User Manual
SYX660 SYX661 SYX662

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1 Overview

The SYX66x is a controller that can be used in Simple Boiler House Heating Systems. With its graphic display and single-button operation, the controller is very easy to use and understand.

The device is pre-configured for simple heating systems and has options for typical plant variations.

The device can be connected to networks via its direct Ethernet port and users can integrate the device via the in-built Web server. The integrated Web server means that it can be operated remotely using any standard Web browser such as IE, Firefox, Safari, etc.
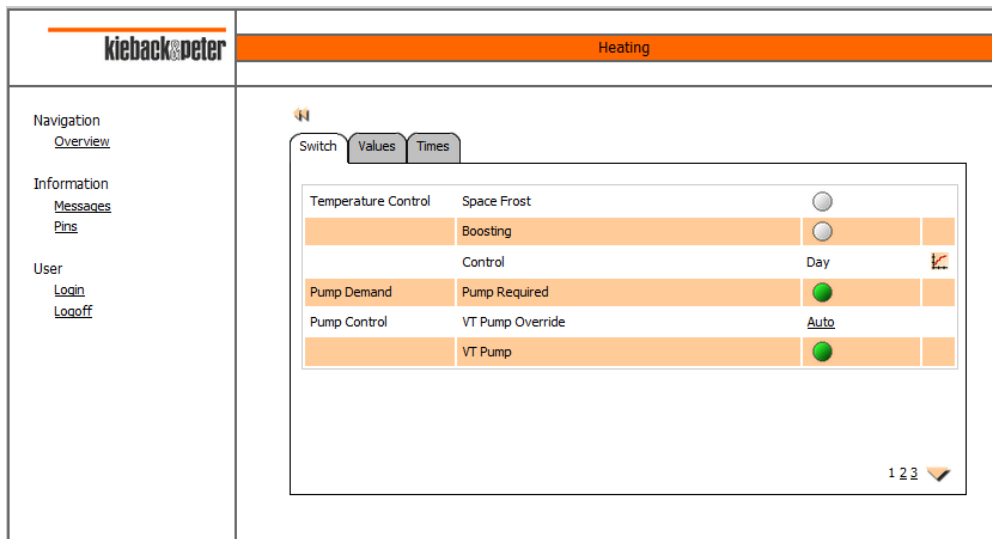
1-1: Typical view using engineering level Web browser
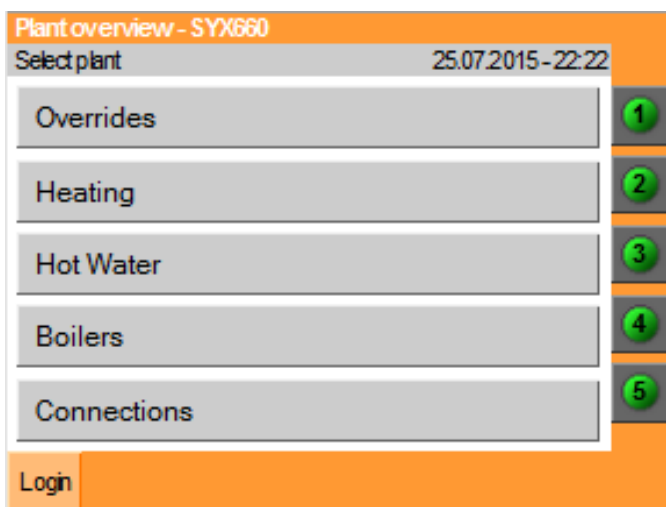
1-2: Typical view using a Customer Mode Web browser with /mo/ extension

1.1   Interface

The interface is divided into several sections and comprises the following components:
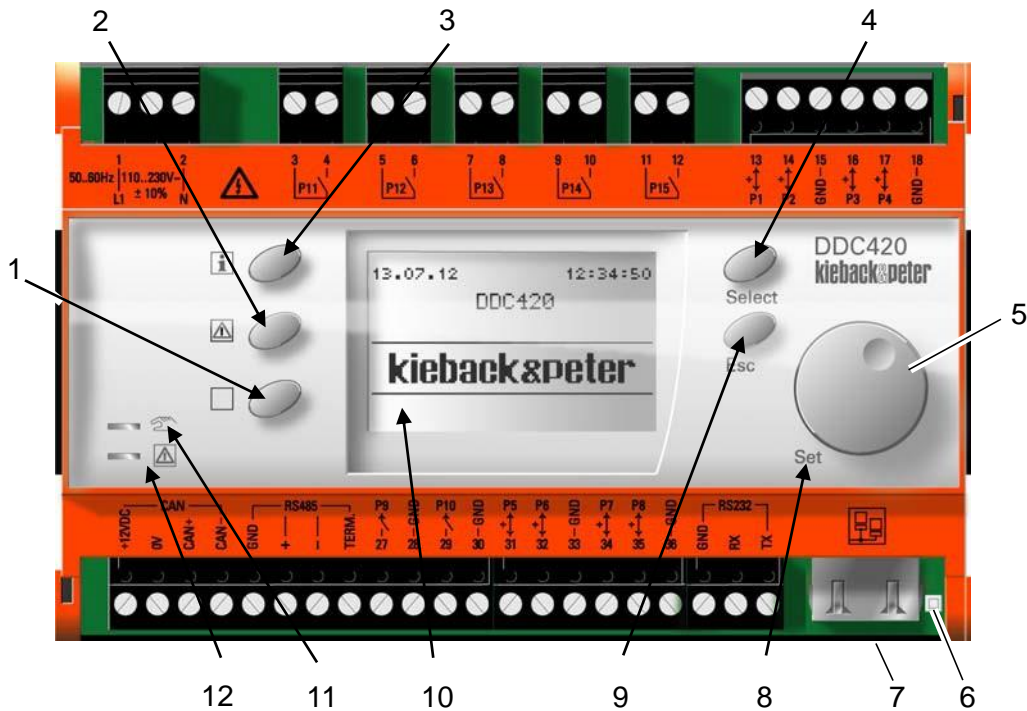
1-2: Interface SYX66x

[1] Alarm Acknowledge and Press Hold for 3 seconds for Alarm Memory Clear

[2] Alarms View button: Press to View Alarm Messages

[3] Information button, press to view all connections and controller details

[4] Select Button: Press to Enter or open up menu options

[5] Selection Wheel: Turn the wheel to change values or select options

[6] "Status" LED for Ethernet Activity

[7] RJ45 Ethernet port for network connection

[8] Set: Push the Wheel inward to enter the new value

[9] ESC: Push the ESC to move backwards out of the menu system

[10] LCD Backlit screen for easy use

[11] Manual Override Indication LED

[12] Alarm Active Indication LED

1.2 Configuration options

Commissioning using the SYX66x Interface

The SYX66x can be configured using the controller interface. Plant options can be selected to fully configure the SYX66x.

The user must be logged into the controller at Level 2 to commission the controller.

Commissioning using the Web browser

The SYX66x can be parameterized using a connected web browser.

The user must be logged into the controller at Level 2 to commission the controller.
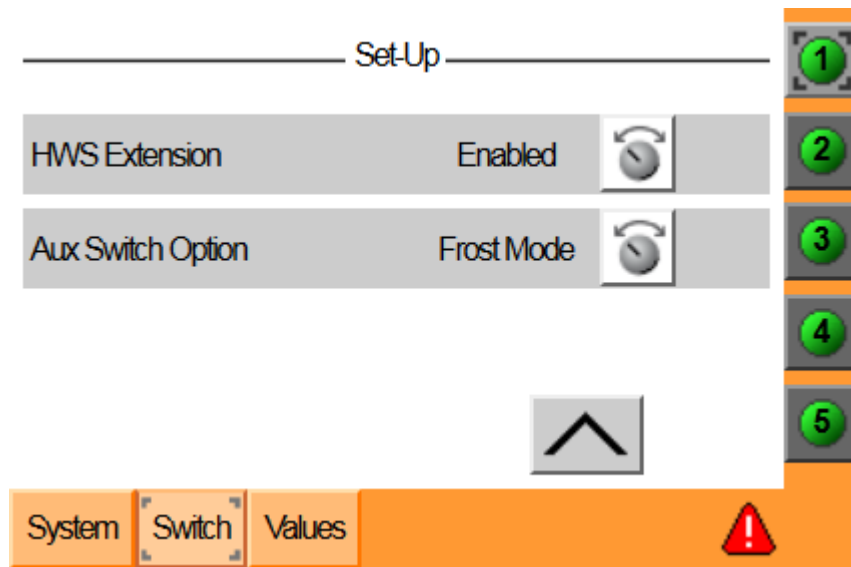
1.3   Device types, accessories

The following device type is available (please also see the devices listed under "Accessories" for enhancing SYX66x functions):

Device type	Inputs/outputs	Functions	Special features
SYX66x	2 binary inputs 5 floating relay contacts Max. 5 (3) A, AC 250 V 6 sensor inputs 1 0-10v output 1 triac output RS232 interface RS485 interface RJ45 Ethernet port	For Heating and simple HWS Systems with Boiler control, optimisation of heating zone, energy saving features and simple adjustments. Single-button operation and illuminated graphic display for the input and query of data. Can be easily set-up	With integrated Web server for remote control via the RJ45 port

1.3.1 Sensor types

Sensor types

Sensor type	Measuring range
SYX660 KP10	-50..150 °C
SYX661 NTC10	-50..150 °C
SYX662 Ni1000-LG	-50..150 °C

1.3.2 Accessories

TPC35	Remote display and operator panel with 3.5" / 8.9 cm screen ■ Up to 3 controllers can be operated with TPC35.	
TPC56	Remote display and operator panel with 5.6" / 14.2 cm screen ■ Up to 99 controllers can be operated with TPC56.	
Z68	SYX66x Adapter frame for installation in the control panel door ■ Installation space: one row, 144 mm (8 HP); 1 SYX66x, for example	

2   Operation on the device

The SYX66x is operated using a **[Set]** wheel and two buttons. All currently possible operating steps are displayed on the LCD.

The **[Set]** wheel is used for selecting and making settings. To accept settings, you press the **[Select]** button. To return to the previous operating step, press the **[Esc]** button.

The following figure gives an overview of the most important display elements and controls of the SYX66x. The most important controls are briefly explained in this section.
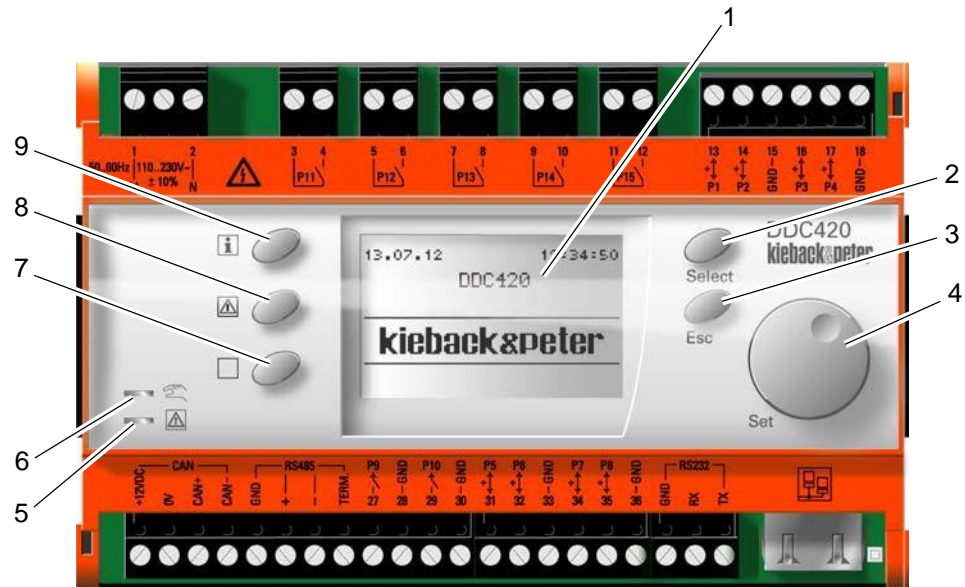
2-1: 1. SYX66x controls

[1] Back-lit graphic display (W x H: 128 x 64 pixels)

[2] **[Select]** button – Confirms entry

[3] **[Esc]** button – One step back

[4] Single-button operation: **[Set]** Selection wheel

[5] "Messages" LED – indicates Alarms in the system

[6] "Manual operation" LED

[7] Alarm Acknowledge and Removal

[8] "Messages" button – Accesses alarm messages

[9] "Info" button – For important information

2.1 Graphic display

The SYX66x has a graphic display (W x H: 128 x 64 pixels). The backlighting of the LCD switches on after the first operator control action. It switches off automatically approximately one minute after the last operator control action. Pressing a button or turning the **[Set]** wheel turns on the display's backlighting immediately.

```
21.03.15                    10:23:10
                  DDC420

          Kieback&peter

◄ Alarm Acknowledge and Clear
```
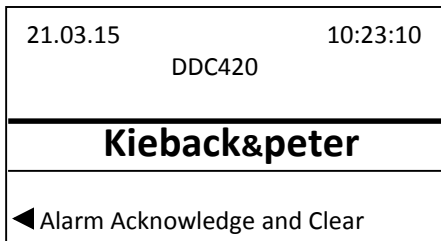
[Select] button

The **[Select]** button confirms a selected operating step or value change. The selection of an operating step or the setting of a new value using the **[Set]** wheel is confirmed with the **[Select]** button. Confirmed operating steps lead to the following operating step; confirmed values are accepted and saved.

[Esc] button

The **[Esc]** button can be pressed at any time to return to the previous operating step. Every operating step can be exited and the setting of new values canceled simply by pressing the **[Esc]** button. Any settings that were previously made are not saved. Pressing the **[Esc]** button several times will return you to the initial screen. This avoids operating errors.

[Set] Selection wheel

The **[Set]** selection wheel is used to set the desired operating step and to adjust values. The currently possible operating steps are always displayed on the graphic display. Turning the **[Set]** wheel allows you to scroll through the options and make a selection. Once you have made your selection, pressing the **[Set]** wheel confirms the option selected. New values, setpoints and times are also set by turning and pressing the **[Set]** wheel.

"Messages" LED

The "Messages" LED indicates current messages. The "Messages" LED will no longer be illuminated once all the errors have been rectified and the associated messages confirmed.

"Manual operation" LED

The "Manual operation" LED can assume an indicator function for certain parameters. This function is defined during project programming.

Alarm Acknowledge Button

This button is pre-programmed to quickly acknowledge all alarms. Press and hold for 5 seconds to remove all old messages

[Messages] button

Use the **[Messages]** button to display malfunction messages as text. The "Messages" LED will no longer be illuminated once all the errors have been rectified and the associated messages confirmed.

[Info] button

Use the **[Info]** button to retrieve pin information, connection assignment and device information, such as SYX66x version and IP address.

2.2 First startup

After unpacking and connecting the device, check all electrical connections before connecting it up to the power supply (AC 110 to 230 V ±10%; 50/60 Hz).

After switching on the SYX66x, the "Messages" and "Manual operation" LEDs will be illuminated green and continue blinking for about 40 seconds. During this time, an hourglass icon will be shown on the display.

The functions described in this section are only carried out during the first startup or after a reset to factory settings.
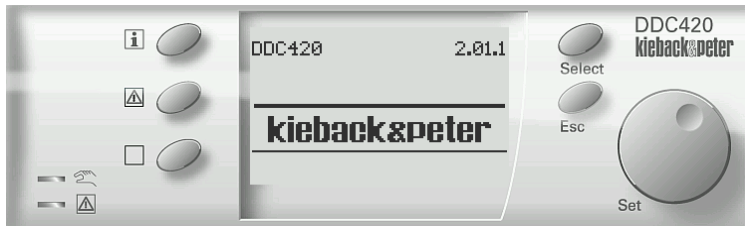
The following figures help explain the entry options.

NOTE

Menu structures can be selected by using either the **[Set]** wheel or the **[Select]** button.

The difference between the two is that the **[Select]** button shows a context menu, while the **[Set]** wheel does not and, instead, always selects the first entry from the context menu without showing it.

Content such as passwords and values are entered using the **[Set]** wheel and are confirmed and completed using the **[Select]** button.

