

## Type ME31

WLAN module



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Operating Instructions 1807/01\_EN-EN 00810552 / Original DE

# TABLE OF CONTENTS

<b>1</b>	<b>About these instructions</b> .....	<b>5</b>
1.1	Symbols.....	5
1.2	Definition of terms .....	5
<b>2</b>	<b>Intended use</b> .....	<b>6</b>
2.1	Countries in which the device may be used.....	6
<b>3</b>	<b>General information</b> .....	<b>7</b>
3.1	Contact address .....	7
3.2	Warranty .....	7
3.3	Information on the Internet .....	7
3.4	FCC Statement.....	7
<b>4</b>	<b>Product description</b> .....	<b>8</b>
4.1	System requirement .....	8
4.2	Description of the interface .....	9
<b>5</b>	<b>Installation</b> .....	<b>10</b>
<b>6</b>	<b>Start-up</b> .....	<b>11</b>
6.1	Connect WLAN-capable device to WLAN module, accesspoint operating mode.....	11
6.1.1	Settings in accesspoint operating mode .....	13
6.2	Integrating WLAN module into an infrastructure, client operating mode .....	13
<b>7</b>	<b>Operation</b> .....	<b>16</b>
7.1	Operation with WLAN-capable device .....	16
7.1.1	User interface of WLAN-capable device .....	16
7.1.2	Operating concept of WLAN-capable device.....	17
7.1.3	Settings on the WLAN-capable device: Switching to detailed views.....	18
7.2	Operating with Communicator .....	18
7.2.1	Communicator user interface .....	19
7.2.2	Settings in the Communicator: Switching to detailed views .....	19
7.3	Resetting the WLAN settings to factory settings.....	20
7.3.1	Resetting the WLAN settings to factory settings on the WLAN module .....	20
7.3.2	Resetting the WLAN settings to factory settings.....	20
7.4	Starting Quickstart.....	21
7.5	User level (access rights).....	22
7.5.1	Changing the user level (access rights) .....	22
7.5.2	Logging off the user level .....	23
7.6	Setting language.....	23
7.7	Activating and deactivating password protection .....	24
7.8	Displaying messages.....	25
7.9	Editing views.....	25
7.9.1	Adding new view.....	26
7.9.2	Deleting view.....	26
7.9.3	Changing the layout of the view .....	26
7.9.4	Changing value .....	27

7.9.5	Changing unit.....	28
7.9.6	Changing decimal places .....	30
7.9.7	Changing title of the view .....	31
7.10	Shortcut .....	31
7.10.1	Creating shortcut .....	31
7.10.2	Deleting shortcut.....	32
7.11	Where am I? .....	32
7.12	Displays and messages.....	33
7.12.1	Display of device status.....	33
7.12.2	Displaying messages .....	34
<b>8</b>	<b>Troubleshooting .....</b>	<b>35</b>
<b>9</b>	<b>Menu tree of the WiFi function .....</b>	<b>36</b>
<b>10</b>	<b>WiFi Open Source license.....</b>	<b>38</b>
10.1	lwIP - lightweight TCP/IP.....	38
10.2	jQuery JavaScript Library .....	38
10.3	TouchSwipe.js - jQuery plugin.....	38
10.4	sprintf.js - JavaScript sprintf implementation.....	39

# 1 ABOUT THESE INSTRUCTIONS

The instructions describe the basic operation.

→ Keep these instructions ready to hand at the operation site.



## Important safety information.

Safety instructions and information for using the communication-capable devices or products can be found in the respective operating instructions.

- ▶ Carefully read instructions.

## 1.1 Symbols



### DANGER!

Warns of an immediate danger.

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



### WARNING!

Warns of a potentially dangerous situation.

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



### CAUTION!

Warns of a possible danger.

- ▶ Failure to observe the warning may result in moderate or minor injuries.

### ATTENTION!

Warns of damage to property.

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



Indicates important additional information, tips and recommendations.



Refers to information in these instructions or in other documentation.

- ▶ Designates an instruction for risk prevention.

→ Designates a procedure which you must carry out.

- ✔ Indicates a result.

## 1.2 Definition of terms

In these instructions the term "device" denotes the following device types:

Communication-capable devices or products.

## 2 INTENDED USE



The WLAN module and the operating software are designed for the communication of Bürkert devices.

- ▶ Use the device for its intended purpose only. Non-intended use of the device may be dangerous to people, nearby equipment and the environment.
- ▶ Correct transportation, correct storage as well as correct installation, commissioning, operation and maintenance are essential for reliable and problem-free operation.
- ▶ When using the device, observe the permitted data, operating conditions and application conditions. This information can be found in the contractual documents, the operating instructions and on the type label.
- ▶ Use the device only in conjunction with third-party devices and components recommended and authorized by Bürkert.

### 2.1 Countries in which the device may be used

→ Use device only in Europe, USA and Canada (WLAN approval).

## 3 GENERAL INFORMATION

### 3.1 Contact address

#### Germany

Bürkert Fluid Control Systems  
Sales Center  
Christian-Bürkert-Str. 13-17  
D-74653 Ingelfingen  
Telephone: + 49 (0) 7940 - 10 91 111  
Telefax: + 49 (0) 7940 - 10 91 448  
E-mail: info@burkert.com

#### International

Contact addresses can be found on the final pages of the printed operating instructions. And also on the Internet at: <http://www.burkert.com>

### 3.2 Warranty

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

### 3.3 Information on the Internet

The operating instructions and data sheets for Bürkert products can be found on the Internet at: <http://www.buerkert.de>

### 3.4 FCC Statement

Contains FCC ID XF6-RSWC201



This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

IC: 8407A -RSWC201

This device complies with the Canadian ICES-003 Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

## 4 PRODUCT DESCRIPTION

The WLAN module can be used to operate a connected Bürkert product conveniently with a WLAN-capable device (Smartphone, Tablet, PC).

The following communications are possible:

- Direct connection of a WLAN-capable device to the WLAN module (accesspoint operating mode).
- In a WLAN infrastructure with integrated WLAN module (client operating mode).

### Important information:

- Maximum 4 WLAN-capable devices can establish a connection in accesspoint operating mode of the WLAN module (these devices receive an IP address).
- Only a simultaneous browser session is supported, i.e. the website of the device cannot be used simultaneously by several users. The following website is displayed to the next user:

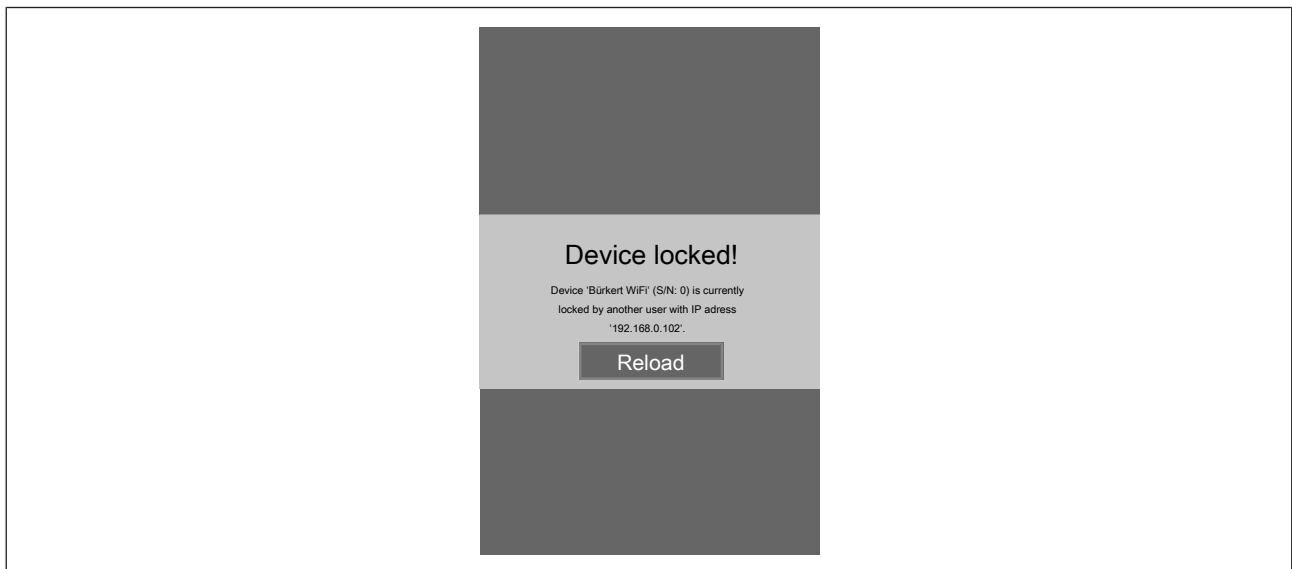


Fig. 1: Website

### 4.1 System requirement

The following browsers are used:

- Windows 7/8.1/10: IE11, Edge, Google Chrome, from version 53
- Android with Google: Chrome, from version 53
- Apple: Safari, from iOS 9.3.5

Communication with Bürkert Communicator possible from version V3.3.

