KaControl

SEL4.0 Control Panel

Instructions
Software version 4.003

Genau mein Klima.

SAP 1507207/20230628_EN

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1 General information

1.1 About these instructions

Carefully read these instructions in full prior to any assembly and installation work! Anyone involved with the installation, commissioning and use of this product is obliged to pass these instructions on to tradespeople who are involved at the same time or subsequently, as well as to end users or operators. Retain these instructions until final decommissioning!

We reserve the right to make content or design-related changes without prior notice!

1.2 Key to symbols

Important! Danger!

Non-compliance with this information can lead to serious personal injuries or damage to property.

Danger from electric shock!

Non-compliance with this information can lead to serious personal injuries or damage to property by electric current.

2 Correct use

The Kampmann KaControl SEL4.0 control panel has been designed in accordance with the state of the art and recognised safety regulations. Nevertheless, its use can result in danger to people or damage to the units or other material property if it is not appropriately installed and operated or correctly and properly used.

Applications
Only use the KaControl SEL4.0 control panel as an open/closed-loop control system in conjunction with Kampmann systems.

Only use the KaControl SEL4.0 control panel
- indoors (for instance in residential properties and offices, showrooms etc.)

Do not use the KaControl SEL4.0 control panel
- outdoors,
- in humid areas, such as swimming pools, in wet rooms,
- in areas where there is a risk of explosion,
- in areas with a high dust content,
- in areas with an aggressive atmosphere

Protect the products from humidity during installation. Check their use with the manufacturer in case of any doubt. Any use other than the use specified above is deemed not to be correct and proper. The operator of the unit is solely responsible for any resulting damage. Correct use includes observing the installation instructions in this manual.

Expertise
The installation of this product requires specialist heating, cooling, ventilation and electrical engineering knowledge. This knowledge, generally learned in vocational training in one of the above fields, is not described separately. Damage caused by improper installation is the responsibility of the operator. The installer of this unit should have acquired adequate knowledge of safety and accident prevention regulations and guidelines and recognised technical regulations e.g. VDE regulations, DIN and EN standards based on this specialist vocational training.

Purpose and scope of these instructions
These instructions contain information on the commissioning, functionality and operation of the closed-loop control system KaControl SEL4.0 control panel. The information in these instructions can change without prior notice.

3 Important information / Safety instructions

Only allow a qualified electrician to perform installation, assembly and maintenance work on electrical units in compliance with the Association of German Electricians VDE guidelines. Wiring should comply with the applicable Association of German Electricians VDE regulations and provisions laid down by the regional electricity providers.
Non-compliance with the regulations and operating instructions can result in malfunctions with consequential damage and danger to people. There is a danger to life caused by wires being accidentally swapped round due to incorrect wiring! Make sure that all parts of the system are voltage-free and prevent them from being reconnected before starting any cabling and maintenance work!
Please read these instructions in full to ensure that the KaControl closed-loop control system is installed correctly and is in proper working order.
Please note the following safety-relevant information:

- Disconnect all parts of the system that are being worked on from the power supply.
- Ensure that the system cannot be accidentally switched back on!
- Before commencing installation/maintenance work, wait until the fan has come to a standstill after the unit has been switched off.
- Important! Pipes, casings and fittings can become very hot or very cold depending on the operating mode!
- Qualified personnel must have undergone training to provide them with adequate knowledge of the following:
    - Safety and accident prevention regulations
    - Guidelines and recognised technical regulations, i.e. Association of German Electricians (VDE) regulations
    - DIN and EN standards
    - Accident prevention regulations VBG, VBG4, VBG9a
    - DIN VDE 0100, DIN VDE 0105
    - EN 60730 (Part 1)
    - Technical wiring regulations (TABs) issued by the regional electricity providers

Protect the products from humidity during installation. Check their use with the manufacturer in case of any doubt. Any use other than that specified above is deemed not to be correct and proper. The operator of the unit is solely responsible for any damage arising as a result of this. Correct use includes observing the installation instructions described in these instructions.

Modifications to the unit
Do not undertake any modifications or upgrades to the KaControl components without consulting the manufacturer beforehand as they can impair the safety and operation of the unit.
Do not carry out any measures on the unit not described in these instructions. Make sure that on-site systems and cabling are suitable for connection to the intended system!

4 Possible applications

The KaControl SEL4.0 control panel can only be used for specific applications in defined systems and providing certain prerequisites have been met. These applications, systems and prerequisites are described and explained on the following pages.

4.1 Brief description

The KaControl SEL4.0 control panel allows up to 60 secondary air units to be grouped and centrally managed. They can be sub-divided into up to 25 temperature zones or groups. One group may consist of up to a maximum of six units. The integrated timer program with week and public holiday function enables the operating programs to be efficiently activated with individually settable temperature setpoints. Demand for heating and cooling and the switch-over between heating and cooling are both automatic. Communication with higher-level building automation/management systems is also possible.

4.2 Version

The KaControl SEL4.0 control panel features a clearly arranged touch display for intuitive operation. Depending on the configuration, the most important displays and controls are combined in a single view for each unit group. Parametrisation (specification of temperatures, timer program setting etc.) is done in password-protected menus with multiple levels. Parametrisable multifunctional inputs and outputs provide outstanding flexibility to deal with the most diverse applications. Any events or faults that occur are given a timestamp and are displayed in plain text. Certain faults need to be acknowledged. All events or faults that occur are permanently stored in the historic memory for subsequent diagnostic purposes.

4.3 Properties

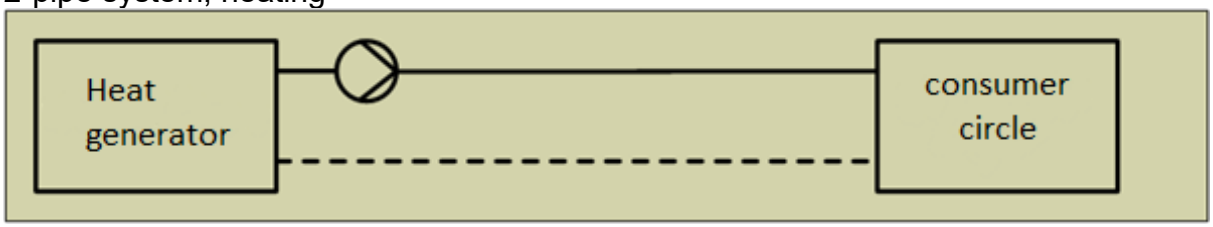
Housing:	plastic wall-mounted housing with a transparent cover
Dimensions:	264 mm x 234 mm x 141 mm (W x H x D)
IP class:	IP 54
Cable entries:	4
Mains voltage:	230 V AC 1 N 50 Hz
CPU:	microprocessor controller (32-bit) with USB interface

4.4 Hydraulic generator set-up

The KaControl SEL4.0 control panel can be parametrised for open/closed-loop control systems with varying set-ups. In all cases, the components used need to correspond to the conditions, specifications and limits outlined and explained on the following pages.
The following hydraulic diagrams illustrate the possible hydraulic set-up versions for the generator circuit.

4.4.1 Hydraulic system HS11

2-pipe system, heating

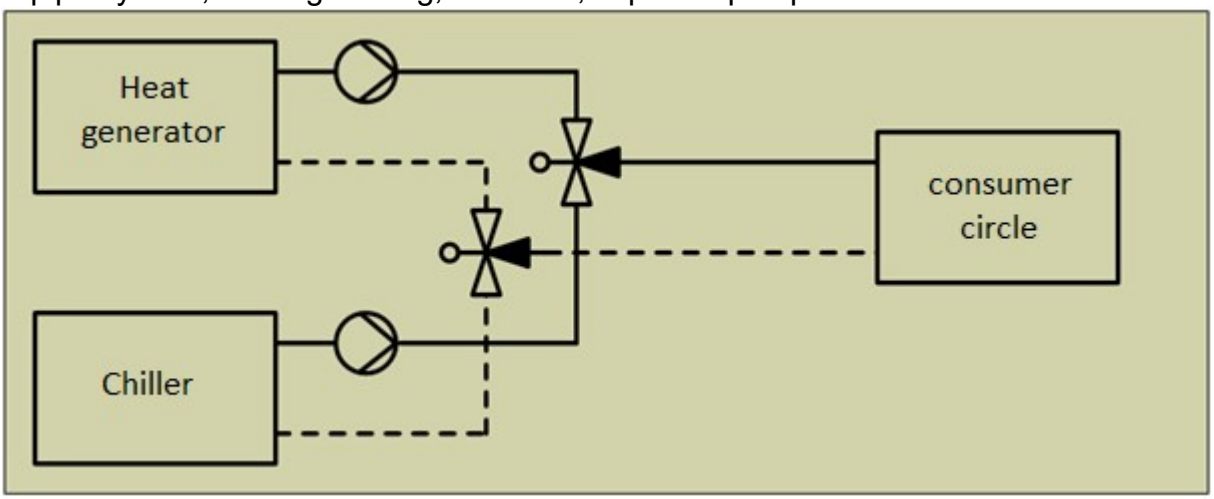


4.4.2 Hydraulic system HS21

2-pipe system, cooling

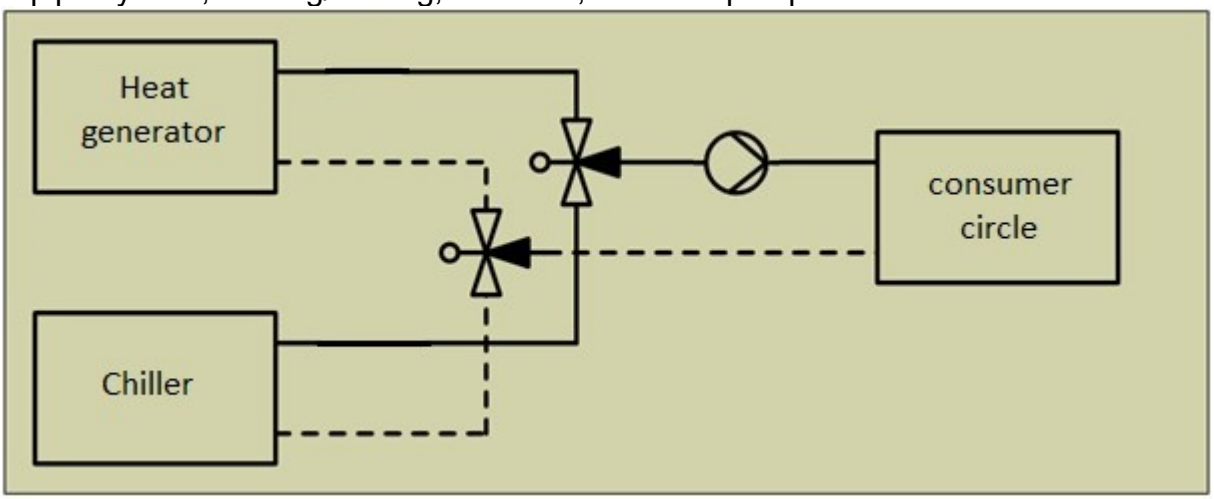
4.4.3 Hydraulic system HS31

2-pipe system, heating/cooling, standard, separate pumps



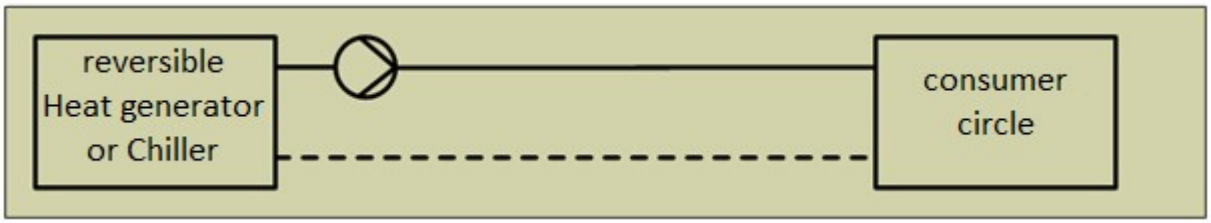
4.4.4 Hydraulic system HS32

2-pipe system, heating/cooling, standard, common pump



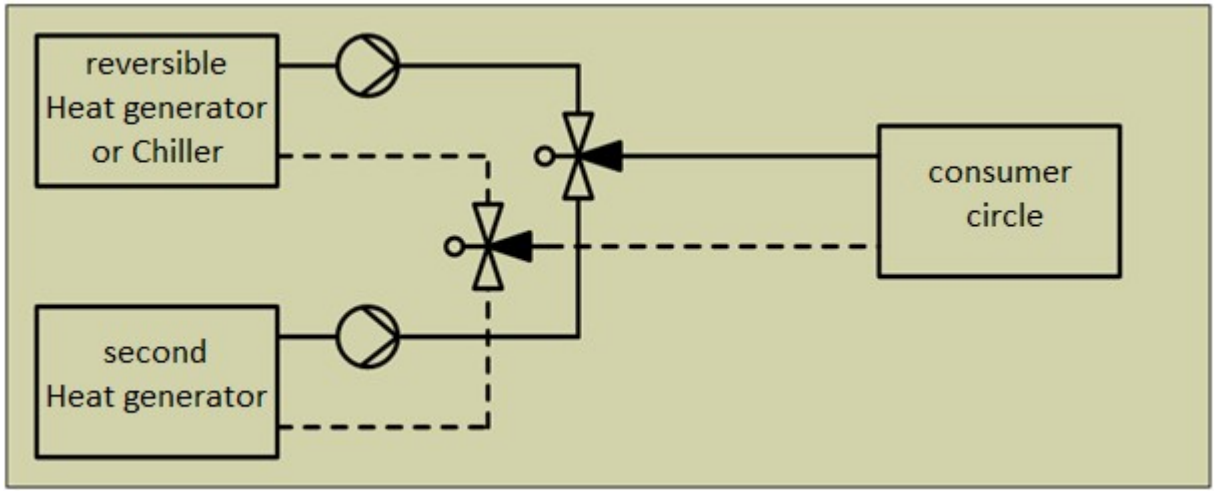
4.4.5 Hydraulic system HS41

2-pipe system, heating/cooling, monovalent heat pump



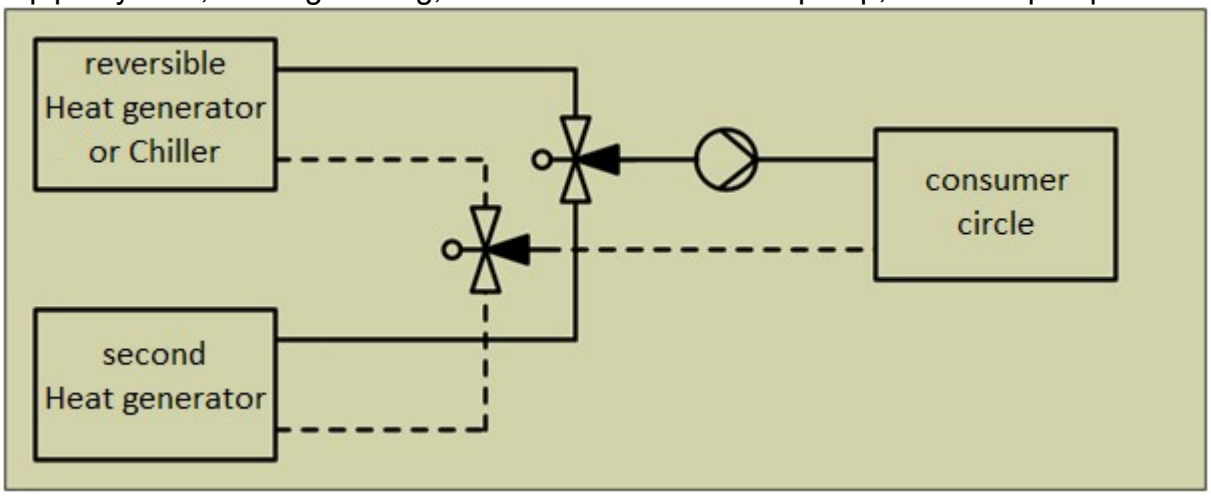
4.4.6 Hydraulic system HS51

2-pipe system, heating/cooling, alternative bivalent heat pump, separate pumps



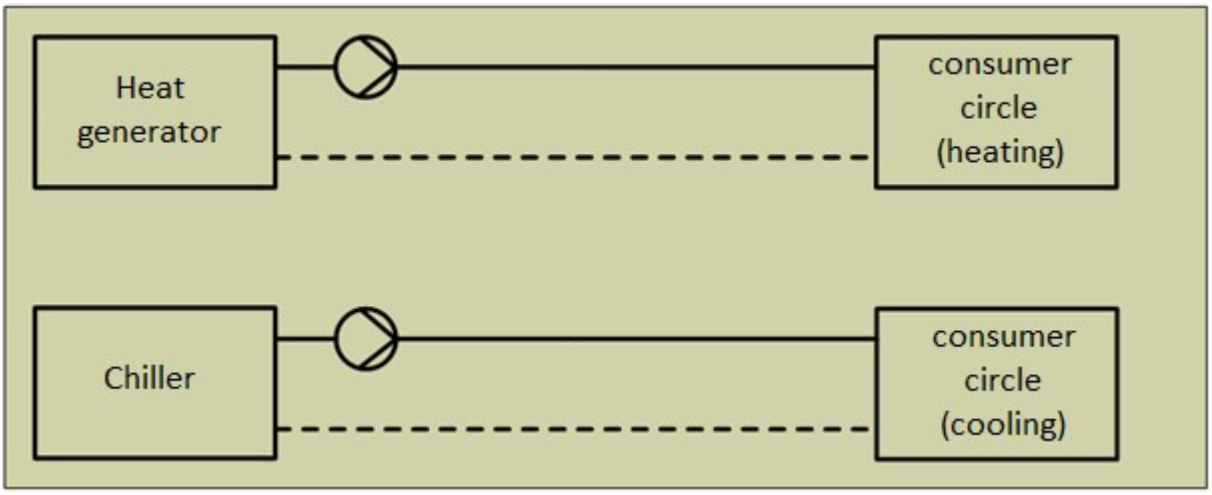
4.4.7 Hydraulic system HS52

2-pipe system, heating/cooling, alternative bivalent heat pump, common pump



4.4.8 Hydraulic system HS61

4-pipe system



4.5 General conditions, specifications and limits

The following general conditions, specifications and limits apply to the external secondary air units:

- Up to 25 secondary air groups, each with up to six identical units
- All secondary air groups with KaControl (e.g. type ...C1) including requisite accessories (e.g. valves with open/close actuators 24 V AC/DC) and with Modbus RTU interface card (slave FB, type 3260101)
- One room temperature sensor (e.g. type 3250110) is always required for each master group. A mean value can be formed by three additional sensors.
- One KaControl can be connected for each secondary air group to enable decentralised operation. This can then also be used as a room temperature sensor.
- The timer program and the central heating/cooling switch-over are managed by the KaControl SEL4.0 control panel.

5 Operation and navigation

Operation and visualisation is provided by a touch display. Touching the display switches on the backlight.
It goes out again automatically if the unit is not operated for any length of time.

The menu structure is sub-divided into multiple levels (Operator level, User level, Expert level and Manufacturer level). The User, Expert and Manufacturer levels can only be accessed by entering specific passwords.

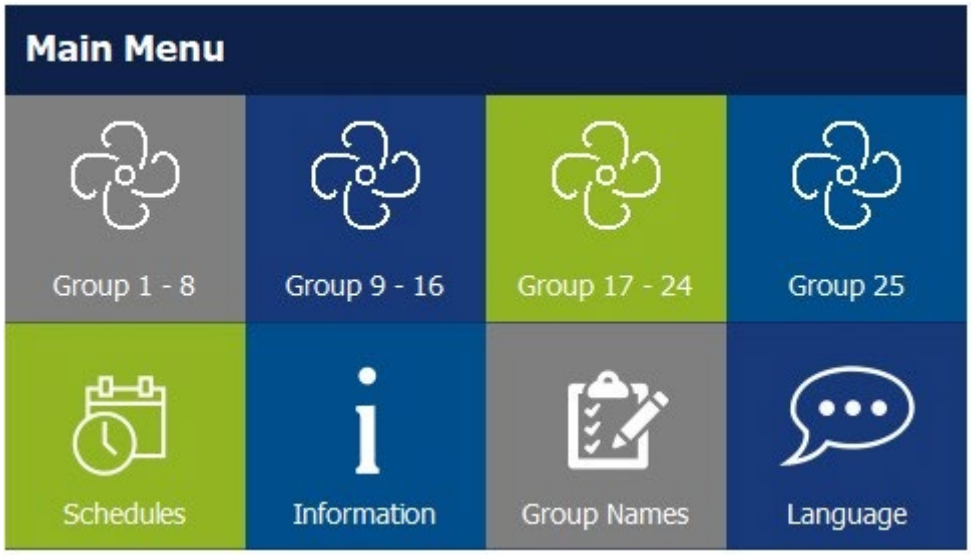
5.1 Operator level

Individual menu items can be selected at the Operator level via tiles or a menu bar at the top of the display. An overview of unit groups 1-8 is displayed as soon as the display has been enabled.

5.1.1 Main menu

The main menu can be accessed via the corresponding button in the menu bar at the top of the display.

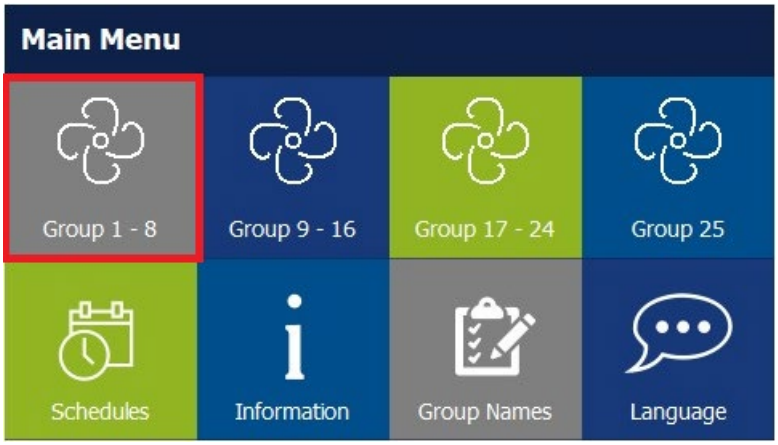
From the main menu, pressing the respective button or tile calls up the overviews of the unit groups and the overviews of the timer programs. Information on the software version can be displayed, as can menus to change the system language and the group names.



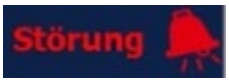
Within the individual sub-menus, navigation is generally done by pressing the buttons with the corresponding symbols. “Left arrow” means “scroll to the left”, “Right arrow” means “scroll to the right” and “Up arrow” means “one level up”.

You can select a menu by pressing the respective button or tile.

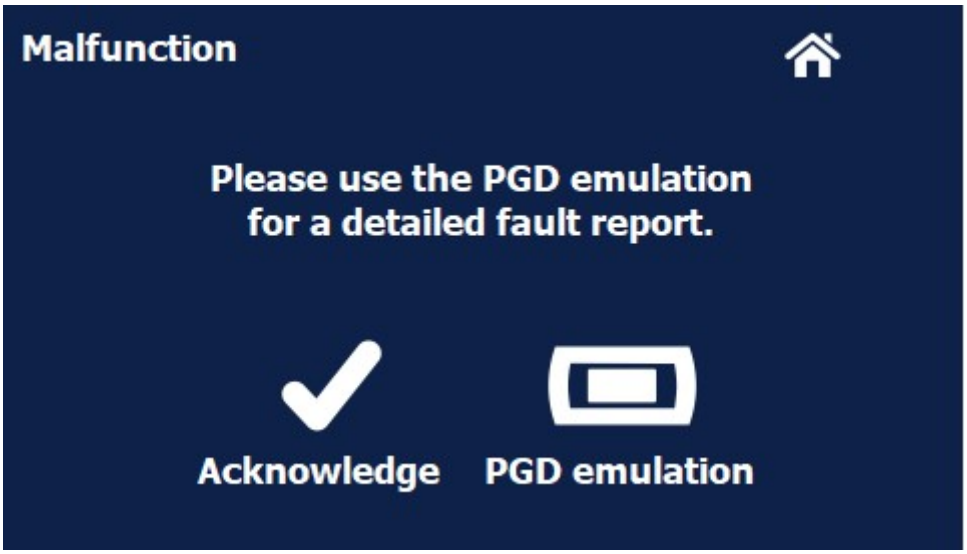
In the event of a fault or message, this is displayed in the menu bar at the top right of the display. The buttons or tiles to select the overview of the unit groups also have a red border if they are affected by the fault.



5.1.2 Faults



More information on the pending fault can be obtained by pressing “Fault”.



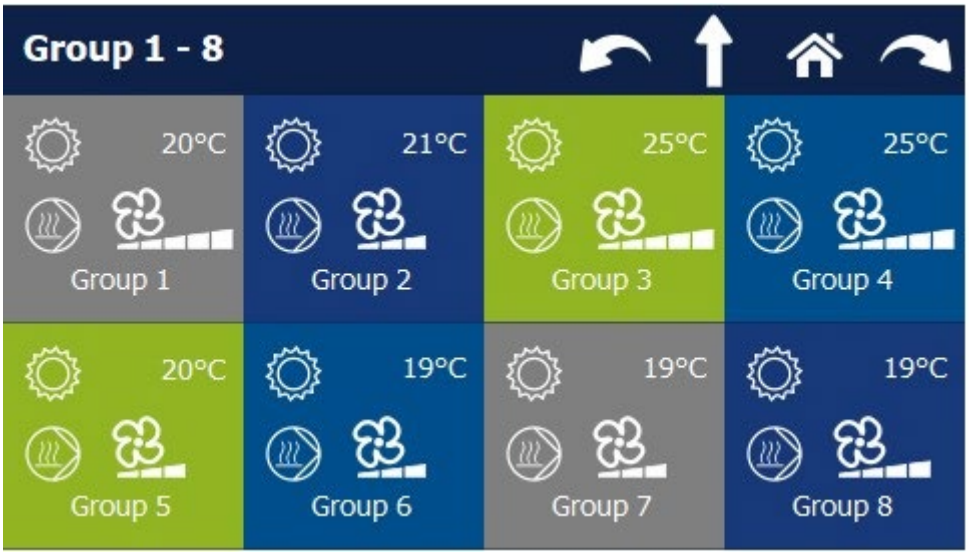
The fault can be acknowledged by pressing the button or the “Acknowledge” symbol. The corresponding displays and borders disappear if all faults could be acknowledged. The displays and borders continue to light up if the faults could not be acknowledged. The responsible specialist company then needs to be contacted.

Further details of the faults can be obtained by pressing the “PGD Emulation” button or symbol.

5.1.3 Overview of recirculating air groups

The overviews of the recirculating air groups can be accessed by pressing the relevant button or tiles.

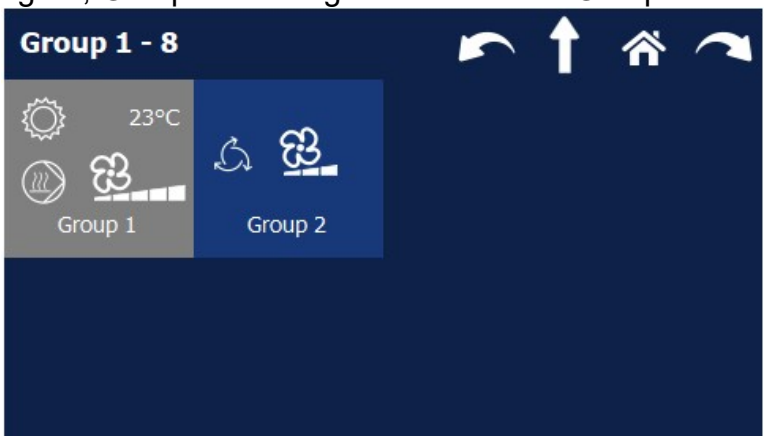
The tiles and icons displayed may differ depending on the system configuration. The names (Group1, Group 2, …) can be individually adapted. To do so, simply go to the main menu and press the “Group names” button to access the relevant menu and change the names.



Detailed information on the respective recirculating air groups can be accessed by pressing the corresponding buttons or tiles. Refer to “Detailed view of a group”. Use the navigation keys to scroll between the individual groups.

If none of the groups are configured, an empty overview is displayed.

The tiles used to access detailed information about the units configured as door air curtains (DAC) or recirculating air units (RA) are displayed differently. In the following figure, Group 1 is configured as RA and Group 2 is configured as DAC.



5.1.4 Displays and symbols on tiles for recirculating air units (RA)

Top left: symbol that denotes the operating program

	EXT		OFF
Day	Extra	Eco	Off

Top right: the current actual temperature in plain text

Centre left: symbol that denotes heating or cooling demand

Heating	Cooling	no demand

Centre right: symbol that denotes the current fan speed

OFF		
Off	Stage 1	Stage 2
Stage 3	Stage 4	Stage 5

If “AUTO” is also displayed, the fan speed is automatically selected depending on the temperature deviation between the setpoint and actual value.