2.3 Operating levels

The SYX66x has different operating levels. These are differentiated in terms of the access rights assigned to them. The higher the operating level, the greater the access rights, i.e. the more parameters that can be viewed and edited. These operating levels are assigned to the individual users *User 0* to *User 2* in the login dialog. User level 3 is not accessible to general users and is for support level engineers only.

User login

A maximum of three users can log into the SYX66x simultaneously. You can log in to the device directly or via a Web browser. The user is automatically logged off after 20 minutes of inactivity.

Pressing the **[Select]** button shows the parameters for User 0 allowing the device to be operated without logging in. In the Web browser, you also have to log in for User 0.

User Level 0 = 0000

User Level 1 = 1111

User Level 2 = 0112

In order to avoid incorrect operation, the SYX66x has various operating levels, which can be activated by entering a password. This section explains how to unlock the operating level directly in the SYX66x.

NOTE

Menu structures can be selected by using either the **[Set]** wheel or the **[Select]** button.

The difference between the two is that the **[Select]** button shows a context menu, while the **[Set]** wheel does not and, instead, always selects the first entry from the context menu without showing it.

Content such as passwords and values are entered using the **[Set]** wheel and are confirmed and completed using the **[Select]** button.

```
21.03.15              10:23:10
             DDC420

         Kieback&peter

◀ Alarm Acknowledge and Clear
```
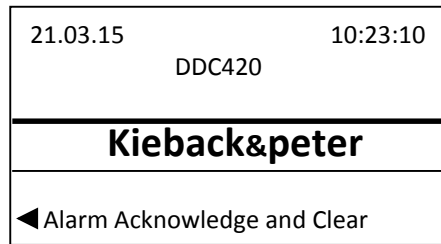
Initial screen

This login is not required for user 0 (operating level 0).

► Pressing the **[Select]** button takes you directly to the operator tree.

For the other operating levels, users log in as follows:

► Hold down the **[Esc]** button for approximately 5 seconds. The following display appears:

```
Login _____

         User 1
         User 2
         User 3
```
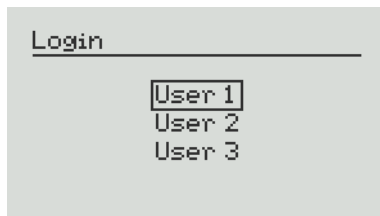
► Turn the **[Set]** wheel to select the user (operating level) you require.

► Pressing the **[Set]** wheel or the **[Select]** button will open a password entry screen.

```
Access code User 1
_____

 UWXYZ/.█1234567
           Help with 🔢
```
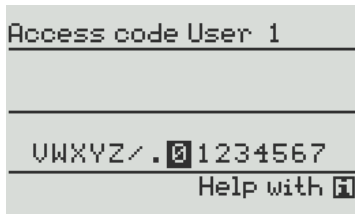
► You can select a character by turning the **[Set]** wheel.

► Once you have made your selection, press the **[Set]** wheel or **Select** button to accept each character.

► Once you have entered your password, press the **[Select]** button to confirm. Your password will then be verified.

Once you have successfully logged in, you will be returned to the initial screen.

```
21.03.15              10:23:10
         DDC420
_____

      Kieback&peter
_____

◄Alarm Acknowledge and Clear
```
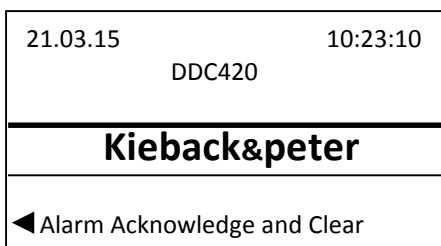
► Press the **[Select]** button to open the operator tree.

The operator tree is displayed.

```
                        MC1400
 Overrides
 Heating
 Hot Water
 Boilers
◄ Alarm Acknowledge and Clear
```
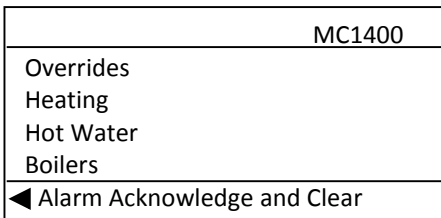
2.5 Values

Displaying actual values

In the following steps, you will learn how to display current/actual values.

NOTE

Menu structures can be selected by using either the **[Set]** wheel or the **[Select]** button.

The difference between the two is that the **[Select]** button shows a context menu, while the **[Set]** wheel does not and, instead, always selects the first entry from the context menu without showing it.

Content such as passwords and values are entered using the **[Set]** wheel and are confirmed and completed using the **[Select]** button.

```
21.03.15                        10:23:10
                 DDC420


           Kieback&peter

◄ Alarm Acknowledge and Clear
```

► Press the **[Select]** button and open the operator tree.

```
                                  MC1400
 Overrides
 Heating
 Hot Water
 Boilers
◄ Alarm Acknowledge and Clear
```

► Turn the **[Set]** wheel to select the operating step you require. In the example shown, "Heating" has been selected.

► To confirm your selection, press the **[Select]** button.

```
                                  Heating
 Switch
 Values
 Times


```

► Turn the **[Set]** wheel to select the operating step you require. In the example shown, the "Values" option has been selected.

► To confirm your selection, press the **[Select]** button.

```
                Heating - Values
 ┌──────────────────────────────────────┐
 │ Temperature Control                   │
 └──────────────────────────────────────┘
   VT Valve



```

► Turn the **[Set]** wheel to select the operating step you require. In the example shown, the "Temperature Control" option has been selected.

► To confirm your selection, press the **[Select]** button.

You will now see an overview of the various values:

```
  Temperature Control - Values
 ┌──────────────────────────────────────┐
 │ VT Sensor              45°C  ⌇⌇       │
 └──────────────────────────────────────┘
   VT Setpoint            46°C
   Space Setpoint         21°C
   VT Valve Position      51%
   Space Temp             21°C  ⌇⌇
```

► Turn the **[Set]** wheel to select the operating step you require. In the example shown, the "VT Sensor." (heating flow temperature) option has been selected.

► To confirm your selection, press the **[Select]** button.

The actual value is displayed. The example here shows the actual values for "VT Sensor.":

```
           Temperature Control


   VT Sensor


                      45°C


```

2.6 Changing setpoints

In the following steps, you will learn how to change setpoints.

NOTE

ℹ

Menu structures can be selected by using either the **[Set]** wheel or the **[Select]** button.

The difference between the two is that the **[Select]** button shows a context menu, while the **[Set]** wheel does not and, instead, always selects the first entry from the context menu without showing it.

Content such as passwords and values are entered using the **[Set]** wheel and are confirmed and completed using the **[Select]** button.

```
┌─────────────────────────────────────┐
│ 21.03.15                   10:23:10  │
│            DDC420                    │
│                                      │
├─────────────────────────────────────┤
│                                      │
│         Kieback&peter                │
│                                      │
├─────────────────────────────────────┤
│ ◄ Alarm Acknowledge and Clear        │
└─────────────────────────────────────┘
```

► Press the **[Select]** button and open the operator tree.

```
┌─────────────────────────────────────┐
│                              MC1400  │
│ Overrides                            │
├─────────────────────────────────────┤
│ Heating                              │
├─────────────────────────────────────┤
│ Hot Water                            │
│ Boilers                              │
│ ◄ Alarm Acknowledge and Clear        │
└─────────────────────────────────────┘
```

► Turn the **[Set]** wheel to select the operating step you require. In the example shown, the "Heating" option has been selected.

► To confirm your selection, press the **[Select]** button.

```
┌─────────────────────────────────────┐
│                             Heating  │
│ Switch                               │
├─────────────────────────────────────┤
│ Values                               │
├─────────────────────────────────────┤
│ Times                                │
│                                      │
│                                      │
│                                      │
└─────────────────────────────────────┘
```

► Turn the **[Set]** wheel to select the operating step you require. In the example shown, the "Values" option has been selected.

► To confirm your selection, press the **[Select]** button.

```
┌─────────────────────────────────────┐
│              Heating - Values        │
│ Temperature Control                  │
├─────────────────────────────────────┤
│ VT Valve                             │
│                                      │
│                                      │
│                                      │
│                                      │
└─────────────────────────────────────┘
```

► Turn the **[Set]** wheel to select the operating step you require. In the example shown, the "Control" option has been selected.

► To confirm your selection, press the **[Select]** button.

You will now see an overview of the various actual values and setpoints.

```
Temperature Control - Values
VT Sensor              45°C  ⌒⌄
VT Setpoint            46°C
┌─────────────────────────────┐
│ Space Setpoint        21°C   │
└─────────────────────────────┘
VT Valve Position      51%
Space Temp             21°C  ⌒⌄
```

► Turn the **[Set]** wheel to select the operating step you require. In the example shown, the "Space Setpoint" (Day Heating Space Setpoint) option has been selected.

► To confirm your selection, press the **[Set]** Wheel.

```
        Temperature Control
  ─────────────────────────────

  Space Setpoint

                  21°C ▲
                       ▼
```

► Slowly turn the **[Set]** wheel to change the "Space Sepoint" value.

► To confirm your selection, press the **[Set]** Wheel or **[Select]** button.

```
        Temperature Control
  ─────────────────────────────

  Space Setpoint

                  20°C
```

2.7 Times

In the following steps, you will learn how to change the heating times of the SYX66x.

NOTE

i

Menu structures can be selected by using either the **[Set]** wheel or the **[Select]** button.

The difference between the two is that the **[Select]** button shows a context menu, while the **[Set]** wheel does not and, instead, always selects the first entry from the context menu without showing it.

Content such as passwords and values are entered using the **[Set]** wheel and are confirmed and completed using the **[Select]** button.

```
 21.03.15               10:23:10
            DDC420
 ─────────────────────────────
        Kieback&peter
 ─────────────────────────────
 ◀ Alarm Acknowledge and Clear
```

▶ Press the **[Select]** button and open the operator tree.

```
                          MC1400
 ─────────────────────────────
  Overrides
 ─────────────────────────────
  Heating
 ─────────────────────────────
  Hot Water
  Boilers
 ─────────────────────────────
 ◀ Alarm Acknowledge and Clear
```

▶ Turn the **[Set]** wheel to select the operating step you require. In the example shown, "Heating" has been selected.

▶ To confirm your selection, press the **[Select]** button.

```
                         Heating
 ─────────────────────────────
  Switch
  Values
 ─────────────────────────────
  Times
 ─────────────────────────────


```

▶ Turn the **[Set]** wheel to select the operating step you require. In the example shown, the "Times" option has been selected.

▶ To confirm your selection, press the **[Select]** button.

```
┌────────────────────────────────────┐
│      Temperature Control - Times    │
├────────────────────────────────────┤
│  Heating Times                      │
│                                     │
│                                     │
│                                     │
│                                     │
└────────────────────────────────────┘
```

▶ Turn the **[Set]** wheel to select the schedule you require. In the example shown, the "Heating Times" option has been selected.

▶ To confirm your selection and goto the Week Program, press the **[Set]** wheel.

▶ To confirm your selection and chose next option, press the **[Select]** button.

A selection box appears with the options "Week program" or "Special times".

```
┌────────────────────────────────────┐
│      Temperature Control - Times    │
├────────────────────────────────────┤
│  Heating Times                      │
│                                     │
│          ┌──────────────┐           │
│          │ Week Program │           │
│          │ Special Times│           │
│          └──────────────┘           │
└────────────────────────────────────┘
```

The weekly program and special times are described separately below.

2.7.1   Weekly program

The following dialog appears after the weekly program is selected within a time program.

A day can be selected by turning the **[Set]** wheel. The day's switching times are then shown in the lower display area together with the corresponding switching states. An overview of the switch actions is shown below the weekdays in bar form. A maximum of eight switching times can be defined per day.

```
                              Heating Times
  Mo   Tu   We   Th   Fr   Sa   Su
  ■    ■    ■    ■    ■

   00:00           Unoccupied*
   07:00           Occupied
   16:00           Unoccupied
```

► Turn the **[Set]** wheel to select a day.

► To confirm your selection, press the **[Select]** button.

```
                              Heating Times
  Mo   Tu   We   Th   Fr   Sa   Su
  ■    ■    ■    ■    ■

   00:00
   07:00        ┌──────────────┐
                │ Change Day   │
   16:00        └ Copy Day ────┘
```

► Turn the **[Set]** wheel to select the action you require ("Change day" or "Copy day").

► To confirm your selection, press the **[Select]** button.

```
                                    Monday
  00:00          12:00          24:00
            ████████████████

  ┌ 00:00          Unoccupied* ┐
  └ 07:00          Occupied ────┘
    16:00          Unoccupied
```

► Turn the **[Set]** wheel to select one of the various switching points.

► To edit a switching point or create a new one, press the **[Select]** button.

Switching times marked with * are standard switching times. These standard switching times cannot be deleted. The standard switching time is overwritten by creating a new switching time with a switch time of 00:00 and the desired plant switching state.

Editing a standard switching time automatically results in the creation of a new switching time.

```
                              Monday
  00:00          12:00        24:00
  ▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄
    00:00          ┌──────────────┐
    07:00          │ Change       │
    16:00          │ Insert       │
                   └──────────────┘
```

► You can change, delete or insert a new time by turning the **[Set]** wheel.
► To confirm your selection, press the **[Select]** button.

```
                              Monday
  00:00          12:00        24:00
       ▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄

        Edit switch time

  07:00 ▲▼       Occupied
```

► Turn the **[Set]** wheel to configure the switching time.
► To confirm your selection, press the **[Select]** button.

```
                              Monday
  00:00          12:00        24:00
       ▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄

        Edit switch state

  08:00        Occupied ▲▼
```

► Turn the **[Set]** wheel to configure the switching state.
► To confirm your selection, press the **[Select]** button.

The day view is displayed.

```
                              Monday
  00:00          12:00        24:00
       ▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄
    00:00       Unoccupied*
  ┌ 08:00       Occupied    ┐
  └ 16:00       Unoccupied  ┘
```

To return to the previous level, press the **[Esc]** button.

NOTE

ℹ The switching state "End" results in a switch-back to the standard switching state of the
   weekly program, which is marked with an asterisk ("*").
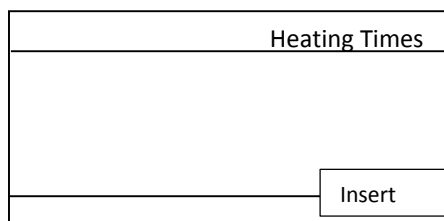

2.7.2 Special times

The following dialog appears after the special times are selected within a schedule. All special times are displayed here. A maximum of eight switching times can be defined per day.
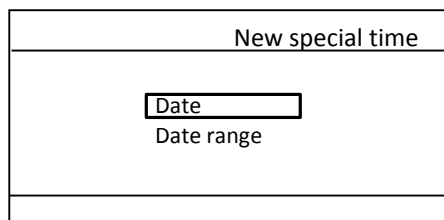
Special time – date

```
┌─────────────────────────────────┐
│     Temperature Control - Times  │   Special times option
│ ┌─────────────────────────────┐ │
│ │ Heating Times               │ │
│ └─────────────────────────────┘ │
│         ┌─────────────────┐     │
│         │ Week program    │     │
│         │ ┌─────────────┐ │     │
│         │ │ Special times│ │    │
│         │ └─────────────┘ │     │
│         └─────────────────┘     │
└─────────────────────────────────┘
```
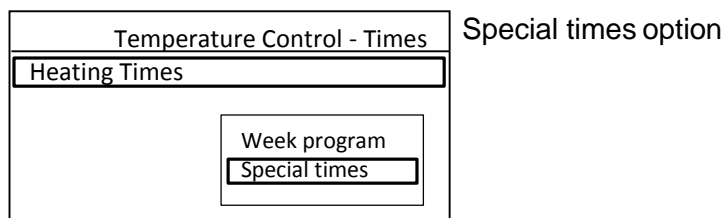
If no special time is available, you are given the option of adding one.

► Turn the **[Set]** wheel and select "Special times".

► To confirm your selection, press the **[Select]** button.

```
┌─────────────────────────────────┐
│         Heating Times            │
│                                  │
│                                  │
│                                  │
│              ┌──────────┐        │
│              │  Insert  │        │
│              └──────────┘        │
└─────────────────────────────────┘
```

► To confirm the "Insert" option, press the **[Select]** button.

```
┌─────────────────────────────────┐
│         New special time         │
│                                  │
│     ┌──────────────┐             │
│     │ Date         │             │
│     └──────────────┘             │
│       Date range                 │
│                                  │
│                                  │
└─────────────────────────────────┘
```

► Turn the **[Set]** wheel and select either "Date" or "Date range".