FLOWave: possible from firmware version A.02.00.00.



## 4.2 Description of the interface

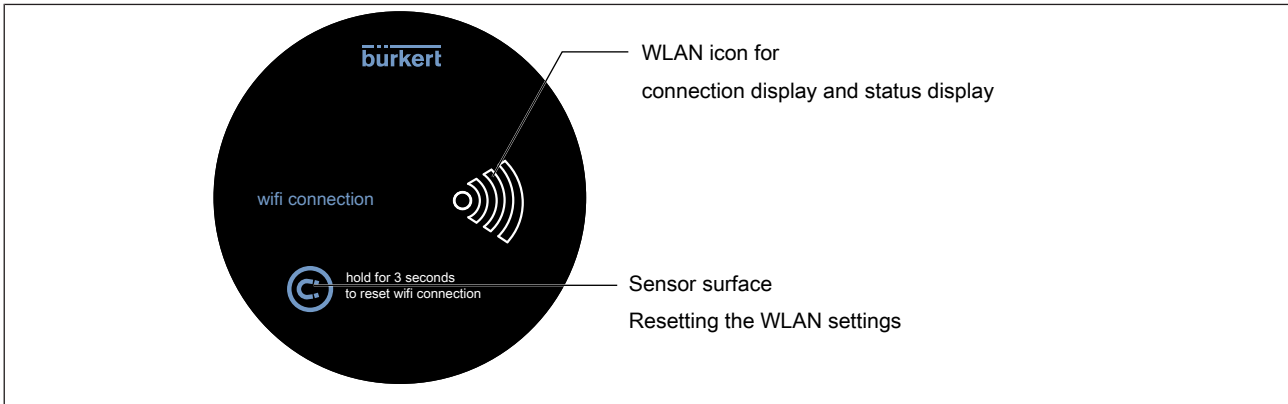


Fig. 2: Description of interface

## 5 INSTALLATION



The installation of the WLAN module on a communication-capable device can be found in the replacement instructions which are enclosed with the WLAN module when placing the order.

## 6 START-UP

### 6.1 Connect WLAN-capable device to WLAN module, accesspoint operating mode



For reasons of safety we recommend using only clients with current service packs in accesspoint operating mode.



The WLAN range is limited in the free field to approx. 10 m.

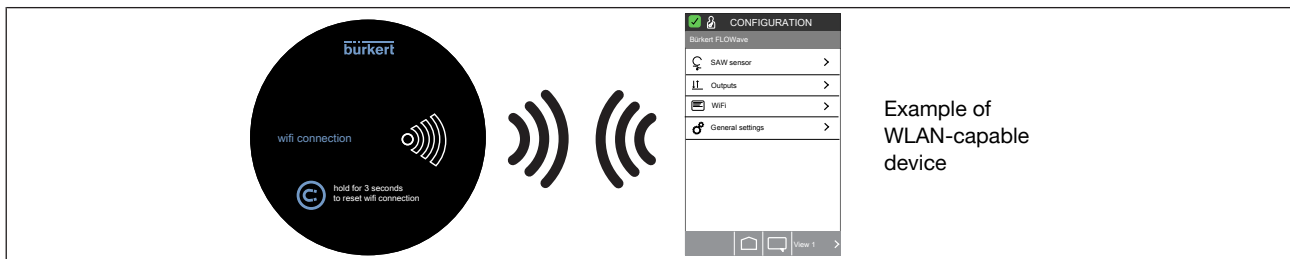


Fig. 3: Accesspoint operating mode

→ Connect communication-capable device with WLAN module to the power supply.

✓ WLAN icon flashes (alternately 2x quickly on and off).

→ Wait until WLAN icon glows white.

→ Search on the WLAN-capable device (e.g. laptop, smartphone, tablet) for WLAN connections.

→ Select **Buerkert WiFi** and click **Connect**.

→ Enter security key or password: mydevice.

→ Click **OK**.

→ For PC, from Windows 7: In the "Specify network address" window specify either home address or workstation network.

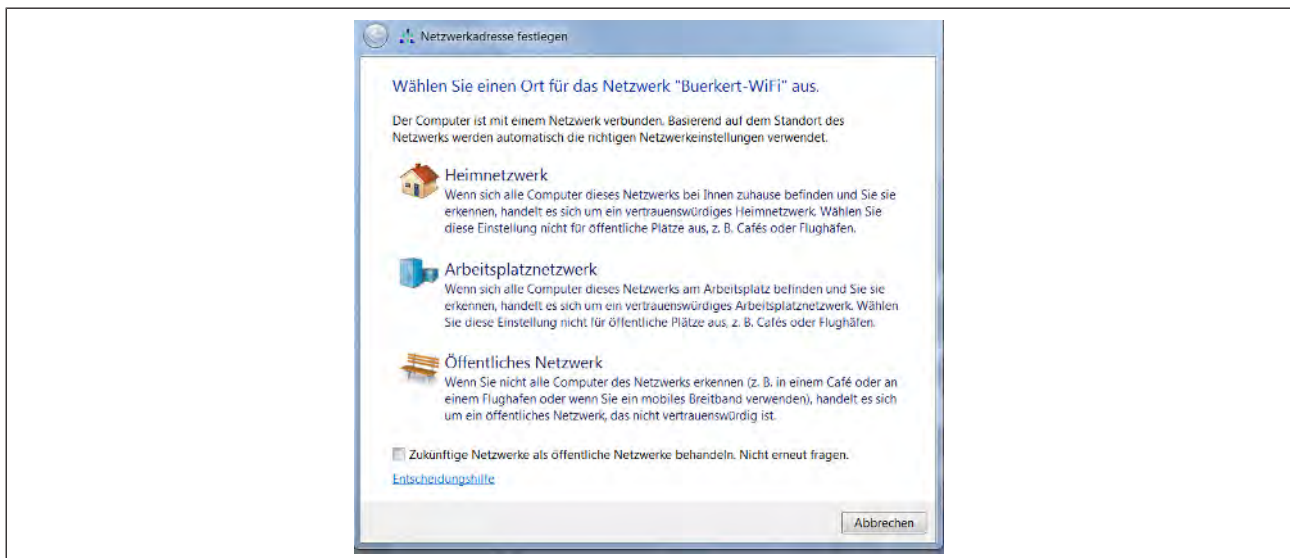


Fig. 4: Specify network address

→ Start browser and input following IP address: 192.168.0.100 or <http://buerkert.wifi>

- ✓ When the connection is successful, the WLAN icon flashes white on the WLAN module.
- ✓ The splash screen is displayed in the browser.