Bottom: group name in plan text

5.1.5 Displays and symbols on tiles for door air curtains (DAC)

Top left: symbol that denotes the operating program

Heating	Ventilation

Top right: symbol that denotes the current speed stage

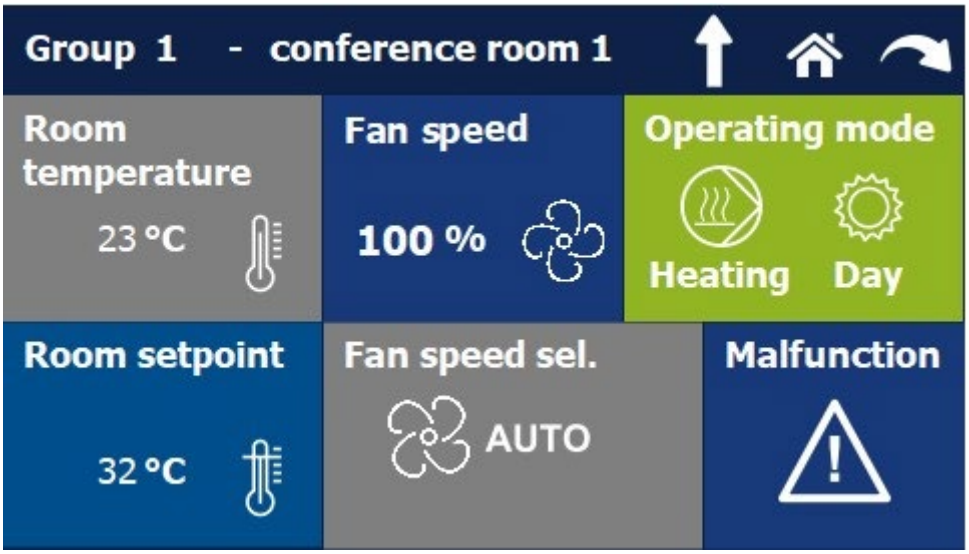
OFF		
Off	Stage 1	Stage 2
Stage 3	Stage 4	Stage 5

Bottom: group name in plain text

5.1.6 Detailed view of a group

The tiles and icons displayed may differ depending on the system configuration. Four different layouts can generally be displayed. In the event of a fault or message, this is indicated by a red border.

5.1.6.1 Recirculating air unit (timer program 1-5, 8)



Top left: display of the current actual temperature

Centre top: display of the current fan speed

Top right: display of the current operating mode (Heating, Cooling, Off) or (Day, Eco, Extra, Off)

Bottom left: display of the target temperature, access to the view to change it by pressing the button or tile

Bottom centre: display of the target fan speed or fan stage, press button or tile to access the view to change it

Bottom right: display of faults, press button or tile to access details

5.1.6.2 Recirculating air unit (timer program 6-7)

Top left: display of the actual temperature

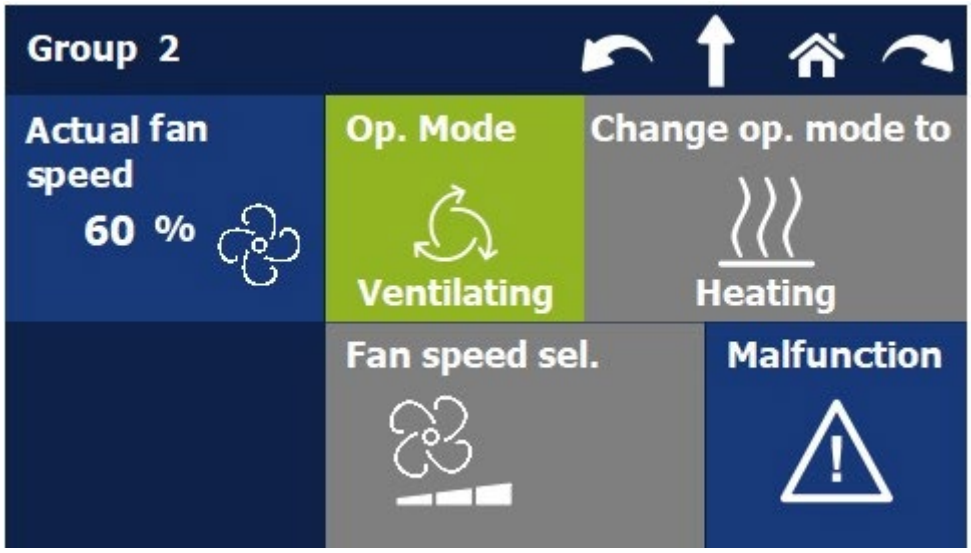
Centre top: display of the actual fan speed

Top right: display of the current operating mode (Heating, Cooling, Off) or (Day, Eco, Extra, Off)

Bottom right: display of faults, press button or tile to access details

The target temperature and target fan speed or fan stage are not displayed and cannot be changed as they have been carried over from the previous group.

5.1.6.3 Door air curtain (timer program 1-5, 8)



Top left: display of the actual fan speed

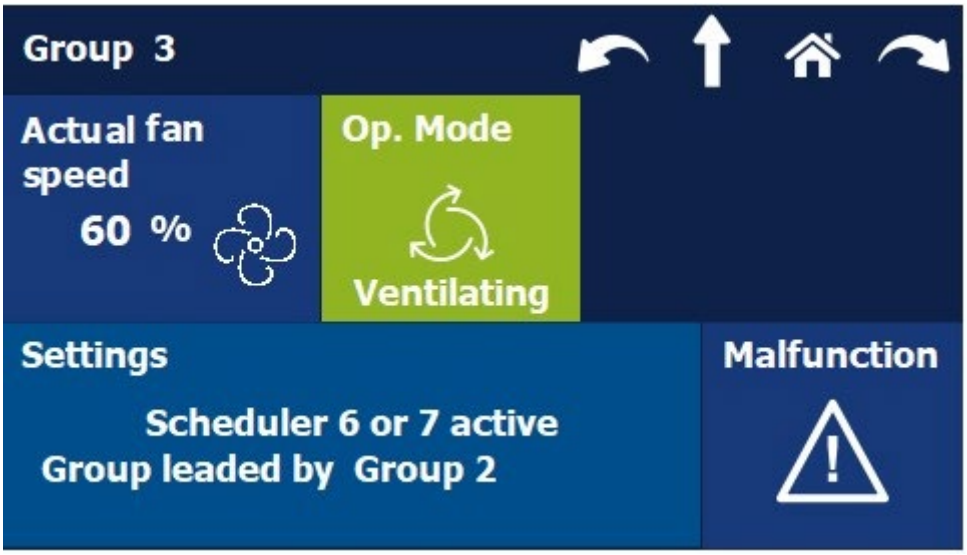
Centre top: display of the current operating mode (Heating, Cooling, Off)

Top right: press the button or tile to change the current operating mode

Bottom centre: display of the target fan speed or fan stage, press button or tile to access the view to change it

Bottom right: display of faults, press button or tile to access details

5.1.6.4 Door air curtain (timer program 6-7)



Top left: display of the actual fan speed

Centre top: display of the current operating mode (Heating, Cooling, Off)

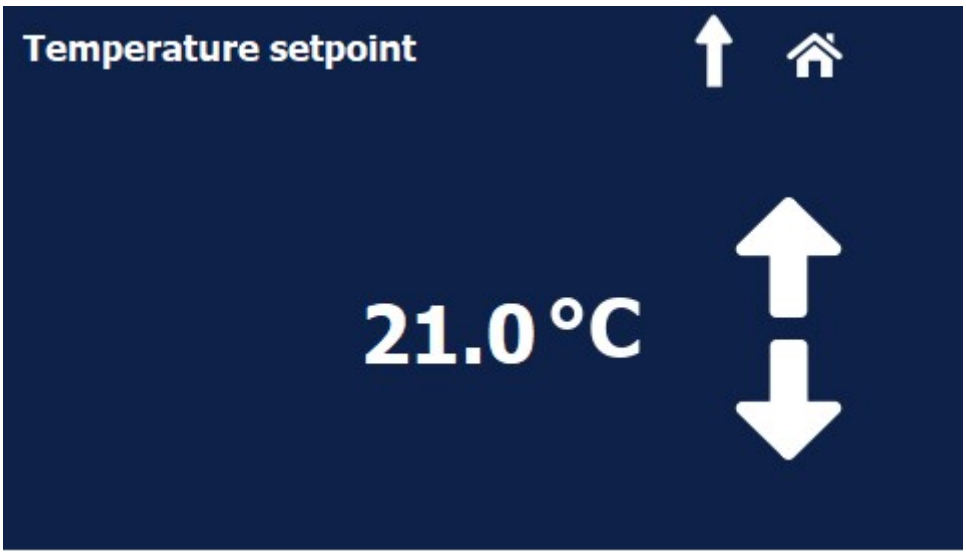
Bottom right: display of faults, press button or tile to access details

The current operating mode and the target fan speed or fan stage are not displayed and cannot be changed as they have been carried over from the previous group.

5.1.6.5 Setting the target temperature

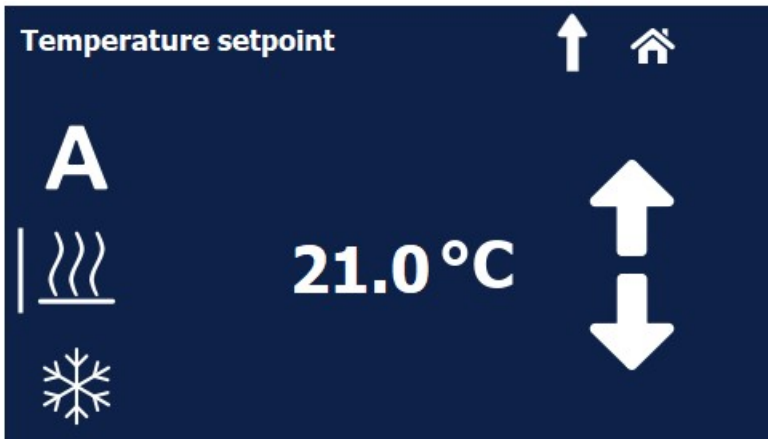
Two different displays and settings are available depending on the configuration of the system (two-pipe or four-pipe units). Setpoint temperatures can only be specified for recirculating air units (timer program 1-5, 8).

Two-pipe units:



The arrow keys on the right can be used to increase or decrease the setpoint temperature in 1 K increments within set limits.

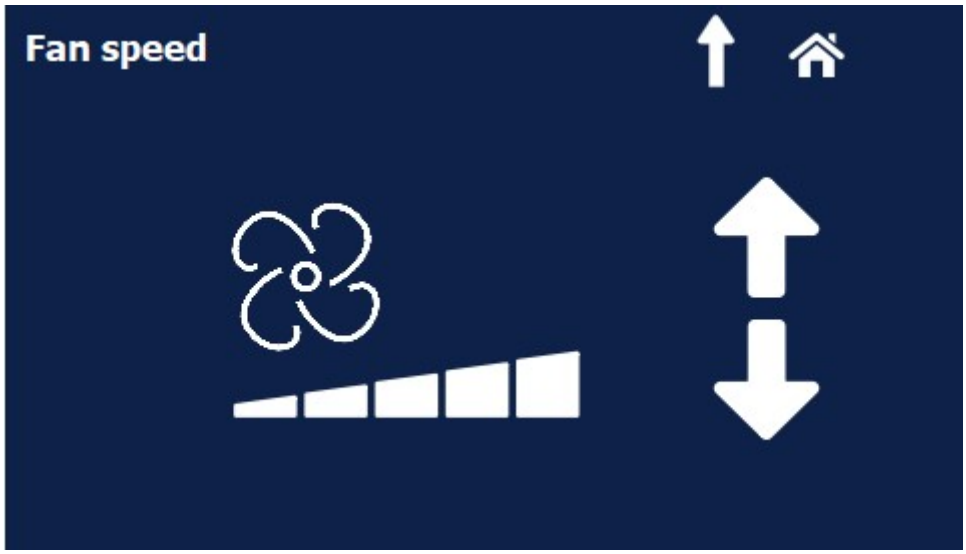
Four-pipe units:



The arrow keys on the right can be used to increase or decrease the setpoint temperature in 1 K increments within set limits.

The symbols on the left can be used to select the operating mode (Heating, Cooling, Auto). The operating mode currently enabled is indicated by the white vertical line to the left of the respective symbol.

5.1.6.6 Setting the target fan speed or fan stage

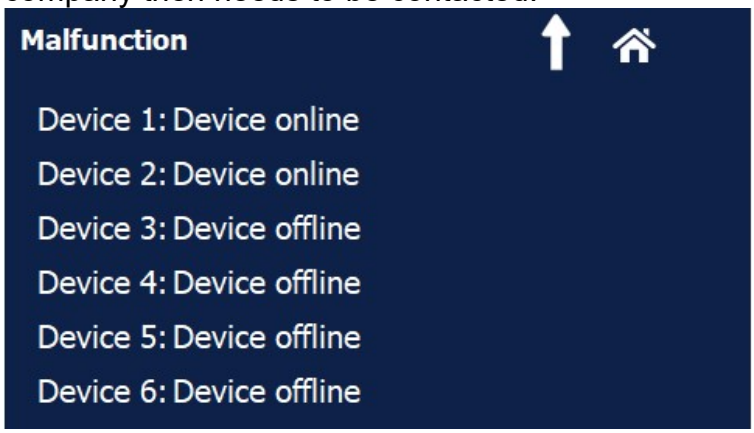


The arrow keys on the right can be used to increase or decrease the target fan speed. Unlike door air curtains, recirculating air units can also be set to “AUTO” mode in the same way. The fan stage is automatically selected depending on the temperature deviation between the setpoint and actual value.

5.1.6.7 Error messages

Depending on the configuration of the system, the status of the connected units of the respective recirculating air group is displayed in plain text. The fault can be

acknowledged by pressing the button or the “Acknowledge” symbol. The corresponding displays change if the fault could be acknowledged. The displays remain unchanged if the fault could not be acknowledged. The responsible specialist company then needs to be contacted.



The following displays are possible:

- Unit online (all OK)
- Unit offline (communication with the unit is disrupted)
- Faulty control sensor
- Motor malfunction
- Room frost protection
- Condensate alarm
- General alarm
- Sensor AI1, AI2 or AI3 faulty
- Unit frost protection
- Faulty EEPROM
- Offline slave in the tLAN network

5.1.7 Timer programs

The overview of the timer programs can be accessed by pressing the relevant button or tiles.

Pressing the respective button or tile calls up the view in which the respective timer programs can be changed. The views in which holidays can be changed can also be called up.

5.1.7.1 Timer programs

The view to change the respective timer programs displays switching times and the assigned operating modes for each weekday. Use the navigation keys to scroll between the individual weekdays.

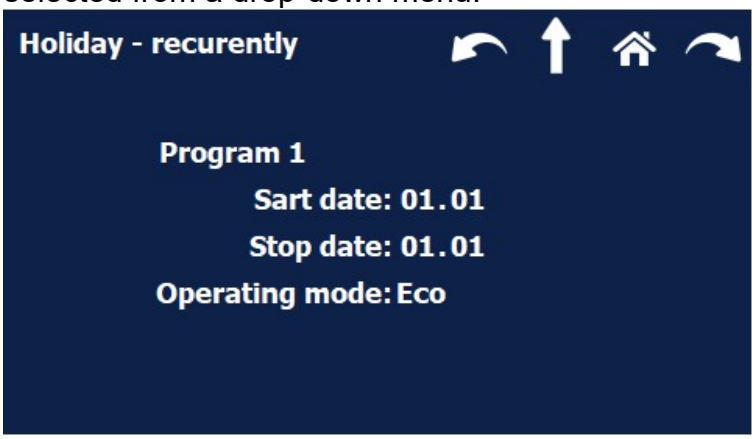
A switching point can be edited by tapping on the corresponding time or operating mode. The time can then be entered using the keypad, and the operating mode selected from a drop-down menu.

Selected settings can be carried over to the following day by pressing the “Apply” symbol (tick).

5.1.7.2 Recurring holidays

The view to change the maximum of nine adjustable recurring holiday days or holiday periods shows the date of the start days and end days of the periods, as well as the assigned operating modes. Use the navigation keys to scroll between the individual periods.

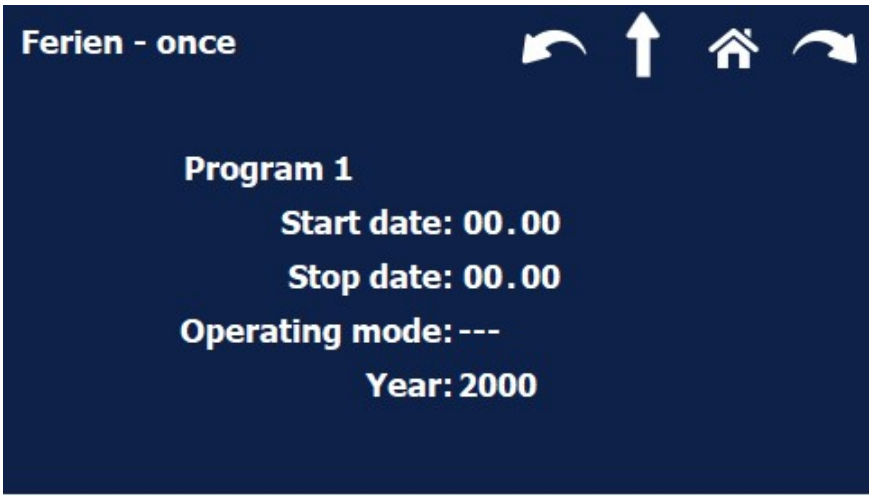
A switching point can be edited by tapping on the corresponding date or operating mode. The date can then be entered using the keypad, and the operating mode selected from a drop-down menu.



5.1.7.3 One-off holidays

The view to change the maximum of nine adjustable one-off holiday days or holiday periods shows the date of the start days and end days of the periods, as well as the assigned operating modes. Use the navigation keys to scroll between the individual periods.

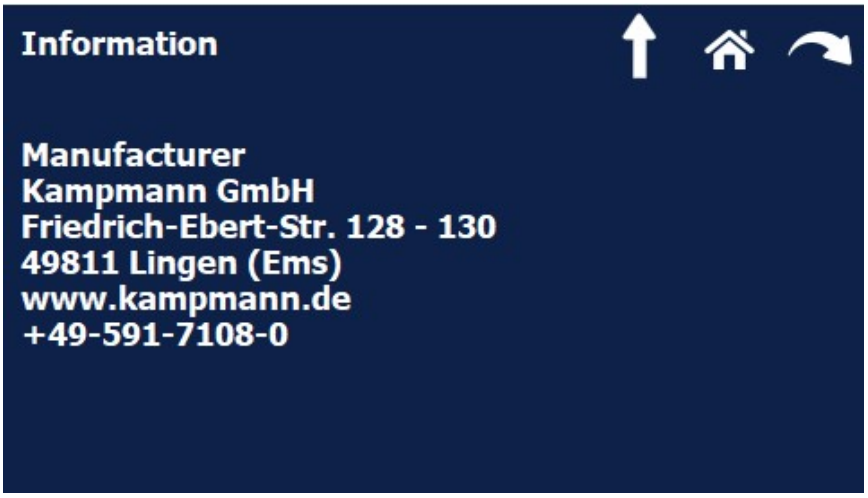
A switching point can be edited by tapping on the corresponding date or operating mode. The date can then be entered using the keypad, and the operating mode selected from a drop-down menu.



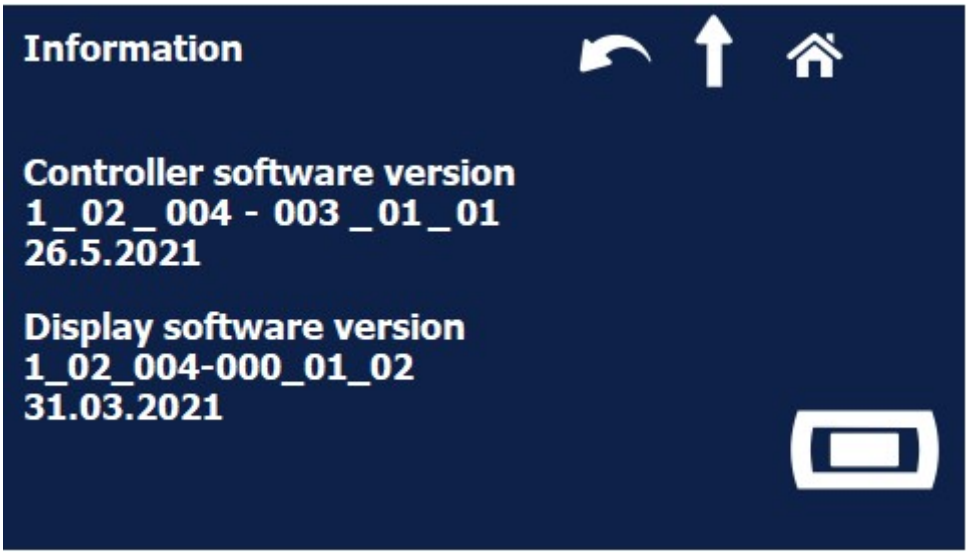
5.1.8 Information

The first information display can be accessed by pressing the relevant button or tile.

The initial part provides information about the manufacturer. Use the navigation keys to scroll between the individual periods.



The second part provides information about the software version of the closed-loop controller and the HMI control unit.



Pressing the “PGD Emulation” button or symbol at the bottom right enables lower operating and configuration levels to be accessed.

5.1.9 PGD Emulation

It is operated using six buttons with a black background arranged at the sides. The menu structure has multiple levels (Operator level, User level, Expert level and Manufacturer level). The User, Expert and Manufacturer levels can only be accessed by entering specific passwords.

The “Alarm” button flashes red as soon as a fault or message occurs. Pressing the “Alarm” button accesses the “Alarm” menu, and pressing the “Alarm” button once more opens the “Event” menu.

The “Alarm” menu displays any faults in plain text. Pressing the “Up” or “Down” button enables the user to scroll between several faults that have occurred. The relevant fault can be acknowledged by pressing the “Select” button. The entry is cleared if it was possible to acknowledge the fault. The entry remains if it was not possible to

acknowledge the fault. The responsible specialist company then needs to be contacted.

The “Event” menu displays faults and messages that have occurred in plain text with the date and time. Pressing the “Up” or “Down” button enables the user to scroll between the individual entries.
Pressing the “Back” button moves the screen back to the previous view
right back to the start screen.

Pressing the “Circle with dot” button opens the “Password entry” menu. Entering the relevant password in the “Password entry” menu
switches the system to the “User level” menu, “Expert level” menu, or “Manufacturer level” menu.

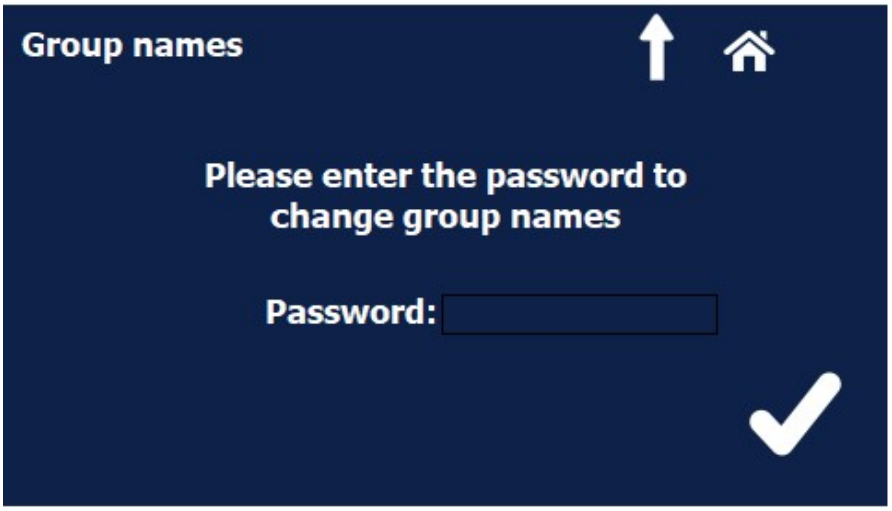
Pressing the “Left arrow” button (bottom left) takes the user back to the original view of the main menu. This exits the emulation of the PGD.

Only service technicians may use the “Network” button (bottom right).

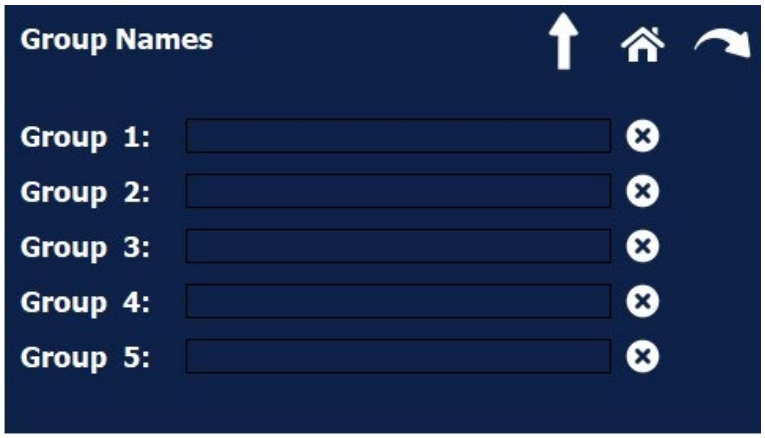
5.1.10 Setting up group names

Group names can be changed by pressing the relevant button or tiles.

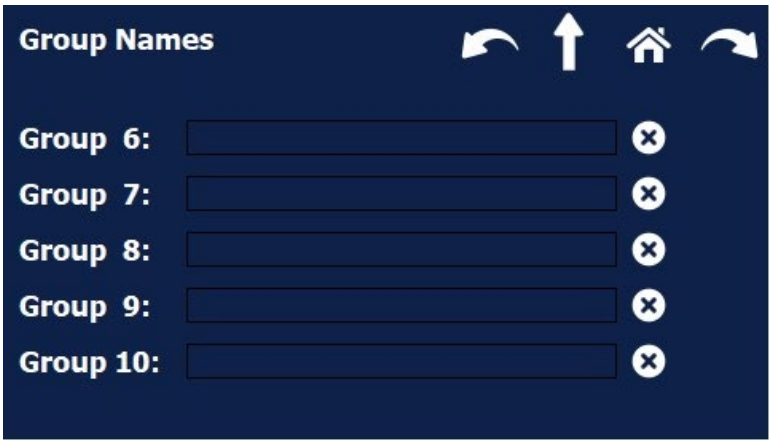
A password needs to be entered to make changes to group names. Tapping the empty text input box opens up a keyboard with which the required password “7108” can be entered. The input must be completed by pressing the “Accept” symbol (check mark).



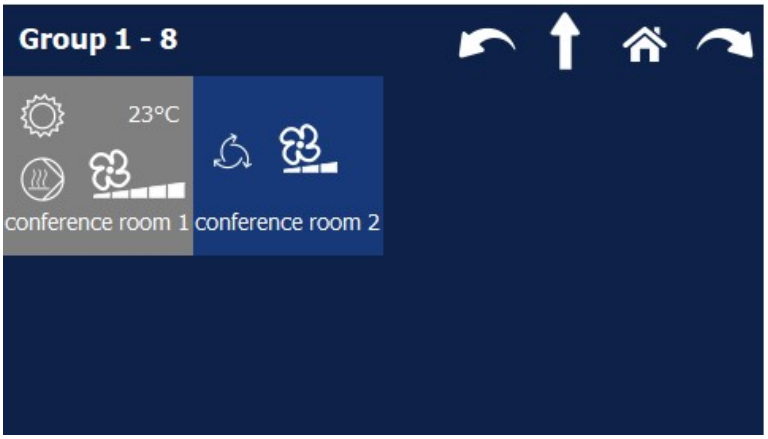
If the password has been entered correctly, an overview of the first five group names is then displayed. The navigation keys can be used to scroll between the individual overviews of the total of up to 25 groups

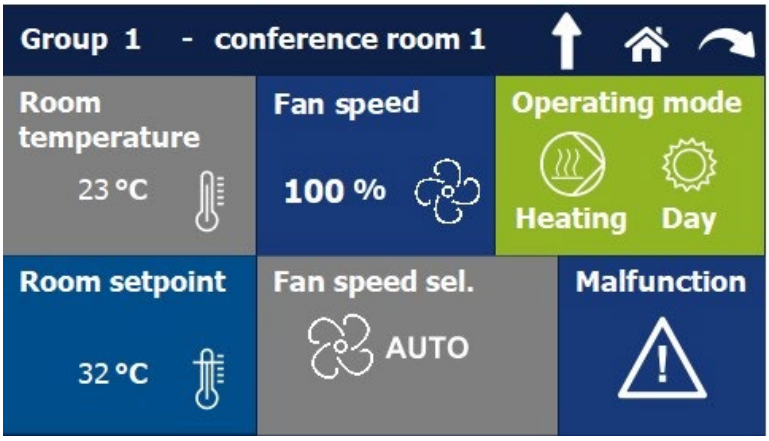


Tapping the respective text input box opens up a keyboard with which the preferred name can be entered. German umlauts cannot be entered. The “Clear” buttons can be used to clear the entries and reset the names to their factory setting.



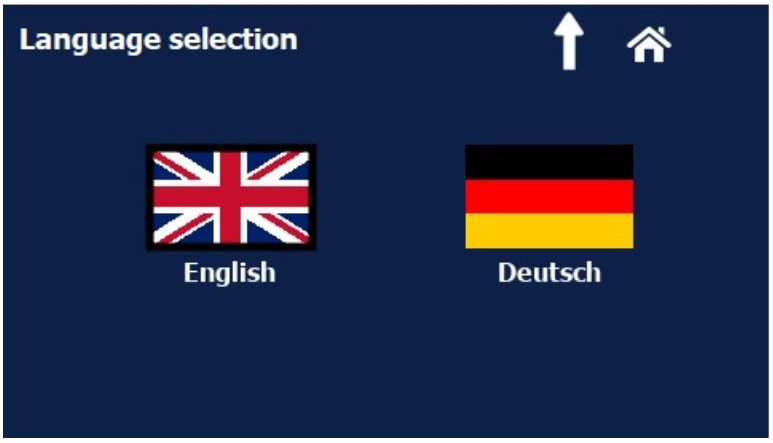
The following two screenshots show how renamed group names (“Conference room 1” and “Conference room 2”) are displayed. The detailed view always displays the group number in addition to the renamed description.





