphical element) is added to desktop.	

For a detailed description of the buttons, see chapter entitled “9.3.2 Description of buttons”, page 32.

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Move object:

Click button / List field	Command / Description
Edit mode must be active.	
büS amperage 0.25 A	Select object on touchscreen. » The object is outlined in red:
büS amperage 0.25 A	The user can move the object on the touchscreen.
» Object is positioned.	

Change display size of value:

Click button / List field	Command / Description
Edit mode must be active.	
büS amperage 0.25 A	Select value on touchscreen. » The value is outlined in red:
	Open menu.
xx xx Select value size xx	Select command.
○ Small ● Medium ○ Large ○ Full screen	Select value.
	Save and back to desktop.
» Display size of value is changed:	

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Delete object:

Click button / List field	Command / Description
Edit mode must be active.	
büS amperage **0.25** **A**	Select value / object on touchscreen. » The value / object is outlined in red:
	Open menu
xx xx xx Delete object	Select command.
» The touchscreen is situated on the desktop view. Object is deleted.	

Exit edit mode:

Click button / List field	Command / Description
	Open menu.
xx Save and exit Cancel	Select command. When leaving the editing menu via *Cancel*: all unsaved changes are deleted.
» The touchscreen is situated on the desktop view.	

Or:

Click button / List field	Command / Description
All unsaved changes are deleted.	
	Back to start page (desktop 1 of x)
» The touchscreen is situated on desktop 1.	

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9.3.2 Description of buttons

Button	Command / Description
	Save and exit » The touchscreen returns to the desktop (edit mode active). Changes are retained.
 Save and exit	
	Cancel and exit. » The touchscreen returns to the desktop (edit mode active). Only saved changes are retained.
 Cancel	
	Save changes (back up). » The touchscreen remains on the input screen or option field. Changes are saved. Note: If you exit an input mask using cancel, saved changes are retained.
 Save	
	Continue in input assistant.
	Back in input assistant.
 Reset	Do not save changes. » The touchscreen remains on the input screen or option field. Settings are set to the last point prior to saving.
	Cancel and exit. » The touchscreen returns to the start page (desktop 1 / edit mode inactive). Only saved changes are retained.

Table 6: Description of buttons

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9.4 Customize desktop - graph widget.

Procedure:

→ Change to graph widget on desktop view.

→ Change to edit mode.

→ Make settings.

→ Exit edit mode.

Change to edit mode:

Click button / List field	Command / Description
→ Change to desktop view.	
	Open menu.
Activate edit mode	Activate edit mode. » The application area is outlined in red:
» Edit mode is active.	

Configure graph:

Click button / List field	Command / Description
Edit mode must be active.	
	Open menu.
xx Configure graph xx xx	Select command.
	Select settings using input assistant.
» Graph appearance in view. Edit mode remains active.	

Exit edit mode:

Click button / List field	Command / Description
	Open menu.
xx Save and exit Cancel	Select command. When leaving the editing menu via *Cancel*: All unsaved changes are deleted.
The touchscreen is situated on the desktop view.	

Or:

Click button / List field	Command / Description
All unsaved changes are deleted.	
	Back to start page (desktop 1 of x)
The touchscreen is situated on desktop 1 of x.	

Desktop views for graph widget cannot be changed once graphs have been saved (only deleted).

For a detailed description of the buttons, see chapter entitled “9.3.2 Description of buttons”, page 32.

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9.5 Add / Remove desktop

Add desktop

Click button / List field	Command / Description
→ Change to desktop view.	
	Open menu.
Activate edit mode	Activate edit mode. » The application area is outlined in red:
» Edit mode is active.	
	Open menu.
Add desktop xx xx xx	Select command.
	Desktop type ▪ select desktop view for value widgets or ▪ desktop view for graph widget using input assistant.
» Another desktop is added.	
	Open menu.
xx Save and exit Cancel	Select command. When leaving the editing menu via *Cancel*: All unsaved changes are deleted.
» The touchscreen is situated on the newly added desktop view.	

An added desktop is always added to the last one.

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Remove desktop

Click button / List field	Command / Description
→ Change to view of desktop to be removed.	
	Open menu.
Activate edit mode	Activate edit mode. » The application area is outlined in red:
» Edit mode is active.	
	Open menu.
xx xx Remove desktop xx	Select command.
» Desktop is removed.	
	Open menu.
xx Save and exit Cancel	Select command. When leaving the editing menu via *Cancel*: All unsaved changes are deleted.
» The touchscreen is situated on the desktop view.	

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10 ERROR MESSAGES

The user interface includes a NAMUR light which displays the device status by changing color and status in accordance with NAMUR NE 107.