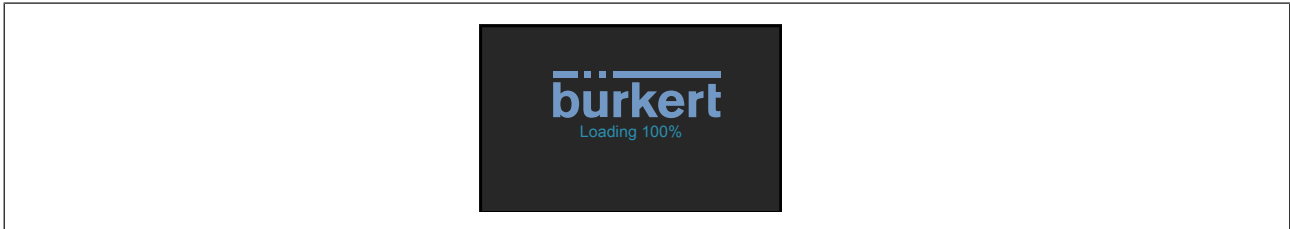


Fig. 5: Splash screen

When the website has been loaded for the first time, the following view appears:

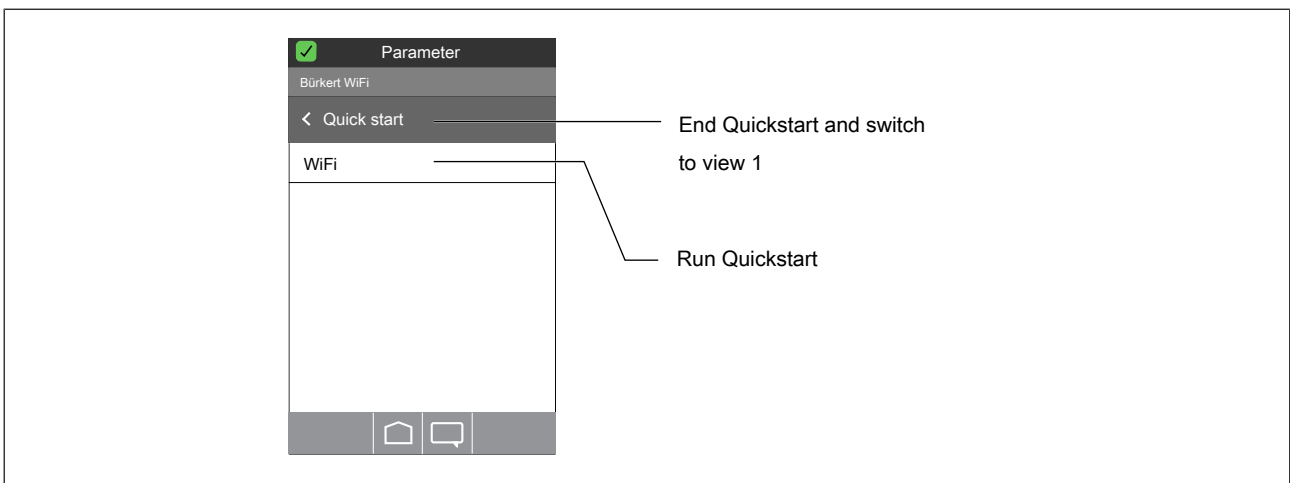


Fig. 6: Quickstart

The Quickstart is a wizard which guides the user through the following settings:

- Set language (DE, EN or FR)

Display of the current settings.

- Set time zone
  - Select summer time yes, no
  - Set year, month, day
  - Set hour, minute

Display of the new settings.

- Set system of units (metric, imperial or U.S.)

**Running Quickstart:**

→ **WiFi** ----->

→ Select settings.

- ✓ Settings are accepted.

**Not running Quickstart and switching to view 1:**


→ **Quick start** ----->

- ✓ Connection to the WLAN module has been established. The user can now make settings on the product or device or display process data.



The description of the settings can be found in the respective operating instructions for the device.

### 6.1.1 Settings in accesspoint operating mode

User level: Installer 

Menu or function	Values or description
Device with WLAN module	
> WiFi	
> Parameter	
> WiFi settings	Wizard starts
Current settings	shows current settings
Operation mode	<input type="radio"/> Client <input checked="" type="radio"/> Accesspoint
Network name	
Password	Network password
Security	<input type="radio"/> WPA <input checked="" type="radio"/> WPA2
Encryption	<input type="radio"/> TKIP <input checked="" type="radio"/> AES
Channel	<input checked="" type="radio"/> Auto scan <input type="radio"/> 1 : <input type="radio"/> 11
Region	<input type="radio"/> US <input checked="" type="radio"/> Europe <input type="radio"/> Japan
Commit new settings	

Tab. 1: Menu tree

## 6.2 Integrating WLAN module into an infrastructure, client operating mode



For reasons of safety we recommend, in client operating mode, using an accesspoint which has been specially patched for operation with unsecured clients.



The WLAN range is limited in the free field to approx. 10 m.

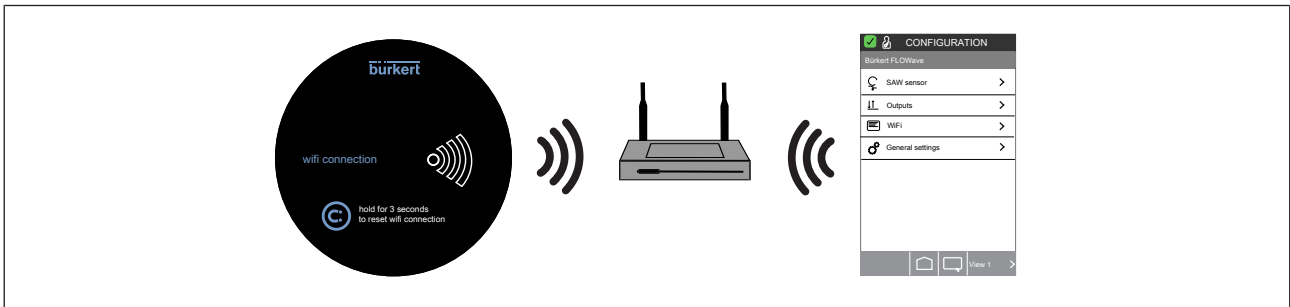


Fig. 7: Client operating mode

**Prerequisite:**

- There must be a connection between a WLAN-capable device and a WLAN module (see chapter Accesspoint operating mode).
- A router with active WLAN and known access data must be active.

User level: Installer

Menu or function	Values or description
Device with WLAN module	
> <b>WiFi</b>	
> <b>Parameter</b>	
> <b>WiFi settings</b>	Wizard starts
<b>Current settings</b>	shows current settings
<b>Operation mode</b>	<input checked="" type="radio"/> <b>Client</b> <input type="radio"/> <b>Accesspoint</b>
<b>Network name</b>	
<b>Password</b>	Network password
<b>Use static IP address</b>	<input checked="" type="radio"/> <b>Off</b> <input type="radio"/> <b>On</b>
<b>Hostname</b>	
<b>Commit new settings</b>	

Tab. 2: Menu tree

**Integrating WLAN module into an infrastructure, client operating mode:**

→ **WiFi settings** ----->

The wizard starts.

→ > ----->

→ Select **Client** operating mode.

→ > ----->

→ Set network name.

→ > ----->

→ Set network password.



→ Use static IP address. Select **On** or **Off**.



→ Select hostname.



- ✓ The following text appears: Please wait...  
The WLAN module restarts and loads the changed settings.

Note: In doing so, the connection to the WLAN module is lost.