► To confirm your selection, press the **[Select]** button.

The following section explains how to enter a date. The date range option is described separately below.

```
                    New special time

   Date              15.10.12



```

► Turn the **[Set]** wheel to set the date.

► Press the **[Select]** button to toggle between day, month and year.

► Once you have finished setting the date, press the **[Select]** button to exit the dialog.

When creating a new special time, after defining the date or date range, you are automatically taken to the dialog for setting switching times.

```
                              15.10.12
   00:00         12:00        24:00


     00:00           Unoccupied


```

► To change, delete or create a new switching time, press the **[Select]** button.

NOTE

A switching time of 00:00 is defined each time a new special time is added. This can be changed or deleted. The switching times that have been entered in a special time come into effect only after the first entry in that special time. The switching states before the first entry are defined by the weekly program or other special times.

```
                              15.10.12
   00:00         12:00        24:00


     00:00           Unoccupied
                    Change
                    Insert
```

► Turn the **[Set]** wheel and select "Insert".

► To confirm your selection, press the **[Select]** button.

```
                              15.10.12
   00:00         12:00        24:00


          Edit switch time

   07:00            Unoccupied
```

► Turn the **[Set]** wheel to configure the switching time.

► To confirm your selection, press the **[Select]** button.

```
                               15.10.12
  00:00          12:00      24:00
  ████████████████████████

      Edit switch state

  07:00            Occupied  ◆
```

► Turn the **[Set]** wheel to configure the switching state.

► To confirm your selection, press the **[Select]** button.

Switching times that are changed are also visualized by bars in the display beneath the times.

```
                               15.10.12
  00:00          12:00      24:00
  ████████████████████████

   00:00          Unoccupied
   07:00          Occu  Change
                        Insert
```

► Insert additional switching times.

View the bar indication after the creation of occupied and unoccupied switching times:

```
                               15.10.12
  00:00       12:00         24:00
  ████████████████

     00:00       Unoccupied*
     07:00       Occupied
     16:00       Unoccupied
```

NOTE

i

The switching state "End" results back to the weekly program or to a lower priority special time (if more than one special time can apply on this day). The weekly program or a lower priority special times setting are then effective.

Press **[Esc]** to return to the schedule overview.

```
                Heating Times
  15.10.12


```

To change, delete or create a new special time, press the **[Select]** button. You also have direct access to the configured switching times.

```
                    Heating Times
┌─────────────────────────────────────┐
│ 15.10.12         ┌──────────┐        │
│                  │ Times    │        │
│                  │ Date     │        │
│                  │ Insert   │        │
│                  │ Delete   │        │
│                  └──────────┘        │
│                                      │
└─────────────────────────────────────┘
```
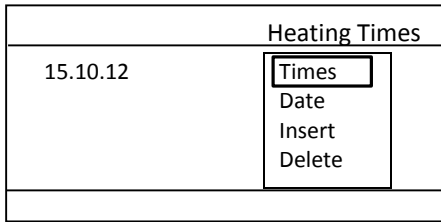
Special time – date range

All set special times are listed after the special times are selected within a schedule.
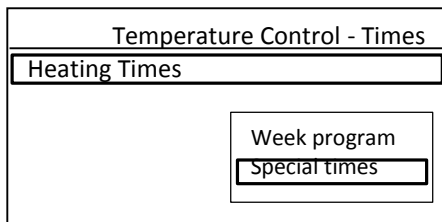
```
     Temperature Control - Times
┌──────────────────────────────────┐
│ Heating Times                    │      Special times option
│                                  │
│            ┌──────────────────┐  │
│            │ Week program     │  │
│            │ Special times    │  │
│            └──────────────────┘  │
└──────────────────────────────────┘
```

► Turn the **[Set]** wheel and select "Special times".

► To confirm your selection, press the **[Select]** button.

```
                    Heating Times
┌─────────────────────────────────────┐
│ 15.10.12         ┌──────────┐        │
│                  │ Times    │        │
│                  │ Date     │        │
│                  │ Insert   │        │
│                  │ Delete   │        │
│                  └──────────┘        │
│                                      │
└─────────────────────────────────────┘
```
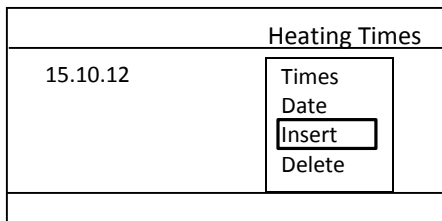
► To create a new special time, turn the **[Set]** wheel and select "Insert".

► To confirm your selection, press the **[Select]** button.

```
              New special time
┌─────────────────────────────────────┐
│                                      │
│         Date                         │
│         ┌──────────────┐             │
│         │ Date range   │             │
│         └──────────────┘             │
│                                      │
└─────────────────────────────────────┘
```
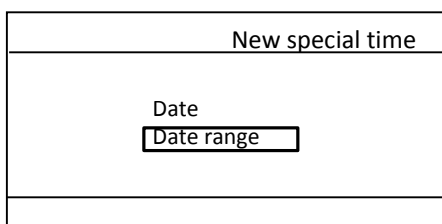
► Turn the **[Set]** wheel and select "Date range".

► To confirm your selection, press the **[Select]** button.

```
                New special time

Start              15.10.12
```

► Turn the **[Set]** wheel to set the start date.

► Press the **[Select]** button to toggle between day, month and year.

► Once you have finished setting the date, press the **[Select]** button to exit the dialog.

```
                New special time

Start              15.10.12
End                15.12.12
```

► Turn the **[Set]** wheel to set the end date.

► Press the **[Select]** button to toggle between day, month and year.

► Once you have finished setting the date, press the **[Select]** button to exit the dialog.

In the following view, you can use weekday ranges to limit the weekdays for the defined date range (e.g. Monday to Friday).

```
                New special time

15.10.12  – 15.12.12

Weekday           All Days
```

► Press the **[Select]** button to select either "Weekday" or "All days".

► Once you have finished setting the date, press the **[Select]** button to exit the dialog.

You can then enter the switching times.

```
                15.10.12 – 15.12.12
00:00        12:00        24:00

   00:00        Unoccupied
```

2.7.3   Special entries in the date or date range

When defining a special time, you can enter certain repeats for a date. These are entered by Pressing the SET wheel to get to the date selection required then turning the SET wheel to obtain the special option required. Examples of these are:

```
              New special time
Date          15.10.**


          _____
**: All years
```
Every year

```
              New special time
Date          **.10.12


          _____
**: All days of the month
```
Every day in the month

```
              New special time
Date          15.OM.12


          _____
OM: Odd months
```
Odd months

```
              New special time
Date          15.EM.12


          _____
EM: Even months
```
Even months

```
              New special time
Date          LD.10.12


          _____
LD: Last day of the month
```
Last day of the month

2.8   Manual Overrides (Switching)

In the following steps, you will learn how to switch. You can choose between "Auto" (automatic mode), "On" (manual mode) and "Off" (manual mode).

NOTE

Menu structures can be selected by using either the **[Set]** wheel or the **[Select]** button.

The difference between the two is that the **[Select]** button shows a context menu, while the **[Set]** wheel does not and, instead, always selects the first entry from the context menu without showing it.

Content such as passwords and values are entered using the **[Set]** wheel and are confirmed and completed using the **[Select]** button.

```
21.03.15                     10:23:10
                 DDC420

         Kieback&peter

◄ Alarm Ack and Clear
```

► Press the **[Select]** button and open the operator tree.

```
                              MC1400
 Overrides
 Heating
 Hot Water
 Boilers
◄ Alarm Ack and Clear
```

► Turn the **[Set]** wheel to select the operating step you require. In the example shown, "Heating" has been selected.

► To confirm your selection, press the **[Select]** button.

```
                             Heating
 Switch
 Values
 Times


```

► Turn the **[Set]** wheel to select the operating step you require. In the example shown, the "Switch" option has been selected.

► To confirm your selection, press the **[Select]** button.

```
                    Heating - Switch
Temperature Control
Pump Demand
Pump Control
VT Valve
Commissioning Mode
```

► Turn the **[Set]** wheel to select the operating step you require. In the example shown, the "Pump Control" option has been selected.

► To confirm your selection, press the **[Select]** button.

```
        Pump Control - Switch
VT Pump Override        Auto
VT Pump                  ●


```

► To override the pump press **[Select]** and then **[Select]** on "Change value"

or simply press the **[Set]** wheel. A dialog showing the options appears.

```
                Pump Control

VT Pump Override
                     Auto △
                      Off
                      On   ▼
```

► Turn the **[Set]** wheel to select the switch value you require (turn the wheel to show all options).

► Position the cursor on the value you require, to confirm

your selection press the **[Select]** button. You can

switch between three options in this example:

■ Auto: Automatic mode

■ Off: Switch off (manual mode)

■ On: Switch on (manual mode)

2.9   Trend display

An important feature of Kieback&Peter controllers is the trend function. The controller automatically records and saves changes of value over an extended period. This saved data can be displayed graphically on the *SYX66x*. This is the purpose of the *SYX66x*'s trend function.

2.9.1   Opening the trend curve dialog

Open the trend curve display for a parameter as follows:

```
21.03.15                        10:23:10
                 DDC420

          Kieback&peter

◄ Alarm Ack and Clear
```

► Press the **[Select]** button and open the operator tree.

A plant selection list is only displayed if more than one plant has been set up. If only one plant has been set up, this step is skipped.

```
                             MC1400
 Overrides
 Heating
 Hot Water
 Boilers
◄ Alarm Ack and Clear
```

► Turn the **[Set]** wheel and select a plant. In the example shown, "Heating" has been selected.

► To confirm your selection, press the **[Select]** button.

```
                            Heating
 Switch
 Values
 Times


```

► Turn the **[Set]** wheel and select the "Values" option.

► To confirm your selection, press the **[Select]** button.

```
                    Heating  - Values
  Temperature Control
  VT Valve


```

▶ Turn the **[Set]** wheel and select a plant. In the example shown, the "Temperature Control" option has been selected.

▶ To confirm your selection, press the **[Select]** button.

You will now see an overview of the various parameters. If a trend has been recorded for a parameter it is indicated by a graph icon next to the parameter as shown below.

```
  Temperature Control - Values
  VT Sensor              45°C  〰
  VT Setpoint            46°C
  Space Setpoint         21°C
  VT Valve Position      51%
  Space Temp             21°C  〰
```

▶ Turn the **[Set]** wheel to select the parameter you require.

▶ To confirm your selection, press the **[Select]** button.

```
  Temperature Control - Values
  VT Sensor              45°C  〰
  VT Setpoint            46°C
  Space Setpoint    ┌──────────────┐
  VT Valve Position │ Trend Values │
  Space Temp        │ Display Value │
                    └──────────────┘
```

▶ Turn the **[Set]** wheel and select the "Trend values" option.

▶ To confirm your selection, press the **[Select]** button.

2.9.2 Trend curve display

The trend curve is represented in the display as follows:

```
┌─────────────────────────────┐
│ Space Temp          21.1°C  │
│    ┌                        │
│ 25 │ ⋀⋀⋀     ⋀⋀⋀            │
│ 15 │                        │
│  5 │                        │
│    └────────────────────    │
│   17.04    20.04    23.04   │
└─────────────────────────────┘
```
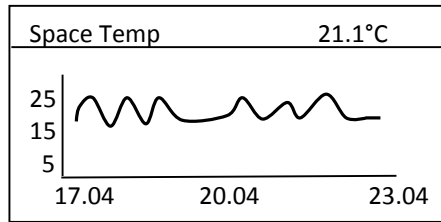
- The parameter text and current parameter value with unit are shown at the top. Below that is a coordinate system with the parameter values on the Y-axis and the time on the X-axis.

- The X-axis is variable and, depending on the zoom factor, is divided several times. Special divisions are labeled. These are referred to below as main divisions. If the label for the X-axis contains no date information, the start date of the time axis divisions is shown at top left. The X-axis is not a zero line. The value "0" can appear at any position on the Y-axis. The initial scaling of the X-axis shows a six-hour range with four main divisions.

- On the Y-axis, three divisions are displayed and labeled. The labeling does not include decimal places or units. The units and resolution can be found in the display of the current parameter value. Scaling the Y-axis is based initially on the range of the values lying within the display period.

If values lie outside the display range due to a vertical shift of the curve, this is indicated by two arrow symbols in the coordinate system at top right or bottom right.

Within the coordinate system, the trend curve is displayed as a step function, which means that the current value is shown as a horizontal line until a change occurs. The parameter value is updated every five seconds. Digital parameter values are shown by a fixed division of the Y-axis. For multistate values the Y-axis is labeled with the index of multistate values (0 to n). You can retrieve the multistate plain texts via the options under "Legend". Here, you will find a list of multistate texts together with their index numbers.

2.9.3 Adjusting the trend curve display

You can adapt the trend curve display to your needs. You can zoom in and out of the trend curve or move it. If the current trend value is visible in the trend view, the trend curve continues with newly incoming trend values.

You have a special range of options for adjusting the display of the trend curve. These can be called up in the trend curve display by pressing the **[Select]** button.

NOTE

Menu structures can be selected by using either the **[Set]** wheel or the **[Select]** button.

The difference between the two is that the **[Select]** button shows a context menu, while the **[Set]** wheel does not and, instead, always selects the first entry from the context menu without showing it.

Content such as passwords and values are entered using the **[Set]** wheel and are confirmed and completed using the **[Select]** button.

These include the following selection options:

- *To the start*

  The start of the trend recording, i.e. the oldest trend values are displayed. Time and value axes are scaled if required.

- *To the end*

  The most recent trend values are displayed. Time and value axes are scaled if required.

- *Legend*

  Only available for multistate parameters. Select this option and confirm by pressing the **[Select]** button to display a list of the multistate texts and their corresponding index numbers.

- *Scaling values*

  Zoom the trend curve using the value range.

- *Scaling time*

  Zoom the trend curve using time.

- *Moving vertically*

  Move the trend curve up or down.

Move horizontally

You can move the trend curve left and right along the time axis directly in the trend curve display by turning the **[Set]** wheel on the *SYX66x*, provided that it is not already displayed in full. With each grid step you move the trend curve by one main horizontal pitch.

Moving vertically

► Call up the options in the trend curve display by pressing the **[Select]** button.

► Select the "Move vertically" option and confirm by pressing the **[Select]** button.

The view changes again in the trend curve display. The Y-axis label flashes.

► Turn the **[Set]** wheel until you reach the desired display.

With each grid step you move the trend curve up or down by one main division. It stops moving when the biggest/smallest existing trend value can be displayed, regardless of whether the curve is visible in the current view.

► Press the **[Select]** button.

The setting is applied and you exit setting mode.

Zooming using time

► Call up the options in the trend curve display by pressing the **[Select]** button.

► Select the "Scale time" option and confirm by pressing the **[Select]** button.

The view changes again in the trend curve display. The X-axis label flashes.

► Turn the **[Set]** wheel to change the zoom factor.

The zoom mid-point is the center of the display.

► Press the **[Select]** button to confirm.

The setting is applied and you exit setting mode.

Zooming using the value range

► Call up the options in the trend curve display by pressing the **[Select]** button.

► Select the "Scale values" option and confirm by pressing the **[Select]** button.

The view changes again in the trend curve display. The Y-axis label flashes.

► Turn the **[Set]** wheel to change the zoom factor.

The zoom mid-point is the center of the display.

► Press the **[Select]** button to confirm.

The setting is applied and you exit setting mode.