5.1.11 Language settings

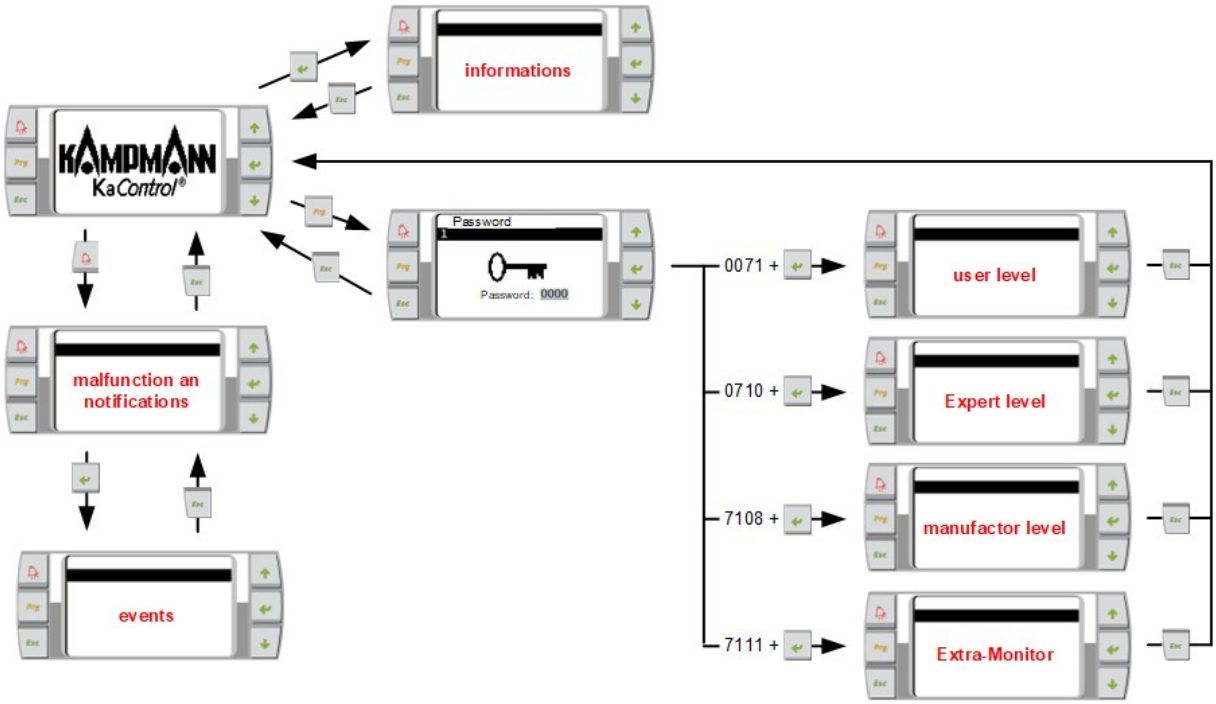
The language can be changed by pressing the relevant button or tile.



Pressing the respective button or flag of the country changes the language accordingly. The language currently selected is indicated by a black border around the respective flag.

5.2 Navigation to other levels

The following figure shows the navigation to the other levels as well as the keys to be pressed and the required passwords.



Level:	Password:
User level	0071
Expert level	0710
Manufacturer level	7108
Extra Monitor	7333
System language (German or English)	1111

The four digits of the password are entered by pressing the “Up” or “Down” key and then confirming with “Select”. The system then automatically moves to the corresponding level. Pressing “ESC” at any time cancels the operation and returns to the start screen.

5.2.1 User-level menu structure

1. Actual values
2. Setpoints
3. Timer programs
3.1 Timer program 1
3.2 Timer program 2
3.3 Timer program 3
3.4 Timer program 4
3.5 Timer program 5
3.6 Holiday program

3.7 Time setting

5.2.2 Expert-level and Manufacturer-level menu structure

1. Actual values
2. Setpoints
3. Timer programs
3.1 Timer program 1
3.2 Timer program 2
3.3 Timer program 3
3.4 Timer program 4
3.5 Timer program 5
3.6 Holiday program
3.7 Time setting
4. Mixed air group (reserved for ventilation)
5. Recirculating air group 1-5
5.1 Recirculating air group 1
5.2 Recirculating air group 2
5.3 Recirculating air group 3
5.4 Recirculating air group 4
5.5 Recirculating air group 5
6. Recirculating air group 6-25
6.1 Recirculating air group 6
6.2 Recirculating air group 7
6.3 Recirculating air group 8
6.4 Recirculating air group 9
6.5 Recirculating air group 10
6.6 Recirculating air group 11
6.7 Recirculating air group 12
6.8 Recirculating air group 13
6.9 Recirculating air group 14
6.10 Recirculating air group 15
6.11 Recirculating air group 16
6.12 Recirculating air group 17
6.13 Recirculating air group 18
6.14 Recirculating air group 19
6.15 Recirculating air group 20
6.16 Recirculating air group 21
6.17 Recirculating air group 22
6.18 Recirculating air group 23
6.19 Recirculating air group 24

6.20 Recirculating air group 25
7. Settings
7.1 Heating Cooling
7.2 Special functions
7.2.1 BA KE (Reserved for ventilation)
7.2.2 Modbus motors (Reserved for ventilation)
7.2.3 Filter monitoring (Reserved for ventilation)
7.2.4 Fault setting
7.2.5 BMS cut-in
7.2.6 Secondary pumps (Reserved for ventilation)
7.2.7 Extensions (Reserved for ventilation)
7.2.8 Zone pumps
7.2.9 Zone ventilation
7.3 Multifunctional IOs
7.4 Sensors
7.5 Group configuration
7.6 IO monitor (Reserved for ventilation)
7.7 Information

5.2.3 Navigation within a level

The menu structures of the user levels (User level, Expert level and Manufacturer level) contain three sub-levels in each case. The “Up” and “Down” buttons are used to navigate within the menu structure, and to scroll to or change values. Press the “Select” button to move to the next level down, select values and confirm changes, and “ESC” to exit the user level or sub-level.

As soon as the respective password has been entered, the system automatically jumps to the relevant user level and displays the corresponding overview of the first sub-level. Press the “Up” and “Down” buttons to select an entry. Once “Select” has been pressed to confirm, the system then jumps to the selected menu or, if available, the overview of the second sub-level.

Also press the “Up” and “Down” buttons to select an entry in the second sub-level. Once “Select” has been pressed to confirm, the system then jumps to the selected menu or, if available, to the overview of the third sub-level.

Press the “Up” and “Down” buttons to select an entry in the third sub-level. Once “Select” has been pressed, the system jumps to the selected menu.

```
 Temperature Control
42                  001
Control
Fault..........:    0
Manual mode....:    0
Operating mode.:    1
0=Off
1=Automatic
```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In each menu the menu name is displayed in the top line of the dialogue boxes. The sub-level appears on the left side of the second line and the sequential number of the respective dialogue box appears on the right. Each dialogue box is thus uniquely identifiable. Levels or numbers greater than 9 are displayed as letters (10=>A, 11=>B etc.)

The actual values, setpoints, times, statuses, functions and other parameters are displayed from the third line onwards.

Pressing the “Up” or “Down” button enables the user to scroll between the available dialogue boxes.

5.3 Setting parameters

When scrolling between each dialogue box, the cursor is in the top left corner of each dialogue box. If a parameter is to be changed, the cursor can be moved from the top left corner to the parameter to be changed by pressing “Select” one or more times. The parameter can then be changed by pressing the “Up” or “Down” button one or more times. The value is thus also applied directly. Pressing “Select” one or more times then returns the cursor to the top left corner. You can then scroll between the individual dialogue boxes once again.

6 Actual values

Some dialogue box numbers are missing and have been skipped to ensure that the menu structure and numbering is identical to other versions of the software.

```
 Actual values
1                    001
Gernal
RET...........: 39.0°C
OT............: 21.0°C
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

General

These values are displayed depending on the configuration of the inputs. If none of the actual values are configured, the entire dialogue box is hidden.

```
 Actual values
1                    003
RecAir 1-5
RT RecAir  1..: 19.0°C
RT RecAir  2..: 19.0°C
RT RecAir  3..: 19.0°C
RT RecAir  4..: 19.0°C
RT RecAir  5..: 19.0°C
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Recirculating air 1-5

Which values are displayed is dependent on the configuration of the recirculating air groups. If none of the actual values are configured, the entire dialogue box is hidden.

```
 Actual values
1                    004
RecAir 6-10
RT RecAir  6..: 19.0°C
RT RecAir  7..: 19.0°C
RT RecAir  8..: 19.0°C
RT RecAir  9..: 19.0°C
RT RecAir 10..: 19.0°C
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Recirculating air 6-10

Which values are displayed is dependent on the configuration of the recirculating air groups. If none of the actual values are configured, the entire dialogue box is hidden.

```
 Actual values
1                    006
RecAir 11-15
RT RecAir 11..: 19.0°C
RT RecAir 12..: 19.0°C
RT RecAir 13..: 19.0°C
RT RecAir 14..: 19.0°C
RT RecAir 15..: 19.0°C
```

Dialogue box visible in:	
User level	X
Expert level	X

Recirculating air 11-15

Which values are displayed is dependent on the configuration of the recirculating air groups. If none of the actual values are configured, the entire dialogue box is hidden.

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Manufacturer level	X

```
 Actual values
1                    007
RecAir 16-20
RT RecAir 16..: 19.0°C
RT RecAir 17..: 19.0°C
RT RecAir 18..: 19.0°C
RT RecAir 19..: 19.0°C
RT RecAir 20..: 19.0°C
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Recirculating air 16-20

Which values are displayed is dependent on the configuration of the recirculating air groups. If none of the actual values are configured, the entire dialogue box is hidden.

```
 Actual values
1                    008
RecAir 21-25
RT RecAir 21..: 19.0°C
RT RecAir 22..: 19.0°C
RT RecAir 23..: 19.0°C
RT RecAir 24..: 19.0°C
RT RecAir 25..: 19.0°C
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Recirculating air 21-25

Which values are displayed is dependent on the configuration of the recirculating air groups. If none of the actual values are configured, the entire dialogue box is hidden.

```
 Actual values
1                    009
General
VLT...........: 32.0°C
RET CHW.......: 12.0°C
VLT CHW.......:  6.0°C
RET CHW.......: 23.0°C
VLT CHW.......: 45.0°C
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

General

These values are displayed depending on the configuration of the inputs. If none of the actual values are configured, the entire dialogue box is hidden.

```
 Actual values
1                    010
Zone Pumps 1-3
VLT ZP1.......: 32.0°C
VLT ZP2.......: 32.0°C
VLT ZP3.......: 32.0°C
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Zone pumps 1-3

These values are displayed depending on the configuration of the inputs. If none of the actual values are configured, the entire dialogue box is hidden.

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```
 Actual values
1                    011
Zone Pumps 4-6
VLT ZP4.......: 32.0°C
VLT ZP5.......: 32.0°C
VLT ZP6.......: 32.0°C
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Zone pumps 4-6

These values are displayed depending on the configuration of the inputs. If none of the actual values are configured, the entire dialogue box is hidden.

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7 Setpoints

Some dialogue box numbers are missing and have been skipped to ensure that the menu structure and numbering is identical to other versions of the software.

```
 Setpoint
2                    005
Recircul.group 1
Setpoint Heating 2P
RT Day........: 21.0°C
RT Extra......: 19.0°C
RT ECO........: 15.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Heating setpoint 2P

If the recirculating air group is configured as a “two-pipe system”, the basic setpoints for the individual operating modes in heating mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating state is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating state is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating state is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	19.0°C
RT ECO	8.0°C	32.0°C	15.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    005
Recircul.group 1
Room Temp.    : 21.0°C
Neutral zone :  2.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Setpoint (“no timer program”)

A different setpoint is set if a timer program is not assigned to the recirculating air group (TSP configuration=8) and the timer program (Day/Eco or Day/Off) is used by the recirculating air unit itself (smart board) instead.

The “Room temperature” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating state is enabled by the recirculating air unit’s timer program (smart board).

If the recirculating air group is configured as a “four-pipe system”, the “Neutral zone” parameter can be used to enter the range within which there is no heating or cooling.
The following applies: Basic setpoint + Offset + (Neutral zone / 2) = Cooling setpoint
Basic setpoint + Offset - (Neutral zone / 2) = Heating setpoint

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
Room temperature	8.0°C	32.0°C	21.0°C
Neutral zone	0.0K	15.0K	2.0K

```
 Setpoint
2                    006
Recircul.group 1
Setpoint Cooling 2P
RT Day........: 21.0°C
RT Extra......: 19.0°C
RT ECO........: 15.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Cooling setpoint 2P

If the recirculating air group is configured as a “two-pipe system”, the basic setpoints for the individual operating states in cooling mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating state is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating state is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating state is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	19.0°C
RT ECO	8.0°C	32.0°C	15.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    007
Recircul.group 1
Setpoint 4P
RT Day........: 21.0°C
RT Extra......: 21.0°C
RT ECO........: 21.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Setpoint 4P

If the recirculating air group is configured as a “four-pipe system”, the basic setpoints for the individual operating states in heating and cooling mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating state is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating state is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating state is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	21.0°C
RT ECO	8.0°C	32.0°C	21.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    008
Recircul.group 1
Neutral zone 4P
RT Day........:   2.0K
RT Extra......:   4.0K
RT ECO........:   6.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Neutral zone 4P

If the recirculating air group is configured as a “four-pipe system”, the values for the neutral zone can be entered.
The following applies: Basic setpoint + Offset + (Neutral zone / 2) = Cooling setpoint
Basic setpoint + Offset - (Neutral zone / 2) = Heating setpoint

The “RT Day” parameter defines the size of the neutral zone for closed-loop room temperature control when “Day” operating state is enabled by the timer program.

The “RT Extra” parameter defines the size of the neutral zone for closed-loop room temperature control when “Extra” operating state is enabled by the timer program.

The “RT ECO” parameter defines the size of the neutral zone for closed-loop room temperature control when “ECO” operating state is enabled by the timer program.

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	0.0K	15.0K	2.0K
RT Extra	0.0K	15.0K	4.0K
RT ECO	0.0K	15.0K	6.0K

```
 Setpoint
2                    009
Recircul.group 2
Sollwert Heizen 2L
RT Day........: 21.0°C
RT Extra......: 19.0°C
RT ECO........: 15.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Heating setpoint 2P

If the recirculating air group is configured as a “two-pipe system”, the basic setpoints for the individual operating states in heating mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating state is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating state is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating state is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	19.0°C
RT ECO	8.0°C	32.0°C	15.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    009
Recircul.group 2
Room Temp.    : 21.0°C
Neutral zone :  2.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Setpoint ("no timer program")

A different setpoint is set if a timer program is not assigned to the recirculating air group (TSP configuration=8) and the timer program (Day/Eco or Day/Off) is used by the recirculating air unit itself (smart board) instead.

The "Room temperature" parameter defines the basic setpoint used by the recirculating air group to control the room temperature when "Day" operating state is enabled by the recirculating air unit's timer program (smart board).

If the recirculating air group is configured as a "four-pipe system",
the "Neutral zone" parameter can be used to enter the range within which there is no heating or cooling.
The following applies: Basic setpoint + Offset + (Neutral zone / 2) = Cooling setpoint
Basic setpoint + Offset - (Neutral zone / 2) = Heating setpoint

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
Room temperature	8.0°C	32.0°C	21.0°C
Neutral zone	0.0K	15.0K	2.0K

```
 Setpoint
2                    010
Recircul.group 2
Setpoint Cooling 2P
RT Day........: 21.0°C
RT Extra......: 19.0°C
RT ECO........: 15.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Cooling setpoint 2P

If the recirculating air group is configured as a "two-pipe system",
the basic setpoints for the individual operating states in cooling mode can be entered as absolute values.

The "RT Day" parameter defines the basic setpoint used by the recirculating air group to control the room temperature when "Day" operating state is enabled by the timer program.

The "RT Extra" parameter defines the basic setpoint used by the recirculating air group to control the room temperature when "Extra" operating state is enabled by the timer program.

The "RT ECO" parameter defines the basic setpoint used by the recirculating air group to control the room temperature when "ECO" operating state is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the "RT Offset" parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The "RT Offset" parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

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Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	19.0°C
RT ECO	8.0°C	32.0°C	15.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    011
Recircul.group 2
Setpoint 4P
RT Day........: 21.0°C
RT Extra......: 21.0°C
RT ECO........: 21.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Setpoint 4P

If the recirculating air group is configured as a “four-pipe system”, the basic setpoints for the individual operating states in heating and cooling mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating state is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating state is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating state is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	21.0°C
RT ECO	8.0°C	32.0°C	21.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    012
Recircul.group 2
Neutral zone 4P
RT Day........:  2.0K
RT Extra......:  4.0K
RT ECO........:  6.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Neutral zone 4P

If the recirculating air group is configured as a “four-pipe system”, the values for the neutral zone can be entered.
The following applies: Basic setpoint + Offset + (Neutral zone / 2) = Cooling setpoint
Basic setpoint + Offset - (Neutral zone / 2) = Heating setpoint

The “RT Day” parameter defines the size of the neutral zone for closed-loop room temperature control when “Day” operating state is enabled by the timer program.

The “RT Extra” parameter defines the size of the neutral zone for closed-loop room temperature control when “Extra” operating state is enabled by the timer program.

The “RT ECO” parameter defines the size of the neutral zone for closed-loop room temperature control when “ECO” operating state is enabled by the timer program.

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	0.0K	15.0K	2.0K
RT Extra	0.0K	15.0K	4.0K
RT ECO	0.0K	15.0K	6.0K

```
 Setpoint
2                    013
Recircul.group 3
Setpoind Heating 2P
RT Day........: 21.0°C
RT Extra......: 19.0°C
RT ECO........: 15.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Heating setpoint 2P

If the recirculating air group is configured as a “two-pipe system”, the basic setpoints for the individual operating states in heating mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating state is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating state is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating state is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	19.0°C
RT ECO	8.0°C	32.0°C	15.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    013
Recircul.group 3
Room Temp.     : 21.0°C
Neutral zone .:  2.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Setpoint (“no timer program”)

A different setpoint is set if a timer program is not assigned to the recirculating air group (TSP configuration=8) and the timer program (Day/Eco or Day/Off) is used by the recirculating air unit itself (smart board) instead.

The “Room temperature” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating state is enabled by the recirculating air unit’s timer program (smart board).

If the recirculating air group is configured as a “four-pipe system”, the “Neutral zone” parameter can be used to enter the range within which there is no heating or cooling.
The following applies: Basic setpoint + Offset + (Neutral zone / 2) = Cooling setpoint
Basic setpoint + Offset - (Neutral zone / 2) = Heating setpoint

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
Room temperature	8.0°C	32.0°C	21.0°C
Neutral zone	0.0K	15.0K	2.0K

```
 Setpoint
2                    014
Recirul. group 3
Setpoint Cooling 2P
RT Day........: 21.0°C
RT Extra......: 19.0°C
RT ECO........: 15.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Cooling setpoint 2P

If the recirculating air group is configured as a “two-pipe system”, the basic setpoints for the individual operating states in cooling mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating state is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating state is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating state is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	19.0°C
RT ECO	8.0°C	32.0°C	15.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    015
Recirul. group 3
Setpoint 4P
RT Day........: 21.0°C
RT Extra......: 21.0°C
RT ECO........: 21.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Setpoint 4P

If the recirculating air group is configured as a “four-pipe system”, the basic setpoints for the individual operating states in heating and cooling mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating state is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating state is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating state is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint

The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	21.0°C
RT ECO	8.0°C	32.0°C	21.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    016
Recirul. group 3
Neutral zone 4P
RT Day........:   2.0K
RT Extra......:   4.0K
RT ECO........:   6.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Neutral zone 4P

If the recirculating air group is configured as a “four-pipe system”, the values for the neutral zone can be entered.
The following applies: Basic setpoint + Offset + (Neutral zone / 2) = Cooling setpoint
Basic setpoint + Offset - (Neutral zone / 2) = Heating setpoint

The “RT Day” parameter defines the size of the neutral zone for closed-loop room temperature control when “Day” operating state is enabled by the timer program.

The “RT Extra” parameter defines the size of the neutral zone for closed-loop room temperature control when “Extra” operating state is enabled by the timer program.

The “RT ECO” parameter defines the size of the neutral zone for closed-loop room temperature control when “ECO” operating state is enabled by the timer program.

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	0.0K	15.0K	2.0K
RT Extra	0.0K	15.0K	4.0K
RT ECO	0.0K	15.0K	6.0K

```
 Setpoint
2                    017
Recirul. group 4
Setpoint Heating 2P
RT Day........: 21.0°C
RT Extra......: 19.0°C
RT ECO........: 15.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Heating setpoint 2P

If the recirculating air group is configured as a “two-pipe system”, the basic setpoints for the individual operating states in heating mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating state is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating state is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating state is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.

However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	19.0°C
RT ECO	8.0°C	32.0°C	15.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    017
Recirul. group 4
Room Temp.    : 21.0°C
Neutral zone :  2.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Setpoint (“no timer program”)

A different setpoint is set if a timer program is not assigned to the recirculating air group (TSP configuration=8) and the timer program (Day/Eco or Day/Off) is used by the recirculating air unit itself (smart board) instead.

The “Room temperature” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating state is enabled by the recirculating air unit’s timer program (smart board).

If the recirculating air group is configured as a “four-pipe system”,
the “Neutral zone” parameter can be used to enter the range within which there is no heating or cooling.
The following applies: Basic setpoint + Offset + (Neutral zone / 2) = Cooling setpoint
Basic setpoint + Offset - (Neutral zone / 2) = Heating setpoint

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
Room temperature	8.0°C	32.0°C	21.0°C
Neutral zone	0.0K	15.0K	2.0K

```
 Setpoint
2                    018
Recirul. group 4
Setpoint Cooling 2P
RT Day........: 21.0°C
RT Extra......: 19.0°C
RT ECO........: 15.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Cooling setpoint 2P

If the recirculating air group is configured as a “two-pipe system”,
the basic setpoints for the individual operating states in cooling mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating state is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating state is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating state is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint

The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	19.0°C
RT ECO	8.0°C	32.0°C	15.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    019
Recirul. group 4
Setpoint 4P
RT Day........: 21.0°C
RT Extra......: 21.0°C
RT ECO........: 21.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Setpoint 4P

If the recirculating air group is configured as a “four-pipe system”, the basic setpoints for the individual operating states in heating and cooling mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating state is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating state is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating state is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	21.0°C
RT ECO	8.0°C	32.0°C	21.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    020
Recirul. group 4
Neutral Zone 4P
RT Day........:  2.0K
RT Extra......:  4.0K
RT ECO........:  6.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Neutral zone 4P

If the recirculating air group is configured as a “four-pipe system”, the values for the neutral zone can be entered.
The following applies: Basic setpoint + Offset + (Neutral zone / 2) = Cooling setpoint
Basic setpoint + Offset - (Neutral zone / 2) = Heating setpoint

The “RT Day” parameter defines the size of the neutral zone for closed-loop room temperature control when “Day” operating state is enabled by the timer program.

The “RT Extra” parameter defines the size of the neutral zone for closed-loop room temperature control when “Extra” operating state is enabled by the timer program.

The “RT ECO” parameter defines the size of the neutral zone for closed-loop room temperature control when “ECO” operating state is enabled by the timer program.

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	0.0K	15.0K	2.0K
RT Extra	0.0K	15.0K	4.0K
RT ECO	0.0K	15.0K	6.0K

```
 Setpoint
2                    021
Recirul.group 5
Setpoint Heating 2P
RT Day........: 21.0°C
RT Extra......: 19.0°C
RT ECO........: 15.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Heating setpoint 2P

If the recirculating air group is configured as a “two-pipe system”, the basic setpoints for the individual operating states in heating mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating state is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating state is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating state is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	19.0°C
RT ECO	8.0°C	32.0°C	15.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    021
Recirul. group 5
Room Temp.     : 21.0°C
Neutral  zone :  2.0K
```

Dialogue box visible in:	
User level	X

Setpoint (“no timer program”)

A different setpoint is set if a timer program is not assigned to the recirculating air group (TSP configuration=8) and the timer program (Day/Eco or Day/Off) is used by the recirculating air unit itself (smart board) instead.

The “Room temperature” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating state is enabled by the recirculating air unit’s timer program (smart board).

If the recirculating air group is configured as a “four-pipe system”,

Expert level	X
Manufacturer level	X

the “Neutral zone” parameter can be used to enter the range within which there is no heating or cooling.
The following applies: Basic setpoint + Offset + (Neutral zone / 2) = Cooling setpoint
Basic setpoint + Offset - (Neutral zone / 2) = Heating setpoint

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
Room temperature	8.0°C	32.0°C	21.0°C
Neutral zone	0.0K	15.0K	2.0K

```
 Setpoint
2                    022
Recirul. group 5
Setpoint Cooling 2P
RT Day........: 21.0°C
RT Extra......: 19.0°C
RT ECO........: 15.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Cooling setpoint 2P

If the recirculating air group is configured as a “two-pipe system”,
the basic setpoints for the individual operating states in cooling mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating state is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating state is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating state is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	19.0°C
RT ECO	8.0°C	32.0°C	15.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    023
Recirul. group 5
Setpoint 4P
RT Day........: 21.0°C
RT Extra......: 21.0°C
RT ECO........: 21.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Setpoint 4P

If the recirculating air group is configured as a “four-pipe system”,
the basic setpoints for the individual operating states in heating and cooling mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating state is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating state is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating state is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	21.0°C
RT ECO	8.0°C	32.0°C	21.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    024
Recirul. group 5
Neutral zone 4P
RT Day........:   2.0K
RT Extra......:   4.0K
RT ECO........:   6.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Neutral zone 4P

If the recirculating air group is configured as a “four-pipe system”,
the values for the neutral zone can be entered.
The following applies: Basic setpoint + Offset + (Neutral zone / 2) = Cooling setpoint
Basic setpoint + Offset - (Neutral zone / 2) = Heating setpoint

The “RT Day” parameter defines the size of the neutral zone for closed-loop room temperature control when “Day” operating state is enabled by the timer program.

The “RT Extra” parameter defines the size of the neutral zone for closed-loop room temperature control when “Extra” operating state is enabled by the timer program.

The “RT ECO” parameter defines the size of the neutral zone for closed-loop room temperature control when “ECO” operating state is enabled by the timer program.