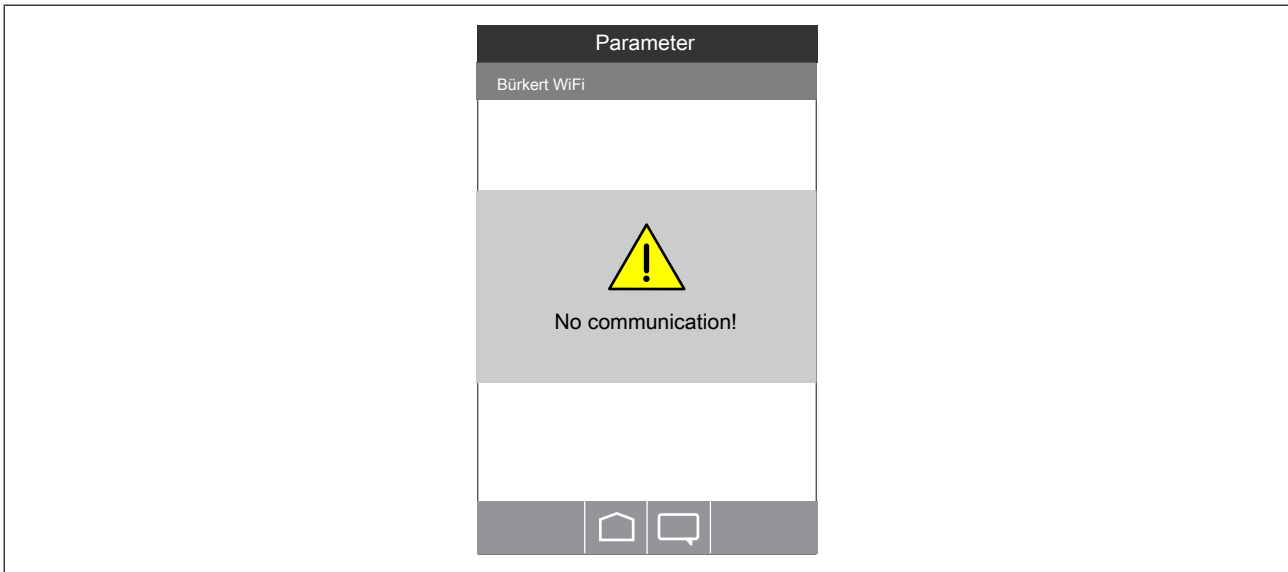


Fig. 8: Communication:

Re-establishing the connection:

- Wait until the WLAN icon on the WLAN module glows white.
- Search for WLAN on the WLAN-capable device.
- Select WLAN infrastructure into which the WLAN-capable device is integrated and click Connect.
- ✓ The connection has been restored. The WLAN icon flashes white.

----- Info: Switching to the views -----

#### Switching to configuration, functions (WLAN-capable device):

→ Of any view:  -----> **< CONFIGURATION**

#### Switching to detailed views (WLAN-capable device):

→ Select function -----> if required: **< DIAGNOSTICS**, **MAINTENANCE >** Switch to detailed view Diagnostics or Maintenance

#### Switching to detailed views (Communicator):

→ Select device (in the navigation area) -----> Select function (in the navigation area) -----> if required: Switch to detailed view Diagnostics or Maintenance

## 7 OPERATION



Configuration and operation of the device, e.g. FLOWave, can be found in the operating instructions of the device.

### 7.1 Operation with WLAN-capable device

#### 7.1.1 User interface of WLAN-capable device

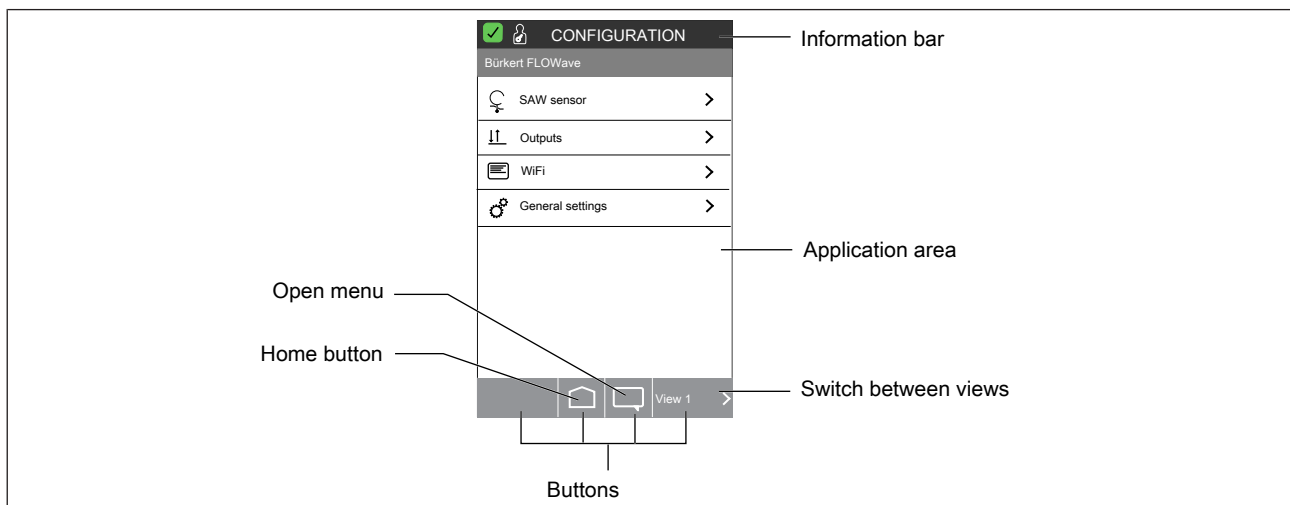


Fig. 9: User interface

Area	Description
Information bar	Name of the device, function or view Display of device status
Buttons	Assignment of the buttons has been adjusted to the view. e. g. switch between views, menu, ...
Application area	Name of the view or connected device. Display of process values, graphs or input options in accordance with the selected view, device or function. Configuration: Selection of functions Detailed views: Setting and values according to the selected function.
Scroll bar	Indicates the position on the screen. Only available if the contents of the application area are greater than the user interface.