2.10 Displaying messages

Any messages regarding errors or malfunctions that are triggered in the SYX66x are displayed via the "Messages" LED as follows:

"Messages" LED display on the SYX66x device	Message status	Priority
Red blinking "Messages" LED	Alarm Active, not acknowledged	**1 (high)**
Permanent red "Messages" LED	Alarm Active, acknowledged	**2**
Green blinking "Messages" LED	Cleared, but not acknowledged	**3**
No color in "Messages" LED	Cleared and acknowledged	**4 (low)**

► Press the "Messages" button (button next to the sign showing an exclamation point inside a triangle) to display all messages present:
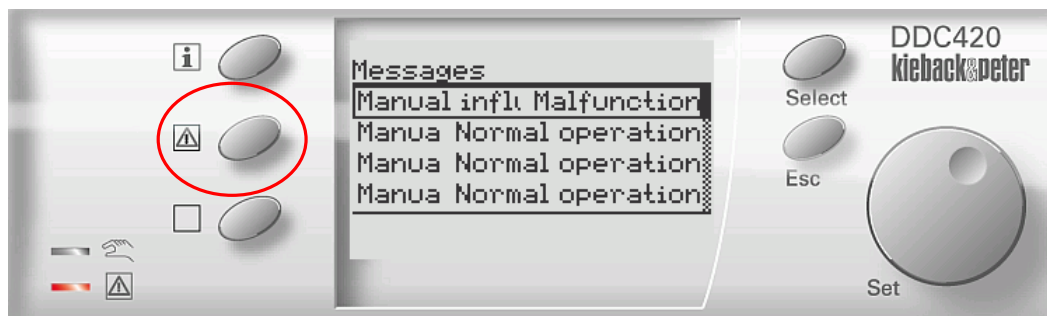
► To obtain more details about a specific message, scroll to the message by turning the **[Set]** wheel and press the **[Select]** button to select.
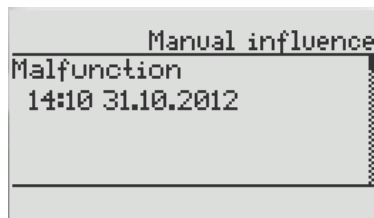
3   Operation Using a Web Browser

The *SYX66x* can also be operated using the Web browser of a PC or laptop.

To be able to access the *SYX66x* from the Web browser, the computer must be connected to the *SYX66x* with a network cable. If the *SYX66x* is connected directly to the PC, use a crossover cable, otherwise use a patch cable.

3.1   Connecting

A PC or laptop with a Web browser, for example Internet Explorer or Firefox, must be available in order to access the Web server of the *SYX66x*. The IP address of the *SYX66x* can be found, for example, on the device under "Info button/Device info". The IP address of the *SYX66x* is then entered into the address field of the browser.

► Enter the IP address, e.g. "172.22.200.215," into the address bar of your browser as follows:

http://172.22.200.215

NOTE

Entering a leading "0" in the IP address is not allowed.

Initial view using a Web browser
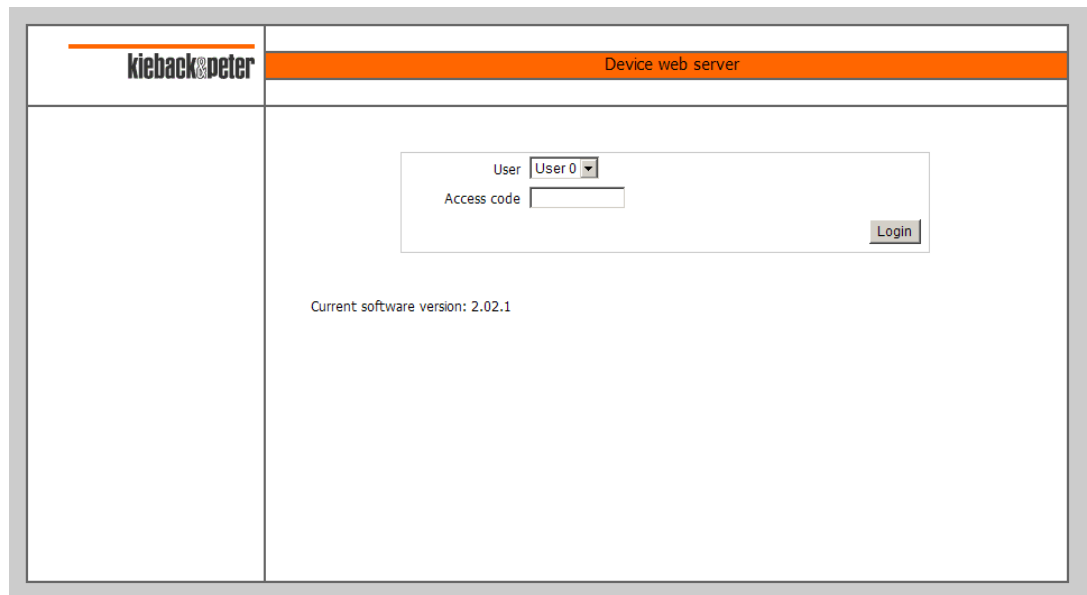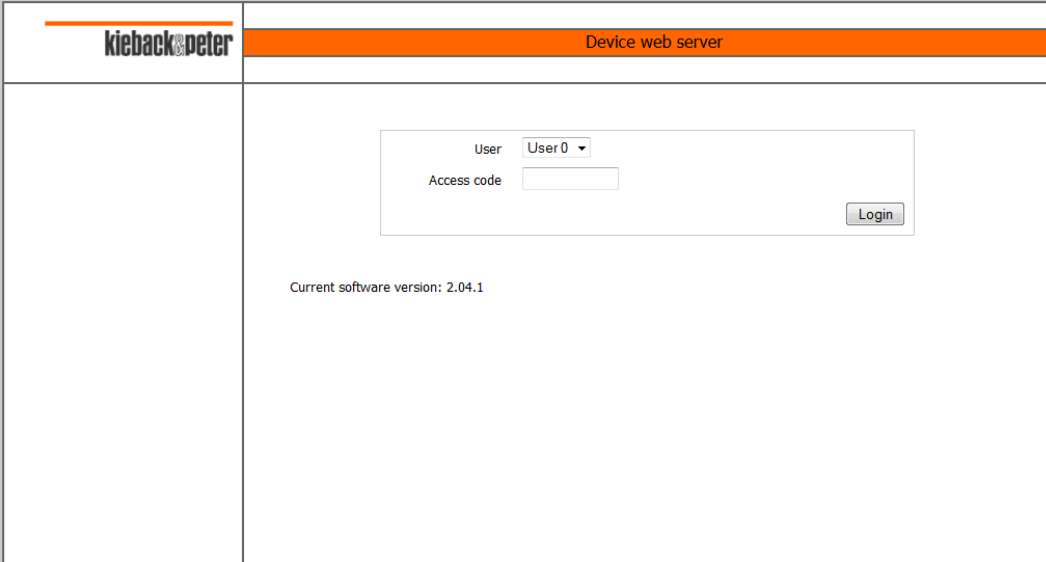
Once you have selected a user and entered a valid password, you are taken to the *SYX66x* overview screen.

3.2 Logging a user onto an operation level

In order to avoid incorrect operation, the *SYX66x* has various operating levels, which can be activated by entering a password.

In this section, you will learn how to unlock the operating level when you are operating the *SYX66x* with the Web browser.

After you call up the *SYX66x* via a Web browser, the following screen appears:

► Select the desired user in the "User" selection box, e.g. "User 0" for operating level 0, "User 1" for operating level 1, etc.

► Enter a valid password in the "Access code" box.

► Click the **[Login]** button to access the *SYX66x* overview screen.

3.3   Using the navigation bar

After you have successfully logged onto the *SYX66x*, you are taken to the *SYX66x* overview screen.

The navigation bar can be seen at the left side of the view in the Web browser. Click on a menu item in the navigation bar to go directly to the corresponding view.
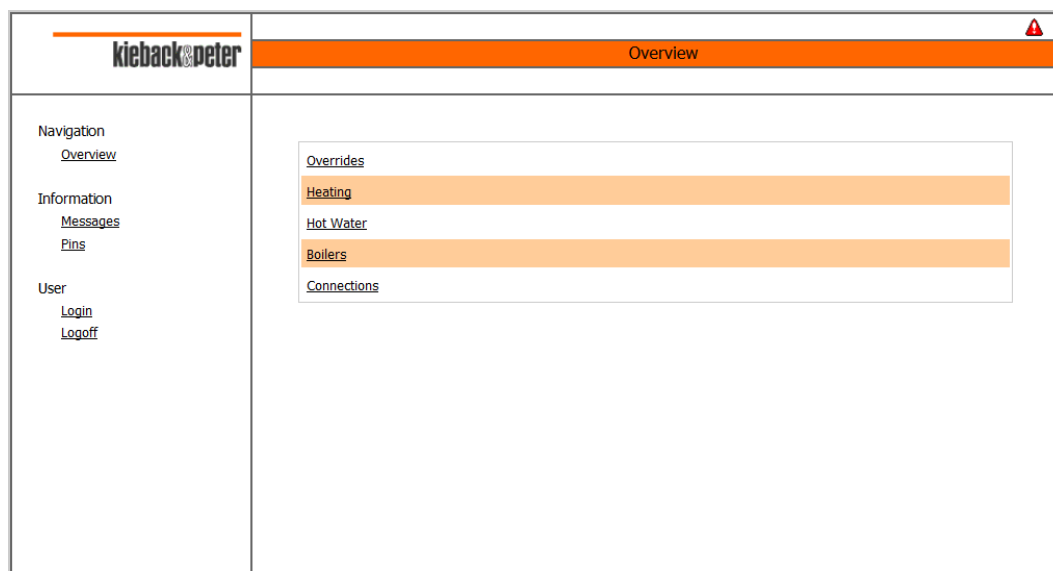
Structure of the navigation bar

Menu	Menu item	Section
Information	Messages	See chapter 3.5 "Displaying messages", page 51..
	Pins	See chapter 3.6 "Displaying terminals", page 51..
User	Login Logoff	See chapter 3.2 "Logging a user onto an operation level", page 48. See chapter 3.8 "Logging a user in or out", page 52.

3.4 Displaying Information

After you have successfully logged into the SYX66x, you are taken directly to the SYX66x overview which shows the main headings.
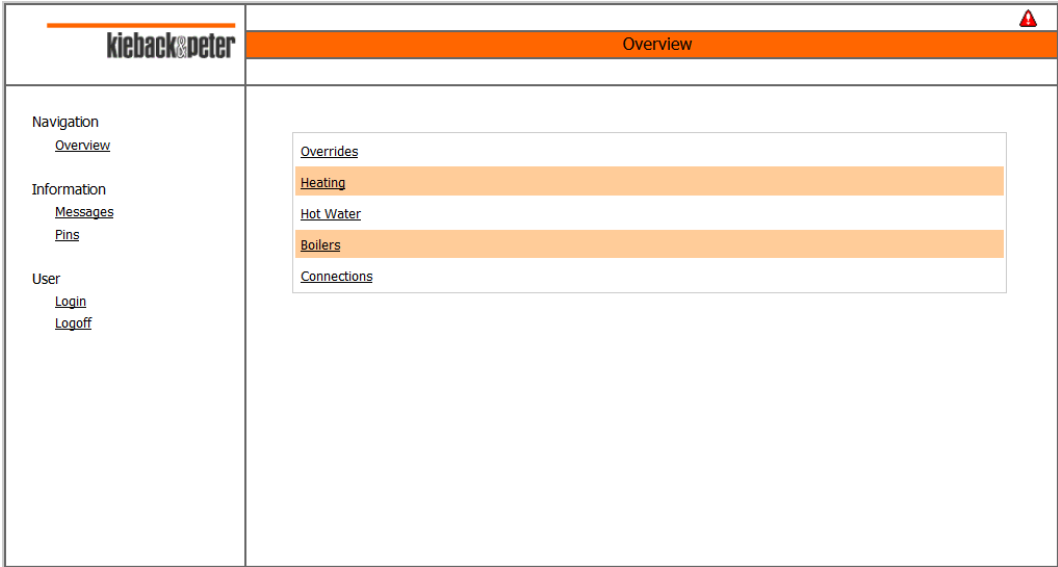
In this example, you can see the plants items

By clicking the various plant sections (Overrides, Heating, Hot Water, Boilers, Connections), you access the specific control area where you can view information or make changes to settings.

3.5   Displaying messages

All malfunction messages of the plants are listed under the "Messages" menu item. The messages can be confirmed and, if necessary, deleted.

Click on a message to display details for this message.

3.6   Displaying terminals

All terminals and their values are displayed under the "Pins" menu item.

3.7 Logging a user in or out

The "Login" menu item can be used to access the various user levels. See chapter 3.2 "Logging a user onto an operation level", page 48.

Use "Logoff" to leave the current operating level.

3.8   Values

3.8.1   Displaying actual values

The actual values view is structured identically in all control circuits.

► To display the values for the heating circuit, for example, click the **Heating** option.
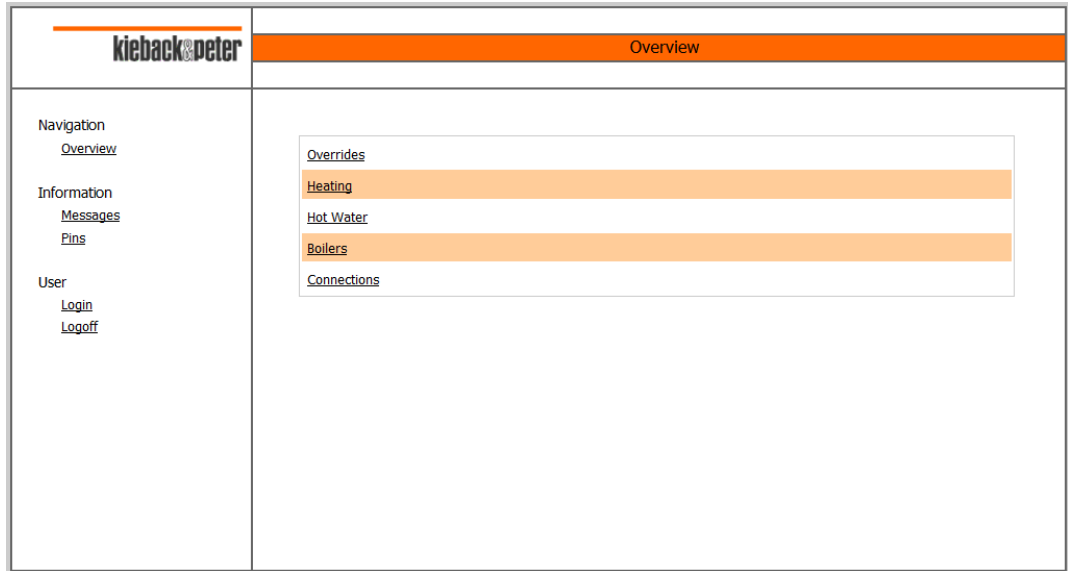
This opens a view showing the **Switch** tab page.

In this view, you can choose between the **Switch**, **Values** and **Times** tab pages.
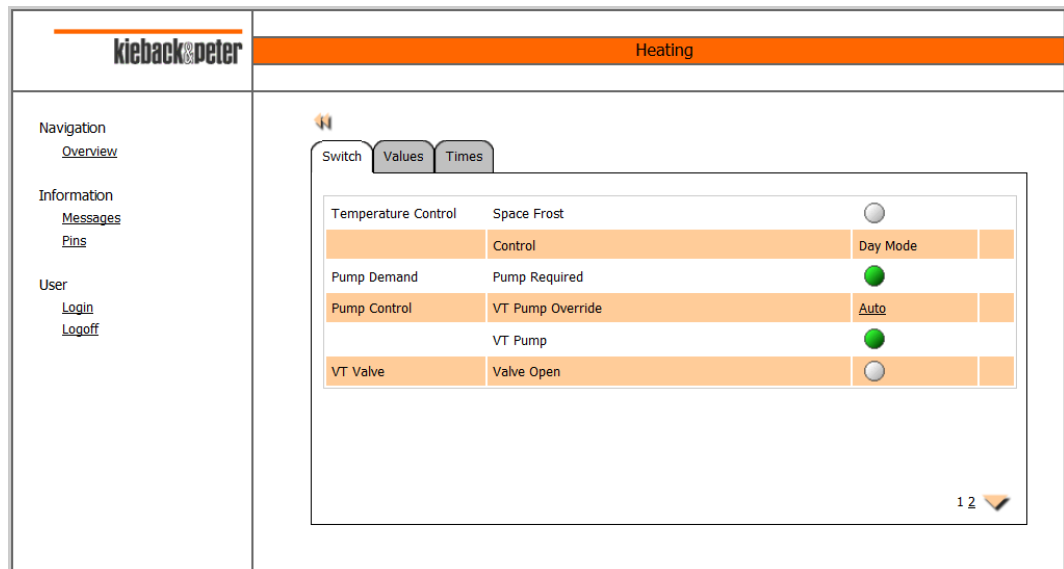
3.8.2 Changing setpoints

► Go to the **Values** tab page.