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	0.0K	15.0K	2.0K
RT Extra	0.0K	15.0K	4.0K
RT ECO	0.0K	15.0K	6.0K

```
 Setpoint
2                    025
Recirul. group 6
Setpoint Heating 2P
RT Day........: 21.0°C
RT Extra......: 19.0°C
RT ECO........: 15.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Heating setpoint 2P

If the recirculating air group is configured as a “two-pipe system”,
the basic setpoints for the individual operating states in heating mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating state is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating state is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating state is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	19.0°C
RT ECO	8.0°C	32.0°C	15.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    025
Recirul. group 6
Room Temp.     : 21.0°C
Neutral  zone :  2.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Setpoint (“no timer program”)

A different setpoint is set in the event that no timer program is assigned to the recirculating air group (TSP configuration=8) but that the timer program (Day/Eco or Day/Off) is used by the recirculating air unit itself (smart board).

The “Room temperature” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating state is enabled by the recirculating air unit’s timer program (smart board).

If the recirculating air group is configured as a “four-pipe system”,
the “Neutral zone” parameter can be used to enter the range within which there is no heating or cooling.
The following applies: Basic setpoint + Offset + (Neutral zone / 2) = Cooling setpoint
Basic setpoint + Offset - (Neutral zone / 2) = Heating setpoint

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
Room temperature	8.0°C	32.0°C	21.0°C
Neutral zone	0.0K	15.0K	2.0K

```
 Setpoint
2                    026
Recirul. group 6
Setpoint Cooling 2P
RT Day........: 21.0°C
RT Extra......: 19.0°C
RT ECO........: 15.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Cooling setpoint 2P

If the recirculating air group is configured as a “two-pipe system”,
the basic setpoints for the individual operating states in cooling mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating state is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating state is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating state is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	19.0°C
RT ECO	8.0°C	32.0°C	15.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    027
Recirul. group 6
Setpoint 4P
RT Day........: 21.0°C
RT Extra......: 21.0°C
RT ECO........: 21.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Setpoint 4P

If the recirculating air group is configured as a “four-pipe system”,
the basic setpoints for the individual operating states in heating and cooling mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating state is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating state is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating state is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	21.0°C
RT ECO	8.0°C	32.0°C	21.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    028
Recirul. group 6
Neutral zone 4P
RT Day........:  2.0K
RT Extra......:  4.0K
RT ECO........:  6.0K
```

Neutral zone 4P

If the recirculating air group is configured as a “four-pipe system”,
the values for the neutral zone can be entered.
The following applies: Basic setpoint + Offset + (Neutral zone / 2) = Cooling setpoint
Basic setpoint + Offset - (Neutral zone / 2) = Heating setpoint

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

The “RT Day” parameter defines the size of the neutral zone for closed-loop room temperature control when “Day” operating state is enabled by the timer program.

The “RT Extra” parameter defines the size of the neutral zone for closed-loop room temperature control when “Extra” operating state is enabled by the timer program.

The “RT ECO” parameter defines the size of the neutral zone for closed-loop room temperature control when “ECO” operating state is enabled by the timer program.

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	0.0K	15.0K	2.0K
RT Extra	0.0K	15.0K	4.0K
RT ECO	0.0K	15.0K	6.0K

```
 Setpoint
2                    029
Recirul. group 7
Setpoint Heating 2P
RT Day........: 21.0°C
RT Extra......: 19.0°C
RT ECO........: 15.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Heating setpoint 2P

If the recirculating air group is configured as a “two-pipe system”,
the basic setpoints for the individual operating states in heating mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating state is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating state is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating state is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	19.0°C
RT ECO	8.0°C	32.0°C	15.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    029
Recirul. group 7
Room Temp.     : 21.0°C
Neutrale Zone :  2.0K
```

Setpoint (“no timer program”)

A different setpoint is set if a timer program is not assigned to the recirculating air group (TSP configuration=8) and the timer program (Day/Eco or Day/Off) is used by the recirculating air unit itself (smart board) instead.

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Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

The “Room temperature” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating state is enabled by the recirculating air unit’s timer program (smart board).

If the recirculating air group is configured as a “four-pipe system”,
the “Neutral zone” parameter can be used to enter the range within which there is no heating or cooling.
The following applies: Basic setpoint + Offset + (Neutral zone / 2) = Cooling setpoint
Basic setpoint + Offset - (Neutral zone / 2) = Heating setpoint

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
Room temperature	8.0°C	32.0°C	21.0°C
Neutral zone	0.0K	15.0K	2.0K

```
 Setpoint
2                    030
Recirul. group 7
Setpoint Cooling 2P
RT Day........: 21.0°C
RT Extra......: 19.0°C
RT ECO........: 15.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Cooling setpoint 2P

If the recirculating air group is configured as a “two-pipe system”,
the basic setpoints for the individual operating states in cooling mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating state is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating state is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating state is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	19.0°C
RT ECO	8.0°C	32.0°C	15.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    031
Recirul. group 7
Setpoint 4P
RT Day........: 21.0°C
RT Extra......: 21.0°C
RT ECO........: 21.0°C
RT Offset.....:  0.0K
```

Setpoint 4P

If the recirculating air group is configured as a “four-pipe system”,
the basic setpoints for the individual operating states in heating and cooling mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating state is enabled by the timer program.

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating state is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating state is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	21.0°C
RT ECO	8.0°C	32.0°C	21.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    032
Recirul. group 7
Neutral zone 4P
RT Day........:   2.0K
RT Extra......:   4.0K
RT ECO........:   6.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Neutral zone 4P

If the recirculating air group is configured as a “four-pipe system”,
the values for the neutral zone can be entered.
The following applies: Basic setpoint + Offset + (Neutral zone / 2) = Cooling setpoint
Basic setpoint + Offset - (Neutral zone / 2) = Heating setpoint

The “RT Day” parameter defines the size of the neutral zone for closed-loop room temperature control when “Day” operating state is enabled by the timer program.

The “RT Extra” parameter defines the size of the neutral zone for closed-loop room temperature control when “Extra” operating state is enabled by the timer program.

The “RT ECO” parameter defines the size of the neutral zone for closed-loop room temperature control when “ECO” operating state is enabled by the timer program.

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	0.0K	15.0K	2.0K
RT Extra	0.0K	15.0K	4.0K
RT ECO	0.0K	15.0K	6.0K

```
 Setpoint
2                    033
Recirul. group 8
Setpoint Heating 2P
RT Day........: 21.0°C
RT Extra......: 19.0°C
RT ECO........: 15.0°C
RT Offset.....:  0.0K
```

Heating setpoint 2P

If the recirculating air group is configured as a “two-pipe system”,
the basic setpoints for the individual operating states in heating mode can be entered as absolute values.

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Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating state is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating state is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating state is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	19.0°C
RT ECO	8.0°C	32.0°C	15.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    033
Recirul. group 8
Room Temp.     : 21.0°C
Neutral  zone :  2.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Setpoint (“no timer program”)

A different setpoint is set if a timer program is not assigned to the recirculating air group (TSP configuration=8) and the timer program (Day/Eco or Day/Off) is used by the recirculating air unit itself (smart board) instead.

The “Room temperature” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating state is enabled by the recirculating air unit’s timer program (smart board).

If the recirculating air group is configured as a “four-pipe system”,
the “Neutral zone” parameter can be used to enter the range within which there is no heating or cooling.
The following applies: Basic setpoint + Offset + (Neutral zone / 2) = Cooling setpoint
Basic setpoint + Offset - (Neutral zone / 2) = Heating setpoint

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
Room temperature	8.0°C	32.0°C	21.0°C
Neutral zone	0.0K	15.0K	2.0K

```
 Setpoint
2                    034
Recirul. group 8
Setpoint Cooling 2P
RT Day........: 21.0°C
RT Extra......: 19.0°C
RT ECO........: 15.0°C
RT Offset.....:  0.0K
```

Cooling setpoint 2P

If the recirculating air group is configured as a “two-pipe system”,
the basic setpoints for the individual operating states in cooling mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating state is enabled by the timer program.

KAMPMANN Genau mein Klima.

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating state is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating state is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	19.0°C
RT ECO	8.0°C	32.0°C	15.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    035
Recirul. group 8
Setpoint 4P
RT Day........: 21.0°C
RT Extra......: 21.0°C
RT ECO........: 21.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Setpoint 4P

If the recirculating air group is configured as a “four-pipe system”,
the basic setpoints for the individual operating states in heating and cooling mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating state is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating state is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating state is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	21.0°C
RT ECO	8.0°C	32.0°C	21.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    036
Recirul. group 8
Neutral zone 4P
RT Day........:   2.0K
RT Extra......:   4.0K
RT ECO........:   6.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Neutral zone 4P

If the recirculating air group is configured as a “four-pipe system”, the values for the neutral zone can be entered.
The following applies: Basic setpoint + Offset + (Neutral zone / 2) = Cooling setpoint
Basic setpoint + Offset - (Neutral zone / 2) = Heating setpoint

The “RT Day” parameter defines the size of the neutral zone for closed-loop room temperature control when “Day” operating state is enabled by the timer program.

The “RT Extra” parameter defines the size of the neutral zone for closed-loop room temperature control when “Extra” operating state is enabled by the timer program.

The “RT ECO” parameter defines the size of the neutral zone for closed-loop room temperature control when “ECO” operating state is enabled by the timer program.

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	0.0K	15.0K	2.0K
RT Extra	0.0K	15.0K	4.0K
RT ECO	0.0K	15.0K	6.0K

```
 Setpoint
2                    037
Recirul. group 9
Setpoint Heating
RT Day........: 21.0°C
RT Extra......: 19.0°C
RT ECO........: 15.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Heating setpoint 2P

If the recirculating air group is configured as a “two-pipe system”, the basic setpoints for the individual operating states in heating mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating state is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating state is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating state is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	19.0°C
RT ECO	8.0°C	32.0°C	15.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    037
Recirul. group 9
Room Temp.     : 21.0°C
Neutral zone   :  2.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Setpoint ("no timer program")

A different setpoint is set if a timer program is not assigned to the recirculating air group (TSP configuration=8) and the timer program (Day/Eco or Day/Off) is used by the recirculating air unit itself (smart board) instead.

The "Room temperature" parameter defines the basic setpoint used by the recirculating air group to control the room temperature when "Day" operating mode is enabled by the recirculating air unit's timer program (smart board).

If the recirculating air group is configured as a "four-pipe system",
the "Neutral zone" parameter can be used to enter the range within which there is no heating or cooling.
The following applies: Basic setpoint + Offset + (Neutral zone / 2) = Cooling setpoint
Basic setpoint + Offset - (Neutral zone / 2) = Heating setpoint

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
Room temperature	8.0°C	32.0°C	21.0°C
Neutral zone	0.0K	15.0K	2.0K

```
 Setpoint
2                    038
Recirul. group 9
Setpoint Cooling 2P
RT Day........: 21.0°C
RT Extra......: 19.0°C
RT ECO........: 15.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Cooling setpoint 2P

If the recirculating air group is configured as a "two-pipe system",
the basic setpoints for the individual operating modes in cooling mode can be entered as absolute values.

The "RT Day" parameter defines the basic setpoint used by the recirculating air group to control the room temperature when "Day" operating mode is enabled by the timer program.

The "RT Extra" parameter defines the basic setpoint used by the recirculating air group to control the room temperature when "Extra" operating mode is enabled by the timer program.

The "RT ECO" parameter defines the basic setpoint used by the recirculating air group to control the room temperature when "ECO" operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the "RT Offset" parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The "RT Offset" parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	19.0°C
RT ECO	8.0°C	32.0°C	15.0°C
RT Offset	parametrisable	parametrisable	0.0K

KAMPMANN Genau mein Klima.

```
 Setpoint
2                    039
Recirul. group 9
Setpoint 4P
RT Day........: 21.0°C
RT Extra......: 21.0°C
RT ECO........: 21.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Setpoint 4P

If the recirculating air group is configured as a “four-pipe system”, the basic setpoints for the individual operating modes in heating and cooling mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	21.0°C
RT ECO	8.0°C	32.0°C	21.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    040
Recirul. group 9
Neutral zone 4P
RT Day........:  2.0K
RT Extra......:  4.0K
RT ECO........:  6.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Neutral zone 4P

If the recirculating air group is configured as a “four-pipe system”, the values for the neutral zone can be entered.
The following applies: Basic setpoint + Offset + (Neutral zone / 2) = Cooling setpoint
Basic setpoint + Offset - (Neutral zone / 2) = Heating setpoint

The “RT Day” parameter defines the size of the neutral zone for closed-loop room temperature control when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the size of the neutral zone for closed-loop room temperature control when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the size of the neutral zone for closed-loop room temperature control when “ECO” operating mode is enabled by the timer program.

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	0.0K	15.0K	2.0K
RT Extra	0.0K	15.0K	4.0K
RT ECO	0.0K	15.0K	6.0K

```
 Setpoint
2                    041
Recirul. group 10
Setpoint Heating 4P
RT Day........: 21.0°C
RT Extra......: 19.0°C
RT ECO........: 15.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Heating setpoint 2P

If the recirculating air group is configured as a “two-pipe system”, the basic setpoints for the individual operating modes in heating mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	19.0°C
RT ECO	8.0°C	32.0°C	15.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    041
Recirul. group 10
Room Temp.     : 21.0°C
Neutral  zone :  2.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Setpoint (“no timer program”)

A different setpoint is set if a timer program is not assigned to the recirculating air group (TSP configuration=8) and the timer program (Day/Eco or Day/Off) is used by the recirculating air unit itself (smart board) instead.

The “Room temperature” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the recirculating air unit’s timer program (smart board).

If the recirculating air group is configured as a “four-pipe system”, the “Neutral zone” parameter can be used to enter the range within which there is no heating or cooling.
The following applies: Basic setpoint + Offset + (Neutral zone / 2) = Cooling setpoint
Basic setpoint + Offset - (Neutral zone / 2) = Heating setpoint

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
Room temperature	8.0°C	32.0°C	21.0°C
Neutral zone	0.0K	15.0K	2.0K

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```
 Setpoint
2                    042
Recirul. group 10
Setpoint Cooling 2P
RT Day........: 21.0°C
RT Extra......: 19.0°C
RT ECO........: 15.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Cooling setpoint 2P

If the recirculating air group is configured as a “two-pipe system”, the basic setpoints for the individual operating modes in cooling mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	19.0°C
RT ECO	8.0°C	32.0°C	15.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    043
Recirul. group 10
Setpoint 4P
RT Day........: 21.0°C
RT Extra......: 21.0°C
RT ECO........: 21.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Setpoint 4P

If the recirculating air group is configured as a “four-pipe system”, the basic setpoints for the individual operating modes in heating and cooling mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	21.0°C
RT ECO	8.0°C	32.0°C	21.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    044
Recirul. group 10
Neutral zone 4P
RT Day........:   2.0K
RT Extra......:   4.0K
RT ECO........:   6.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Neutral zone 4P

If the recirculating air group is configured as a “four-pipe system”, the values for the neutral zone can be entered.
The following applies: Basic setpoint + Offset + (Neutral zone / 2) = Cooling setpoint
Basic setpoint + Offset - (Neutral zone / 2) = Heating setpoint

The “RT Day” parameter defines the size of the neutral zone for closed-loop room temperature control when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the size of the neutral zone for closed-loop room temperature control when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the size of the neutral zone for closed-loop room temperature control when “ECO” operating mode is enabled by the timer program.

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	0.0K	15.0K	2.0K
RT Extra	0.0K	15.0K	4.0K
RT ECO	0.0K	15.0K	6.0K

```
 Setpoint
2                    045
Recirul. group 11
Setpoint Heating 2P
RT Day........: 21.0°C
RT Extra......: 19.0°C
RT ECO........: 15.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Heating setpoint 2P

If the recirculating air group is configured as a “two-pipe system”, the basic setpoints for the individual operating modes in heating mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	19.0°C
RT ECO	8.0°C	32.0°C	15.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    045
Recirul. group 11
Room Temp.     : 21.0°C
Neutral  zone :  2.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Setpoint ("no timer program")

A different setpoint is set if a timer program is not assigned to the recirculating air group (TSP configuration=8) and the timer program (Day/Eco or Day/Off) is used by the recirculating air unit itself (smart board) instead.

The "Room temperature" parameter defines the basic setpoint used by the recirculating air group to control the room temperature when "Day" operating mode is enabled by the recirculating air unit's timer program (smart board).

If the recirculating air group is configured as a "four-pipe system",
the "Neutral zone" parameter can be used to enter the range within which there is no heating or cooling.
The following applies: Basic setpoint + Offset + (Neutral zone / 2) = Cooling setpoint
Basic setpoint + Offset - (Neutral zone / 2) = Heating setpoint

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
Room temperature	8.0°C	32.0°C	21.0°C
Neutral zone	0.0K	15.0K	2.0K

```
 Setpoint
2                    046
Recirul. group 11
Setpoint Cooling 2P
RT Day........: 21.0°C
RT Extra......: 19.0°C
RT ECO........: 15.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Cooling setpoint 2P

If the recirculating air group is configured as a "two-pipe system",
the basic setpoints for the individual operating modes in cooling mode can be entered as absolute values.

The "RT Day" parameter defines the basic setpoint used by the recirculating air group to control the room temperature when "Day" operating mode is enabled by the timer program.

The "RT Extra" parameter defines the basic setpoint used by the recirculating air group to control the room temperature when "Extra" operating mode is enabled by the timer program.

The "RT ECO" parameter defines the basic setpoint used by the recirculating air group to control the room temperature when "ECO" operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the "RT Offset" parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The "RT Offset" parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

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Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	19.0°C
RT ECO	8.0°C	32.0°C	15.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    047
Recirul. group 11
Setpoint 4P
RT Day........: 21.0°C
RT Extra......: 21.0°C
RT ECO........: 21.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Setpoint 4P

If the recirculating air group is configured as a “four-pipe system”, the basic setpoints for the individual operating modes in heating and cooling mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	21.0°C
RT ECO	8.0°C	32.0°C	21.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    048
Recirul. group 11
Neutral zone 4P
RT Day........:  2.0K
RT Extra......:  4.0K
RT ECO........:  6.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Neutral zone 4P

If the recirculating air group is configured as a “four-pipe system”, the values for the neutral zone can be entered.
The following applies: Basic setpoint + Offset + (Neutral zone / 2) = Cooling setpoint
Basic setpoint + Offset - (Neutral zone / 2) = Heating setpoint

The “RT Day” parameter defines the size of the neutral zone for closed-loop room temperature control when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the size of the neutral zone for closed-loop room temperature control when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the size of the neutral zone for closed-loop room temperature control when “ECO” operating mode is enabled by the timer program.

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	0.0K	15.0K	2.0K
RT Extra	0.0K	15.0K	4.0K
RT ECO	0.0K	15.0K	6.0K

```
 Setpoint
2                    049
Recirul. group 12
Setpoint Heating 2P
RT Day........: 21.0°C
RT Extra......: 19.0°C
RT ECO........: 15.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Heating setpoint 2P

If the recirculating air group is configured as a “two-pipe system”, the basic setpoints for the individual operating modes in heating mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines to which room temperature basic setpoint the recirculating air group regulates when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	19.0°C
RT ECO	8.0°C	32.0°C	15.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    049
Recirul. group 12
Room Temp.     : 21.0°C
Neutrale Zone :  2.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Setpoint (“no timer program”)

A different setpoint is set if a timer program is not assigned to the recirculating air group (TSP configuration=8) and the timer program (Day/Eco or Day/Off) is used by the recirculating air unit itself (smart board) instead.

The “Room temperature” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the recirculating air unit’s timer program (smart board).

If the recirculating air group is configured as a “four-pipe system”, the “Neutral zone” parameter can be used to enter the range within which there is no heating or cooling.
The following applies: Basic setpoint + Offset + (Neutral zone / 2) = Cooling setpoint
Basic setpoint + Offset - (Neutral zone / 2) = Heating setpoint

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
Room temperature	8.0°C	32.0°C	21.0°C
Neutral zone	0.0K	15.0K	2.0K

```
 Setpoint
2                    050
Recirul. group 12
Setpoint Cooling 2P
RT Day........: 21.0°C
RT Extra......: 19.0°C
RT ECO........: 15.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Cooling setpoint 2P

If the recirculating air group is configured as a “two-pipe system”, the basic setpoints for the individual operating modes in cooling mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	19.0°C
RT ECO	8.0°C	32.0°C	15.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    051
Recirul. group 12
Setpoint 4P
RT Day........: 21.0°C
RT Extra......: 21.0°C
RT ECO........: 21.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Setpoint 4P

If the recirculating air group is configured as a “four-pipe system”, the basic setpoints for the individual operating modes in heating and cooling mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint

The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	21.0°C
RT ECO	8.0°C	32.0°C	21.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    052
Recirul. group 12
Neutral zone 4P
RT Day........:   2.0K
RT Extra......:   4.0K
RT ECO........:   6.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Neutral zone 4P

If the recirculating air group is configured as a “four-pipe system”, the values for the neutral zone can be entered.
The following applies: Basic setpoint + Offset + (Neutral zone / 2) = Cooling setpoint
Basic setpoint + Offset - (Neutral zone / 2) = Heating setpoint

The “RT Day” parameter defines the size of the neutral zone for closed-loop room temperature control when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the size of the neutral zone for closed-loop room temperature control when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the size of the neutral zone for closed-loop room temperature control when “ECO” operating mode is enabled by the timer program.

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	0.0K	15.0K	2.0K
RT Extra	0.0K	15.0K	4.0K
RT ECO	0.0K	15.0K	6.0K

```
 Setpoint
2                    053
Recirul. group 12
Setpoint Heating 2P
RT Day........: 21.0°C
RT Extra......: 19.0°C
RT ECO........: 15.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Heating setpoint 2P

If the recirculating air group is configured as a “two-pipe system”, the basic setpoints for the individual operating modes in heating mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.

However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	19.0°C
RT ECO	8.0°C	32.0°C	15.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    053
Recirul. group 13
Room Temp.     : 21.0°C
Neutral  zone :  2.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Setpoint (“no timer program”)

A different setpoint is set if a timer program is not assigned to the recirculating air group (TSP configuration=8) and the timer program (Day/Eco or Day/Off) is used by the recirculating air unit itself (smart board) instead.

The “Room temperature” parameter defines to which room temperature basic setpoint the recirculating air group controls when “Day” operating mode is enabled by the recirculating air unit’s timer program (smart board).

If the recirculating air group is configured as a “four-pipe system”,
the “Neutral zone” parameter can be used to enter the range within which there is no heating or cooling.
The following applies: Basic setpoint + Offset + (Neutral zone / 2) = Cooling setpoint
Basic setpoint + Offset - (Neutral zone / 2) = Heating setpoint

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
Room temperature	8.0°C	32.0°C	21.0°C
Neutral zone	0.0K	15.0K	2.0K

```
 Setpoint
2                    054
Recirul. group 13
Setpoint Cooling 2P
RT Day........: 21.0°C
RT Extra......: 19.0°C
RT ECO........: 15.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Cooling setpoint 2P

If the recirculating air group is configured as a “two-pipe system”,
the basic setpoints for the individual operating modes in cooling mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint

The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	19.0°C
RT ECO	8.0°C	32.0°C	15.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    055
Recirul. group 13
Sewtpoint 4P
RT Day........: 21.0°C
RT Extra......: 21.0°C
RT ECO........: 21.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Setpoint 4P

If the recirculating air group is configured as a “four-pipe system”,
the basic setpoints for the individual operating modes in heating and cooling mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	21.0°C
RT ECO	8.0°C	32.0°C	21.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    056
Recirul. group 13
Neutral zone 4L
RT Day........:  2.0K
RT Extra......:  4.0K
RT ECO........:  6.0K
```

Dialogue box visible in:	
User level	X
Expert level	X

Neutral zone 4P

If the recirculating air group is configured as a “four-pipe system”,
the values for the neutral zone can be entered.
The following applies: Basic setpoint + Offset + (Neutral zone / 2) = Cooling setpoint
Basic setpoint + Offset - (Neutral zone / 2) = Heating setpoint

The “RT Day” parameter defines the size of the neutral zone for closed-loop room temperature control when “Day” operating mode is enabled by the timer program.

Manufacturer level	X

The “RT Extra” parameter defines the size of the neutral zone for closed-loop room temperature control when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the size of the neutral zone for closed-loop room temperature control when “ECO” operating mode is enabled by the timer program.

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	0.0K	15.0K	2.0K
RT Extra	0.0K	15.0K	4.0K
RT ECO	0.0K	15.0K	6.0K

```
 Setpoint
2                    057
Recirul. group 14
Setpoint Heating 2P
RT Day........: 21.0°C
RT Extra......: 19.0°C
RT ECO........: 15.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Heating setpoint 2P

If the recirculating air group is configured as a “two-pipe system”,
the basic setpoints for the individual operating modes in heating mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	19.0°C
RT ECO	8.0°C	32.0°C	15.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    057
Recirul. group 14
Room Temp.     : 21.0°C
Neutral zone :  2.0K
```

Dialogue box visible in:	
User level	X

Setpoint (“no timer program”)

A different setpoint is set if a timer program is not assigned to the recirculating air group (TSP configuration=8) and the timer program (Day/Eco or Day/Off) is used by the recirculating air unit itself (smart board) instead.

The “Room temperature” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the recirculating air unit’s timer program (smart board).

If the recirculating air group is configured as a “four-pipe system”,

Expert level	X
Manufacturer level	X

the “Neutral zone” parameter can be used to enter the range within which there is no heating or cooling.
The following applies: Basic setpoint + Offset + (Neutral zone / 2) = Cooling setpoint
Basic setpoint + Offset - (Neutral zone / 2) = Heating setpoint

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
Room temperature	8.0°C	32.0°C	21.0°C
Neutral zone	0.0K	15.0K	2.0K

```
 Setpoint
2                    058
Recirul. group 14
Setpoint Cooling 2P
RT Day........: 21.0°C
RT Extra......: 19.0°C
RT ECO........: 15.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Cooling setpoint 2P

If the recirculating air group is configured as a “two-pipe system”,
the basic setpoints for the individual operating modes in cooling mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	19.0°C
RT ECO	8.0°C	32.0°C	15.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    059
Recirul. group 14
Setpoint 4P
RT Day........: 21.0°C
RT Extra......: 21.0°C
RT ECO........: 21.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Setpoint 4P

If the recirculating air group is configured as a “four-pipe system”,
the basic setpoints for the individual operating modes in heating and cooling mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	21.0°C
RT ECO	8.0°C	32.0°C	21.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    060
Recirul. group 14
Neutral zone 4P
RT Day........:   2.0K
RT Extra......:   4.0K
RT ECO........:   6.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Neutral zone 4P

If the recirculating air group is configured as a “four-pipe system”,
the values for the neutral zone can be entered.
The following applies: Basic setpoint + Offset + (Neutral zone / 2) = Cooling setpoint
Basic setpoint + Offset - (Neutral zone / 2) = Heating setpoint

The “RT Day” parameter defines the size of the neutral zone for closed-loop room temperature control when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the size of the neutral zone for closed-loop room temperature control when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the size of the neutral zone for closed-loop room temperature control when “ECO” operating mode is enabled by the timer program.

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	0.0K	15.0K	2.0K
RT Extra	0.0K	15.0K	4.0K
RT ECO	0.0K	15.0K	6.0K

```
 Setpoint
2                    061
Recirul. group 15
Setpoint Heating
RT Day........: 21.0°C
RT Extra......: 19.0°C
RT ECO........: 15.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X

Heating setpoint 2P

If the recirculating air group is configured as a “two-pipe system”,
the basic setpoints for the individual operating modes in heating mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the timer program.

Manufacturer level	X

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	19.0°C
RT ECO	8.0°C	32.0°C	15.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    061
Recirul. group 15
Raoom Temo: 21.0°C
Neutral  zone :  2.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Setpoint (“no timer program”)

A different setpoint is set if a timer program is not assigned to the recirculating air group (TSP configuration=8) and the timer program (Day/Eco or Day/Off) is used by the recirculating air unit itself (smart board) instead.

The “Room temperature” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the recirculating air unit’s timer program (smart board).

If the recirculating air group is configured as a “four-pipe system”,
the “Neutral zone” parameter can be used to enter the range within which there is no heating or cooling.
The following applies: Basic setpoint + Offset + (Neutral zone / 2) = Cooling setpoint
Basic setpoint + Offset - (Neutral zone / 2) = Heating setpoint

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
Room temperature	8.0°C	32.0°C	21.0°C
Neutral zone	0.0K	15.0K	2.0K

```
 Setpoint
2                    062
Recirul. group 15
Setpoint Coolimg 2P
RT Day........: 21.0°C
RT Extra......: 19.0°C
RT ECO........: 15.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X

Cooling setpoint 2P

If the recirculating air group is configured as a “two-pipe system”,
the basic setpoints for the individual operating modes in cooling mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating mode is enabled by the timer program.

Manufacturer level	X

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	19.0°C
RT ECO	8.0°C	32.0°C	15.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    063
Recirul. group 15
Setpoint 4P
RT Day........: 21.0°C
RT Extra......: 21.0°C
RT ECO........: 21.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Setpoint 4P

If the recirculating air group is configured as a “four-pipe system”,
the basic setpoints for the individual operating modes in heating and cooling mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	21.0°C
RT ECO	8.0°C	32.0°C	21.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    064
Recirul. group 15
Neutral zone 4P
RT Day........:   2.0K
RT Extra......:   4.0K
RT ECO........:   6.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Neutral zone 4P

If the recirculating air group is configured as a “four-pipe system”, the values for the neutral zone can be entered.
The following applies: Basic setpoint + Offset + (Neutral zone / 2) = Cooling setpoint
Basic setpoint + Offset - (Neutral zone / 2) = Heating setpoint

The “RT Day” parameter defines the size of the neutral zone for closed-loop room temperature control when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the size of the neutral zone for closed-loop room temperature control when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the size of the neutral zone for closed-loop room temperature control when “ECO” operating mode is enabled by the timer program.

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	0.0K	15.0K	2.0K
RT Extra	0.0K	15.0K	4.0K
RT ECO	0.0K	15.0K	6.0K

```
 Setpoint
2                    065
Recirul. group 16
Setpoint Heating 2P
RT Day........: 21.0°C
RT Extra......: 19.0°C
RT ECO........: 15.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Heating setpoint 2P

If the recirculating air group is configured as a “two-pipe system”, the basic setpoints for the individual operating modes in heating mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	19.0°C
RT ECO	8.0°C	32.0°C	15.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    065
Recirul. group 14
Raoom Temp.    : 21.0°C
Neutral  zone :  2.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Setpoint ("no timer program")

A different setpoint is set if a timer program is not assigned to the recirculating air group (TSP configuration=8) and the timer program (Day/Eco or Day/Off) is used by the recirculating air unit itself (smart board) instead.

The "Room temperature" parameter defines the basic setpoint used by the recirculating air group to control the room temperature when "Day" operating mode is enabled by the recirculating air unit's timer program (smart board).