Tab. 3: User interface



## 7.1.2 Operating concept of WLAN-capable device

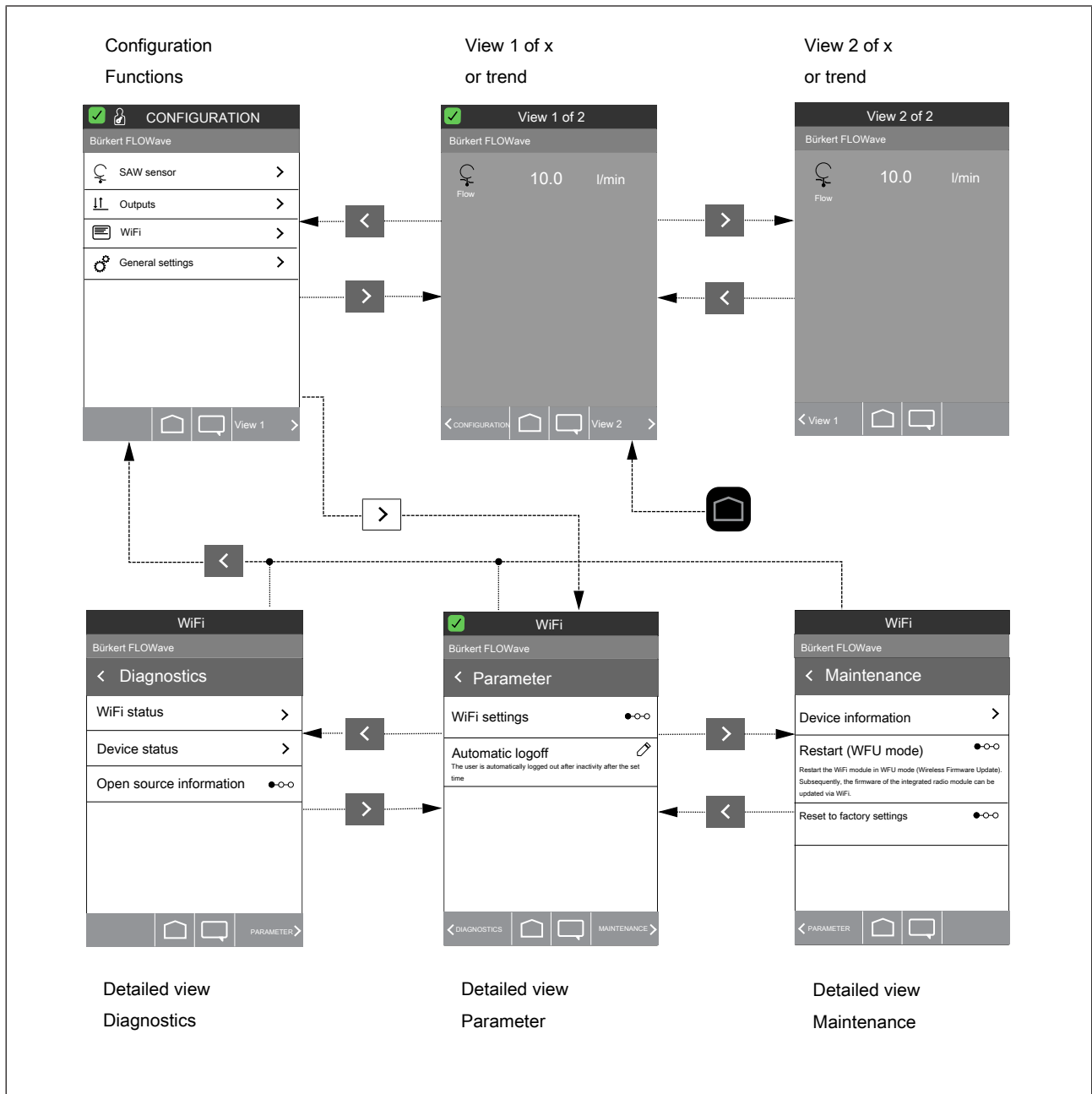


Fig. 10: Operating concept

View	Description
View 1 of x	View for values User-customizable view.
Trend	View for presenting recorded process values in graphs.
Configuration, functions	The functions are displayed in the application area and can be selected.
Detailed view Diagnostics	Data presentation view. The settings of the function selected in the configuration are displayed in the application area and can be selected.

View	Description
Detailed view Parameter	View for presenting and setting data. The settings of the function selected in the configuration are displayed in the application area and can be selected.
Detailed view Maintenance	View for presenting and setting additional data and functions. The settings of the function selected in the configuration are displayed in the application area and can be selected.

Tab. 4: Description of views

### 7.1.3 Settings on the WLAN-capable device: Switching to detailed views

The user can make settings on connected devices in the detailed views:

- Select function in configuration.
- Switch to Parameter detailed view.
- If required, switch to Diagnostics or Maintenance detailed view.

----- Info: Switching to the views -----

#### Switching to configuration, functions (WLAN-capable device):

→ Of any view:  -----> **< CONFIGURATION**

#### Switching to detailed views (WLAN-capable device):

→ Select function -----> if required: **< DIAGNOSTICS**, **MAINTENANCE >** Switch to detailed view Diagnostics or Maintenance

## 7.2 Operating with Communicator

The Bürkert Communicator enables the user to conveniently set and monitor application-specific parameters of the connected system.



The general description of the Bürkert Communicator can be found on the Bürkert website.

## 7.2.1 Communicator user interface

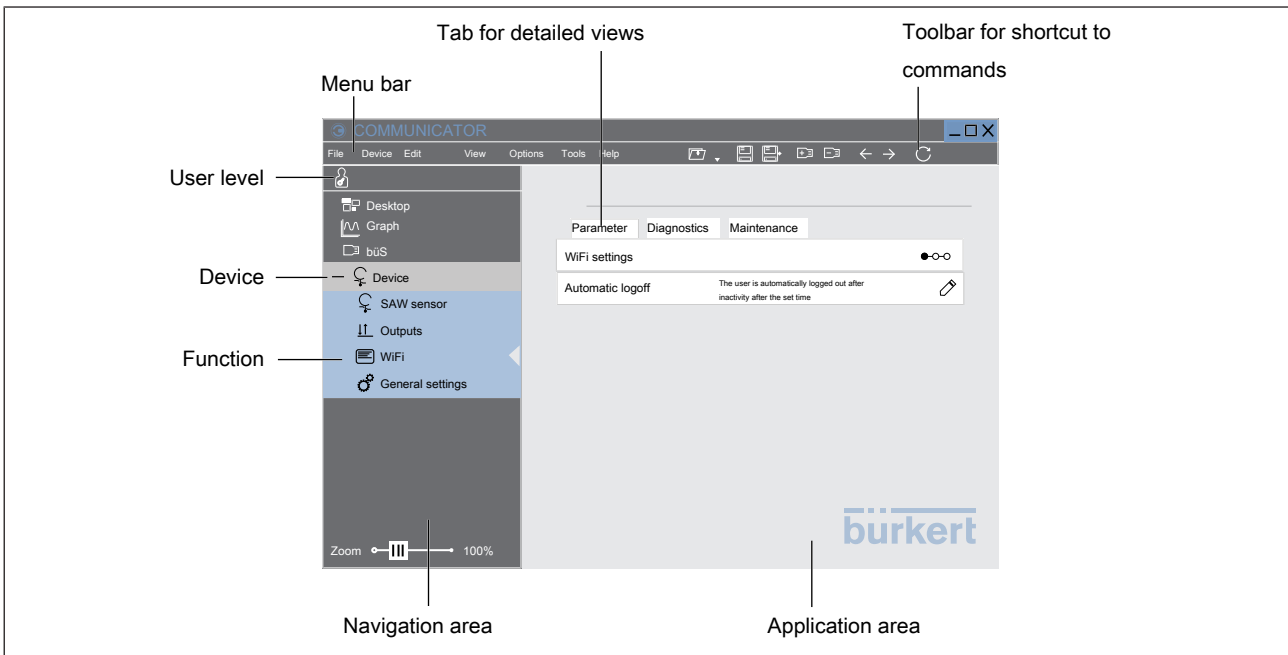


Fig. 11: User interface

Area	Description
Menu bar Toolbar	Menus and commands for operation of the Communicator
Application area	Display of process values, graphs or input options in accordance with the selected view, device or function.
Navigation area	Display of the user level and error messages Selection of connected interfaces Selection of connected devices on the interface Selection of functions according to the selected device.

Tab. 5: Description of the areas

## 7.2.2 Settings in the Communicator: Switching to detailed views

The user can make settings on connected devices in the detailed views:

- Select device in the navigation area.
- Select function in the navigation area.
- If required, switch to Diagnostics or Maintenance detailed view.

----- Info: Switching to the views -----

### Switching to detailed views (Communicator):

- Select device (in the navigation area) -----> Select function (in the navigation area) -----> if required: Switch to detailed view Diagnostics or Maintenance

## 7.3 Resetting the WLAN settings to factory settings

### 7.3.1 Resetting the WLAN settings to factory settings on the WLAN module

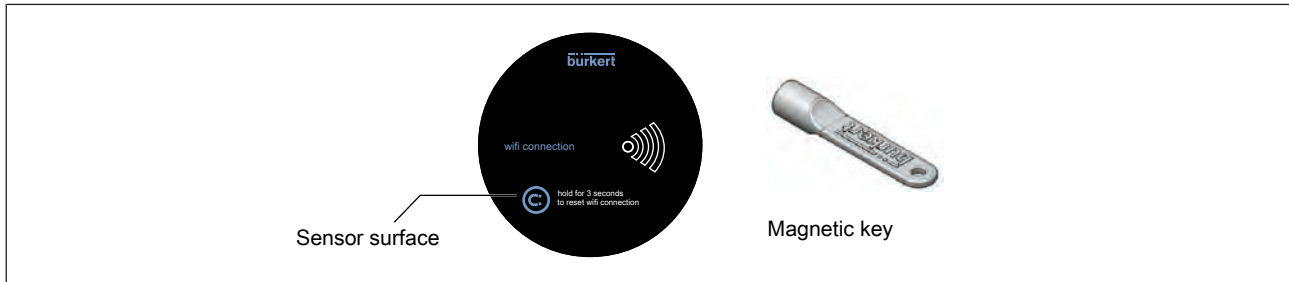


Fig. 12: Resetting to factory settings

→ Place and hold magnetic key on sensor surface.