► Click the arrows to move to the next page if required. Some set points may require a higher user level to change them

All of the underlined values in the right-hand column can be changed.

► Click an underlined value to change it.

► Change the values as required using your keyboard.

► Click the **[Accept]** button.

All changes are saved.

	Overview»DDC420»MC1400»Heating	
kieback&peter	Change parameter	
	/99/000/02/5180	

		Operating level: 1
Text	Space Setpoint	
Value	20.0	°C

Navigation
  Overview

Information
  Messages
  Pins

User
  Login
  Logoff

[Accept]   [Cancel]

3.9 Switch

Access the switch list by clicking the "Overview" navigation and selecting the plant.
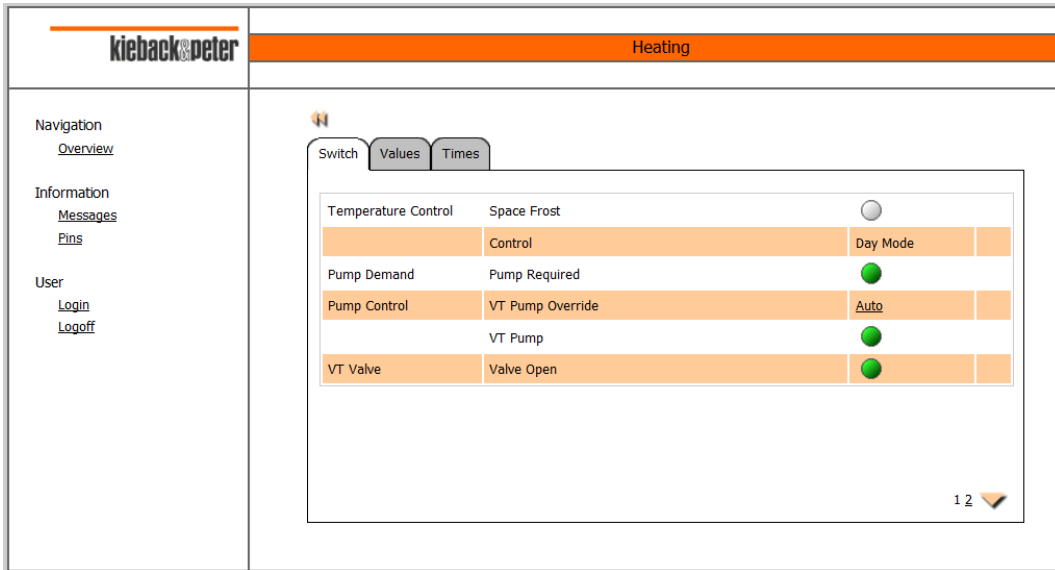
Plant states such as on/off, control states etc. are displayed here. You can change any values in the right-hand column that are underlined. Simply click one of the underlined values in order to do this.
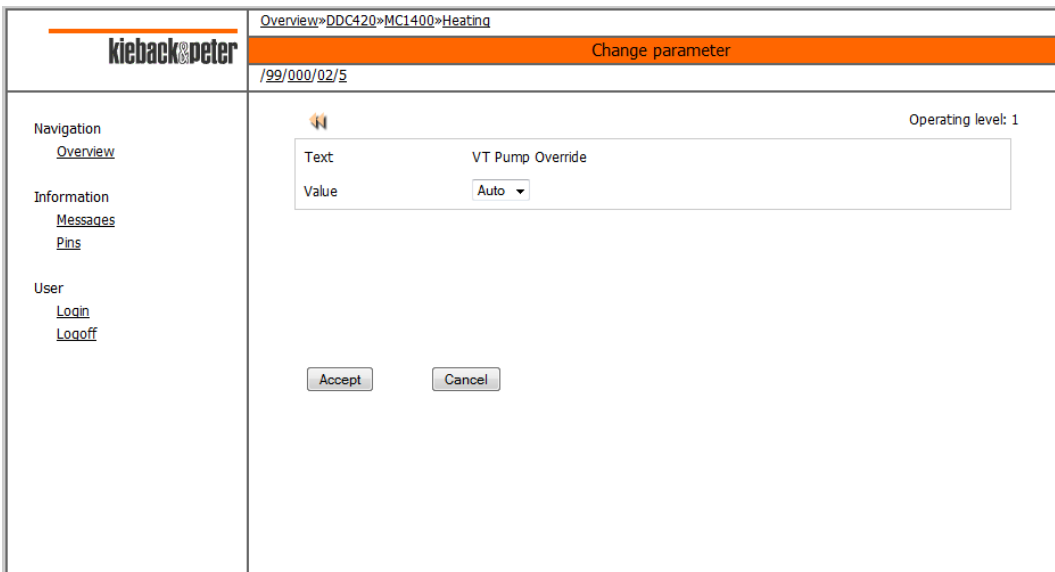
You can then change and accept the value.

Making a change to an Auto condition will make the Hand indication LED illuminate on the controller facia. All items must be in Auto for the LED to be off.

If the LED is On and plant operation is not as expected please return all items to Auto before requesting any technical assistance.

3.10 Times

Select the corresponding plant from the *SYX66x* overview.

The tab pages **Switch**, **Values** and **Times** appear.

The **"Times"** tab page can be used to define weekly programs and special times for the plant.

► Click the **"Times"** tab page.

► Click the schedule icon to access the weekly overview.

The switch times for the current week are shown in the weekly overview.
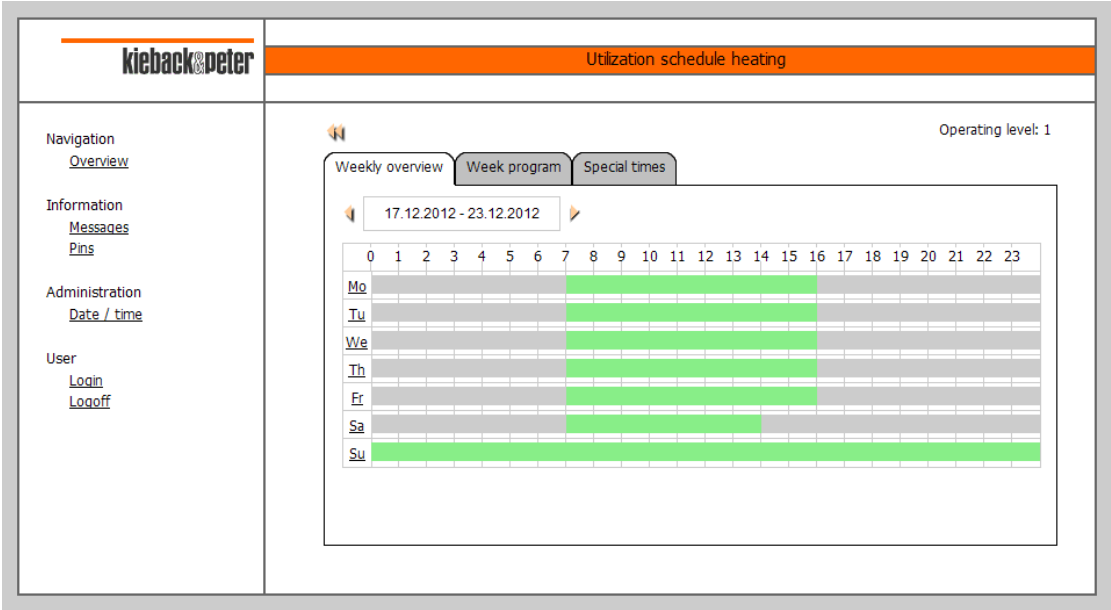
You can switch from the weekly overview to the weekly program or special times using the corresponding tab pages. You can also access the weekly program by clicking the weekday or switch time.

3.11 Trend display

If a trend has been recorded for a parameter, you can display the trend curve in the Web browser.

Controls in the trend curve dialog

On the trend curve dialog screen, you will see a number of buttons to the right of and below the trend curve. You can use these to customize the trend curve display to your needs.
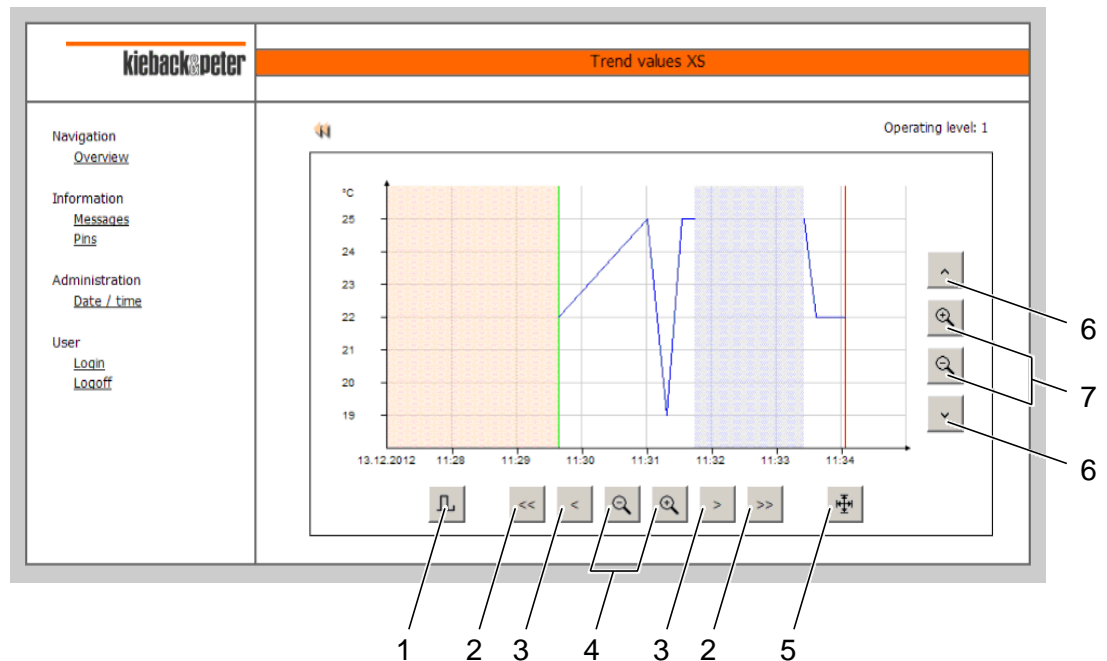
3-1: Controls on the trend curve display

[1] Alternates between line display and step display.

[2] Double arrow – moves the view by the fully displayed width.

[3] Single arrow – moves the view one main division.

[4] Zoom – Stretches or compresses the time axis.

[5] Displays the current trend values. Time and value axes are scaled if required.

[6] Single arrow – moves the view one main division.

[7] Zoom – Increases or reduces the size of the vertical display.

If a zoom icon is deactivated, no further zooming in that direction is possible.

Information on any trend value in the display can be accessed as a popup. The information includes the precise time and value of the trend value.

For reasons of clarity, this popup is only available in the three highest zoom levels. It is then displayed as a small frame. When you move the cursor over a popup, the information about the relevant trend value appears.

3.11.1 Opening the trend curve dialog

Select the corresponding plant from the *SYX66x* overview.

The tab pages **Switch**, **Values** and **Times** appear.
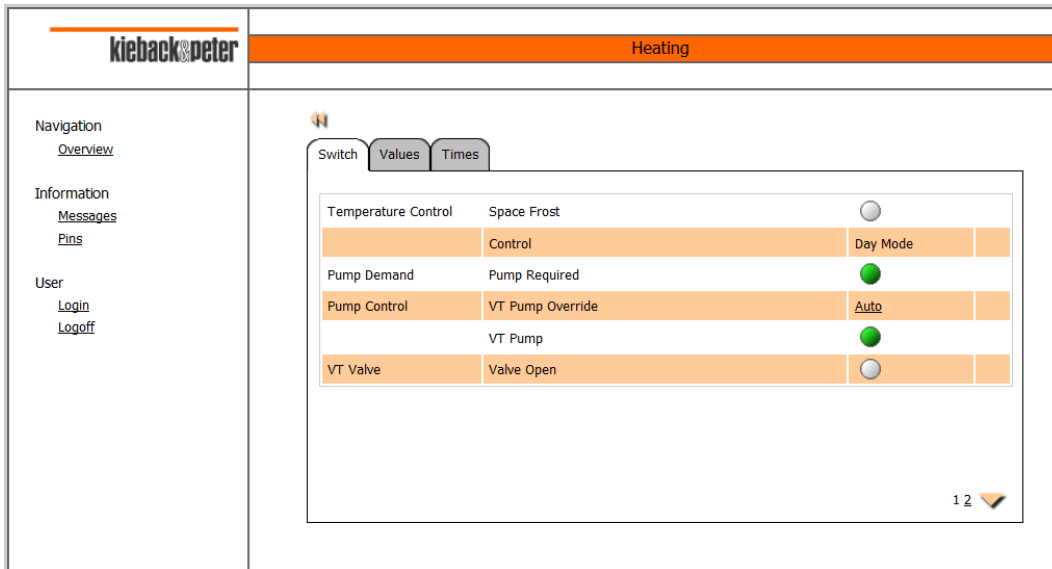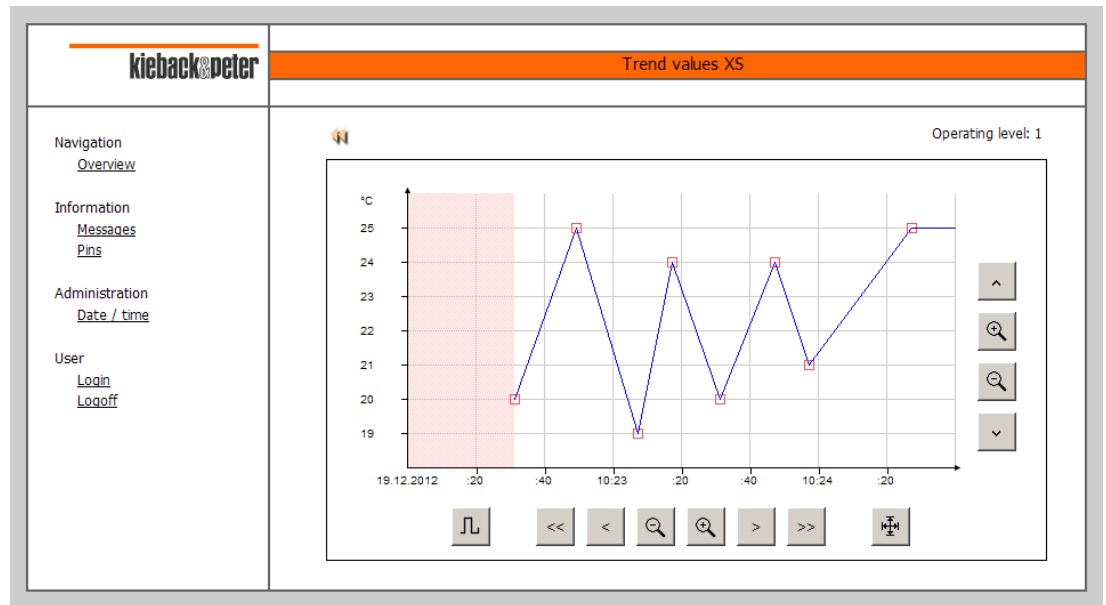