If the recirculating air group is configured as a "four-pipe system",
the "Neutral zone" parameter can be used to enter the range within which there is no heating or cooling.
The following applies: Basic setpoint + Offset + (Neutral zone / 2) = Cooling setpoint
Basic setpoint + Offset - (Neutral zone / 2) = Heating setpoint

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
Room temperature	8.0°C	32.0°C	21.0°C
Neutral zone	0.0K	15.0K	2.0K

```
 Setpoint
2                    066
Recirul. group 16
Setpoint Cooling 2P
RT Day........: 21.0°C
RT Extra......: 19.0°C
RT ECO........: 15.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Cooling setpoint 2P

If the recirculating air group is configured as a "two-pipe system",
the basic setpoints for the individual operating modes in cooling mode can be entered as absolute values.

The "RT Day" parameter defines the basic setpoint used by the recirculating air group to control the room temperature when "Day" operating mode is enabled by the timer program.

The "RT Extra" parameter defines the basic setpoint used by the recirculating air group to control the room temperature when "Extra" operating mode is enabled by the timer program.

The "RT ECO" parameter defines the basic setpoint used by the recirculating air group to control the room temperature when "ECO" operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the "RT Offset" parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The "RT Offset" parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	19.0°C
RT ECO	8.0°C	32.0°C	15.0°C
RT Offset	parametrisable	parametrisable	0.0K

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```
 Setpoint
2                    067
Recirul. group 14
Setpoint 4P
RT Day........: 21.0°C
RT Extra......: 21.0°C
RT ECO........: 21.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Setpoint 4P

If the recirculating air group is configured as a “four-pipe system”, the basic setpoints for the individual operating modes in heating and cooling mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	21.0°C
RT ECO	8.0°C	32.0°C	21.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    068
Recirul. group 16
Neutral zone 4P
RT Day........:  2.0K
RT Extra......:  4.0K
RT ECO........:  6.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Neutral zone 4P

If the recirculating air group is configured as a “four-pipe system”, the values for the neutral zone can be entered.
The following applies: Basic setpoint + Offset + (Neutral zone / 2) = Cooling setpoint
Basic setpoint + Offset - (Neutral zone / 2) = Heating setpoint

The “RT Day” parameter defines the size of the neutral zone for closed-loop room temperature control when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the size of the neutral zone for closed-loop room temperature control when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the size of the neutral zone for closed-loop room temperature control when “ECO” operating mode is enabled by the timer program.

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	0.0K	15.0K	2.0K
RT Extra	0.0K	15.0K	4.0K
RT ECO	0.0K	15.0K	6.0K

KAMPMANN Genau mein Klima.

```
 Setpoint
2                    069
Recirul. group 16
Setpoint Heting 2P
RT Day........: 21.0°C
RT Extra......: 19.0°C
RT ECO........: 15.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Heating setpoint 2P

If the recirculating air group is configured as a “two-pipe system”, the basic setpoints for the individual operating modes in heating mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	19.0°C
RT ECO	8.0°C	32.0°C	15.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    069
Umluft 17
Room Temp:    : 21.0°C
Neutral zone :  2.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Setpoint (“no timer program”)

A different setpoint is set if a timer program is not assigned to the recirculating air group (TSP configuration=8) and the timer program (Day/Eco or Day/Off) is used by the recirculating air unit itself (smart board) instead.

The “Room temperature” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the recirculating air unit’s timer program (smart board).

If the recirculating air group is configured as a “four-pipe system”, the “Neutral zone” parameter can be used to enter the range within which there is no heating or cooling.
The following applies: Basic setpoint + Offset + (Neutral zone / 2) = Cooling setpoint
Basic setpoint + Offset - (Neutral zone / 2) = Heating setpoint

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
Room temperature	8.0°C	32.0°C	21.0°C
Neutral zone	0.0K	15.0K	2.0K

KAMPMANN Genau mein Klima.

```
 Setpoint
2                    070
Recirul. group 17
Setpoint Cooling 2P
RT Day........: 21.0°C
RT Extra......: 19.0°C
RT ECO........: 15.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Cooling setpoint 2P

If the recirculating air group is configured as a “two-pipe system”, the basic setpoints for the individual operating modes in cooling mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	19.0°C
RT ECO	8.0°C	32.0°C	15.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    071
Recirul. group 17
Setpoint 4P
RT Day........: 21.0°C
RT Extra......: 21.0°C
RT ECO........: 21.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Setpoint 4P

If the recirculating air group is configured as a “four-pipe system”, the basic setpoints for the individual operating modes in heating and cooling mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	21.0°C
RT ECO	8.0°C	32.0°C	21.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    072
Recirul. group 17
Neutral zone 4P
RT Day........:   2.0K
RT Extra......:   4.0K
RT ECO........:   6.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Neutral zone 4P

If the recirculating air group is configured as a “four-pipe system”, the values for the neutral zone can be entered.
The following applies: Basic setpoint + Offset + (Neutral zone / 2) = Cooling setpoint
Basic setpoint + Offset - (Neutral zone / 2) = Heating setpoint

The “RT Day” parameter defines the size of the neutral zone for closed-loop room temperature control when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the size of the neutral zone for closed-loop room temperature control when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the size of the neutral zone for closed-loop room temperature control when “ECO” operating mode is enabled by the timer program.

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	0.0K	15.0K	2.0K
RT Extra	0.0K	15.0K	4.0K
RT ECO	0.0K	15.0K	6.0K

```
 Setpoint
2                    073
Recirul. group 18
Setpoint Heating 2P
RT Day........: 21.0°C
RT Extra......: 19.0°C
RT ECO........: 15.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Heating setpoint 2P

If the recirculating air group is configured as a “two-pipe system”, the basic setpoints for the individual operating modes in heating mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	19.0°C
RT ECO	8.0°C	32.0°C	15.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    073
Recirul. group 18
Room Temp.    : 21.0°C
Neutral zone :  2.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Setpoint ("no timer program")

A different setpoint is set if a timer program is not assigned to the recirculating air group (TSP configuration=8) and the timer program (Day/Eco or Day/Off) is used by the recirculating air unit itself (smart board) instead.

The "Room temperature" parameter defines the basic setpoint used by the recirculating air group to control the room temperature when "Day" operating mode is enabled by the recirculating air unit's timer program (smart board).

If the recirculating air group is configured as a "four-pipe system",
the "Neutral zone" parameter can be used to enter the range within which there is no heating or cooling.
The following applies: Basic setpoint + Offset + (Neutral zone / 2) = Cooling setpoint
Basic setpoint + Offset - (Neutral zone / 2) = Heating setpoint

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
Room temperature	8.0°C	32.0°C	21.0°C
Neutral zone	0.0K	15.0K	2.0K

```
 Setpoint
2                    074
Recirul. group 18
Setpoint Cooling 2P
RT Day........: 21.0°C
RT Extra......: 19.0°C
RT ECO........: 15.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Cooling setpoint 2P

If the recirculating air group is configured as a "two-pipe system",
the basic setpoints for the individual operating modes in cooling mode can be entered as absolute values.

The "RT Day" parameter defines the basic setpoint used by the recirculating air group to control the room temperature when "Day" operating mode is enabled by the timer program.

The "RT Extra" parameter defines the basic setpoint used by the recirculating air group to control the room temperature when "Extra" operating mode is enabled by the timer program.

The "RT ECO" parameter defines the basic setpoint used by the recirculating air group to control the room temperature when "ECO" operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the "RT Offset" parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The "RT Offset" parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

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Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	19.0°C
RT ECO	8.0°C	32.0°C	15.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    075
Recirul. group 18
Setpoint 4P
RT Day........: 21.0°C
RT Extra......: 21.0°C
RT ECO........: 21.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Setpoint 4P

If the recirculating air group is configured as a “four-pipe system”, the basic setpoints for the individual operating modes in heating and cooling mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	21.0°C
RT ECO	8.0°C	32.0°C	21.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    076
Recirul. group 18
Neutral zone 4P
RT Day........:  2.0K
RT Extra......:  4.0K
RT ECO........:  6.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Neutral zone 4P

If the recirculating air group is configured as a “four-pipe system”, the values for the neutral zone can be entered.
The following applies: Basic setpoint + Offset + (Neutral zone / 2) = Cooling setpoint
Basic setpoint + Offset - (Neutral zone / 2) = Heating setpoint

The “RT Day” parameter defines the size of the neutral zone for closed-loop room temperature control when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the size of the neutral zone for closed-loop room temperature control when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the size of the neutral zone for closed-loop room temperature control when “ECO” operating mode is enabled by the timer program.

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	0.0K	15.0K	2.0K
RT Extra	0.0K	15.0K	4.0K
RT ECO	0.0K	15.0K	6.0K

```
 Setpoint
2                    077
Recirul. group 19
Setpoint Heating 2P
RT Day........: 21.0°C
RT Extra......: 19.0°C
RT ECO........: 15.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Heating setpoint 2P

If the recirculating air group is configured as a “two-pipe system”, the basic setpoints for the individual operating modes in heating mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	19.0°C
RT ECO	8.0°C	32.0°C	15.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    077
Recirul. group 19
Room Temp.    : 21.0°C
Neutral zone :  2.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Setpoint (“no timer program”)

A different setpoint is set if a timer program is not assigned to the recirculating air group (TSP configuration=8) and the timer program (Day/Eco or Day/Off) is used by the recirculating air unit itself (smart board) instead.

The “Room temperature” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the recirculating air unit’s timer program (smart board).

If the recirculating air group is configured as a “four-pipe system”, the “Neutral zone” parameter can be used to enter the range within which there is no heating or cooling.
The following applies: Basic setpoint + Offset + (Neutral zone / 2) = Cooling setpoint
Basic setpoint + Offset - (Neutral zone / 2) = Heating setpoint

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
Room temperature	8.0°C	32.0°C	21.0°C
Neutral zone	0.0K	15.0K	2.0K

```
 Setpoint
2                    078
Recirul. group 19
Setpoint Cooling 2P
RT Day........: 21.0°C
RT Extra......: 19.0°C
RT ECO........: 15.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Cooling setpoint 2P

If the recirculating air group is configured as a “two-pipe system”, the basic setpoints for the individual operating modes in cooling mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	19.0°C
RT ECO	8.0°C	32.0°C	15.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    079
Recirul. group 19
Setpoint 4P
RT Day........: 21.0°C
RT Extra......: 21.0°C
RT ECO........: 21.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Setpoint 4P

If the recirculating air group is configured as a “four-pipe system”, the basic setpoints for the individual operating modes in heating and cooling mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint

The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	21.0°C
RT ECO	8.0°C	32.0°C	21.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    080
Recirul. group 19
Neutral zone 4P
RT Day........:   2.0K
RT Extra......:   4.0K
RT ECO........:   6.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Neutral zone 4P

If the recirculating air group is configured as a “four-pipe system”, the values for the neutral zone can be entered.
The following applies: Basic setpoint + Offset + (Neutral zone / 2) = Cooling setpoint
Basic setpoint + Offset - (Neutral zone / 2) = Heating setpoint

The “RT Day” parameter defines the size of the neutral zone for closed-loop room temperature control when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the size of the neutral zone for closed-loop room temperature control when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the size of the neutral zone for closed-loop room temperature control when “ECO” operating mode is enabled by the timer program.

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	0.0K	15.0K	2.0K
RT Extra	0.0K	15.0K	4.0K
RT ECO	0.0K	15.0K	6.0K

```
 Setpoint
2                    081
Recirul. group 20
Setpoint Heating 2P
RT Day........: 21.0°C
RT Extra......: 19.0°C
RT ECO........: 15.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Heating setpoint 2P

If the recirculating air group is configured as a “two-pipe system”, the basic setpoints for the individual operating modes in heating mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.

However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	19.0°C
RT ECO	8.0°C	32.0°C	15.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    081
Recirul. group 20
Room Temp.    : 21.0°C
Neutral zone :  2.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Setpoint (“no timer program”)

A different setpoint is set if a timer program is not assigned to the recirculating air group (TSP configuration=8) and the timer program (Day/Eco or Day/Off) is used by the recirculating air unit itself (smart board) instead.

The “Room temperature” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the recirculating air unit’s timer program (smart board).

If the recirculating air group is configured as a “four-pipe system”,
the “Neutral zone” parameter can be used to enter the range within which there is no heating or cooling.
The following applies: Basic setpoint + Offset + (Neutral zone / 2) = Cooling setpoint
Basic setpoint + Offset - (Neutral zone / 2) = Heating setpoint

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
Room temperature	8.0°C	32.0°C	21.0°C
Neutral zone	0.0K	15.0K	2.0K

```
 Setpoint
2                    082
Recirul. group 20
Setpoint Cooling 2P
RT Day........: 21.0°C
RT Extra......: 19.0°C
RT ECO........: 15.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Cooling setpoint 2P

If the recirculating air group is configured as a “two-pipe system”,
the basic setpoints for the individual operating modes in cooling mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint

The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	19.0°C
RT ECO	8.0°C	32.0°C	15.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    083
Recirul. group 20
Setpoint 4P
RT Day........: 21.0°C
RT Extra......: 21.0°C
RT ECO........: 21.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Setpoint 4P

If the recirculating air group is configured as a “four-pipe system”, the basic setpoints for the individual operating modes in heating and cooling mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	21.0°C
RT ECO	8.0°C	32.0°C	21.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    084
Recirul. group 20
Neutral zone 4P
RT Day........:  2.0K
RT Extra......:  4.0K
RT ECO........:  6.0K
```

Dialogue box visible in:	
User level	X
Expert level	X

Neutral zone 4P

If the recirculating air group is configured as a “four-pipe system”, the values for the neutral zone can be entered.
The following applies: Basic setpoint + Offset + (Neutral zone / 2) = Cooling setpoint
Basic setpoint + Offset - (Neutral zone / 2) = Heating setpoint

The “RT Day” parameter defines the size of the neutral zone for closed-loop room temperature control when “Day” operating mode is enabled by the timer program.

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Manufacturer level	X

The “RT Extra” parameter defines the size of the neutral zone for closed-loop room temperature control when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the size of the neutral zone for closed-loop room temperature control when “ECO” operating mode is enabled by the timer program.

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	0.0K	15.0K	2.0K
RT Extra	0.0K	15.0K	4.0K
RT ECO	0.0K	15.0K	6.0K

```
 Setpoint
2                    085
Recirul. group 21
Setpoint Heating 2P
RT Day........: 21.0°C
RT Extra......: 19.0°C
RT ECO........: 15.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Heating setpoint 2P

If the recirculating air group is configured as a “two-pipe system”,
the basic setpoints for the individual operating modes in heating mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	19.0°C
RT ECO	8.0°C	32.0°C	15.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    085
Recirul. group 21
Room Temp.     : 21.0°C
Neutral zone   :  2.0K
```

Dialogue box visible in:	
User level	X

Setpoint (“no timer program”)

A different setpoint is set if a timer program is not assigned to the recirculating air group (TSP configuration=8) and the timer program (Day/Eco or Day/Off) is used by the recirculating air unit itself (smart board) instead.

The “Room temperature” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the recirculating air unit’s timer program (smart board).

If the recirculating air group is configured as a “four-pipe system”,

Expert level	X
Manufacturer level	X

the “Neutral zone” parameter can be used to enter the range within which there is no heating or cooling.
The following applies: Basic setpoint + Offset + (Neutral zone / 2) = Cooling setpoint
Basic setpoint + Offset - (Neutral zone / 2) = Heating setpoint

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
Room temperature	8.0°C	32.0°C	21.0°C
Neutral zone	0.0K	15.0K	2.0K

```
 Setpoint
2                    086
Recirul. group 21
Setpoint Cooling 2P
RT Day........: 21.0°C
RT Extra......: 19.0°C
RT ECO........: 15.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Cooling setpoint 2P

If the recirculating air group is configured as a “two-pipe system”,
the basic setpoints for the individual operating modes in cooling mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	19.0°C
RT ECO	8.0°C	32.0°C	15.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    087
Recirul. group 21
Setpoint 4P
RT Day........: 21.0°C
RT Extra......: 21.0°C
RT ECO........: 21.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Setpoint 4P

If the recirculating air group is configured as a “four-pipe system”,
the basic setpoints for the individual operating modes in heating and cooling mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	21.0°C
RT ECO	8.0°C	32.0°C	21.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    088
Recirul. group 21
Neutral zone 4P
RT Day........:   2.0K
RT Extra......:   4.0K
RT ECO........:   6.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Neutral zone 4P

If the recirculating air group is configured as a “four-pipe system”,
the values for the neutral zone can be entered.
The following applies: Basic setpoint + Offset + (Neutral zone / 2) = Cooling setpoint
Basic setpoint + Offset - (Neutral zone / 2) = Heating setpoint

The “RT Day” parameter defines the size of the neutral zone for closed-loop room temperature control when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the size of the neutral zone for closed-loop room temperature control when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the size of the neutral zone for closed-loop room temperature control when “ECO” operating mode is enabled by the timer program.

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	0.0K	15.0K	2.0K
RT Extra	0.0K	15.0K	4.0K
RT ECO	0.0K	15.0K	6.0K

```
 Setpoint
2                    089
Recirul. group 22
Setpoint Heating 2P
RT Day........: 21.0°C
RT Extra......: 19.0°C
RT ECO........: 15.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X

Heating setpoint 2P

If the recirculating air group is configured as a “two-pipe system”,
the basic setpoints for the individual operating modes in heating mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the timer program.

Manufacturer level	X

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	19.0°C
RT ECO	8.0°C	32.0°C	15.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    089
Recirul. group 22
Room temp.     : 21.0°C
Neutral  zone :  2.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Setpoint (“no timer program”)

A different setpoint is set if a timer program is not assigned to the recirculating air group (TSP configuration=8) and the timer program (Day/Eco or Day/Off) is used by the recirculating air unit itself (smart board) instead.

The “Room temperature” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the recirculating air unit’s timer program (smart board).

If the recirculating air group is configured as a “four-pipe system”,
the “Neutral zone” parameter can be used to enter the range within which there is no heating or cooling.
The following applies: Basic setpoint + Offset + (Neutral zone / 2) = Cooling setpoint
Basic setpoint + Offset - (Neutral zone / 2) = Heating setpoint

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
Room temperature	8.0°C	32.0°C	21.0°C
Neutral zone	0.0K	15.0K	2.0K

```
 Setpoint
2                    090
Recirul. group 22
Setpoint Cooling 2P
RT Day........: 21.0°C
RT Extra......: 19.0°C
RT ECO........: 15.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Cooling setpoint 2P

If the recirculating air group is configured as a “two-pipe system”,
the basic setpoints for the individual operating modes in cooling mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	19.0°C
RT ECO	8.0°C	32.0°C	15.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    091
Recirul. group 22
Setpoint 4P
RT Day........: 21.0°C
RT Extra......: 21.0°C
RT ECO........: 21.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Setpoint 4P

If the recirculating air group is configured as a “four-pipe system”,
the basic setpoints for the individual operating modes in heating and cooling mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	21.0°C
RT ECO	8.0°C	32.0°C	21.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    092
Recirul. group 22
Neutral zone 4P
RT Day........:   2.0K
RT Extra......:   4.0K
RT ECO........:   6.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Neutral zone 4P

If the recirculating air group is configured as a “four-pipe system”, the values for the neutral zone can be entered.
The following applies: Basic setpoint + Offset + (Neutral zone / 2) = Cooling setpoint
Basic setpoint + Offset - (Neutral zone / 2) = Heating setpoint

The “RT Day” parameter defines the size of the neutral zone for closed-loop room temperature control when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the size of the neutral zone for closed-loop room temperature control when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the size of the neutral zone for closed-loop room temperature control when “ECO” operating mode is enabled by the timer program.

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	0.0K	15.0K	2.0K
RT Extra	0.0K	15.0K	4.0K
RT ECO	0.0K	15.0K	6.0K

```
 Setpoint
2                    093
Recirul. group 23
Setpoint Heating 2P
RT Day........: 21.0°C
RT Extra......: 19.0°C
RT ECO........: 15.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Heating setpoint 2P

If the recirculating air group is configured as a “two-pipe system”, the basic setpoints for the individual operating modes in heating mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	19.0°C
RT ECO	8.0°C	32.0°C	15.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    093
Recirul. group 23
Room Temp.     : 21.0°C
Neutral  zone :  2.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Setpoint ("no timer program")

A different setpoint is set if a timer program is not assigned to the recirculating air group (TSP configuration=8) and the timer program (Day/Eco or Day/Off) is used by the recirculating air unit itself (smart board) instead.

The "Room temperature" parameter defines the basic setpoint used by the recirculating air group to control the room temperature when "Day" operating mode is enabled by the recirculating air unit's timer program (smart board).

If the recirculating air group is configured as a "four-pipe system",
the "Neutral zone" parameter can be used to enter the range within which there is no heating or cooling.
The following applies: Basic setpoint + Offset + (Neutral zone / 2) = Cooling setpoint
Basic setpoint + Offset - (Neutral zone / 2) = Heating setpoint

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
Room temperature	8.0°C	32.0°C	21.0°C
Neutral zone	0.0K	15.0K	2.0K

```
 Setpoint
2                    094
Recirul. group 23
Setpoint Cooling 2P
RT Day........: 21.0°C
RT Extra......: 19.0°C
RT ECO........: 15.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Cooling setpoint 2P

If the recirculating air group is configured as a "two-pipe system",
the basic setpoints for the individual operating modes in cooling mode can be entered as absolute values.

The "RT Day" parameter defines the basic setpoint used by the recirculating air group to control the room temperature when "Day" operating mode is enabled by the timer program.

The "RT Extra" parameter defines the basic setpoint used by the recirculating air group to control the room temperature when "Extra" operating mode is enabled by the timer program.

The "RT ECO" parameter defines the basic setpoint used by the recirculating air group to control the room temperature when "ECO" operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the "RT Offset" parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The "RT Offset" parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	19.0°C
RT ECO	8.0°C	32.0°C	15.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Recirul. group
2                    095
Recirul. group 23
Setpoint 4P
RT Day........: 21.0°C
RT Extra......: 21.0°C
RT ECO........: 21.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Setpoint 4P

If the recirculating air group is configured as a “four-pipe system”, the basic setpoints for the individual operating modes in heating and cooling mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	21.0°C
RT ECO	8.0°C	32.0°C	21.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    096
Recirul. group 23
Neutral zone 4P
RT Day........:  2.0K
RT Extra......:  4.0K
RT ECO........:  6.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Neutral zone 4P

If the recirculating air group is configured as a “four-pipe system”, the values for the neutral zone can be entered.
The following applies: Basic setpoint + Offset + (Neutral zone / 2) = Cooling setpoint
Basic setpoint + Offset - (Neutral zone / 2) = Heating setpoint

The “RT Day” parameter defines the size of the neutral zone for closed-loop temperature control when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the size of the neutral zone for closed-loop room temperature control when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the size of the neutral zone for closed-loop room temperature control when “ECO” operating mode is enabled by the timer program.

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	0.0K	15.0K	2.0K
RT Extra	0.0K	15.0K	4.0K
RT ECO	0.0K	15.0K	6.0K

```
 Setpoint
2                    097
Recirul. group 24
Setpoint Heating 2P
RT Day........: 21.0°C
RT Extra......: 19.0°C
RT ECO........: 15.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Heating setpoint 2P

If the recirculating air group is configured as a “two-pipe system”, the basic setpoints for the individual operating modes in heating mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	19.0°C
RT ECO	8.0°C	32.0°C	15.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    097
Recirul. group 24
Room Temp.     : 21.0°C
Neutral zone   :  2.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Setpoint (“no timer program”)

A different setpoint is set if a timer program is not assigned to the recirculating air group (TSP configuration=8) and the timer program (Day/Eco or Day/Off) is used by the recirculating air unit itself (smart board) instead.

The “Room temperature” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the recirculating air unit’s timer program (smart board).

If the recirculating air group is configured as a “four-pipe system”, the “Neutral zone” parameter can be used to enter the range within which there is no heating or cooling.
The following applies: Basic setpoint + Offset + (Neutral zone / 2) = Cooling setpoint
Basic setpoint + Offset - (Neutral zone / 2) = Heating setpoint

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
Room temperature	8.0°C	32.0°C	21.0°C
Neutral zone	0.0K	15.0K	2.0K

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```
 Setpoint
2                    098
Recirul. group 24
Setpoint Cooling 2P
RT Day........: 21.0°C
RT Extra......: 19.0°C
RT ECO........: 15.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Cooling setpoint 2P

If the recirculating air group is configured as a “two-pipe system”, the basic setpoints for the individual operating modes in cooling mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	19.0°C
RT ECO	8.0°C	32.0°C	15.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    099
Recirul. group 24
Setpoint 4P
RT Day........: 21.0°C
RT Extra......: 21.0°C
RT ECO........: 21.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Setpoint 4P

If the recirculating air group is configured as a “four-pipe system”, the basic setpoints for the individual operating modes in heating and cooling mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	21.0°C
RT ECO	8.0°C	32.0°C	21.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    100
Recirul. group 24
Neutral zone 4P
RT Day........:   2.0K
RT Extra......:   4.0K
RT ECO........:   6.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Neutral zone 4P

If the recirculating air group is configured as a “four-pipe system”, the values for the neutral zone can be entered.
The following applies: Basic setpoint + Offset + (Neutral zone / 2) = Cooling setpoint
Basic setpoint + Offset - (Neutral zone / 2) = Heating setpoint

The “RT Day” parameter defines the size of the neutral zone for closed-loop temperature control when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the size of the neutral zone for closed-loop room temperature control when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the size of the neutral zone for closed-loop room temperature control when “ECO” operating mode is enabled by the timer program.

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	0.0K	15.0K	2.0K
RT Extra	0.0K	15.0K	4.0K
RT ECO	0.0K	15.0K	6.0K

```
 Setpoint
2                    101
Recirul. group 25
Setpoint Heating 2P
RT Day........: 21.0°C
RT Extra......: 19.0°C
RT ECO........: 15.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Heating setpoint 2P

If the recirculating air group is configured as a “two-pipe system”, the basic setpoints for the individual operating modes in heating mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	19.0°C
RT ECO	8.0°C	32.0°C	15.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    101
Recirul. group 25
Room Temp.      : 21.0°C
Neutral zone    :  2.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Setpoint ("no timer program")

A different setpoint is set if a timer program is not assigned to the recirculating air group (TSP configuration=8) and the timer program (Day/Eco or Day/Off) is used by the recirculating air unit itself (smart board) instead.

The "Room temperature" parameter defines the basic setpoint used by the recirculating air group to control the room temperature when "Day" operating mode is enabled by the recirculating air unit's timer program (smart board).

If the recirculating air group is configured as a "four-pipe system",
the "Neutral zone" parameter can be used to enter the range within which there is no heating or cooling.
The following applies: Basic setpoint + Offset + (Neutral zone / 2) = Cooling setpoint
Basic setpoint + Offset - (Neutral zone / 2) = Heating setpoint

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
Room temperature	8.0°C	32.0°C	21.0°C
Neutral zone	0.0K	15.0K	2.0K

```
 Setpoint
2                    102
Recirul. group 25
Setpoint Cooling 2P
RT Day........: 21.0°C
RT Extra......: 19.0°C
RT ECO........: 15.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Cooling setpoint 2P

If the recirculating air group is configured as a "two-pipe system",
the basic setpoints for the individual operating modes in cooling mode can be entered as absolute values.

The "RT Day" parameter defines the basic setpoint used by the recirculating air group to control the room temperature when "Day" operating mode is enabled by the timer program.

The "RT Extra" parameter defines the basic setpoint used by the recirculating air group to control the room temperature when "Extra" operating mode is enabled by the timer program.