- ✓ WLAN icon flashes red.  
After 4 seconds (magnet remains on sensor surface): WLAN icon glows red.

→ Remove magnetic key.

- ✓ WLAN module is reset to factory settings.  
WLAN icon glows white.

Factory settings: The WLAN module is in accesspoint operating mode with default WLAN settings.

### 7.3.2 Resetting the WLAN settings to factory settings

User level:

Menu or function	Values or description
Device with WLAN module	
> <b>WiFi</b>	
> <b>Maintenance</b>	
> <b>Reset to factory settings</b>	Wizard starts

Tab. 6: Menu tree

Resetting the WLAN settings to factory settings:

→ **Reset to factory settings** ----->

- ✓ The wizard starts.

Factory settings: The WLAN module is in accesspoint operating mode with default WLAN settings.

----- Info: Switching to the views -----

Switching to configuration, functions (WLAN-capable device):

→ Of any view: -----> **< CONFIGURATION**

Switching to detailed views (WLAN-capable device):


→ Select function -----> if required: **< DIAGNOSTICS**, **MAINTENANCE >** Switch to detailed view Diagnostics or Maintenance

**Switching to detailed views (Communicator):**

→ Select device (in the navigation area) -----> Select function (in the navigation area) -----> if required:  
Switch to detailed view Diagnostics or Maintenance

## 7.4 Starting Quickstart

Possible on the WLAN-capable device only.

User level: Installer 

Menu or function	Values or description
Device with WLAN module	
> <b>General settings</b>	
> <b>Parameter</b>	
> <b>Quick start</b>	
> <b>WiFi</b>	Wizard starts
> <b>Language</b>	<input type="radio"/> <b>English</b> <input checked="" type="radio"/> <b>German</b> <input type="radio"/> <b>French</b>
> <b>Current date/time</b>	
> <b>Time zone</b>	: <input type="radio"/> +00: London <input checked="" type="radio"/> +01: Paris <input type="radio"/> +02: Athens :
> <b>Daylight savings</b>	<input type="checkbox"/> <b>Off</b> <input type="checkbox"/> <b>On</b>
> <b>Year</b>	
> <b>Month</b>	
> <b>Days</b>	
> <b>Hours</b>	
> <b>Minutes</b>	
> <b>Current date/time</b>	
> <b>Physical units</b>	<input checked="" type="radio"/> <b>Metric</b> <input type="radio"/> <b>Imperial</b> <input type="radio"/> <b>U.S.</b>

Tab. 7: Menu tree

**Starting Quickstart:**

→ **Quick start** ----->

→ **WiFi** ----->

- ✓ The wizard starts.

----- Info: Switching to the views -----

Switching to configuration, functions (WLAN-capable device):

→ Of any view:  -----> **< CONFIGURATION**

Switching to detailed views (WLAN-capable device):

→ Select function -----> if required: **< DIAGNOSTICS, MAINTENANCE >** Switch to detailed view Diagnostics or Maintenance


## 7.5 User level (access rights)

When the device has been started up, the factory setting for the user level is the installer.

→ To protect the device from unintentional operation, activate password protection.

### 7.5.1 Changing the user level (access rights)

The user can change the user level in all views.

Menu or function	Values or description
	
> <b>Change user level</b>	
> <b>Advanced user</b>	Enter PIN
> <b>Installer</b>	Enter PIN
> <b>Bürkert</b>	For Bürkert Service only
> <b>Logout*</b>	

Tab. 8: Menu tree

\*only for set user level Advanced user and Installer

Changing the user level:

→  -----> **Change user level** ----->

→ Select user level ----->

→ Set PIN ----->

- ✓ The user level is set and the icon appears on the information bar.

The selected user level is active until:

- The user logs off the user level.
- After an adjustable period.

The user can select the following user levels with appropriate rights:

Icon	User level	Description
	<b>User</b>	No password required <ul style="list-style-type: none"> <li>▪ Can read specified values</li> <li>▪ Restricted rights to change values</li> </ul>
	<b>Advanced user</b>	Password required (standard password: 5678) <ul style="list-style-type: none"> <li>▪ Can read specified values</li> <li>▪ Restricted rights to change values</li> </ul>
	<b>Installer</b>	Password required (standard password: 1946) <ul style="list-style-type: none"> <li>▪ Can read all values</li> <li>▪ Extended rights to change values.</li> </ul>
	<b>Bürkert</b>	Password required <ul style="list-style-type: none"> <li>▪ For Bürkert employees only</li> </ul>

Tab. 9: User levels

### 7.5.2 Logging off the user level

The user can log off the user level in all views.

Menu or function	Values or description
> <b>Change user level</b>	
> <b>Advanced user</b>	Enter PIN
> <b>Installer</b>	Enter PIN
> <b>Bürkert</b>	For Bürkert Service only
> <b>Logout*</b>	

Tab. 10: Menu tree

\*only for set user level Advanced user and Installer

Logging off the user level:



✓ The user level has been logged off.

### 7.6 Setting language

User level: User

Menu or function	Values or description
Device	
> <b>General settings</b>	
> <b>Parameter</b>	

Menu or function	Values or description
> <b>Language</b>	<input checked="" type="radio"/> <b>English</b> <input type="radio"/> <b>German</b> <input type="radio"/> <b>French</b>

Tab. 11: Menu tree

**Setting the language:**

→ **Language** -----▶

Possible selection:

<input checked="" type="radio"/> <b>English</b>	
<input type="radio"/> <b>German</b>	
<input type="radio"/> <b>French</b>	

→ Select language.

✔ The language has been set.

----- Info: Switching to the views -----

**Switching to configuration, functions (WLAN-capable device):**

→ Of any view:  -----▶ **< CONFIGURATION**

**Switching to detailed views (WLAN-capable device):**

→ Select function -----▶ if required: **< DIAGNOSTICS, MAINTENANCE >** Switch to detailed view Diagnostics or Maintenance

**Switching to detailed views (Communicator):**

→ Select device (in the navigation area) -----▶ Select function (in the navigation area) -----▶ if required: Switch to detailed view Diagnostics or Maintenance

## 7.7 Activating and deactivating password protection

Possible on the WLAN-capable device only.

The user uses this function to activate or deactivate the user levels (user, Advanced user, Installer) with the corresponding access rights.

If the password protection is deactivated, the current Installer user level is set.

User level: Installer 

Menu or function	Values or description
Device	
> <b>General settings</b>	
> <b>Parameter</b>	
> <b>Passwords</b>	



Menu or function	Values or description
> Password protection	On Off

Tab. 12: Menu tree

Activating and deactivating password protection:

- Password protection ----->
- Select On or Off.

----- Info: Switching to the views -----

Switching to configuration, functions (WLAN-capable device):
→ Of any view:  -----> < CONFIGURATION

Switching to detailed views (WLAN-capable device):
→ Select function -----> if required: < DIAGNOSTICS, MAINTENANCE > Switch to detailed view Diagnostics or Maintenance

## 7.8 Displaying messages

The user can select messages in all views.

User level: User

Menu or function	Values or description
> Messages overview	
> Message 1	Further information on Message 1
> Message 2	Further information on Message 2

Tab. 13: Menu tree

Displaying messages:

- -----> Messages overview ----->
- The overview of messages is displayed.
- Select message.
- Further information on the message is displayed.

## 7.9 Editing views

The user can edit the views x of x:

- Add or delete views (1 to 4 views possible)
- Display selected values
- Represent selected values graphically (only as trend)
- Change representation of the values (unit or decimal places)


- Change title of the view

### 7.9.1 Adding new view

The user uses this function to create a new view according to the current view.

Maximum number of views (and trend views): 4

User level: User 

Menu or function	Values or description
	
> <b>Add new view</b>	

Tab. 14: Menu tree


Adding new view:




- ✓ The view has been added.

### 7.9.2 Deleting view

The user uses this function to delete the current view.