► Open the values page.
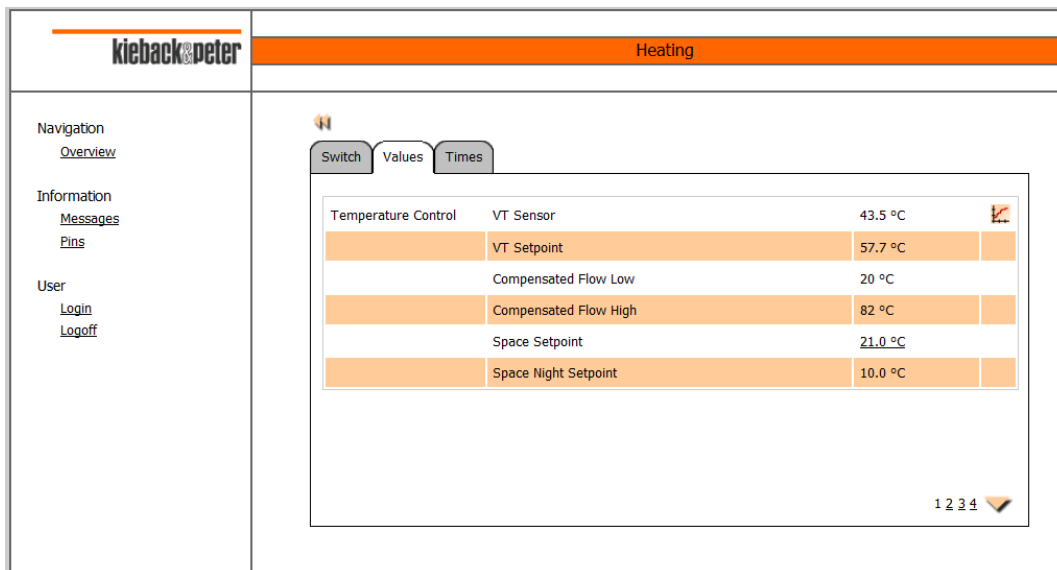
This trend icon indicates that a trend recording has been created for this parameter.
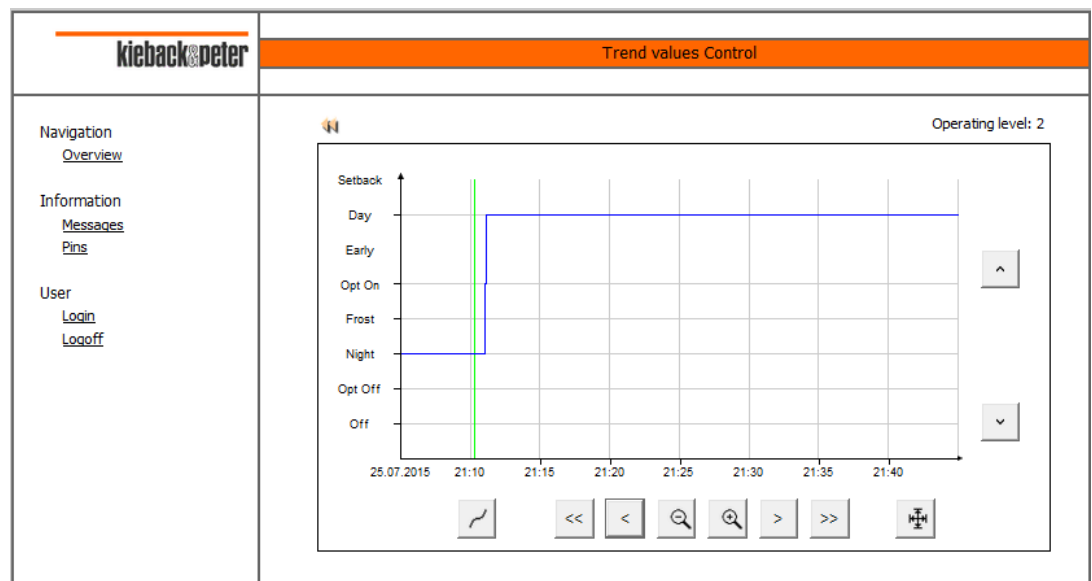
► Click the trend icon.

The trend curve dialog opens.

Below is a view of the control state, this is used to see when the plant is operating

3.11.2 Displaying the trend curve

The dialog displays, at a maximum, the last 100 trend values as a curve in a coordinate system. The X-axis is the time axis. The corresponding values for a specific time can be read on the Y-axis.

The division of the time axis is determined by the duration of the trend recording. Depending on whether the recording has lasted just a few minutes or several months, the X-axis is divided into minutes, hours, days or months.

The division of the value axis is determined by the lowest and highest values to be displayed.

Depending on the zoom level, the time and value axes of the coordinate system are divided into several divisions. Special divisions are labeled and are referred to below as main divisions.

The overview is made easier to read by a light gray grid, which connects the coordinate points of the vertical and horizontal axes.

The starting point of the trend curve recording is indicated by a vertical green line, while the end point is indicated by a vertical red line.

The trend curve is shown as either a line display or a step display. When the line display is used, two successive measured values are connected by a line. When step display is used, a measured value is assumed to be constant until a new measured value arrives.

If values are deleted from the trend memory in the interim, this area is shaded light red. If invalid values are recorded, this area is shaded light blue.

4   Operation Using a User Touch Screen

The *SYX66x* can also be controlled using a touch panel. A touch panel is a screen that responds to touch. A touch panel can be installed anywhere. The prerequisites for this are an Ethernet connection to the *SYX66x* and a connection to a power supply.

The same touch screen user experience is available by using a Web Browser and inserting /mo/ after the controller IP address.

The touch panel is available in two sizes:

■   *TPC35* touch panel:

Screen size 3.5"

Resolution 320x240 pixels

Maximum of four lines for displaying contents in the main area

■   *TPC56* touch panel:

Screen size 5.6"

Resolution 320x240 pixels

Maximum of five lines for displaying contents in the main area

The dialogs on the touch panel have the following structure:
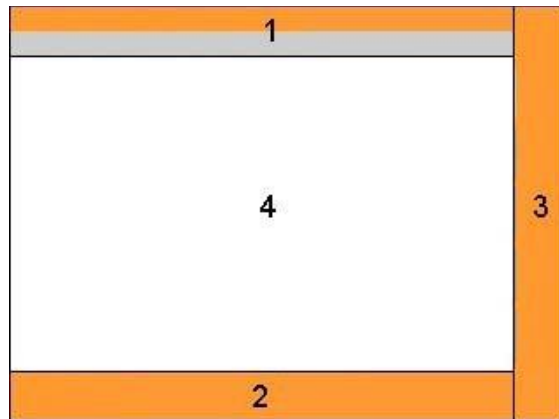
4-1: Dialog structure

1   Header area
2   Footer area
3   Right border
4   Main area

Header area

The header area contains the designation of the selected SYX66x plant at the top, followed by the designation of the displayed dialog in the second line.

Footer area

The footer area contains the buttons available in that dialog for opening further dialogs.

Right border

The right border contains numbered buttons. The numbers are assigned to the plants for which project planning has been carried out for the *SYX66x*. You can switch quickly to a different plant by touching one of these buttons.

These buttons are not present in editors, i.e. dialogs for editing values and times. If more plants are being planned for the *SYX66x* than can be displayed on the right border, up/down arrows appear above and below the buttons. You can use these up/down arrows to scroll up or down through the list of plants.

Main area

The main area contains the current information of the relevant dialog.

If there is more information to display in the main area than will fit in the available lines, up/down arrows are displayed in the bottom line, with which you can scroll through the list.

4.1 General information about operation

You use a touch panel by directly touching buttons displayed on the screen.

After ten minutes of inactivity, the display exits the current dialog and returns to the start screen.

If you are in an editor and have not input anything for 30 seconds, the display automatically switches from the editor to the current dialog. This means that incoming messages can be seen in the form of message icons, as these are not displayed in an editor.

You will see the following buttons in various dialogs:

■ **[SET]**

Use this to confirm an entry.

■ **[CL]**

Use this to delete an entry in an entry field.

■ **[ESC]**

Use this to move back to the previous dialog.

■ Editor icon beside information:

If this is active, you can open an editor that allows you to make entries.
■Clock icon beside information:

If this is active, you can switch directly into an editor that allows you to make time settings.

■ Trash can icon beside information:

Use this to delete the entry in the corresponding line, without first receiving another prompt.

■ Up/down arrows:

⌄ ⌃   Use these to scroll through a list.

■   Message icon:

This icon appears at bottom right in the footer line, as soon as a message arrives. It is only used in dialogs, not in editors.

4.2 Login

If you have performed no operation on the touch panel for a longer period, the welcome screen appears automatically.

► Touch any point on the screen.

This opens either the plant overview or, if several SYX66xs are operated with the touch panel, an overview of the SYX66xs that can be operated. You must select one SYX66x from the list of SYX66xs in order to see its plant overview.
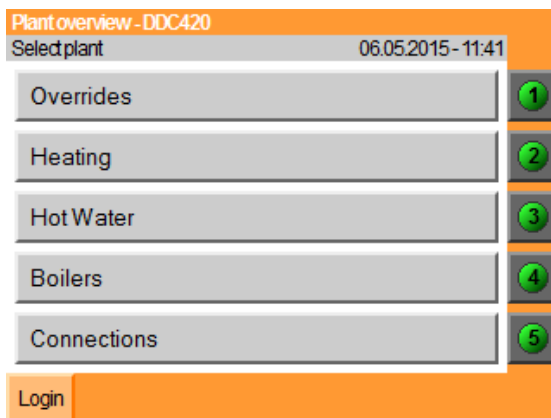
You are automatically logged in as *User 0*.

► Touch the **[Login]** button.

The logon dialog opens.

Here you can log out or you can log in as another user.

Logon
Select user

| Logoff |
| User 0 |
| User 1 |
| User 2 |

ESC

---

i
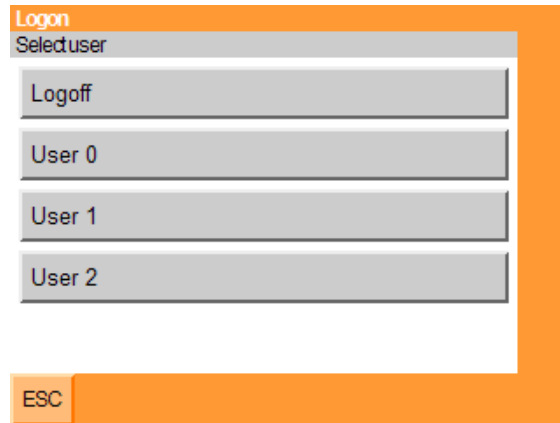
NOTE

If the touch panel is being used to operate several SYX66xs, you can access the over-view of the SYX66x to be operated by pressing the **[Logoff]** button.

In the *Logon* dialog, a choice of three user groups is displayed. These groups are differentiated in terms of the access rights assigned to them. The **User 0** group has the least access rights. The more access rights assigned to a user, the more parameters the user can view and edit.

► Tap the user for which you have access authorization.

This opens a dialog for entering your password.

Logon
Password User 0

| 1 | 2 | 3 |
| 4 | 5 | 6 |
Password: | 7 | 8 | 9 |
**** | | 0 | |
               | CL | SET |

ESC
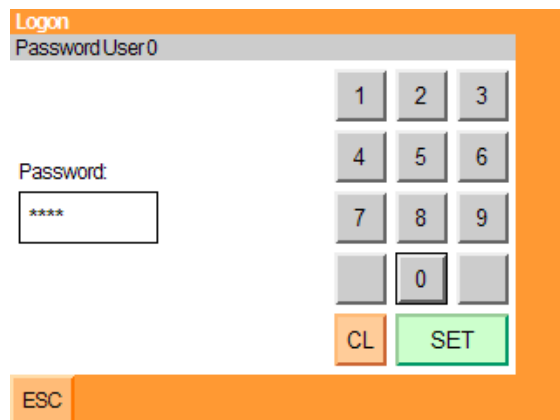
► Enter the digits of your password and confirm by pressing **[SET]**.

If the login is correct, the plant overview opens. If it is not correct, you receive an error message and you must login again.

4.3 Plant overview

Following successful login, the plant overview is displayed. This view contains a list of the installed plants, which can be called up by touching them.
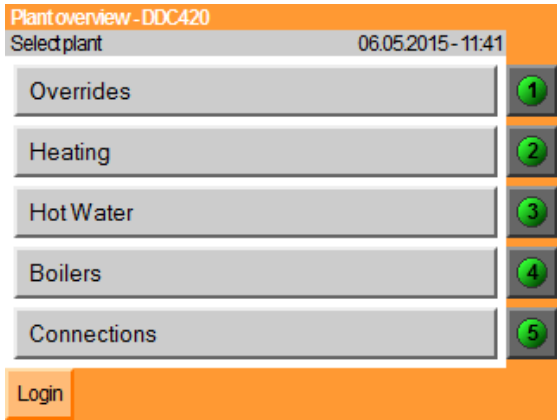
Use the **[Login]** button to switch to the login page, where you can use an additional button to log out and to log in as another user.
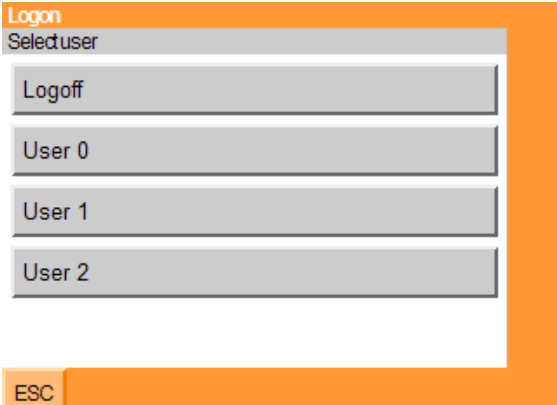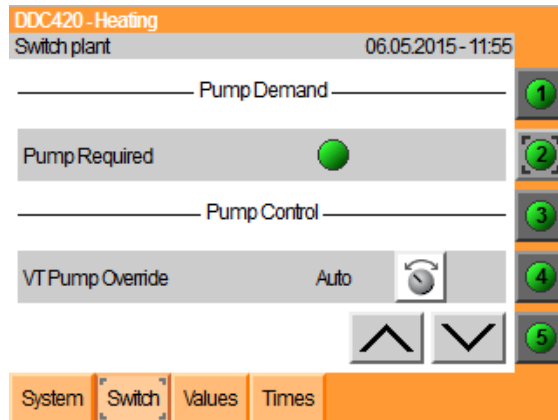
4.4   Switching and values

► Select a plant from the plant overview.

The *Switch plant* dialog opens.

Touch the **[Values]** button to switch to the value list.

Touch the **[Times]** button to call up the dialog for editing the schedules. If no schedules have been created, this button does not appear.

The list of plants is displayed on the right border; the selected plant is marked. You can select other plants from here.

Parameters that can be changed are marked with the edit icon. Tap this icon to open the editor corresponding to the parameter type, so that you can change the switch/parameter value.

Changing the switching state

► Tap the edit icon next to the switching state to be changed.

This opens the editor corresponding to the parameter type, so that you can edit the switching state. This contains a list of possible switching states. The current switching state is marked.

For simple on and off switches it appears as follows:
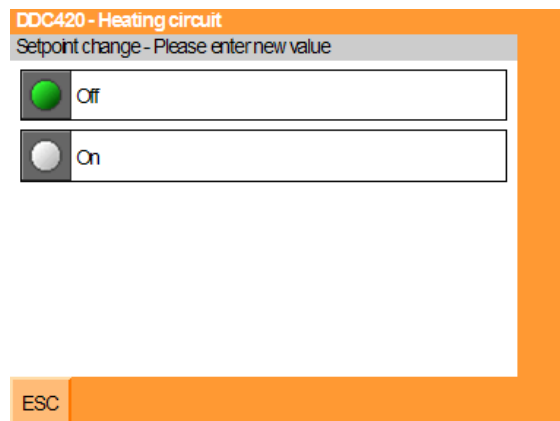
The following editor appears for multistate parameters:

states, use the up/down arrows to go to the other states.

► Tap an alternative value.

The new value is applied and the display reverts back to the *Switch* dialog.

Making a change to an Auto condition will make the Hand indication LED illuminate on the controller facia. All items must be in Auto for the LED to be off.
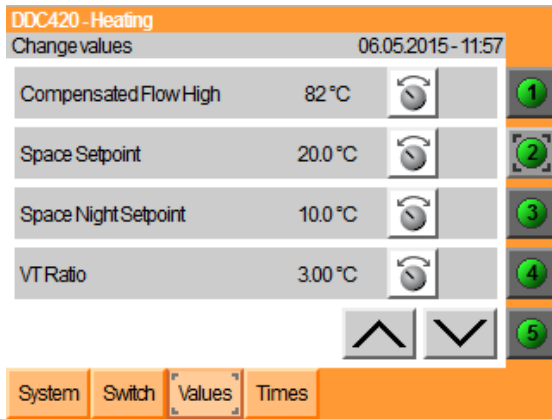
If the LED is On and plant operation is not as expected please return all items to Auto before requesting any technical assistance.

f
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4.5 Editing setpoints

► Open the values page.