The "RT ECO" parameter defines the basic setpoint used by the recirculating air group to control the room temperature when "ECO" operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the "RT Offset" parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The "RT Offset" parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

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Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	19.0°C
RT ECO	8.0°C	32.0°C	15.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    103
Recirul. group 25
Setpoint 4P
RT Day........: 21.0°C
RT Extra......: 21.0°C
RT ECO........: 21.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Setpoint 4P

If the recirculating air group is configured as a “four-pipe system”, the basic setpoints for the individual operating modes in heating and cooling mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	8.0°C	32.0°C	21.0°C
RT Extra	8.0°C	32.0°C	21.0°C
RT ECO	8.0°C	32.0°C	21.0°C
RT Offset	parametrisable	parametrisable	0.0K

```
 Setpoint
2                    104
Recirul. group 25
Neutral zone 4P
RT Day........:  2.0K
RT Extra......:  4.0K
RT ECO........:  6.0K
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Neutral zone 4P

If the recirculating air group is configured as a “four-pipe system”, the values for the neutral zone can be entered.
The following applies: Basic setpoint + Offset + (Neutral zone / 2) = Cooling setpoint
Basic setpoint + Offset - (Neutral zone / 2) = Heating setpoint

The “RT Day” parameter defines the size of the neutral zone for closed-loop room temperature control when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the size of the neutral zone for closed-loop room temperature control when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the size of the neutral zone for closed-loop room temperature control when “ECO” operating mode is enabled by the timer program.

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	0.0K	15.0K	2.0K
RT Extra	0.0K	15.0K	4.0K
RT ECO	0.0K	15.0K	6.0K

8 Timer programs

The timer programs are used to switch between Day, Eco, Extra and Off operating modes. Five independent timer programs are available. One of these timer programs can be individually assigned to each of the 25 groups. The program is assigned in the Group Configuration menu. Up to six switching points can be defined for each timer program for each day of the week, and the operating mode specified for each of these points activated.

The holiday programs can be used to set nine one-off and nine recurring periods. Day, Eco, Extra and Off operating modes can be assigned to these periods. The assigned operating mode is then enabled within these periods. The operating modes enabled by the five timer programs are overwritten.

The switch-over of operating modes by the timer programs can be locked. All five timer programs are locked when delivered for safety reasons to prevent the system being accidentally switched on before or during commissioning.

A day mode extension can be manually enabled or disabled for every timer program. It is automatically disabled after a set time has elapsed. Day mode is enabled for the respective timer program for as long as the day mode extension is running. The day mode extension overwrites the holiday programs and the associated timer program.

The respective operating mode resulting from this automatic mode is displayed in the corresponding menu.

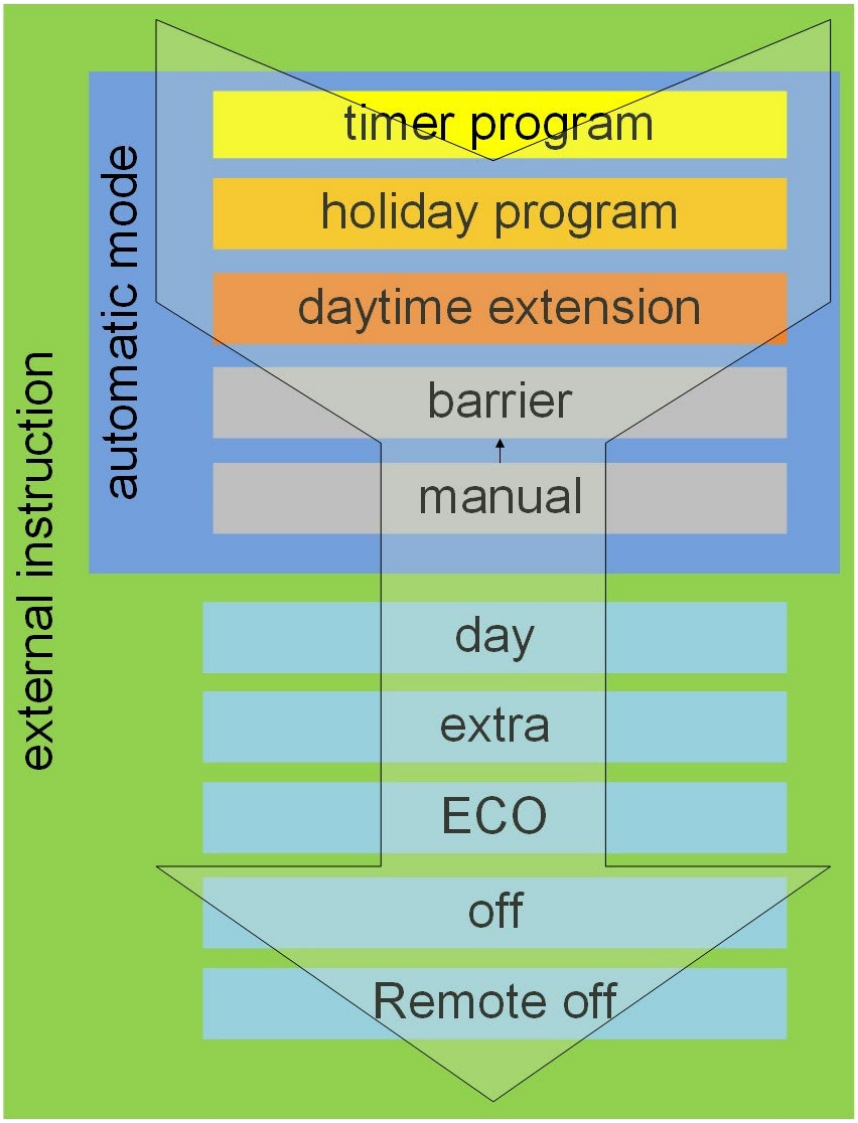
There is also an option to manually enable one of the Day, Eco, Extra and Off operating modes. This operating mode remains active until the next operating mode change by the respective timer program, holiday program or respective day mode extension. If the change of operating mode is disabled, the manually enabled operating mode remains permanently enabled.

By connecting the multifunctional inputs Digital input TSP X Day, Digital input TSP X ECO, Digital input TSP X Extra and Digital input TSP X Off, the operating modes Day, Eco, Extra and Off can be activated at a higher level to the five individual time switching programs. The switching points specified in each case, holiday programs, respective day mode extension and any manually activated operating mode are then disregarded. If the higher-level activation is cancelled, the operating mode resulting from the switching points specified in each case is activated by the set switching points, holiday programs, respective day mode extension, or by any manual selection that may have been made.

By connecting the Remote Off multifunctional input, Off mode is jointly activated for all timer programs. The switching points specified in each case, holiday programs, day mode extension and any manually activated operating modes are then disregarded. If the higher-level activation is cancelled, the operating modes resulting from the switching points specified in each case are activated if necessary by the set switching points, holiday programs, respective day mode extension, or as a result of any manual selections that may have been made.

The respective external specification with the highest priority is displayed in the corresponding menu.

The following figure illustrates these relationships:



The date and time may need to be adjusted in menu 37-001 of the SEL control panel to ensure correct operation of the timer programs.

8.1 Timer program 1

```
 Timer program
31                    001
ZSP1: Monday
00:00 ECO    08:00 Day
20:00 ECO    00:00 ---
00:00 ---    00:00 ---

Mo→Tu transfer: No
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Timer program – Monday

Up to six times can be defined each day at which a change to a programmed operating mode (DAY, ECO, EXT, OFF, ---) takes place.

All six defined operating mode changeovers can be copied together to the following day.

Parameter	min.	max.	default
Time 1	00:00	23:59	00:00
Operating mode 1			ECO
Time 2	00:00	23:59	08:00
Operating mode 2			DAY
Time 3	00:00	23:59	20:00
Operating mode 3			ECO
Time 4	00:00	23:59	00:00
Operating mode 4			---
Time 5	00:00	23:59	00:00
Operating mode 5			---
Time 6	00:00	23:59	00:00
Operating mode 6			---
transfer	no	yes	no

```
 Timer program
31                    002
ZSP1: Tuesday
00:00 ECO    08:00 Day
20:00 ECO    00:00 ---
00:00 ---    00:00 ---

Tu→We transfer: No
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Timer program – Tuesday

Up to six times can be defined each day at which a changeover to a programmed operating mode (DAY, ECO, EXT, OFF, ---) can take place.

All six defined operating mode changeovers can be copied together to the following day.

Parameter	min.	max.	default
Time 1	00:00	23:59	00:00
Operating mode 1			ECO
Time 2	00:00	23:59	08:00
Operating mode 2			DAY
Time 3	00:00	23:59	20:00
Operating mode 3			ECO
Time 4	00:00	23:59	00:00
Operating mode 4			---
Time 5	00:00	23:59	00:00
Operating mode 5			---
Time 6	00:00	23:59	00:00
Operating mode 6			---
transfer	no	yes	no

```
 Timer program
31                    003
ZSP1: Wednesday
00:00 ECO    08:00 Day
20:00 ECO    00:00 ---
00:00 ---    00:00 ---

We→Th transfer: No
```

Timer program – Wednesday

Up to six times can be defined each day at which a changeover to a programmed operating mode (DAY, ECO, EXT, OFF, ---) can take place.

All six defined changes of operating mode can be copied together to the following day.

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Parameter	min.	max.	default
Time 1	00:00	23:59	00:00
Operating mode 1			ECO
Time 2	00:00	23:59	08:00
Operating mode 2			DAY
Time 3	00:00	23:59	20:00
Operating mode 3			ECO
Time 4	00:00	23:59	00:00
Operating mode 4			---
Time 5	00:00	23:59	00:00
Operating mode 5			---
Time 6	00:00	23:59	00:00
Operating mode 6			---
transfer	no	yes	no

```
 Timer program
31                    004
ZSP1: Thursday
00:00 ECO    08:00 Day
20:00 ECO    00:00 ---
00:00 ---    00:00 ---

Th→Fr transfer: No
```

Timer program – Thursday

Up to six times can be defined each day at which a change to a programmed operating mode (DAY, ECO, EXT, OFF, ---) takes place.

All six defined changes of operating mode can be copied together to the following day.

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Parameter	min.	max.	default
Time 1	00:00	23:59	00:00
Operating mode 1			ECO
Time 2	00:00	23:59	08:00
Operating mode 2			DAY
Time 3	00:00	23:59	20:00
Operating mode 3			ECO
Time 4	00:00	23:59	00:00
Operating mode 4			---
Time 5	00:00	23:59	00:00
Operating mode 5			---
Time 6	00:00	23:59	00:00
Operating mode 6			---
transfer	no	yes	no

```
 Timer program
31                    005
ZSP1: Friday
00:00 ECO    08:00 Day
20:00 ECO    00:00 ---
00:00 ---    00:00 ---

Fr→Sa transfer: No
```

Timer program – Friday

Up to six times can be defined each day at which a change to a programmed operating mode (DAY, ECO, EXT, OFF, ---) takes place.

All six defined changes of operating mode can be copied together to the following day.

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Parameter	min.	max.	default
Time 1	00:00	23:59	00:00
Operating mode 1			ECO
Time 2	00:00	23:59	08:00
Operating mode 2			DAY
Time 3	00:00	23:59	20:00
Operating mode 3			ECO

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Time 4	00:00	23:59	00:00
Operating mode 4			---
Time 5	00:00	23:59	00:00
Operating mode 5			---
Time 6	00:00	23:59	00:00
Operating mode 6			---
transfer	no	yes	no

```
 Timer program
31                    006
ZSP1: Saturday
00:00 ECO    08:00 Day
18:00 ECO    00:00 ---
00:00 ---    00:00 ---

Sa→Su transfer: No
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Timer program – Saturday

Up to six times can be defined each day at which a change to a programmed operating mode (DAY, ECO, EXT, OFF, ---) takes place.

All six defined changes of operating mode can be copied together to the following day.

Parameter	min.	max.	default
Time 1	00:00	23:59	00:00
Operating mode 1			ECO
Time 2	00:00	23:59	08:00
Operating mode 2			DAY
Time 3	00:00	23:59	18:00
Operating mode 3			ECO
Time 4	00:00	23:59	00:00
Operating mode 4			---
Time 5	00:00	23:59	00:00
Operating mode 5			---
Time 6	00:00	23:59	00:00
Operating mode 6			---
transfer	no	yes	no

```
 Timer program
31                    007
ZSP1: Sunday
00:00 ECO    00:00 ---
00:00 ---    00:00 ---
00:00 ---    00:00 ---
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Timer program – Sunday

Up to six times can be defined each day at which a change to a programmed operating mode (DAY, ECO, EXT, OFF, ---) takes place.

Parameter	min.	max.	default
Time 1	00:00	23:59	00:00
Operating mode 1			ECO
Time 2	00:00	23:59	00:00
Operating mode 2			---
Time 3	00:00	23:59	00:00
Operating mode 3			---
Time 4	00:00	23:59	00:00
Operating mode 4			---
Time 5	00:00	23:59	00:00
Operating mode 5			---
Time 6	00:00	23:59	00:00
Operating mode 6			---

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```
 Timer program
31                    008
ZSP1:
Day mode extension
Runtime.......: 120min
Runtime yet...: 120min
Status........:   0
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Day mode extension

Should it be temporarily necessary to operate the system in day mode for longer than specified by the timer program (“party”, “stocktaking” etc.), the day mode extension function can be used.

The “Runtime” parameter defines the duration of the day mode extension.

The “Remaining runtime” value states how long the day mode extension has still to run.

The “Status” value displays whether the day mode extension is enabled. The day mode extension can also be enabled or disabled by manually changing this value.
0=day mode extension disabled
1=day mode extension enabled

Parameter	min.	max.	default
Term	0min.	180min.	120min.

```
 Zeitschaltprogramm
31                    009
ZSP1:
Operating mode.: OFF

Ext. Specific..: ---

Barrier activ..: 1
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Operating mode

The operating mode (DAY, ECO, EXT, OFF) is automatically defined by the set switching points (times of the individual weekdays). The corresponding operating mode enabled in automatic mode is indicated by the “Operating mode” parameter. This parameter can also be used to manually enable a different operating mode. However, depending on the configuration, the manually selected operating mode will subsequently be changed again in automatic mode.

The “Ext. input” parameter displays whether the timer program operating mode is influenced by an external circuit (multifunctional input). However, in this case, the “Operating mode” parameter continues to display the operating mode resulting from the automatic mode.

The “Block active” parameter can be used to block automatic mode.

Parameter	min.	max.	default
Operating mode			OFF
TSP activation	0	1	1

8.2 Timer program 2

The “Timer program 2” menu structure corresponds to the “Timer program 1” menu structure. The menu index “32” is then displayed in the dialogue boxes instead of the menu index “31”.

8.3 Timer program 3

The “Timer program 3” menu structure corresponds to the “Timer program 1” menu structure. The menu index “33” is then displayed in the dialogue boxes instead of the menu index “31”.

8.4 Timer program 4

The “Timer program 4” menu structure corresponds to the “Timer program 1” menu structure. The menu index “34” is then displayed in the dialogue boxes instead of the menu index “31”.

8.5 Timer program 5

The “Timer program 5” menu structure corresponds to the “Timer program 1” menu structure. The menu index “35” is then displayed in the dialogue boxes instead of the menu index “31”.

8.6 Holiday program

```
 Holidays
36                  001
Holiday recurrent 1
Start Date...:01.01.
Stop  Date...:01.01.
Operating mo.:ECO
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Holiday recurrent 1

The “Recurrent holiday” program can be used to define an operating mode (DAY, ECO, EXT, OFF, ---) for one or several days, which is repeated every year on the same day or days. Operating modes defined by the timer program at the same times are then disregarded.

Parameter	min.	max.	default
Start Date	01.01.	31.12.	01.01.
Stop Date	01.01.	31.12.	01.01.
Operating mode			ECO

```
 Holidays
36                  002
Holiday recurrent 2
Start Date...:01.05.
Stop  Date...:01.05.
Operating mo.:ECO
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Holiday recurrent 2

The “Recurrent holiday” program can be used to define an operating mode (DAY, ECO, EXT, OFF, ---) for one or several days, which is repeated every year on the same day or days. Operating modes defined by the timer program at the same times are then disregarded.

Parameter	min.	max.	default
Start Date	01.01.	31.12.	01.05.
Stop Date	01.01.	31.12.	01.05.
Operating mode			ECO

```
 Holidays
36                  003
Holiday recurrent 3
Start Date...:03.10.
Stop  Date...:03.10.
Operating mo.:ECO
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Holiday recurrent 3

The “Recurrent holiday” program can be used to define an operating mode (DAY, ECO, EXT, OFF, ---) for one or several days, which is repeated every year on the same day or days. Operating modes defined by the timer program at the same times are then disregarded.

Parameter	min.	max.	default
Start Date	01.01.	31.12.	03.10.
Stop Date	01.01.	31.12.	03.10.
Operating mode			ECO

KAMPMANN Genau mein Klima.

```
 Holidays
36                    004
Holiday recurrent 4
Start Date...:25.12.
Stop  Date...:26.12.
Operating mo.:ECO
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Holiday recurrent 4

The “Recurrent holiday” program can be used to define an operating mode (DAY, ECO, EXT, OFF, ---) for one or several days, which is repeated every year on the same day or days. Operating modes defined by the timer program at the same times are then disregarded.

Parameter	min.	max.	default
Start Date	01.01.	31.12.	25.12.
Stop Date	01.01.	31.12.	26.12.
Operating mode			ECO

```
 Holidays
36                    005
Holiday recurrent 5
Start Date...:--.--.
Stop  Date...:--.--.
Operating mo.:---
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Holiday recurrent 5

The “Recurrent holiday” program can be used to define an operating mode (DAY, ECO, EXT, OFF, ---) for one or several days, which is repeated every year on the same day or days. Operating modes defined by the timer program at the same times are then disregarded.

Parameter	min.	max.	default
Start Date	01.01.	31.12.	--.--.
Stop Date	01.01.	31.12.	--.--.
Operating mode			---

```
 Holidays
36                    006
Holiday recurrent 6
Start Date...:--.--.
Stop  Date...:--.--.
Operating mo.:---
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Holiday recurrent 6

The “Recurrent holiday” program can be used to define an operating mode (DAY, ECO, EXT, OFF, ---) for one or several days, which is repeated every year on the same day or days. Operating modes defined by the timer program at the same times are then disregarded.

Parameter	min.	max.	default
Start Date	01.01.	31.12.	--.--.
Stop Date	01.01.	31.12.	--.--.
Operating mode			---

```
 Holidays
36                    007
Holiday recurrent 7
Start Date...:--.--.
Stop  Date...:--.--.
Operating mo.:---
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Holiday recurrent 7

The “Recurrent holiday” program can be used to define an operating mode (DAY, ECO, EXT, OFF, ---) for one or several days, which is repeated every year on the same day or days. Operating modes defined by the timer program at the same times are then disregarded.

Parameter	min.	max.	default
Start Date	01.01.	31.12.	--.--.
Stop Date	01.01.	31.12.	--.--.
Operating mode			---

KAMPMANN Genau mein Klima.

```
 Holidays
36                    008
Holiday recurrent 8
Start Date...:--.--.
Stop  Date...:--.--.
Operating mo.:---
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Holiday recurrent 8

The “Recurrent holiday” program can be used to define an operating mode (DAY, ECO, EXT, OFF, ---) for one or several days, which is repeated every year on the same day or days. Operating modes defined by the timer program at the same times are then disregarded.

Parameter	min.	max.	default
Start Date	01.01.	31.12.	--.--.
Stop Date	01.01.	31.12.	--.--.
Operating mode			---

```
 Holidays
36                    009
Holiday recurrent 9
Start Date...:--.--.
Stop  Date...:--.--.
Operating mo.:---
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Holiday recurrent 9

The “Recurrent holiday” program can be used to define an operating mode (DAY, ECO, EXT, OFF, ---) for one or several days, which is repeated every year on the same day or days. Operating modes defined by the timer program at the same times are then disregarded.

Parameter	min.	max.	default
Start Date	01.01.	31.12.	--.--.
Stop Date	01.01.	31.12.	--.--.
Operating mode			---

```
 Holidays
36                    010
Holiday once 1
Start Date..:--.--.
Stop  Date..:--.--.
Operating mo:---
Year........:----
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Holiday once 1

The “Holiday once” holiday program can be used to define an operating mode (DAY, ECO, EXT, OFF, ---) for one day or for several days, which occurs once. Operating modes defined by the timer program at the same times are then disregarded.

Parameter	min.	max.	default
Start Date	01.01.	31.12.	--.--.
Stop Date	01.01.	31.12.	--.--.
Operating mode			---
Year			---

```
 Holidays
36                    011
Holiday once 2
Start Date..:--.--.
Stop  Date..:--.--.
Operating mo:---
Year........:----
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Holiday once 2

The “Holiday once” holiday program can be used to define an operating mode (DAY, ECO, EXT, OFF, ---) for one day or for several days, which occurs once. Operating modes defined by the timer program at the same times are then disregarded.

Parameter	min.	max.	default
Start Date	01.01.	31.12.	--.--.
Stop Date	01.01.	31.12.	--.--.
Operating mode			---
Year			---

KAMPMANN Genau mein Klima.

```
 Holidays
36                    012
Holiday once 3
Start Datum.:--.--.
Stop  Datum.:--.--.
Betriebsart.:---
Jahr........:----
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Holiday once 3

The “Holiday once” holiday program can be used to define an operating mode (DAY, ECO, EXT, OFF, ---) for one day or for several days, which occurs once. Operating modes defined by the timer program at the same times are then disregarded.

Parameter	min.	max.	default
Start Date	01.01.	31.12.	--.--.
Stop Date	01.01.	31.12.	--.--.
Operating mode			---
Year			---

```
 Holidays
36                    013
Holiday once 4
Start Date..:--.--.
Stop  Date..:--.--.
Operating mo:---
Year........:----
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Holiday once 4

The “Holiday once” holiday program can be used to define an operating mode (DAY, ECO, EXT, OFF, ---) for one day or for several days, which occurs once. Operating modes defined by the timer program at the same times are then disregarded.

Parameter	min.	max.	default
Start Date	01.01.	31.12.	--.--.
Stop Date	01.01.	31.12.	--.--.
Operating mode			---
Year			---

```
 Holidays
36                    014
Holiday once 5
Start Datum.:--.--.
Stop  Datum.:--.--.
Operating mo:---
Year........:----
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Holiday once 5

The “Holiday once” holiday program can be used to define an operating mode (DAY, ECO, EXT, OFF, ---) for one day or for several days, which occurs once. Operating modes defined by the timer program at the same times are then disregarded.

Parameter	min.	max.	default
Start Date	01.01.	31.12.	--.--.
Stop Date	01.01.	31.12.	--.--.
Operating mode			---
Year			---

```
 Holidays
36                    015
Holiday once 6
Start Date..:--.--.
Stop  Date..:--.--.
Operating mo:---
Year........:----
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Holiday once 6

The “Holiday once” holiday program can be used to define an operating mode (DAY, ECO, EXT, OFF, ---) for one day or for several days, which occurs once. Operating modes defined by the timer program at the same times are then disregarded.

Parameter	min.	max.	default
Start Date	01.01.	31.12.	--.--.
Stop Date	01.01.	31.12.	--.--.
Operating mode			---
Year			---

KAMPMANN Genau mein Klima.

```
 Holidays
36                    016
Holiday once 7
Start Date..:--.--.
Stop  Date..:--.--.
Operating mo:---
Year........:----
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Holiday once 7

The “Holiday once” holiday program can be used to define an operating mode (DAY, ECO, EXT, OFF, ---) for one day or for several days, which occurs once. Operating modes defined by the timer program at the same times are then disregarded.

Parameter	min.	max.	default
Start Date	01.01.	31.12.	--.--.
Stop Date	01.01.	31.12.	--.--.
Operating mode			---
Year			---

```
 Holidays
36                    017
Holiday once 8
Start Date..:--.--.
Stop  Date..:--.--.
Operating mo:---
Year........:----
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Holiday once 8

The “Holiday once” program can be used to define an operating mode (DAY, ECO, EXT, OFF, ---) for one or several days which occurs once. Operating modes defined by the timer program at the same times are then disregarded.

Parameter	min.	max.	default
Start Date	01.01.	31.12.	--.--.
Stop Date	01.01.	31.12.	--.--.
Operating mode			---
Year			---

```
 Holidays
36                    018
Hiliday once 9
Start Date..:--.--.
Stop  Date..:--.--.
Operating mo:---
Year........:----
```

Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Holiday once 9

The “Holiday once” program can be used to define an operating mode (DAY, ECO, EXT, OFF, ---) for one or several days which occurs once. Operating modes defined by the timer program at the same times are then disregarded.

Parameter	min.	max.	default
Start Date	01.01.	31.12.	--.--.
Stop Date	01.01.	31.12.	--.--.
Operating mode			---
Year			---

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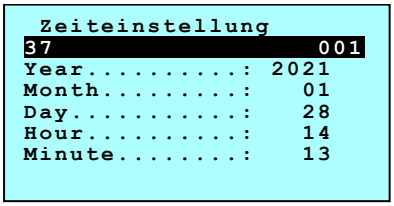
8.7 Time setting



Dialogue box visible in:	
User level	X
Expert level	X
Manufacturer level	X

Time setting

The time setting is used to set the year, month, day, hour and minute of the system time.

9 Mixed air group

This menu entry is displayed, but the sub-menu cannot be accessed to ensure that the menu structure is consistent with other software versions.

10 Recirculating air group 1-5

The recirculating air groups are controlled directly by the KaControl C1 control built into the recirculating air units. The key control parameters are displayed on the SEL control panel or can also be set at the SEL control panel. Addressing of the recirculating air groups, the associated parameter settings, and the required setting of the DIP switches must be observed. More information on this can be found in the “Assigning Modbus addresses to recirculating air units” section.

The recirculating air groups can be assigned to different timer programs. The relevant settings are entered in the menu from dialogue box 75-002 onwards.

- 1, 2, 3, 4, or 5: the corresponding timer program of the SEL control panel is predefined for the recirculating air group. The timer program of the recirculating air unit itself (Day/Eco or Day/Off) **cannot** be used. The actual room temperature value is detected by a sensor or KaController connected to the master unit. The temperature setpoints are specified as absolute values; a relative change within parametrisable limits is possible using the Offset parameter. An additional relative change within parametrisable limits is possible using the KaController. The units in the recirculation group are On (Day) during the TSP DAY, Eco, and Extra statuses, and the units in the recirculating air group are Off during the TSP Off status.

- 6: The timer program of the previous group is assigned to the recirculating air group. The timer program of the recirculating air unit itself (Day/Eco or Day/Off) **cannot** be used. The actual room temperature value is detected by a sensor connected to the master unit. The setpoints are carried over from the previous recirculating air group. (This setting cannot be selected for recirculating air group 1. Nor can it be selected if the parameter of the previous group was set to 8.) The temperature setpoints from dialogue boxes 009, 010, 011 and 012 are carried over. Dialogue boxes 009, 010, 011 and 012 are hidden. The settings for the operating modes or for the configurations from dialogue boxes 013, 014, 015, 017, 018, 020, 021 and 022 are also carried over. Dialogue boxes 013, 014, 015, 017, 018, 020, 021 and 022 are also hidden. The units in the recirculating air group must have the same hydraulic configuration as the units in the previous recirculating air group. The units in the recirculating air group and the units from the previous recirculating air group must therefore be two-pipe or four-pipe versions. A KaController cannot be connected.

- 7: The timer program of the previous group is assigned to the recirculating air group. The timer program of the recirculating air unit itself (Day/Eco or Day/Off) **cannot** be used. The actual room temperature value is **not** detected by a sensor connected to the master unit. The actual value and the setpoints are carried over from the previous recirculating air group. (This setting cannot be selected for recirculating air group 1. Nor can it be selected if the parameter of the previous group was set to 8.) The temperature setpoints from dialogue boxes 009, 010, 011 and 012 are carried over. Dialogue boxes 009, 010, 011 and 012 are hidden. The settings for the operating modes or for the configurations from dialogue boxes 013, 014, 015, 017, 018, **019**, 020, 021 and 022 are also carried over. Dialogue boxes 013, 014, 015, 017, 018, **019**, 020, 021 and 022 are also hidden. The units in the recirculating air group must have the same hydraulic configuration as the units in the previous recirculating air group. The units in the

recirculating air group and the units from the previous recirculating air group must therefore be two-pipe or four-pipe versions. A KaController cannot be connected.

- 8: No timer program is assigned to the recirculating air group. The timer program (Day/Eco or Day/Off) of the recirculating air unit itself (smart board) can be used, but the button on the KaController or digital inputs of the recirculating air unit with appropriate parameter settings can also be used. The higher-level (SEL control panel) timer program cannot be changed. The actual room temperature value is detected by a sensor connected to the master unit or by the KaController. The temperature setpoints are specified as relative or absolute by the KaController. Dialogue boxes 009, 010, 011, 012 and 017 are hidden. The timer program is displayed in dialogue box 4. It is defined by parameter SV20 (Off/On) and SV29 (Day/Eco) of the smart board and by the Extra parameter instead of Eco (dialogue box 25). The following applies:
  SV20 == 0 Off
  SV20 == 1 & SV29 == 0 Day
  SV20 == 1 & SV29 == 1 & Extra instead of Eco == 0 Eco
  SV20 == 1 & SV29 == 1 & Extra instead of Eco == 1 Extra
  CAUTION: When selecting this configuration, all the connected smart boards then need to be de-energised once!

The mode is permanently specified or written by the SEL control panel (SV17) for all groups or units with the two-pipe configuration (DIP 5 == Off). The mode cannot then be changed by a KaController that may be connected. DIP 4 must be set to Off to ensure correct functionality.

The mode is not permanently specified or written by the SEL control panel (SV17) for all groups or units with the four-pipe configuration (DIP 5 == On). The mode can be changed (Auto, Heating, Cooling) via a KaController that may be connected or via the corresponding parameter in the SEL control panel. DIP 4 must be set to Off to ensure correct functionality.

10.1 Recirculating air group 1

```
 RecAir Group 1
51                    001
Control
Fault.........:    0
Operating mode:    1
0=Off
1=Automatic
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Control

The “Fault” operating status displays whether there is a pending fault that affects the operation of the recirculating air group.
0 = No fault
1 = Fault

The signal outputs may be set to specific values depending on the current fault. The current fault affecting the signal outputs can be found in the “Fault responses” table.

The “Operating mode” parameter can be used to completely switch off the recirculating air group (“Off”) or switch it to automatic mode (Timer program: “Day”, “Extra”, “ECO” or “Off”).
0 = Off
1 = Automatic mode

Parameter	min.	max.	default
Operating mode	0	1	1

```
 RecAir Group 1
51                    002
Actual values
Room Temp.....: 19.0°C
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Actual values

The “Room temperature” value displays the actual room temperature currently measured.

This dialogue box can be displayed or hidden depending on the configuration.

```
 RecAir Group 1
51                    003
Setpoint
Room Temp.....: 21.0°C
Setpoint......: 21.0°C
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Current setpoint

The “Room temperature” value displays the setpoint for the room temperature currently set. The value cannot be changed in this dialogue box.

The “Control setpoint” value displays the control setpoint currently used for the room temperature. This value can deviate from the setpoint currently set if the setpoint has been raised or lowered by the KaController. Closed-loop temperature control is based on the “Control setpoint “and not on the “Room temperature” value. The value cannot be changed in this dialogue box.