User level: User 

Menu or function	Values or description
	
> <b>Add new view</b>	

Tab. 15: Menu tree


Deleting view:



- ✓ The view has been deleted.

### 7.9.3 Changing the layout of the view

User level: User 

Menu or function	Values or description
View x of x	
	
> <b>Change layout</b>	<input checked="" type="radio"/> <b>1 value</b> <input type="radio"/> <b>2 values</b> <input type="radio"/> <b>4 values</b> <input type="radio"/> <b>Trend</b> <input type="radio"/> <b>Trend with 2 values</b>
	Is a graphical representation of selectable values

Tab. 16: Menu tree

Changing layout:

→ Select view.



Possible selection:

<input checked="" type="radio"/> 1 value	
<input type="radio"/> 2 values	
<input type="radio"/> 4 values	
<input type="radio"/> Trend	
<input type="radio"/> Trend with 2 values	

→ Select layout ----->

✔ The layout has been set.

### 7.9.4 Changing value

The user uses this function to select the displayed values.

User level: User

Menu or function	Values or description
View x of x	
Menu for layout 1 value and trend:	
> <b>Change value</b>	<input checked="" type="radio"/> Value 1 <input type="radio"/> Value 2 : The possible values of the device are displayed here.
Menu for layout 2 values and trend with 2 values:	
> <b>Change value</b>	
> <input checked="" type="radio"/> <b>Change value 1</b> > <input type="radio"/> <b>Change value 2</b>	<input checked="" type="radio"/> Value 1 <input type="radio"/> Value 2 : The possible values of the device are displayed here. Note: For each value to be changed, the menu must be reselected.
Menu for layout 4 values:	
> <b>Change value</b>	
> <input checked="" type="radio"/> <b>Change value 1</b> > <input type="radio"/> <b>Change value 2</b> > <input type="radio"/> <b>Change value 3</b> > <input type="radio"/> <b>Change value 4</b>	<input checked="" type="radio"/> Value 1 <input type="radio"/> Value 2 : The possible values of the device are displayed here. Note: For each value to be changed, the menu must be reselected.

Tab. 17: Menu tree

**Changing value for layout 1 value and trend:**

→ Select view.

→  -----> **Change value** ----->

Possible selection:

<input checked="" type="radio"/> Value 1	
<input type="radio"/> Value 2	


The possible values of the device are displayed here.

→ Select value ----->

The value has been changed.

**Changing value for layout 2 or 4 values and trend with 2 values:**

→ Select view.

→  -----> **Change value** ----->

Possible selection:

<input checked="" type="radio"/> <b>Change value 1</b>	
<input type="radio"/> <b>Change value 2</b>	
:	

→ Select value to be changed ----->

Possible selection:

<input checked="" type="radio"/> Value 1	
<input type="radio"/> Value 2	


The possible values of the device are displayed here.


→ Select value ----->

The value has been changed.

**7.9.5 Changing unit**

The user uses this function to select the displayed values.

User level: User 

Menu or function	Values or description
View x of x	
	
Menu for layout 1 value and trend:	
> <b>Change unit</b>	<input checked="" type="radio"/> Unit 1 <input type="radio"/> Unit 2 : The possible units of the value are displayed here.
Menu for layout 2 values and trend with 2 values:	

Menu or function		Values or description	
	> <b>Change unit</b>		
	> <input checked="" type="radio"/> <b>Change value 1</b> > <input type="radio"/> <b>Change value 2</b>	<input checked="" type="radio"/> Unit 1 <input type="radio"/> Unit 2 :	The possible units of the value are displayed here. Note: For each unit to be changed, the menu must be reselected.
	Menu for layout 4 values:		
	> <b>Change unit</b>		
	> <input checked="" type="radio"/> <b>Change value 1</b> > <input type="radio"/> <b>Change value 2</b> > <input type="radio"/> <b>Change value 3</b> > <input type="radio"/> <b>Change value 4</b>	<input checked="" type="radio"/> Unit 1 <input type="radio"/> Unit 2 :	The possible units of the value are displayed here. Note: For each unit to be changed, the menu must be reselected.

Tab. 18: Menu tree

**Changing unit for layout 1 value and trend:**

→ Select view.



Possible selection:

<input checked="" type="radio"/> Unit 1	
<input type="radio"/> Unit 2	

The possible units of the value are displayed here.

→ Select unit ----->

The unit has been changed.

**Changing unit for layout 2 or 4 values and trend with 2 values:**

→ Select view.



Possible selection:

<input checked="" type="radio"/> <b>Change value 1</b>	
<input type="radio"/> <b>Change value 2</b>	
:	

→ Select unit to be changed ----->

Possible selection:

<input checked="" type="radio"/> Unit 1	
<input type="radio"/> Unit 2	


The possible units of the value are displayed here.

→ Select unit ----->

The unit has been changed.

## 7.9.6 Changing decimal places

User level: User 

Menu or function	Values or description
View x of x	
	
Menu for layout 1 value and trend:	
> <b>Fractional digits</b>	<input checked="" type="radio"/> Decimal places 1 <input type="radio"/> Decimal places 2 : The possible decimal places of the value are displayed here.
Menu for layout 2 values and trend with 2 values:	
> <b>Fractional digits</b>	
> <input checked="" type="radio"/> <b>Change value 1</b> > <input type="radio"/> <b>Change value 2</b>	<input checked="" type="radio"/> Decimal places 1 <input type="radio"/> Decimal places 2 : The possible decimal places of the value are displayed here. Note: For each decimal place to be changed, the menu must be reselected.
Menu for layout 4 values:	
> <b>Fractional digits</b>	
> <input checked="" type="radio"/> <b>Change value 1</b> > <input type="radio"/> <b>Change value 2</b> > <input type="radio"/> <b>Change value 3</b> > <input type="radio"/> <b>Change value 4</b>	<input checked="" type="radio"/> Decimal places 1 <input type="radio"/> Decimal places 2 : The possible decimal places of the value are displayed here. Note: For each decimal place to be changed, the menu must be reselected.

Tab. 19: Menu tree

### Changing decimal places for layout 1 value and trend:

→ Select view.

→  -----> **Fractional digits** ----->

Possible selection:

<input checked="" type="radio"/> Decimal places 1	
<input type="radio"/> Decimal places 2	

The possible decimal places of the value are displayed here.

→ Select decimal places ----->

The decimal places have been changed.

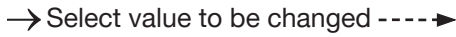
### Changing decimal places for layout 2 or 4 values and trend with 2 values:

→ Select view.



Possible selection:

<input checked="" type="radio"/> <b>Change value 1</b>	
<input type="radio"/> <b>Change value 2</b>	
:	



Possible selection:

<input checked="" type="radio"/> Decimal places 1	
<input type="radio"/> Decimal places 2	

The possible decimal places of the value are displayed here.



The decimal places have been changed.

### 7.9.7 Changing title of the view

User level: User

Menu or function	Values or description
View x of x	
> <b>Change title</b>	

Tab. 20: Menu tree

#### Changing title of the view:

→ Select view.



→ Enter title----->

The title has been changed.

## 7.10 Shortcut

The user can use this function to save frequently used functions for the shortcut in the context menu.

Possible number of shortcuts: 3

### 7.10.1 Creating shortcut

User level: User

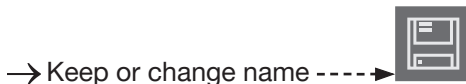
Menu or function	Values or description
Device	
> Function	

Menu or function	Values or description
> Parameter or maintenance or diagnostics	A shortcut is possible from this level
> Menu or function	
> <b>Add shortcut</b>	

Tab. 21: Menu tree

**Creating shortcut:**

→ Select detailed view, menu or function.



✓ The shortcut has been created.

**7.10.2 Deleting shortcut**

User level: User

Menu or function	Values or description
Device	
> Function	
> Parameter or maintenance or diagnostics with created shortcut	
> Menu or function with created shortcut	
> <b>Delete shortcut</b>	

Tab. 22: Menu tree

**Deleting shortcut:**

→ Select detailed view, menu or function with created shortcut.