► Tap the edit icon next to the switching state to be changed.

This opens the editor for editing the setpoints.
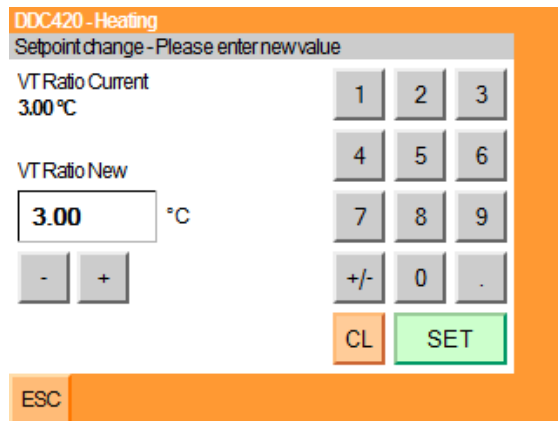
The **[+]** and **[–]** buttons below the text box change the value in the corresponding direction. **[+/-]** changes the sign and **[.]** is a decimal point.

If not all buttons are required for a dialog, the labeling is hidden and the button is inactive.

► Change the setpoint and confirm by pressing **[SET]**.

The new value is applied and the display reverts back to the *Values* dialog.

4.6 Querying messages

In all dialogs, incoming messages are shown by the message icon at bottom right in the footer line.

You can view queued messages by touching the message icon.

Either the newest message or the message with the highest priority will be displayed.

If several messages are queued, up/down arrows appear at the bottom, with which you can scroll through the messages. In addition, the index of current messages and the maximum number of available messages is shown in the lower area.

You can confirm and delete messages, provided you have the necessary access rights.

4.7 Times

If schedules are configured for a selected plant, you can display and edit these schedules, switch times and switching states.

Weekly overview

► Select the plant either in the plant overview or using the numbered buttons on the right border of any dialog.
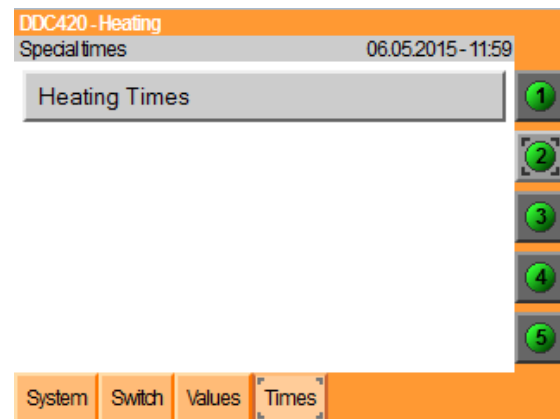
The Switch plant dialog opens.

If schedules are configured for the selected plant, the **[Times]** button is available.
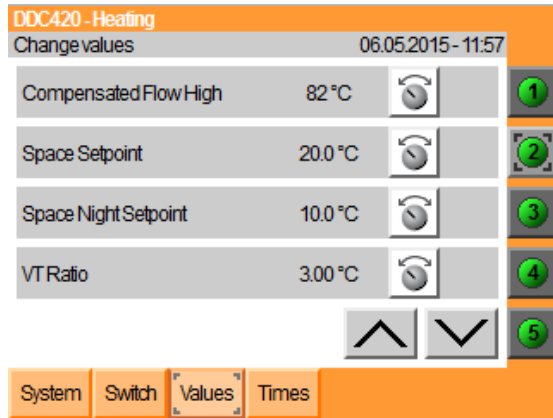
► Touch the **[Times]** button.
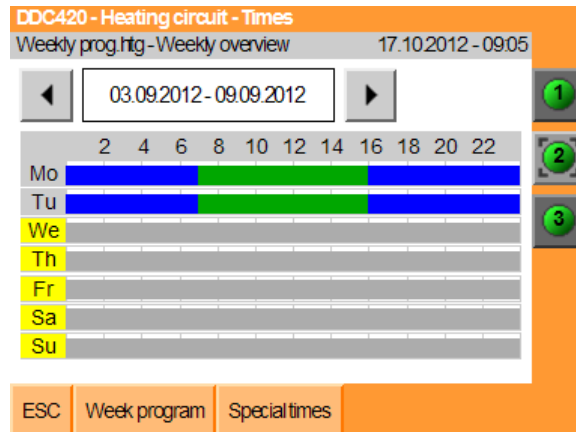
This opens an overview of all the weekly programs of the selected plant.

► Select the weekly program.

The overview for the current week is displayed.

You can switch to a week later or earlier using the arrows at the top.

If special times are in effect for a day, the buttons for this day (left edge) are shaded yellow.
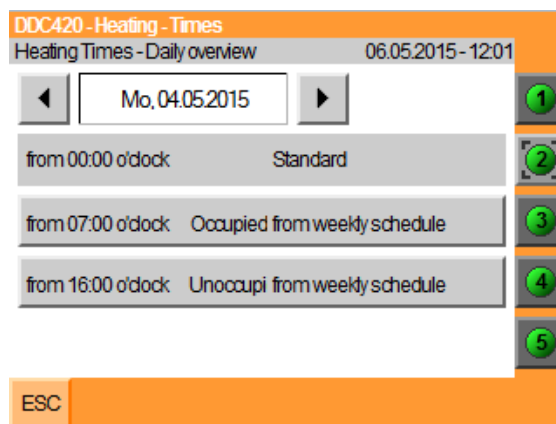
Open the dialogs for managing the weekly program using the **[Week program]** button (See chapter 4.6.1 "Weekly program", page 74.). Open the dialogs for managing all special times with the **[Special times]** button (See chapter 4.6.2 "Special times", page 77.).

Daily overview

► Select a day from the weekly overview.

The daily overview opens.

All switch times from the weekly program that are applicable on this day and the special times are displayed.

Using the arrows at the top, you can switch to a day earlier or later.

The displayed switch times are also buttons. If you touch a switch time from the weekly program, the weekly program opens.

If you touch a switch time from a special time, a list opens with all the special times for this day. If there are several special time entries, the list is sorted according to effective priority. The list begins with the highest priority. Existing special times can be edited, added (See chapter 4.6.3 "Editing or creating new special times", page 80.) and switch times of a special time (See chapter 4.6.4 "Editing or creating new switch times of a special time", page 82.) can be edited.

4.7.1 Weekly program

► Call up the weekly program as follows:

► Tap the **[Week program]** button in the weekly overview or on a switch time from the weekly program in the daily overview (See chapter 4.6 "Times", page 72.).

This opens the dialog for editing the weekly program.
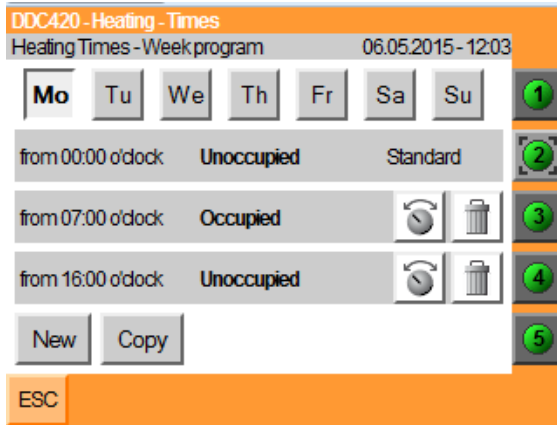
The first day or the day selected in the daily overview is marked in this view, while the weekly switching times for this day are shown in a list.

Here you can also switch to a different day of this week.

Use the up/down arrows to move through the list of weekly switching times.

You can now edit the weekly program.

► Tap the edit icon next to a weekly switching time to change the switch time or switching state.

► Touch **[New]** to create a new switch time.

► You can use **[Copy]** to copy all switch times for a day to another day (See section "Copying weekly switch times", page 76.).

Editing switch time and switching state

► Call up the weekly program, as described under chapter 4.6.1 "Weekly program", page 74..

► In the weekly program, select a switch time for editing, by tapping on the edit icon.

This opens the editor for editing the switch time and switching state.
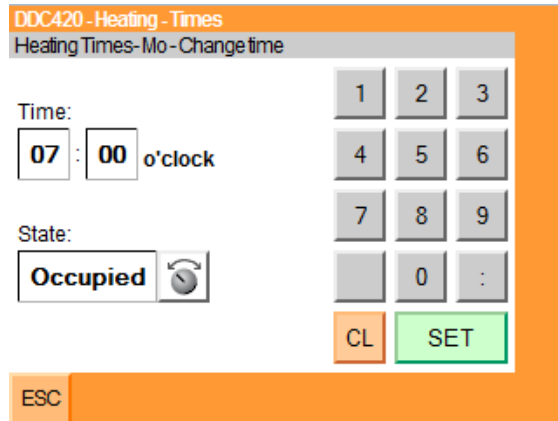
▶ Enter the time by tapping the numbers.

▶ Tap the edit icon next to a switching state to edit the switching state.

This opens the selection dialog with the switching states that are available for the selected switching time.
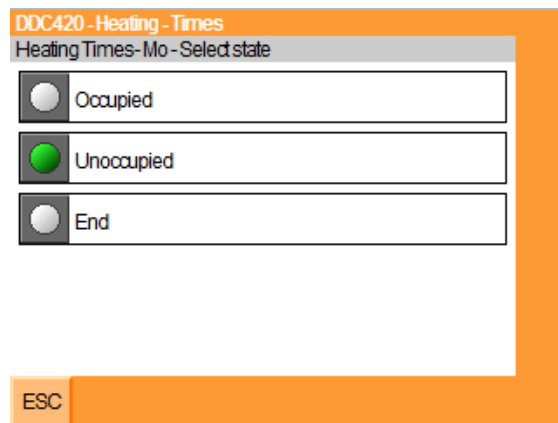
NOTE

The switching state "End" results in a switch-back to the standard switching state of the weekly program. For example, with the entry "00:00", you can recognize this by the marking *Standard*. The standard switching times cannot be deleted. The standard switching time is overwritten by creating a new switching time with a switch time of 00:00 and the desired plant switching state.

▶ Tap on the desired switching state.

The new switching state is applied and the display reverts back to the editor for editing the switch times.

DDC420 - Heating - Times
Heating Times - Mo - Change time

Time:

07 : 00 o'clock

State:

Occupied ⏱

1	2	3
4	5	6
7	8	9
	0	:

CL | SET

ESC

► Confirm your entries with **[SET]**.

This returns you to the dialog from which you called up the editor for editing the switch time and switching state.

NOTE

ℹ

If project planning has been carried out for the building automation system accordingly, the seconds may be displayed under the time. Project planning by Kieback&Peter usually does not include seconds. This means that they cannot be edited.
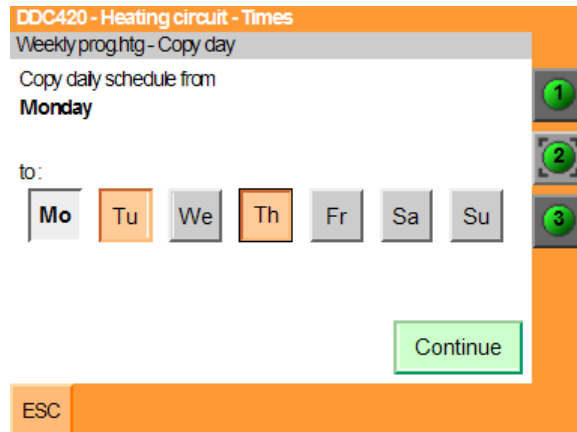

Copying weekly switch times

It is possible to copy the weekly switch times from one day to another.

For this purpose, there is a **[Copy]** button in the dialog for editing the weekly program. The button is only visible if the logged-in user has the required access rights.

► Call up the weekly program, as described under chapter 4.6.1 "Weekly program", page 74..

DDC420 - Heating - Times
Heating Times - Week program   06.05.2015 - 12:03

| **Mo** | Tu | We | Th | Fr | Sa | Su | ①

from 00:00 o'clock   **Unoccupied**   Standard   ②

from 07:00 o'clock   **Occupied**   ⏱ 🗑 ③

from 16:00 o'clock   **Unoccupied**   ⏱ 🗑 ④

New | Copy   ⑤

ESC

► Tap the **[Copy]** button.

► Tap on the day to which you want to copy the switch times. Here you can also select more than one day.

► Tap **[Continue]** to copy the switch times and return to the previous dialog.

4.7.2 Special times

If you want to edit only special times, a special dialog is available for managing all special times of a selected plant.

NOTE

A special time entry is effective only from the first entered switching time. Prior to that, either the weekly program or other special times defined for the day in question are effective.

► Select the weekly overview, and tap the **[Special times]** button. See chapter 4.6.1 "Weekly program", page 74.

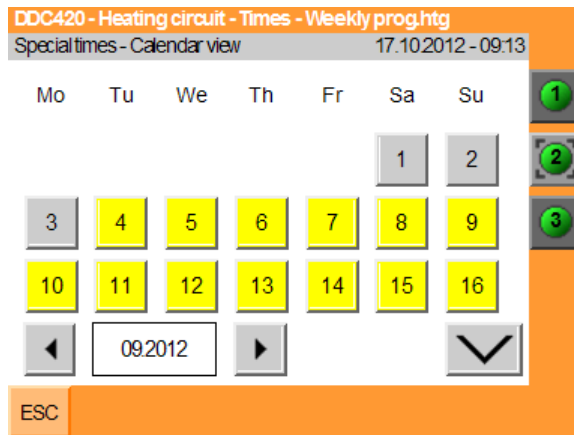This opens a dialog for managing all the special times of the selected plant.
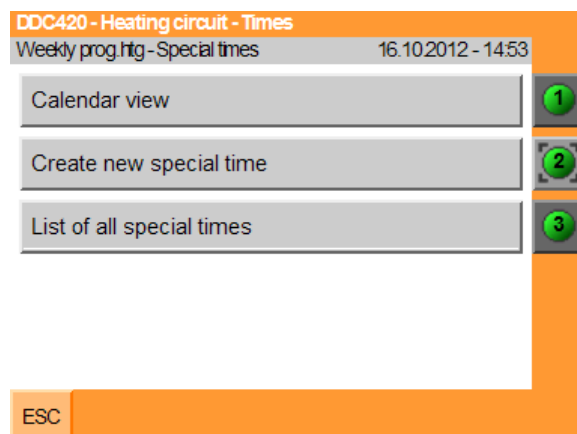
In the dialog for managing all special times, three selection options are available.

- Calendar view

- Create new special time

- List of all special times

Calendar view

The calendar view shows an overview of the days of the month containing the week that has been set in the weekly overview.

Days for which special times have been defined are marked with a yellow background.

Using the arrows at bottom left, you can move back or forward by a month. Use the up/down arrows at bottom right to switch between each half of a month.

If a day is selected, the dialog opens with a list of all special times relating to that day.

Existing special times can be edited and added again. The date of the selected day is applied.

NOTE

If there are several special time entries, the list is sorted according to effective priority. The list begins with the highest priority.

If you want to edit a special time, tap on the edit icon and proceed as described in chapter 4.6.3 "Editing or creating new special times", page 80..

If you want to edit the switch time of a special time, tap on the clock icon and proceed as described in chapter 4.6.4 "Editing or creating new switch times of a special time", page 82..

Using the **[New]** button, you can add a new special time for the selected day. To do this, proceed as described in chapter 4.6.3 "Editing or creating new special times", page 80..

Creating a new special time

You can create a new special time immediately by touching this button. To do this, proceed as described in chapter 4.6.3 "Editing or creating new special times", page 80..

List of all special times

All special times that have been configured for the selected plant are displayed as a list.

The icons beside the special times indicate which editing options are available.

If you want to edit a special time, tap on the edit icon and proceed as described in chapter 4.6.3 "Editing or creating new special times", page 80..

If you want to edit the switch time of a special time, tap on the clock icon and proceed as described in chapter 4.6.4 "Editing or creating new switch times of a special time", page 82..