This dialogue box can be displayed or hidden depending on the configuration.

```
 RecAir Group 1
51                    004
Operating mode
Day...........:    0
Extra.........:    0
ECO...........:    0
OFF...........:    0
KaController ON:   1
```

Dialogue box visible in:

Display of current operating statuses

“Day” operating status is automatically enabled or disabled by the timer program.
0 = Day disabled
1 = Day enabled

“Extra” operating status is automatically enabled or disabled by the timer program.
0 = Extra disabled
1 = Extra enabled

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User level	
Expert level	X
Manufacturer level	X

“ECO” operating status is automatically enabled or disabled by the timer program.
0 = ECO disabled
1 = ECO enabled

“Off” operating status is automatically enabled or disabled by the timer program.
0 = Off disabled
1 = Off enabled

The “KaController ON” operating status displays the current status of any connected KaController. This makes it possible to detect whether the KaController has been switched “OFF” manually and can therefore no longer be enabled by the timer program.
0 = KaController “OFF”
1 = KaController “ON”

```
 RecAir Group 1
51                  005
Operating mode
Heating mode...:     0
Cooling mode...:     0
Two Pipes......:     0
Four Pipies....:     0
Blocked by H/C.:     0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Display of current operating statuses

“Heating mode” operating status is automatically enabled or disabled in a two-pipe system by the “Heating/Cooling” function.
Depending on which hydraulic integration is selected, the “Heating mode” operating status can then only be enabled in winter, for example. The heat generator or heat pump etc. then also needs to be activated by date. In four-pipe systems, the display depends on the mode set, but also in this case, the heat generator or heat pump must be activated by date, etc.
0 = Heating mode disabled
1 = Heating mode enabled

“Cooling mode” operating status is automatically enabled or disabled in a two-pipe system via the “Heating/Cooling” function.
Depending on which hydraulic integration is selected, “Cooling mode” operating status can then only be enabled in summer, for example. The chiller or heat pump, etc. then also needs to be activated by date. In four-pipe systems, the display depends on the mode set, but also in this case, the chiller or heat pump must be activated by date, etc.
0 = Cooling mode disabled
1 = Cooling mode enabled

The “Two-pipe” operating status arises as a result of the unit configuration (DIP switch setting on the Katherm board: DIP4=off, DIP5=off) and signals that the “Two-pipe system” setting has been selected.
0 = Setting not as a “two-pipe system”
1 = Setting as a “two-pipe system”

The “Four-pipe” operating status arises as a result of the unit configuration (DIP switch setting on the Katherm board: DIP5=on) and signals that the “Four-pipe system” setting has been selected.
0 = Setting not as a “four-pipe system”
1 = Setting as a “four-pipe system”

The “Blocked by H/C” operating status displays whether the recirculating air group is blocked due to the hydraulic integration selected in the two-pipe system (dialogue box 018). This can occur, for example, if the hydraulic system is in cooling mode, but the recirculating air unit is only intended to heat.
0 = Block disabled
1 = Block enabled

```
 RecAir Group 1
51                    006
Signal state
Speed..........: 100%
Heating demand.:    0
Cooling demand.:    0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Display of current signal states

The “Speed” signal state displays the speed signal for the recirculating air fan currently being output.
0% = minimum (no) speed
100% = maximum (full) speed
The “Heating demand” signal state displays the current demand.
0 = No demand
1 = Demand
The “Cooling demand” signal state displays the current demand.
0 = No demand
1 = Demand

```
RecAir Group 1
51                    007
BUS-State Units
Unit No.1....:     0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Display of current states

State “No.1 online” indicates whether the first unit in the group can be accessed by the BUS system or not. It also shows if the unit is to be accessed by the BUS system but there is currently a fault.
0=Unit not available
1=Unit online
2=Unit offline
11=Unit online but has “Control sensor faulty” fault
12=Unit online but has “Motor fault” fault
13=Unit online but has “Room frost protection” fault
14=Unit online but has “Condensate alarm” fault
15=Unit online but has “General alarm” fault
16=Unit online but has “Sensor AI1, AI2 or AI3 faulty” fault
17=Unit online but has “Unit frost protection” fault
18=Unit online but has “EEPROM faulty” fault

```
 RecAir Group 1
51                    008
BUS-State Units
Unit No.2.....:     0
Unit No.3.....:     0
Unit No.4.....:     0
Unit No.5.....:     0
Unit No.6.....:     0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Display of current states

Status “Unit No.x” indicates whether the respective unit in the group can be accessed by the BUS system or not. If the unit is to be accessed by the BUS system but there is currently a fault, this is also displayed.
0=Unit not available
1=Unit online
2=Unit offline
11=Unit online but has “Control sensor faulty” fault
12=Unit online but has “Motor fault” fault
13=Unit online but has “Frost protection” fault
14=Unit online but has “Condensate alarm” fault
15=Unit online but has “General alarm” fault
16=Unit online but has “Sensor AI1, AI2 or AI3 faulty” fault
17=Unit online but has “Unit frost protection” fault
18=Unit online but has “EEPROM faulty” fault
19=Unit online but has “Offline slave in tLAN network” fault

```
 RecAir Group 1
51                    009
Setpoint Winter 2P
RT Day........: 21.0°C
RT Extra......: 19.0°C
RT ECO........: 15.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	
Expert level	X

Setpoint winter 2P

If the recirculating air group is configured as a “two-pipe system”,
the basic setpoints for the individual operating modes in winter mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating mode is enabled by the timer program.

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Manufacturer level	X

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating states (Day, Extra, Eco, Heating, Cooling, etc.).

The “RT Offset” parameter does not correspond to the offset set at the KaController! There are therefore two independent offsets for the room temperature setpoint! One can be specified by the KaController and one can be specified by the higher-level control system!

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	08.0°C	32.0°C	21.0°C
RT Extra	08.0°C	32.0°C	19.0°C
RT ECO	08.0°C	32.0°C	15.0°C
RT Offset	parametrisable	parametrisable	00.0K

```
 RecAir Group 1
51                  010
Setpoint Summer 2P
RT Day........: 21.0°C
RT Extra......: 19.0°C
RT ECO........: 15.0°C
RT Offset.....:  0.0K
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Setpoint summer 2P

If the recirculating air group is configured as a “two-pipe system”,
the basic setpoints for the individual operating modes in summer mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating modes (Day, Extra, Eco, Heating, Cooling, etc.).

The “RT Offset” parameter does not correspond to the offset set at the KaController! There are therefore two independent offsets for the room temperature setpoint! One can be specified by the KaController and one can be specified by the higher-level control system!

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	08.0°C	32.0°C	21.0°C

RT Extra	08.0°C	32.0°C	19.0°C
RT ECO	08.0°C	32.0°C	15.0°C
RT Offset	parametrisable	parametrisable	00.0K

```
 RecAir Group 1
51                    011
Setpoint 4P
RT Day........: 21.0°C
RT Extra......: 21.0°C
RT ECO........: 21.0°C
RT Offset.....:  0.0K
Mode..........:     0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Setpoint 4P

If the recirculating air group is configured as a “four-pipe system”, the basic setpoints for the individual operating modes in heating and cooling mode can be entered as absolute values.

The “RT Day” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Day” operating mode is enabled by the timer program.

The “RT Extra” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “Extra” operating mode is enabled by the timer program.

The “RT ECO” parameter defines the basic setpoint used by the recirculating air group to control the room temperature when “ECO” operating mode is enabled by the timer program.

Generally, editing the above basic setpoints is password-protected.
However, the “RT Offset” parameter can also influence the room temperature setpoint without a password to a certain extent.
The following applies: Basic setpoint + Offset = Setpoint
The “RT Offset” parameter can only be set to values within defined limits (e.g. min. -3.0 K and max. +3.0 K) and is always identical in the different operating modes (Day, Extra, Eco, Heating, Cooling, etc.).

The “RT Offset” parameter does not correspond to the offset set at the KaController! There are therefore two independent offsets for the room temperature setpoint! One can be specified by the KaController and one can be specified by the higher-level control system!

The “Mode” parameter defines the current operating mode. This can also be changed using the Mode key on the KaController.
0=Auto
1=Heating
2=Cooling

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	08.0°C	32.0°C	21.0°C
RT Extra	08.0°C	32.0°C	21.0°C
RT ECO	08.0°C	32.0°C	21.0°C
RT Offset	parametrisable	parametrisable	00.0K
Mode	0	2	0

```
 RecAir Group 1
51                    012
Neutral zone 4P
RT Day........:  2.0K
RT Extra......:  4.0K
RT ECO........:  6.0K
```

Dialogue box visible in:

Neutral zone 4P

If the recirculating air group is configured as a “four-pipe system”, the values for the neutral zone can be entered.
The following applies:
Basic setpoint + Offset + (Neutral zone / 2) > Actual value => Cooling mode
basic setpoint + Offset - (Neutral zone / 2) < Actual value => Heating mode

User level	
Expert level	X
Manufacturer level	X

The “RT Day” parameter defines the size of the neutral zone for closed-loop temperature control when “Day” operating state is enabled by the timer program.

The “RT Extra” parameter defines the size of the neutral zone for closed-loop room temperature control when “Extra” operating state is enabled by the timer program.

The “RT ECO” parameter defines the size of the neutral zone for closed-loop room temperature control when “ECO” operating state is enabled by the timer program.

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
RT Day	00.0K	15.0K	02.0K
RT Extra	00.0K	15.0K	04.0K
RT ECO	00.0K	15.0K	06.0K

```
 RecAir Group 1
51                    013
Speed DAC
Operating mode...:   6
0=Off        3=Stage 3
1=Stage 1    4=Stage 4
2=Stage 2    5=Stage 5
6=Automatic
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Speed

The “Operating mode” parameter defines the speed stage.
However, the system dictates that a parameter can only be changed 90 seconds after a change of operating mode.

However, if the group is configured as a “Recirculating air unit”, the fan is only operated at the specified speed stage if the recirculating air unit is in heating mode and a heating demand also currently exists, i.e. the room temperature is too low, or if the recirculating air unit is in cooling mode and a cooling demand also currently exists, i.e. the room temperature is too high. In “Automatic” mode, the fan stage is selected based on the deviation of the room temperature setpoint from the actual room temperature value.

If the group is configured as a “Door air curtain”, the fan is only operated at a specified speed stage. “Automatic” mode is not possible.

The speed stage can be restricted by the speed limit.

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
Operating mode	0	6 (5)	6 (3)

```
 RecAir Group 1
51                    014
Valve DAC
Operating mode...:   1
0=venting (Valve off)
1=heating (valve on)
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Valve DAC

If the recirculation group is configured as a door air curtain, the “Operating mode” parameter defines whether the door air curtain is operated with the valve open (heating) or with the valve closed (ventilation).
0=ventilation (valve closed)
1=heating (valve open)

Internal information: this function is based on the function of the five-stage summer winter switch from the door air curtain product range.

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
Operating mode	0	1	1

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```
 RecAir Group 1
51                    015
Configuration Unit
Operating mode...:   1
1=ReciurculationUnit
2=DoorAirCurtains
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Configuration Units

The “Operating mode” parameter defines whether the units in the recirculating air group are operated as recirculating air units or as door air curtains.
1=Recirculating air unit
2=Door air curtain

When configured as a door air curtain, there is no closed-loop temperature control (or closed-loop temperature control up to 32°C), all menus with temperature values or with parameters for closed-loop room temperature control are hidden, and the fan speed can no longer be preselected in stage 0 or Automatic mode (continuous fan operation). Depending on the timer program, the units in the recirculating air group are only switched on in “Day” mode. They are switched off in the “ECO”, “Extra” and “Off” operating modes. The fan speed setpoint or temperature setpoint are not reset during a change in operating mode.

The changeover between “Heating” (valve open) or “Ventilation” (valve closed) is not based on the room temperature and can instead be defined by a parameter (Valve DAC).
Depending on the parameter setting for hydraulic integration (2-pipe configuration), heating (valve open) can be locked by the external “Heating/cooling changeover” function to prevent CHW from flowing through the door air curtain(s) (“Cooling” shut-off valve function).

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
Operating mode	1	2	1

```
 RecAir Group 1
51                    016
Configuration Units
No.2 existant:     0
No.3 existant:     0
No.4 existant:     0
No.5 existant:     0
No.6 existant:     0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Configuration Units

The “No. x exists” parameter defines whether the corresponding unit exists in the group. Depending on this parameter, the relevant menus and information about this unit are displayed, and possible faults and accessibility via the BUS system are checked cyclically.

Units that do not exist or are not connected but are parametrised as existing can lead to severe delays in the BUS system or even to the bus system being overloaded.

Parameter	min.	max.	default
No.2 exists	0	1	0
No.3 exists	0	1	0
No.4 exists	0	1	0
No.5 exists	0	1	0
No.6 exists	0	1	0

```
 RecAir Group 1
51                    017
Configuration Reset
Speed...........:   1
Temperature.....:   1
Reset-Speed.....:   6
Mode............:   0
Reset-Mode......:   0
```

Dialogue box visible in:

Configuration Reset

The “Speed” parameter defines whether a manually changed fan speed should be reset to a parametrised speed stage when the operating mode is changed (“Day”, “ECO”, “Extra” or “Off”).
0=no reset when the operating mode is changed
1=reset when the operating mode is changed

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User level	
Expert level	X
Manufacturer level	X

The “Temperature” parameter defines whether a manually changed increase or decrease of the room temperature setpoint should be reset to zero when the operating mode is changed (“Day”, “ECO”, “Extra” or “Off”).

0=no reset when the operating mode is changed
1=reset when the operating mode is changed

The “Reset Speed” parameter defines whether a manually changed fan speed should be reset when the operating mode is changed (“Day”, “ECO”, “Extra” or “Off”).
0=Off
1=Stage 1
2=Stage 2
3=Stage 3
4=Stage 4
5=Stage 5
6=Automatic (only for recirculating air units and not for door air curtains)

The current operating mode (Mode) can only be manually changed when configured as a “four-pipe unit”. Therefore, the “Mode” and “Reset Mode” parameters are only displayed for the corresponding configuration.

The “Mode” parameter defines whether a manually changed operating mode (Mode) should be reset when the operating mode is changed (“Day”, “ECO”, “Extra” or “Off”).
0=no reset when the operating mode is changed
1=reset when the operating mode is changed

The “Reset Mode” parameter defines which operating mode a manually changed operating mode reverts to when the operating mode is changed (“Day”, “ECO”, “Extra” or “Off”).
0=Auto
1=Heating
2=Cooling

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
Speed	0	1	1
Temperature	0	1	1
Reset Speed	0	6 (5)	6 (3)
Mode	0	1	0
Reset Mode	0	2	0

```
 RecAir Group 1
51                  018
Configuration 2P
Operating mode...:   1
0=H/C
1=H (H/C)  3=H (always)
2=C (H/C)  4=C (always)
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Configuration 2-pipe

The “Operating mode” parameter defines how the units in the recirculating air group are hydraulically connected and whether the units are to heat and/or cool.

0=Heating or cooling (the decision about whether the unit can heat or cool is made via the external “Heating/cooling changeover” function, connection of the units to the switchable LPHW/CHW section)
Heating/cooling changeover to heating => Recirculating air group heating mode
Heating/cooling changeover to cooling => Recirculating air group cooling mode

1=Heating only (the decision about whether the unit can heat is made by the external “Heating/cooling changeover” function, connection of the units to the switchable LPHW/CHW section)
Heating/cooling changeover to heating => Recirculating air group heating mode

Heating/cooling changeover to cooling => Recirculating air group off

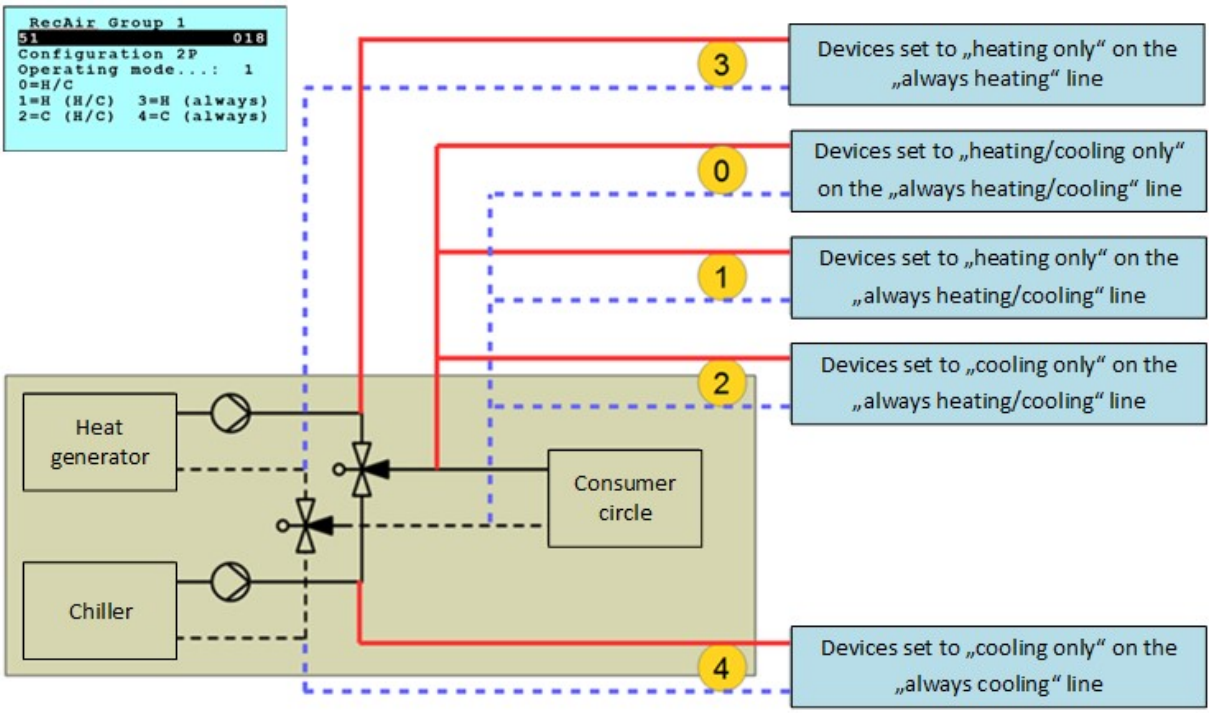
2=Cooling only (the decision about whether the unit can cool is made by the external “Heating/cooling changeover” function, connection of the units to the switchable LPHW/CHW section)
Heating/cooling changeover to heating => Recirculating air group off
Heating/cooling changeover to cooling => Recirculating air group cooling mode

3=Heating always (direct connection to the LPHW section)
Heating/cooling changeover to heating => Recirculating air group heating mode
Heating/cooling changeover to cooling => Recirculating air group heating mode

4=Cooling always (direct connection to the CHW section)
Heating/cooling changeover to heating => Recirculating air group cooling mode
Heating/cooling changeover to cooling => Recirculating air group cooling mode

This menu is not displayed if the recirculating air group is configured as “four-pipe” via the DIP switches on the Katherm board.

Parameter	min.	max.	default
Operating mode	0	4	1



RecAir Group 1
51 019
configuration Sensor
Offset.....: 0.0K

Dialogue box visible in:

Configuration Sensor

The “Offset” parameter can be used to correct a measured value deviation of the room temperature sensor.

The room temperature is detected by the KaController sensor (Katherm board DIP switch 6 = ON) or by a separate room temperature sensor (Katherm board DIP switch 6 = OFF).

This dialogue box can be displayed or hidden depending on the configuration.

User level	
Expert level	X
Manufacturer level	X

Depending on the DIP switch position, the offset affects the measured value of the sensor in the control unit, or the measured value of the sensor connected to AI1. Measured value deviations of the other sensors connected to the master or to the slaves can be corrected by adjusting the corresponding parameters on the unit concerned. The “Recirculating air unit extra monitor” can be used for this.

P058 Sensor adjustment: sensor AI1
P062 Sensor adjustment: sensor AI2
P064 Sensor adjustment: sensor AI3

Parameter	min.	max.	default
Offset	-5.0K	5.0K	0.0K

```
 RecAir Group 1
51                  020
Configuration Speed
Limit max S..:  100%
Limit max W..:  100%
Auto/Manuel..:    0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Configuration Speed

The “Limit max. S” parameter defines the maximum speed at which the unit should run in summer mode.
The “Limit max. W” parameter defines the maximum speed at which the unit should run in winter mode.
The “Auto/Manual” parameter defines whether the fan speed limit should only affect the automatic speed setting (depending on the deviation of the room temperature setpoint from the actual room temperature value) or also the manual speed setting (dialogue box 13).
0= only speed limit of automatic speed setting
1= also speed limit of manual speed setting

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
Limit max. S	0%	100%	100%
Limit max. W	0%	100%	100%
Auto/Manual	0	1	0

```
 RecAir Group 1
51                  021
Configuration Setpoint
Min Max.......:  3.0K
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Configuration Setpoint

The “Min. max.” parameter defines the limits within which the setpoint entered can be edited without the need to enter a password.
Setting this parameter to 3.0 K, for instance, means that the setpoint entered can be edited within the limits of -3.0 K to +3.0 K.

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
min. max.	0.0K	10.0K	3.0K

```
 RecAir Group 1
51                  022
Configuration valve
Operating mode.:   0
Continuous mode:   0
Run time button: 30min
State..........:   0
```

Dialogue box visible in:

Configuration ventilation

The “Operating mode” parameter (P136) defines whether “external ventilation” can be enabled by key on the KaController, etc. or the timer program states in which this is possible.
0= no external ventilation possible
1= possible Day external ventilation enabled
2= possible Eco external ventilation enabled
3= possible Extra external ventilation enabled
4= possible Day + Eco external ventilation enabled

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User level	
Expert level	X
Manufacturer level	X

5= possible Day + Extra external ventilation enabled
6= possible Day + Eco + Extra external ventilation enabled

The “Continuous mode” parameter defines whether continuous “external ventilation” can be enabled depending on the timer program states.
0= no continuous mode
1= continuous Day mode enabled
2= continuous Eco mode enabled
3= continuous Extra operation enabled
4= continuous Day + Eco mode enabled
5= continuous Day + Extra mode enabled
6= continuous Day + Eco + Extra mode enabled

After 240 minutes of “continuous operation”, the system automatically briefly disables and then enables “external ventilation”.

The “Runtime button” parameter (P131) defines the time after which “external ventilation” enabled by a key on the KaController is disabled again. Settings can be entered within the range of 1-254 minutes. A setting of 0 minutes leads to the complete function being disabled.

The “State” signal state (SV41 R/W) displays the current status of the “external ventilation” function, which can be enabled by a key on the KaController, etc.
0 = external ventilation off
1 = external ventilation on

The current state of the “external ventilation” function, which can be enabled by a key on the KaController, etc., can be output via the digital output V2 of two-pipe units. This is a non-floating 24 V DC signal. An additional isolating relay can be used to control on-site damper actuators or active volume flow controllers. Setting the “Function of digital output V2 in a 2-pipe system” parameter (P39) on the respective unit to “5” (external ventilation) sets the digital output accordingly. The “Recirculating air unit monitor” can be used for this.

Parameter	min.	max.	default
Operating mode	0	6	0
Continuous mode	0	6	0
Runtime button	0	240	30
State	0	1	0

```
 RecAir Group 1
51                  023
Configuration No TSP
Basic Setpoint: 22.0°C
Raise Eco   C.:  2.0K
Lower Eco   H.:  2.0K
Raise Extra C.:  1.0K
Lower Extra H.:  1.0K
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Configuration without TSP

These parameters can only be set if no timer program has been assigned to the recirculation group (TSP<8) and the units are configured as two-pipe units.

The “Basic setpoint” parameter (SV30) defines the room temperature basic setpoint for day mode. A reset of the setpoint when the operating mode is changed can be parametrised.

Setting the “Raise Eco C” parameter (P018, Extra instead of Eco = 0) defines the value by which the room temperature basic setpoint is raised in Eco mode for Cooling mode.

Setting the “Lower Eco H” parameter (P019, Extra instead of Eco = 0) defines the value by which the room temperature basic setpoint is lowered in Eco mode for Heating mode.

Setting the “Raise Extra C” parameter (P018, Extra instead of Eco = 1) defines the value by which the room temperature basic setpoint is raised in Extra mode for Cooling mode.

Setting the “Lower Extra H” parameter (P019, Extra instead of Eco = 1) defines the value by which the room temperature basic setpoint is lowered in Extra mode for Heating mode.

These parameters apply to both absolute and relative setpoint adjustment by the KaController.

This dialogue box can be displayed or hidden depending on the configuration. (Timer program<8)

Parameter	min.	max.	default
Base setpoint	08.0°C	32.0°C	22.0°C
Raise Eco C	00.0K	15.0K	02.0K
Lower Eco H	00.0K	15.0K	02.0K
Raise Extra C	00.0K	15.0K	01.0K
Lower Extra H	00.0K	15.0K	01.0K

```
 RecAir Group 1
51                    024
Configuration no TSP
Neutral zone..:   2.0K
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Configuration without TSP

These parameters can only be set if no timer program has been assigned to the recirculation group (TSP<8) and the units are configured as four-pipe units.

The “Neutral zone” parameter (P003) defines the size of the neutral zone for room temperature control.

These parameters apply to both absolute and relative setpoint adjustment by the KaController.

This dialogue box can be displayed or hidden depending on the configuration. (Timer program<8, 2-pipe)

Parameter	min.	max.	default
Neutral zone	00.0K	15.0K	02.0K

```
 RecAir Group 1
51                    025
Configuration no TSP
Extra instead Eco..:0
Eco/Day (button KC):0
Setpoint by Offset.:0
Eco/Day State......:0
TSP KC disable.....:0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Configuration without TSP

These parameters can only be set if no timer program has been assigned to the recirculation air group (TSP<8).

The “Extra instead of Eco” parameter enables a changeover of the temperature setpoints for Eco mode to a “second parameter set” (“Raise” or “Lower”). This results in the additional Extra mode.
0 = Eco setpoints
1 = Extra setpoints

The “Eco/Day (KC button)” parameter defines whether the unit is switched between “On/Off” or “Eco/Day” from the smart board by the button on the KaController or by the timer program (bit of P038).
0 = On/off
1 = Eco/Day

The “Setpoint by Offset” parameter defines the type of setpoint specified on the KaController (P036). This can be relative (e.g. +/- 3 K) or absolute (e.g. 21 °C).
0 = absolute setpoint adjustment
1 = relative setpoint adjustment

If the “Eco/Day State” parameter (bit of P038) is set so that the “Eco/Day” unit can be switched from the smart board by a button on the KaController or by the timer program, then the “Eco/Day State” parameter can be used to perform this changeover.

0 = Day
1 = Eco

The “TSP KC disable” parameter (bit of P038) can be used to lock the input of a timer program on the KaController.
0 = Timer program input not locked
1 = Timer program input locked

This dialogue box can be displayed or hidden depending on the configuration. (Timer program<8)

Parameter	min.	max.	default
Extra instead of Eco	0	1	0
Eco/Day (button KC)	0	1	0
Setpoint by offset	0	1	0
Eco/Day State	0	1	0
TSP KC disable	0	1	0

```
 RecAir Group 1
51                  026
Configuration ohne ZSP
Setpoint Reset:  0
Speed Reset...:  0
Reset Speed...:  6
Reset Setpoint: 22.0°C
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Configuration without TSP

These parameters can only be set if no timer program has been assigned to the recirculation air group (TSP<8).

The “Setpoint Reset” parameter defines whether a manually changed (absolute or relative on the KaController) room temperature setpoint should be reset when the operating mode is changed (“Day”, “ECO”, “Extra” or “Off”) (P057).
0=no reset when the operating mode is changed
1=reset when the operating mode is changed

The “Speed Reset” parameter defines whether a manually changed fan speed should be reset when the operating mode is changed (“Day”, “ECO”, “Extra” or “Off”) (see SV18).
0=no reset when the operating mode is changed
1=reset when the operating mode is changed

The “Reset Speed” parameter defines to which value the fan speed should be reset when the operating mode is changed (“Day”, “ECO”, “Extra” or “Off”) (SV18).

The “Reset Setpoint” parameter defines to which value the room temperature setpoint should be reset when the operating mode is changed (“Day”, “ECO”, “Extra” or “Off”) (P001).

If the “Reset Setpoint” parameter is to be set differently to the default value, delays in Modbus communication during initialisation may result in the parameter being reset to the default value once.

This dialogue box can be displayed or hidden depending on the configuration. (Timer program<8)

Parameter	min.	max.	default
Setpoint Reset	0	1	0
Speed Reset	0	1	0
Reset Speed	0	6	6
Reset Setpoint	08.0°C	32.0°C	22.0°C

```
 RecAir Group 1
51                  027
Configuration Reset
Mode............:   1
Reset-Mode......:   0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Configuration Reset

The “Mode” parameter defines whether a manually changed operating mode (Mode) should be reset when the operating mode is changed (“Day”, “ECO”, “Extra” or “Off”).
0=no reset when the operating mode is changed
1=reset when the operating mode is changed

The “Reset Mode” parameter defines to which operating mode a manually changed operating mode should be reset when the operating mode is changed (“Day”, “ECO”, “Extra” or “Off”).
0=Auto
1=Heating
2=Cooling

This dialogue box can be displayed or hidden depending on the configuration.

Parameter	min.	max.	default
Mode	0	1	0
Reset Mode	0	2	0

```
 RecAir Group 1
51                  028
Monitor Masterunit
DI1.: 1
DI2.: 1
AI1.: 1    AI1.: 11.1°C
AI2.: 1    AI2.: 22.2°C
           AI3.: 33.3°C
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Monitor Master Unit

The current states or current values of the inputs are displayed depending on the configuration of the digital and analogue inputs of the smart board.

```
 RecAir Group 1
51                  029
Monitor Unit No.2
DI1.: 1
DI2.: 1
AI1.: 1    AI1.: 11.1°C
AI2.: 1    AI2.: 22.2°C
           AI3.: 33.3°C
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Monitor unit no. 2

The current states or current values of the inputs are displayed depending on the configuration of the digital and analogue inputs of the smart board.

```
 RecAir Group 1
51                  030
Monitor Unit No.3
DI1.: 1
DI2.: 1
AI1.: 1    AI1.: 11.1°C
AI2.: 1    AI2.: 22.2°C
           AI3.: 33.3°C
```

Dialogue box visible in:

Monitor unit no. 3

The current states or current values of the inputs are displayed depending on the configuration of the digital and analogue inputs of the smart board.

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User level	
Expert level	X
Manufacturer level	X

```
 RecAir Group 1
51                    031
Monitor Unit No.4
DI1.: 1
DI2.: 1
AI1.: 1    AI1.: 11.1°C
AI2.: 1    AI2.: 22.2°C
           AI3.: 33.3°C
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Monitor unit no. 4

The current states or current values of the inputs are displayed depending on the configuration of the digital and analogue inputs of the smart board.