✓ The shortcut has been deleted.

**7.11 Where am I?**

This function is used to display the menu tree of the selected menu or function.

User level: User

Menu or function	Values or description
Device	



Menu or function	Values or description
> Function	
> Parameter or maintenance or diagnostics	
> Menu or function	
> <b>Where am I?</b>	

Tab. 23: Menu tree

**Creating shortcut:**

→ Select detailed view, menu or function.



✔ Selected device, selected function, selected detailed view and menu or function are displayed.

## 7.12 Displays and messages

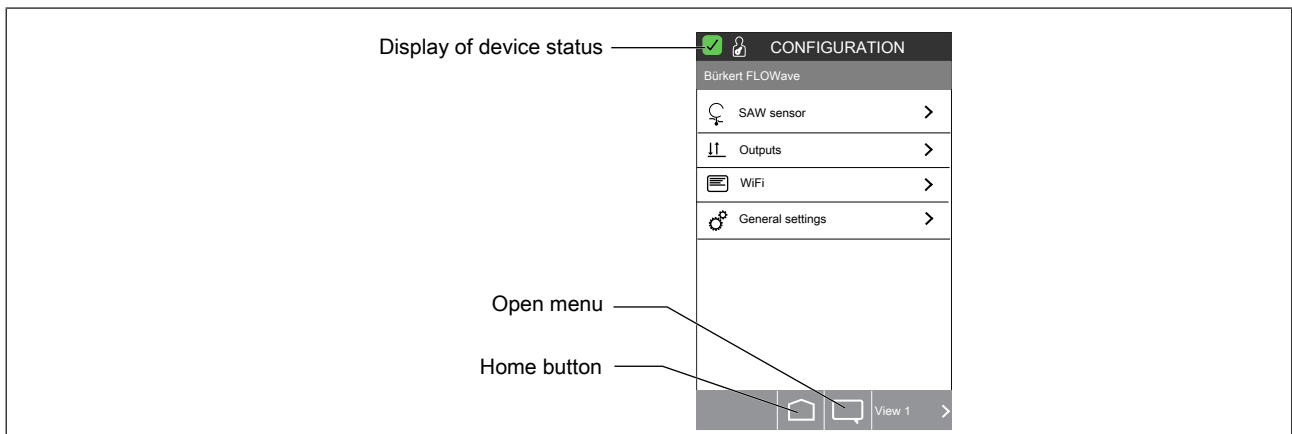


Fig. 13: User interface





### 7.12.1 Display of device status

The LED illuminated ring displays the device status.

The display elements change color in accordance with NAMUR NE 107, issue 2006-06-12.

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 normal operation (red LED = failure = highest priority).


Color	Color code	Status	Description
red 	5	Failure, error or malfunction	Controlled operation is not possible due to a malfunction in the device or its peripheral devices.
orange 	4	Function check	Work is being carried out on the device; controlled operation is therefore not currently possible.


Color	Color code	Status	Description
yellow 	3	Out of specification	Ambient conditions or process conditions for the device are outside the specified area.
blue 	2	Maintenance requirement	The device is in controlled operation, but a function will soon be restricted. → Service the device
green 	1	Diagnostics active	Device is operating perfectly. Status changes are indicated in different colors. Messages are transmitted via a fieldbus if connected.
white 	0	Diagnostics inactive	Device is switched on. Status changes are not displayed. Messages are not transmitted via a fieldbus if connected.

Tab. 24: Description of the color

## 7.12.2 Displaying messages

The user can select messages in all views.

User level: User 

Menu or function	Values or description
	
> <b>Messages overview</b>	
> Message 1	Further information on Message 1
> Message 2	Further information on Message 2

Tab. 25: Menu tree

Displaying messages:

→  -----> **Messages overview** ----->

✓ The overview of messages is displayed.

→ Select message.

✓ Further information on the message is displayed.

## 8 TROUBLESHOOTING

Problem	Possible cause	Action
When the power has been connected to the device or product, the WLAN icon flashes red		Resetting the WLAN settings to factory settings with magnetic key:
Long response times	Bad transmission quality:	
	Too many WLANs on same channel	Do not exceed maximum 4 WLAN-capable devices per channel (check optimization of the infrastructure by IT).
	Distance to the device too great	Observe maximum distance to the device of 10 m.

Tab. 26: Troubleshooting

## 9 MENU TREE OF THE WIFI FUNCTION

Menu or function	Values or description
Device with WLAN module	
> <b>WiFi</b>	
> <b>Parameter</b>	
> <b>WiFi settings<sup>1)</sup></b>	Wizard starts <sup>1)</sup> for the client operating mode
> <b>Current settings</b>	shows current settings
> <b>Operation mode</b>	<input checked="" type="radio"/> <b>Client</b> <input type="radio"/> <b>Accesspoint</b>
> <b>Network name</b>	
> <b>Password</b>	Network password
> <b>Use static IP address</b>	<input checked="" type="radio"/> <b>Off</b> <input type="radio"/> <b>On</b>
> <b>Hostname</b>	
> <b>Commit new settings</b>	
> <b>WiFi settings<sup>2)</sup></b>	Wizard starts <sup>2)</sup> for the accesspoint operating mode
> <b>Current settings</b>	shows current settings
> <b>Operation mode</b>	<input type="radio"/> <b>Client</b> <input checked="" type="radio"/> <b>Accesspoint</b>
> <b>Network name</b>	
> <b>Password</b>	Network password
> <b>Security</b>	<input type="radio"/> <b>WPA</b> <input checked="" type="radio"/> <b>WPA2</b>
> <b>Encryption</b>	<input type="radio"/> <b>TKIP</b> <input checked="" type="radio"/> <b>AES</b>
> <b>Channel</b>	<input checked="" type="radio"/> <b>Auto scan</b> <input type="radio"/> 1 : <input type="radio"/> 11
> <b>Region</b>	<input type="radio"/> <b>US</b> <input checked="" type="radio"/> <b>Europe</b> <input type="radio"/> <b>Japan</b>
> <b>Commit new settings</b>	

Menu or function		Values or description	
	> <b>Automatic logoff</b>	<input type="radio"/> 1 minute <input type="radio"/> 2 minutes <input type="radio"/> 5 minutes <input type="radio"/> 15 minutes <input type="radio"/> 30 minutes <input checked="" type="radio"/> 60 minutes	The user is automatically logged out after inactivity after the set time
	> <b>Diagnostics</b>		
	> <b>WiFi status</b>		
	> <b>Operation mode</b>		
	> <b>Network name</b>		
	> <b>IP address</b>		
	> <b>IP subnet mask</b>		
	> <b>IP standard gateway</b>		
	> <b>WiFi link</b>		
	> <b>Network interface</b>	Network interface is ready for communication via TCP/IP	
	> <b>Connected WiFi clients</b>		
	> <b>Error state</b>		
	> <b>Device status</b>		
	> <b>Device temperature</b>		
	> <b>Open source information</b>	Wizard starts	License information for the respective projects
	> <b>Maintenance</b>		
	> <b>Device information</b>		
	<b>Software version</b>		
	<b>Hardware version</b>		
	<b>Ident. number</b>		
	> <b>Radio module</b>	<b>Firmware version</b>	
	> <b>Restart (WFU mode)</b>	Wizard starts	Restart the WiFi module in WFU mode (Wireless Firmware Update). Subsequently, the firmware of the integrated radio module can be updated via WiFi.
	> <b>Reset to factory settings</b>	Wizard starts	

Tab. 27: Menu tree

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### 10.1 lwIP - lightweight TCP/IP

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### 10.2 jQuery JavaScript Library

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### 10.3 TouchSwipe.js - jQuery plugin

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## 10.4 `sprintf.js` - JavaScript `sprintf` implementation

`sprintf.js` is licensed under the terms of the 3-clause BSD license.

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