Using the **[New]** button, you can add a new special time. To do this, proceed as described in chapter 4.6.4 "Editing or creating new switch times of a special time", page 82..

4.7.3 Editing or creating new special times

If you have selected a special time for editing or have opted to create a new special time, the overview for editing a special time opens.

DDC420 - Heating circuit - Times - Weekly prog.htg	
New special time	17.10.2012 - 09:20

Begins on:	06.09.2012	⌚	①
Ends on:	06.09.2012	⌚	②
Repeat	none	⌚	③

Continue

ESC

The settings for Start, End and Repeat that were valid until now are displayed.

If you want to create a new special time, either no entries appear or, if you had already selected a day, the date of the selected day appears for Start and End.

► Tap the edit icon for the start time or end time.

This opens the editor for editing the date.

DDC420 - Heating circuit - Times - Weekly prog.htg	
New special time - begins on...	16.10.2012 - 15:01

Mo	Tu	We	Th	Fr	Sa	Su
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21

◄ 10.2012 ► ⌄

ESC

You can set another month using the arrows beside the monthly display.

Use the up/down arrows to switch between each half of a month.

► Tap on the desired day.

The date is applied and the previous dialog appears.

► In the overview for editing the special time, tap the edit icon next to Repeat.
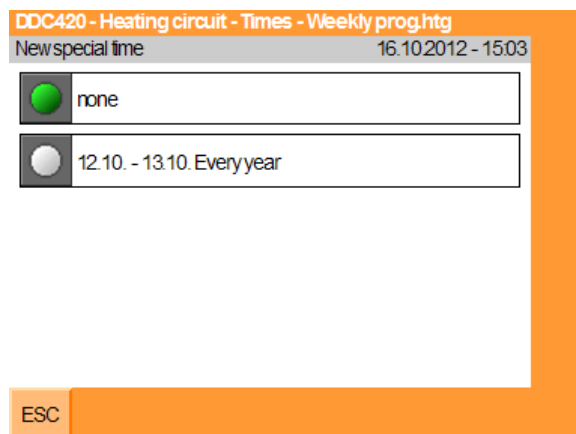
This opens the repeat dialog, which presents the possible options for repeating the special time. The options depend on the entries under Start and End of the special time.

If the start date is the same as the end date, you can select from the following options:
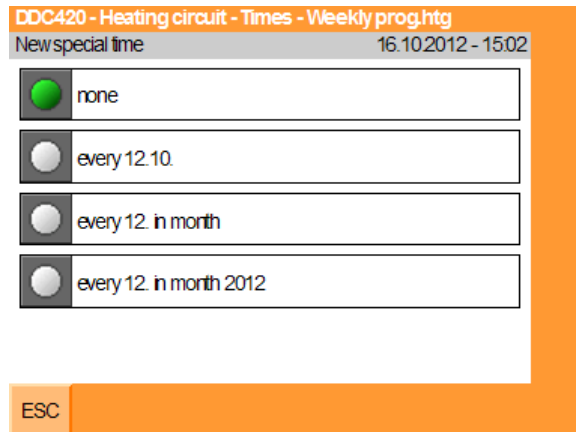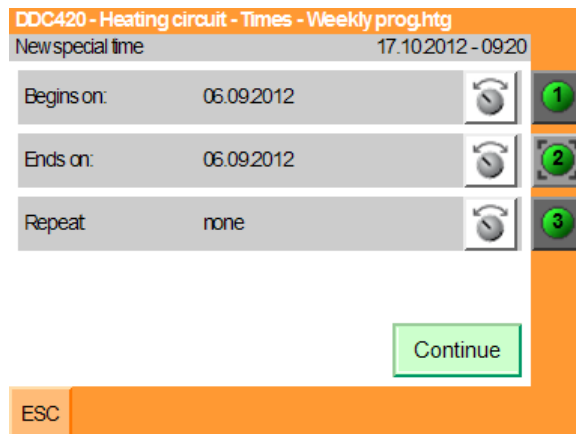
If you have entered a date range under Start and End, you can select from the following options:

► Select one of the options by tapping it.

The selection is applied and the previous dialog appears.
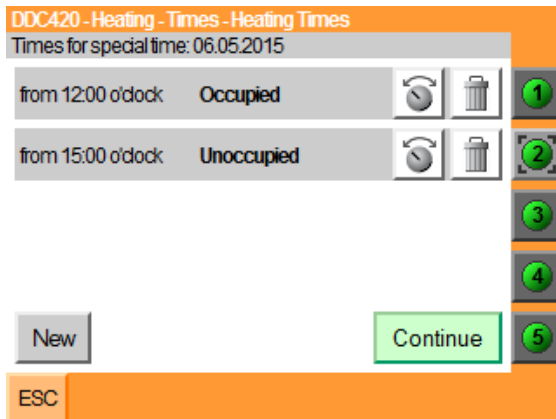

NOTE

The number of special times is limited to 30 special times per time program. If this number has been reached, no new special times can be created.

After editing the settings for the special time, you can edit the switch times and switching states of this special time. To do this, tap on the **[Continue]** button and proceed as described in the following section.

4.7.4 Editing or creating new switch times of a special time

If you have created a new special time and tapped the **[Continue]** button, as described in the previous section, you can enter the first switch time for this special time. After the first entry of a switch time, an overview opens with all the switch times of this special time.

You can also call up this overview by tapping on the clock icon of a special time in the list of special times for the selected plant.

► Tap the edit icon of a switch time that you want to edit or tap **[New]** if you want to create a new switch time.

This opens the editor for the switch time and switching state.
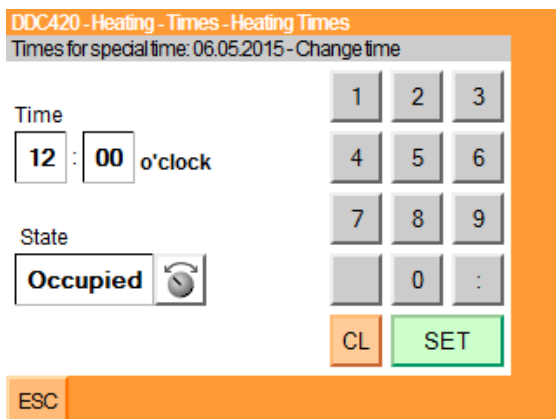

► Enter the time by tapping the numbers.

NOTE

A special time entry is effective only from the first entered switching time. Prior to that, either the weekly program or other special times that apply to the day in question are effective. A maximum of eight switch times can be created for a special time. If this number has been reached, the **[New]** button is hidden.

► Tap the edit icon next to a switching state to edit the switching state.

This opens the selection dialog with the switching states that are available for the selected switching time.
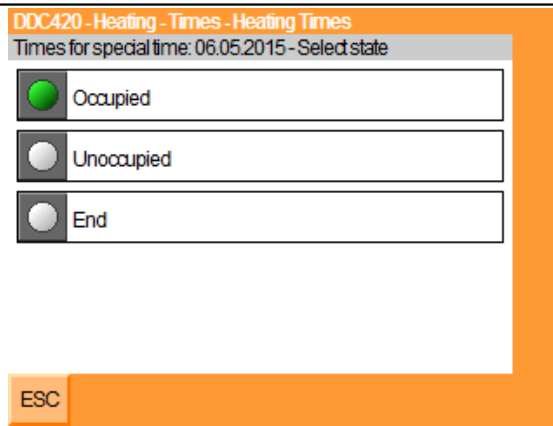
NOTE

The switching state "End" results in a switch-back to the weekly program or to a special time of a lower priority, if more than one special time applies on this day. The switching states of the weekly program or of lower priority special time present at the switching time are then effective.
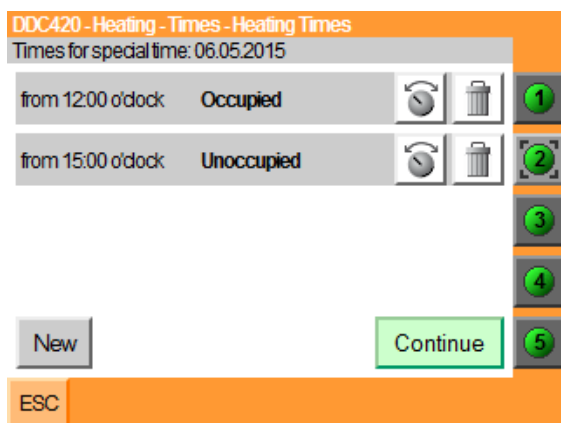
► Tap on the desired switching state.

The new switching state is applied and the display reverts back to the editor for editing the switch times.
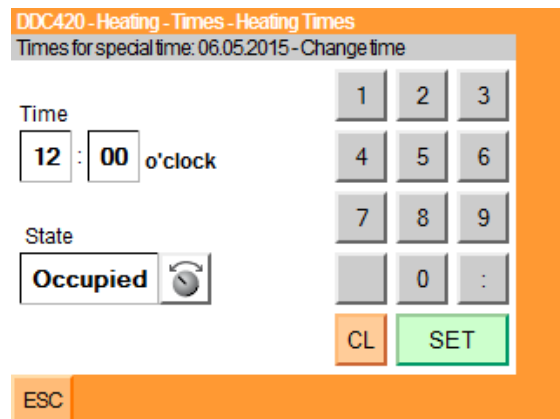
► Confirm your entries by tapping **[SET]**.

The overview with all switch times of this special time opens again.

```
DDC420 - Heating - Times - Heating Times
Times for special time: 06.05.2015

from 12:00 o'clock    Occupied        [🕐] [🗑]   (1)

from 15:00 o'clock    Unoccupied      [🕐] [🗑]   (2)

                                                  (3)

                                                  (4)

  [New]                          [Continue]       (5)

[ESC]
```

► Tap **[Continue]** to finish editing.

4.8 Trend display

If a trend has been recorded for a parameter, you can display the trend curve on the touch panel.

Controls in the trend curve dialog

Various buttons are displayed on the right and bottom borders of the trend curve dialog. You can use these to customize the trend curve display to your needs.

It features the same functions and icons as those on the Web interface. For a description, see chapter 3.12 "Trend display", page 59.
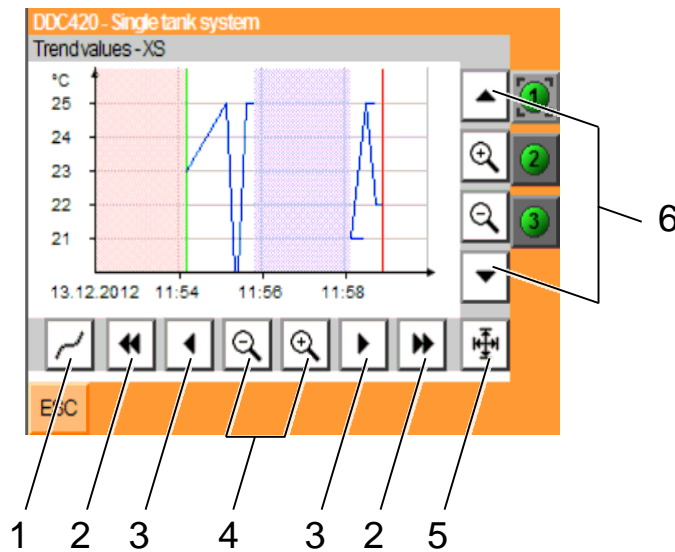
4-2: Controls on the trend curve display

[1] Alternates between line display and step display.

[2] Double arrow – moves the view by the fully displayed width.

[3] Single arrow – moves the view one main division.

[4] Zoom – Stretches or compresses the time axis.

[5] Displays the current trend values. Time and value axes are scaled if required.

[6] Single arrow – moves the view one main division.

If a zoom icon is deactivated, no further zooming in that direction is possible.

On a touch panel, information on any trend value can be accessed as a popup. If you have zoomed far enough so that the small frame for the popup appears, tap this frame once. Popup information about the relevant trend value appears for a limited time.
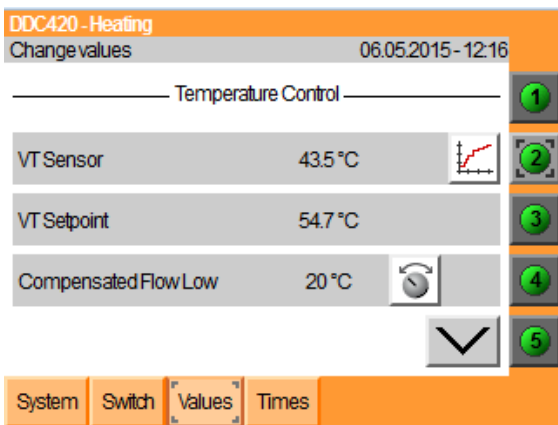
4.8.1 Opening the trend curve dialog

► Select the plant in the plant overview or using the plant buttons on the right border of any dialog.
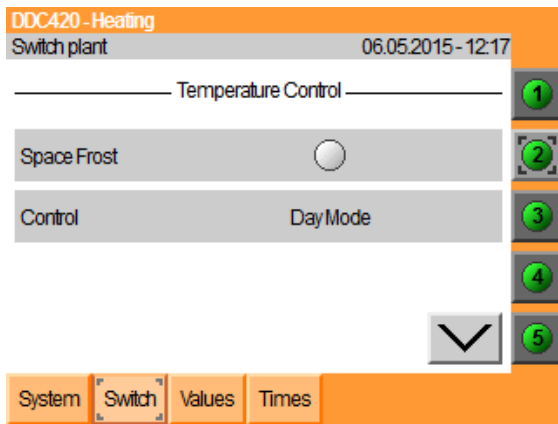
► Tap **[Values]**.

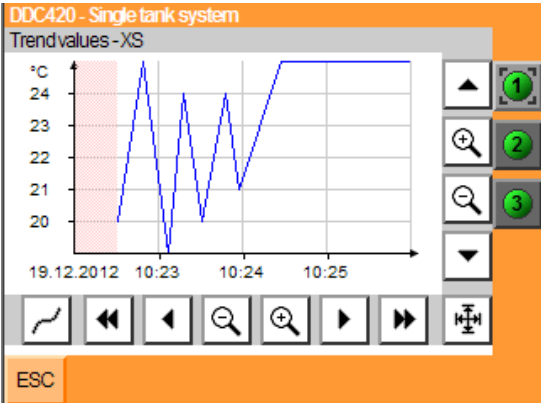The *Change values* dialog opens.

 The trend icon indicates that a trend has been recorded for this parameter.

►Tap the trend icon.

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The trend curve dialog opens.

4.8.2   Displaying the trend curve

The trend curve is displayed almost exactly as it is in the Web browser. For a description, see chapter 3.12.2 "Displaying the trend curve", page 62.

Again, the trend curve can be shown as either a line display or a step display. However, for the touch panel, the step display is the default setting.

It features the same functions and icons as those on the Web interface. For a description, see chapter 3.12 "Trend display", page 59.
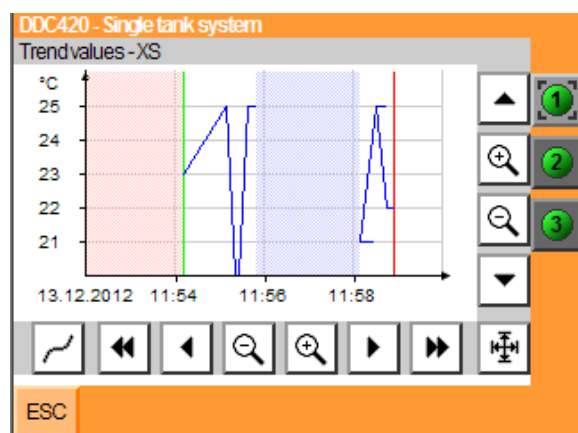
i

NOTE

On 3.5" touch panels, only the step display is possible.

If values are deleted from the trend memory in the interim, this area is shaded light red. If invalid values are recorded, this area is shaded light blue.

5 Servicing

5.1 Changing the Battery if time and date are lost on Power Failure

Device prior to disassembly:

► Remove clear plastic front panel.

► Remove white plate.

1

1 Battery – Type CR1226 for Clock and Calendar retention during power outage

► Replace the battery using a suitable tool.

► Mount the screen.

► Mount the front panel.

NOTE

Project planning settings are retained after replacing the battery.