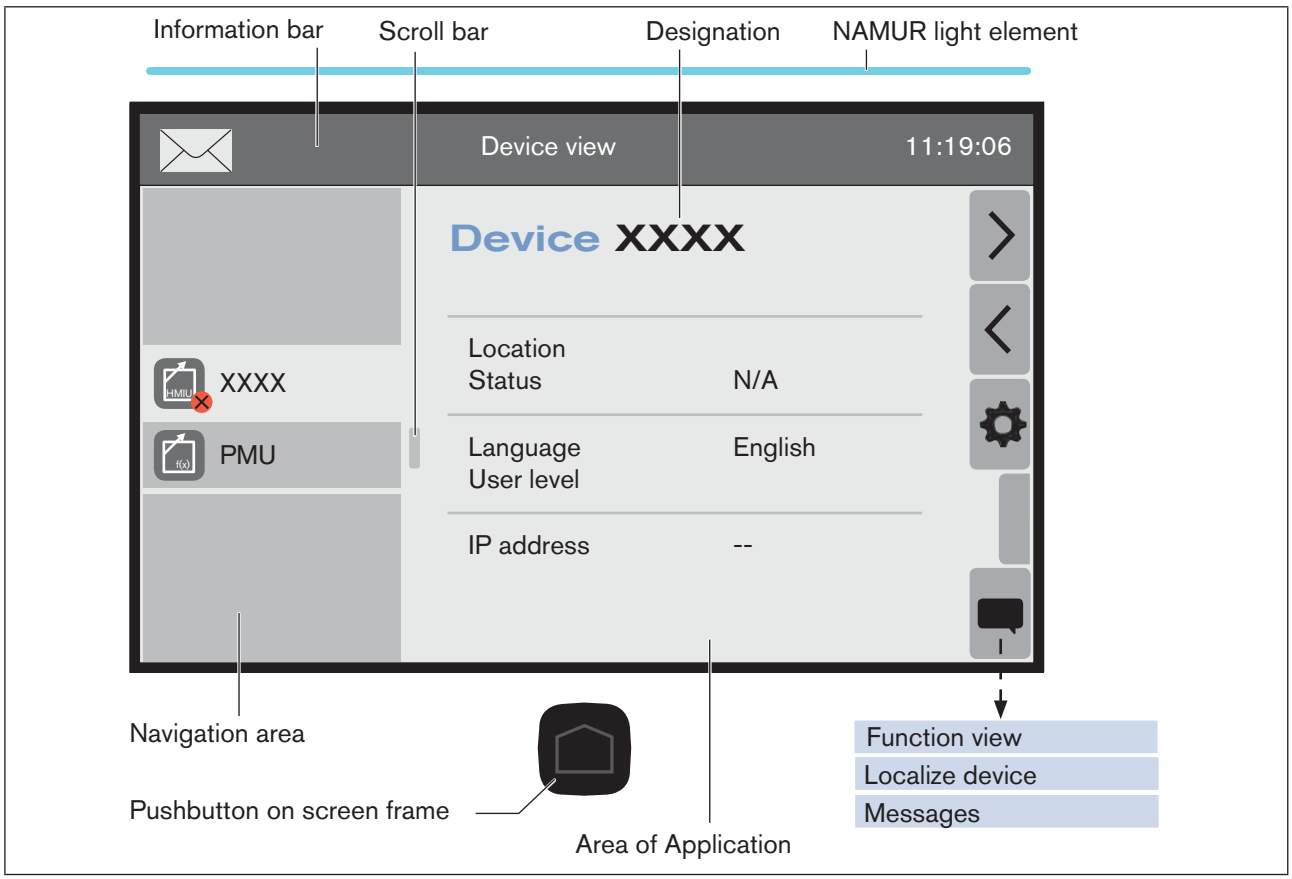

Figure 12: Device view of controller module (example)

If an error message is given for a device, the icon appears in the information bar and the affected device is indicated by an icon in the navigation area (e.g.).

Current errors for the individual devices are displayed.

The Namur light element displays the status of the overall system, i.e. all devices connected via BUS.

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).

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Display in accordance with (NE 107)		Description	Meaning
Color	Red	Error	Malfunction. Device function is not ensured.
	Orange	Warning	Ambient- or process conditions for the overall system are outside the permissible ranges. Damage to the system cannot be ruled out.
	Yellow	Out of specification	Ambient- or process conditions for the system 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 deactivated. Execution of diagnostic functions.
	White	Normal operation	Device is running within its specifications.

Table 7: Status

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Change to messages list:

Click button / List field	Command / Description
 or on device view  xx xx Messages	Change to messages list.

The touchscreen is situated on the messages view.

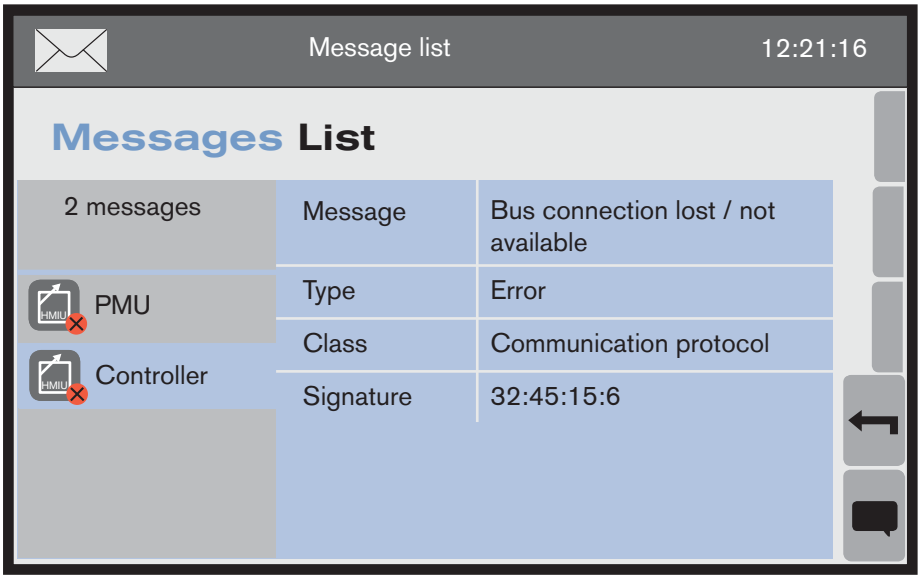

Figure 13: Message list (example)

If several devices are affected, these can be selected in the navigation area.

Error types

Error

Errors which must be acknowledged by the user

11 GLOSSARY

Graph	Name of type of display in the application area. The cyclic values of a device/product can be displayed as a curve in a coordinate system.
Graphs	Graphical display of cyclic values of a device/product in a coordinate system.

Table 8: Glossary

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