```
 RecAir Group 1
51                    032
Monitor Unit No.5
DI1.: 1
DI2.: 1
AI1.: 1    AI1.: 11.1°C
AI2.: 1    AI2.: 22.2°C
           AI3.: 33.3°C
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Monitor unit no. 5

The current states or current values of the inputs are displayed depending on the configuration of the digital and analogue inputs of the smart board.

```
 RecAir Group 1
51                    033
Monitor Unit No.6
DI1.: 1
DI2.: 1
AI1.: 1    AI1.: 11.1°C
AI2.: 1    AI2.: 22.2°C
           AI3.: 33.3°C
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Monitor unit no. 6

The current states or current values of the inputs are displayed depending on the configuration of the digital and analogue inputs of the smart board.

10.2 Recirculating air group 2

The menu structure of “Recirculating air group 2” corresponds to the menu structure of “Recirculating air group 1”. The menu index “52” is then displayed in the dialogue boxes instead of the menu index “51”.

10.3 Recirculating air group 3

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The menu structure of “Recirculating air group 3” corresponds to the menu structure of “Recirculating air group 1”. The menu index “53” is then displayed in the dialogue boxes instead of the menu index “51”.

10.4 Recirculating air group 4

The menu structure of “Recirculating air group 4” corresponds to the menu structure of “Recirculating air group 1”. The menu index “54” is then displayed in the dialogue boxes instead of the menu index “51”.

10.5 Recirculating air group 5

The menu structure of “Recirculating air group 5” corresponds to the menu structure of “Recirculating air group 1”. The menu index “55” is then displayed in the dialogue boxes instead of the menu index “51”.

11 Recirculating air group 6-25

The recirculating air groups 6-25 are controlled in the same way as described in the Recirculating air groups 1-5 section.

11.1 Recirculating air group 6

The menu structure of “Recirculating air group 6” corresponds to the menu structure of “Recirculating air group 1”. The menu index “61” is then displayed in the dialogue boxes instead of the menu index “51”.

11.2 Recirculating air group 7

The menu structure of “Recirculating air group 7” corresponds to the menu structure of “Recirculating air group 1”. The menu index “62” is then displayed in the dialogue boxes instead of the menu index “51”.

11.3 Recirculating air group 8

The menu structure of “Recirculating air group 8” corresponds to the menu structure of “Recirculating air group 1”. The menu index “63” is then displayed in the dialogue boxes instead of the menu index “51”.

11.4 Recirculating air group 9

The menu structure of “Recirculating air group 9” corresponds to the menu structure of “Recirculating air group 1”. The menu index “64” is then displayed in the dialogue boxes instead of the menu index “51”.

11.5 Recirculating air group 10

The menu structure of “Recirculating air group 10” corresponds to the menu structure of “Recirculating air group 1”. The menu index “65” is then displayed in the dialogue boxes instead of the menu index “51”.

11.6 Recirculating air group 11

The menu structure of “Recirculating air group 11” corresponds to the menu structure of “Recirculating air group 1”. The menu index “66” is then displayed in the dialogue boxes instead of the menu index “51”.

11.7 Recirculating air group 12

The menu structure of “Recirculating air group 12” corresponds to the menu structure of “Recirculating air group 1”. The menu index “67” is then displayed in the dialogue boxes instead of the menu index “51”.

11.8 Recirculating air group 13

The menu structure of “Recirculating air group 13” corresponds to the menu structure of “Recirculating air group 1”. The menu index “68” is then displayed in the dialogue boxes instead of the menu index “51”.

11.9 Recirculating air group 14

The menu structure of “Recirculating air group 14” corresponds to the menu structure of “Recirculating air group 1”. The menu index “69” is then displayed in the dialogue boxes instead of the menu index “51”.

11.10 Recirculating air group 15

The menu structure of “Recirculating air group 15” corresponds to the menu structure of “Recirculating air group 1”. The menu index “6A” is then displayed in the dialogue boxes instead of the menu index “51”.

11.11 Recirculating air group 16

The menu structure of “Recirculating air group 16” corresponds to the menu structure of “Recirculating air group 1”. The menu index “6B” is then displayed in the dialogue boxes instead of the menu index “51”.

11.12 Recirculating air group 17

The menu structure of “Recirculating air group 17” corresponds to the menu structure of “Recirculating air group 1”. The menu index “6C” is then displayed in the dialogue boxes instead of the menu index “51”.

11.13 Recirculating air group 18

The menu structure of “Recirculating air group 18” corresponds to the menu structure of “Recirculating air group 1”. The menu index “6D” is then displayed in the dialogue boxes instead of the menu index “51”.

11.14 Recirculating air group 19

The menu structure of “Recirculating air group 19” corresponds to the menu structure of “Recirculating air group 1”. The menu index “6E” is then displayed in the dialogue boxes instead of the menu index “51”.

11.15 Recirculating air group 20

The menu structure of “Recirculating air group 20” corresponds to the menu structure of “Recirculating air group 1”. The menu index “6F” is then displayed in the dialogue boxes instead of the menu index “51”.

11.16 Recirculating air group 21

The menu structure of “Recirculating air group 21” corresponds to the menu structure of “Recirculating air group 1”. The menu index “6G” is then displayed in the dialogue boxes instead of the menu index “51”.

11.17 Recirculating air group 22

The menu structure of “Recirculating air group 22” corresponds to the menu structure of “Recirculating air group 1”. The menu index “6H” is then displayed in the dialogue boxes instead of the menu index “51”.

11.18 Recirculating air group 23

The menu structure of “Recirculating air group 23” corresponds to the menu structure of “Recirculating air group 1”. The menu index “6I” is then displayed in the dialogue boxes instead of the menu index “51”.

11.19 Recirculating air group 24

The menu structure of “Recirculating air group 24” corresponds to the menu structure of “Recirculating air group 1”. The menu index “6J” is then displayed in the dialogue boxes instead of the menu index “51”.

11.20 Recirculating air group 25

The menu structure of “Recirculating air group 25” corresponds to the menu structure of “Recirculating air group 1”. The menu index “6K” is then displayed in the dialogue boxes instead of the menu index “51”.

12 Settings

12.1 Heating Cooling

The Heating↔Cooling module is used to control the actuators to supply heat and/or cooling energy. Depending on the configuration, the actuation can depend on the following influencing variables:
=> Calendar date
=> Outside temperature
=> Room temperature fixed recirculating air group 1)
=> External switching contact (maintained contact) e.g. via a BMS/DDC
=> External switching contact (momentary contact) e.g. via a BMS/DDC
=> Manual via a dialogue box

The following hydraulic systems are supported:
=> 2-pipe system, heating only
=> 2-pipe system, cooling only
=> 2-pipe system heating or cooling via separate generators
=> 2-pipe system heating or cooling via monovalent heat pump
=> 2-pipe system heating or cooling via alternative bivalent heat pump
=> 4-pipe system, heating and cooling in succession

The following actuators are supported depending on the hydraulic system:
=> Heat generator
=> Chiller
=> Heat pump
=> Heat generator circuit pump (with manifold, for example)
=> Chiller circuit pump (cooling pump)
=> Heat pump circuit pump
=> Heating/cooling pump
=> Heating/cooling switch-over valve
=> Heat pump/heat generator switch-over valve

12.1.1 2-pipe system, heating

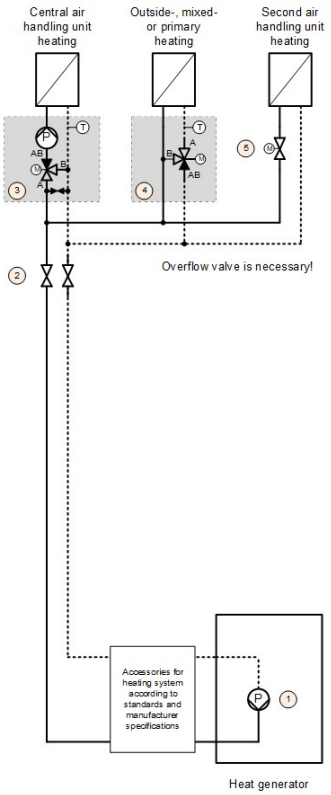
Hydraulic system 1: 2-pipe, heating

Legende:

1. Pump Heat-pump
2. Shut-off valve with drain
3. Mixing control combined register central unit consisting of:
   - mechanically adjustable relief valve
   - 3-way-valve with continuous drive
   - Secondary pump
   - Pipe contact sensor for frost protection
4. Diverting circuit heating coil decentralized outdoor, mixed, or primary air unit consisting of:
   - 3-way-valve with continuous drive
   - Pipe contact sensor for frost protection
5. Thermoelectric shut-off valve for secondary air unit

Informationen:

- Determine pump sizes on-site
- Determine pipe dimensions for the primary circuit on-site
- Determine pipe dimensions for the secondary circuit on-site
- An overflow is mandatory in the secondary circuit
- Pipes in the frost-prone area must be protected against freezing (using glycol or electric heating tape)
- The external pressure of the pump heat generator must be checked and ensured

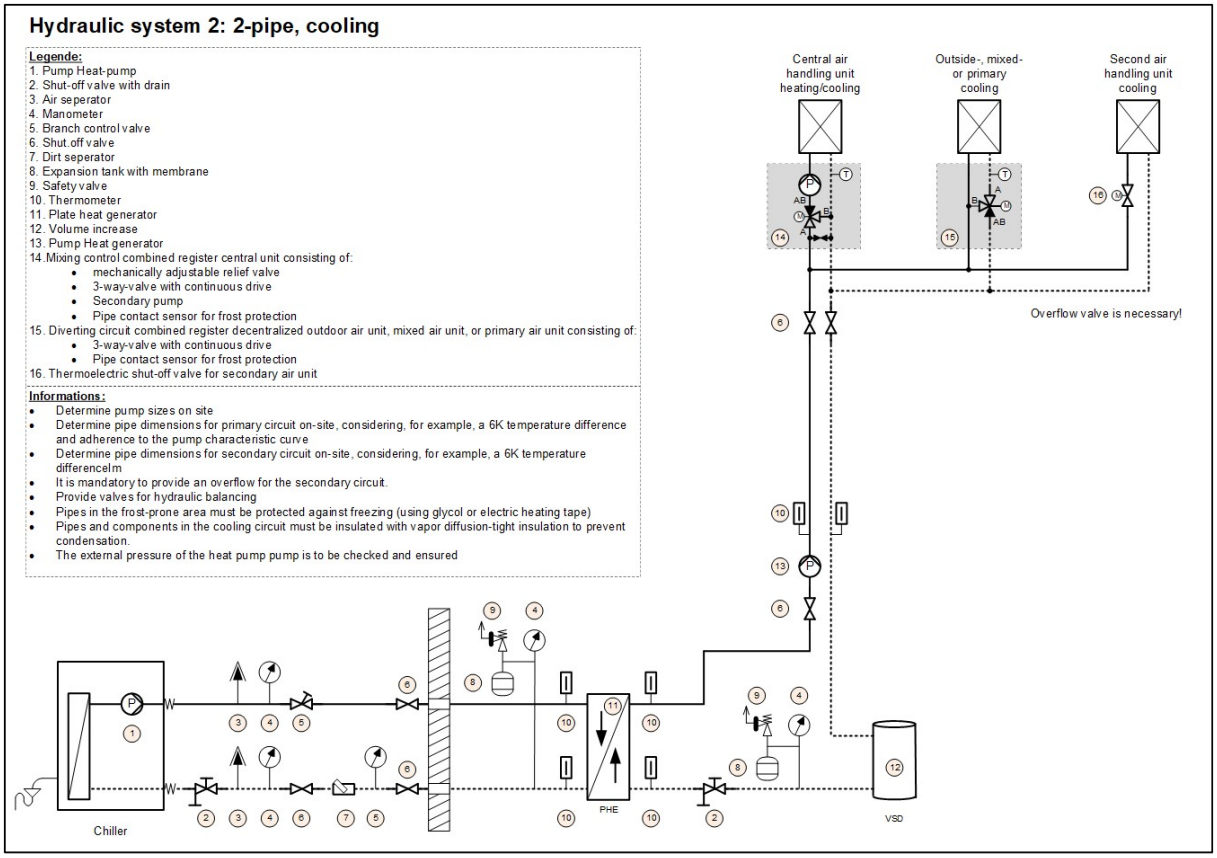


Selecting hydraulic system option “1” in dialogue box 061 defines a 2-pipe system that supplies only heating energy via a heat generator.

The following table shows all the multifunctional input and output options for this hydraulic system.

Multifunctional inputs:	Multifunctional outputs:
Heat generator fault	Heat generator enabled
Heat generator circuit pump fault	Heat generator circuit pump enabled
Heat demand	Heat demand
Summer/winter changeover (maintained contact)	Summer mode
Summer/winter changeover (momentary contact)	Winter mode

12.1.2 2-pipe system, cooling

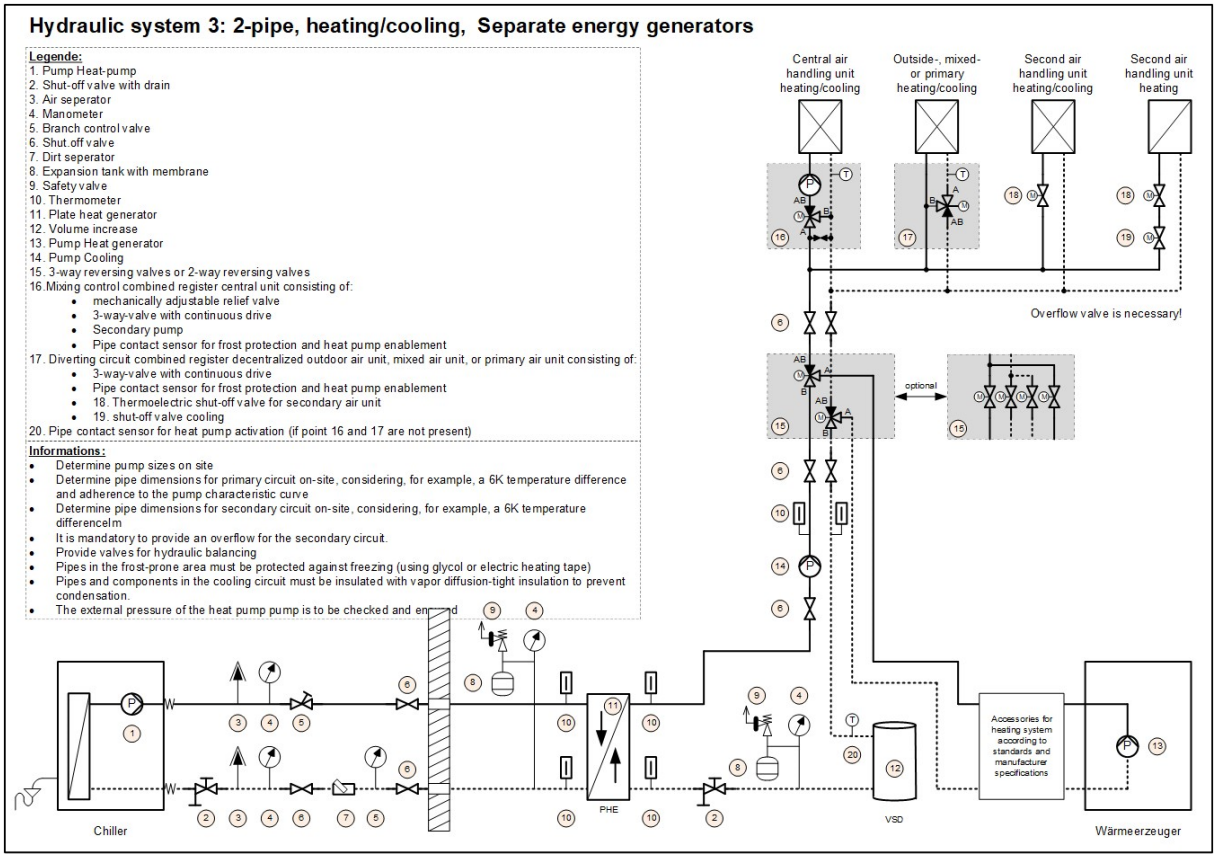


Selecting hydraulic system option “2” in dialogue box 061 defines a 2-pipe system that supplies only cooling energy via a chiller.

The following table shows all the multifunctional input and output options for this hydraulic system.

Multifunctional inputs:	Multifunctional outputs:
Chiller fault	Chiller enabled
Chiller circuit pump fault	Chiller circuit pump enabled
Cooling demand	Cooling demand
Summer/winter changeover (maintained contact)	Summer mode
Summer/winter switch-over (momentary contact)	Winter mode

12.1.3 2-pipe system, heating/cooling, standard

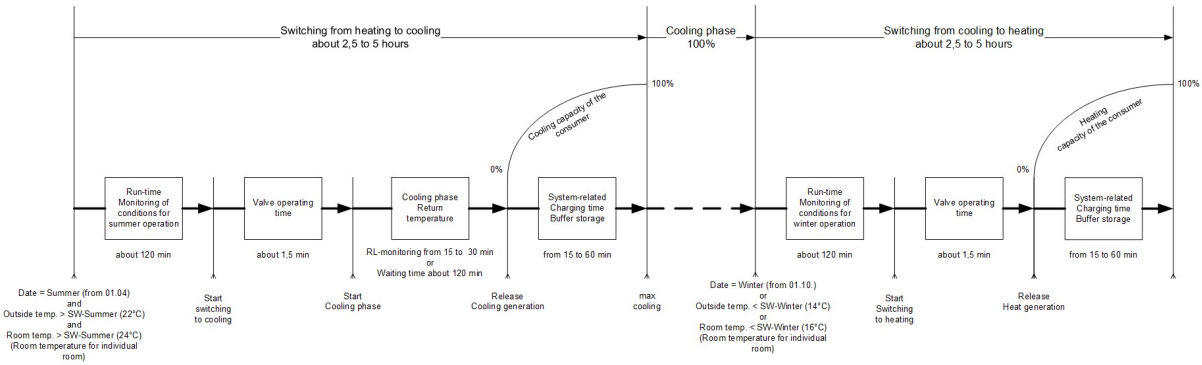


Selecting hydraulic system option “3” in dialogue box 061 defines a 2-pipe system that can supply heating and cooling energy via separate generators.

The following table shows all the multifunctional input and output options for this hydraulic system.

Multifunctional inputs:	Multifunctional outputs:
Heat generator fault	Heat generator enabled
Heat generator circuit pump fault	Heat generator circuit pump enabled
Chiller fault	Chiller enabled
Chiller circuit pump fault	Chiller circuit pump enabled
Heating/cooling pump fault	Heating/cooling pump enabled
Heat demand	Heating/cooling valve changeover
Cooling demand	Heat demand
Summer/winter changeover (maintained contact)	Cooling demand
Summer/winter changeover (momentary contact)	Summer mode
	Winter mode

Chronological sequence of changeover between heating and cooling:



Runtime monitoring of the conditions for the changeover from summer to winter mode and from winter to summer mode:
In summer mode, all conditions must be met to optimise energy for a set time (factory setting of 120 min.) before a system changeover from heating medium to cooling medium can be enabled.
In winter mode, one of the conditions must be met to optimise energy for a set time (factory setting of 120 min.) before a system changeover from cooling to heading medium can be enabled.
The conditions (calendar, outside temperature and room temperature) to be included in the monitoring process can be configured.

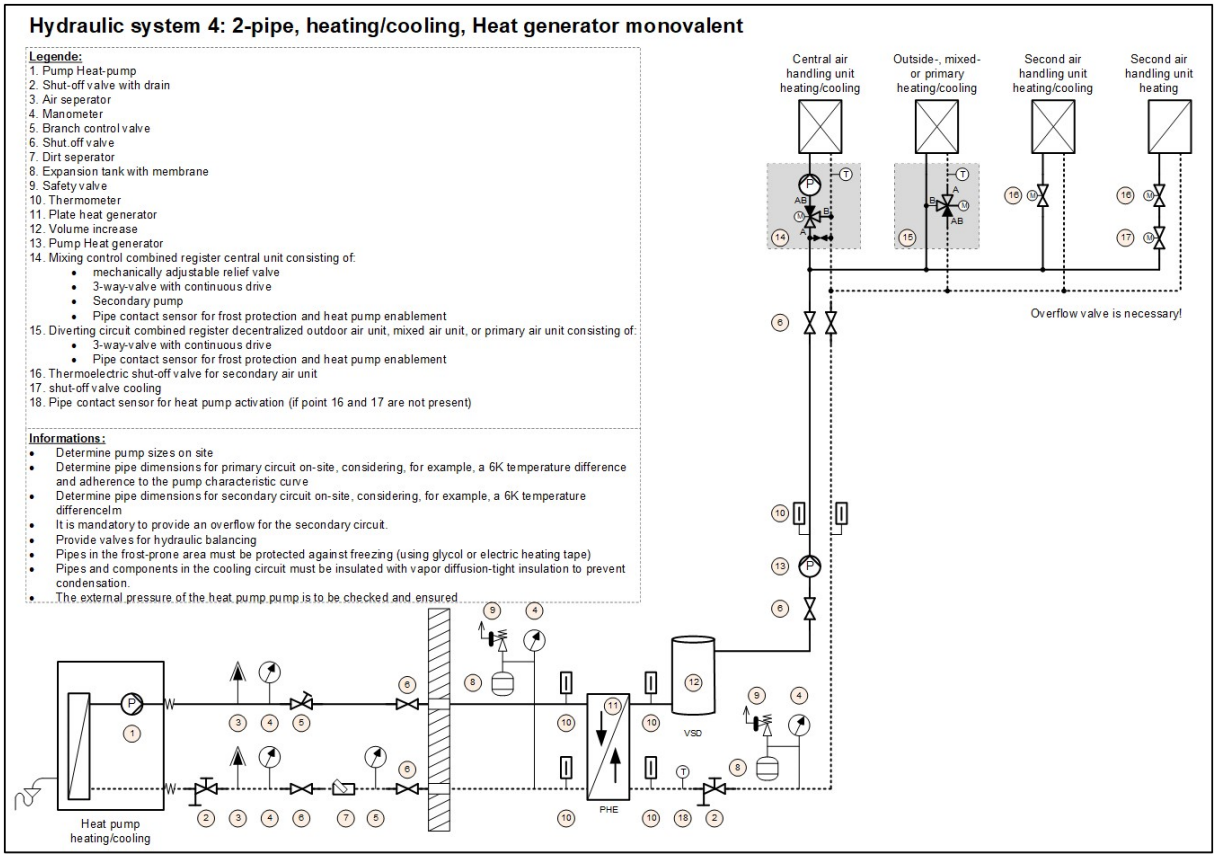
Valve runtime:
If the system changes over, all actuators, such as pumps and energy generators, remain locked for the adjustable valve runtime (factory setting 90 seconds), as the switch-over valves must first be set in the correct direction before the medium can flow.

Return temperature cooling-down phase:
The medium needs to cool down before it is admitted to the chiller to prevent it from malfunctioning. Monitoring of the return temperature (factory setting < 30 °C) and/or return time (factory setting 120 min.) can be enabled for this purpose.

System-related charging time of buffer store with cooling medium:
If the system switches over to cooling and the actuators responsible for the cooling operation, such as pumps and chillers, are enabled, it takes a certain time, which depends on the system, until a cooling output of 100% is available via the consumers.

System-related charging time of buffer store with heating medium:
If the system switches over to heating and the actuators responsible for the heating operation, such as pumps and heat generators, are enabled, it takes a certain time, which depends on the system, until a heating output of 100% is available via the consumers.

12.1.4 2-pipe system, heating/cooling, monovalent heat pump

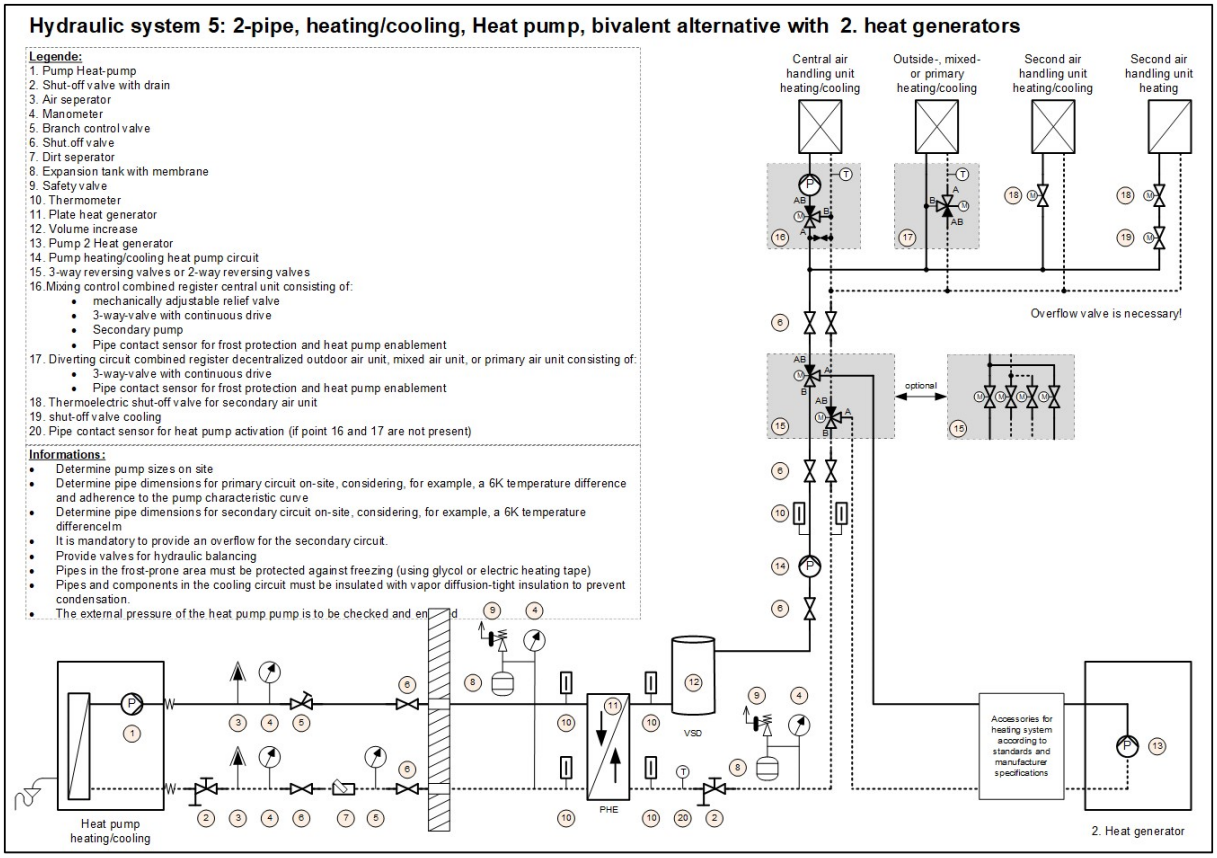


Selecting hydraulic system option “4” in dialogue box 061 defines a 2-pipe system that can supply heating and cooling energy via one generator (heat pump).

The following table shows all the multifunctional input and output options for this hydraulic system.

Multifunctional inputs:	Multifunctional outputs:
Heat pump fault	Heat pump enabled
Heating/cooling pump fault	Heat pump H/C changeover
Heat demand	Heating/cooling pump enabled
Cooling demand	Heat demand
Summer/winter changeover (maintained contact)	Cooling demand
Summer/winter changeover (momentary contact)	Summer mode
	Winter mode

12.1.5 2-pipe system, heating/cooling, alternative bivalent heat pump

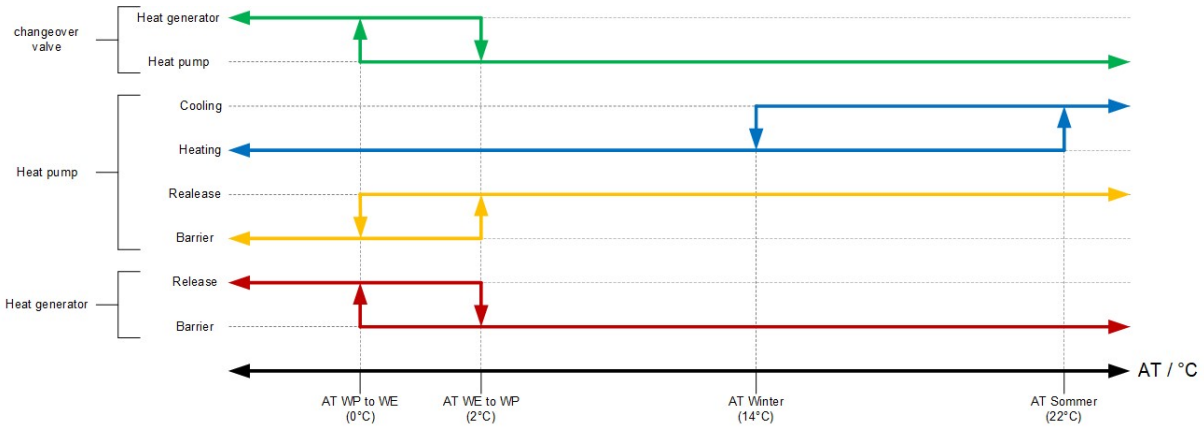


Selecting the hydraulic system option “5” in dialogue box 061 defines a 2-pipe system that can supply heating and cooling energy via a heat pump, and in which there can be a changeover to the second heat generator at low outside temperatures and when heat is required.

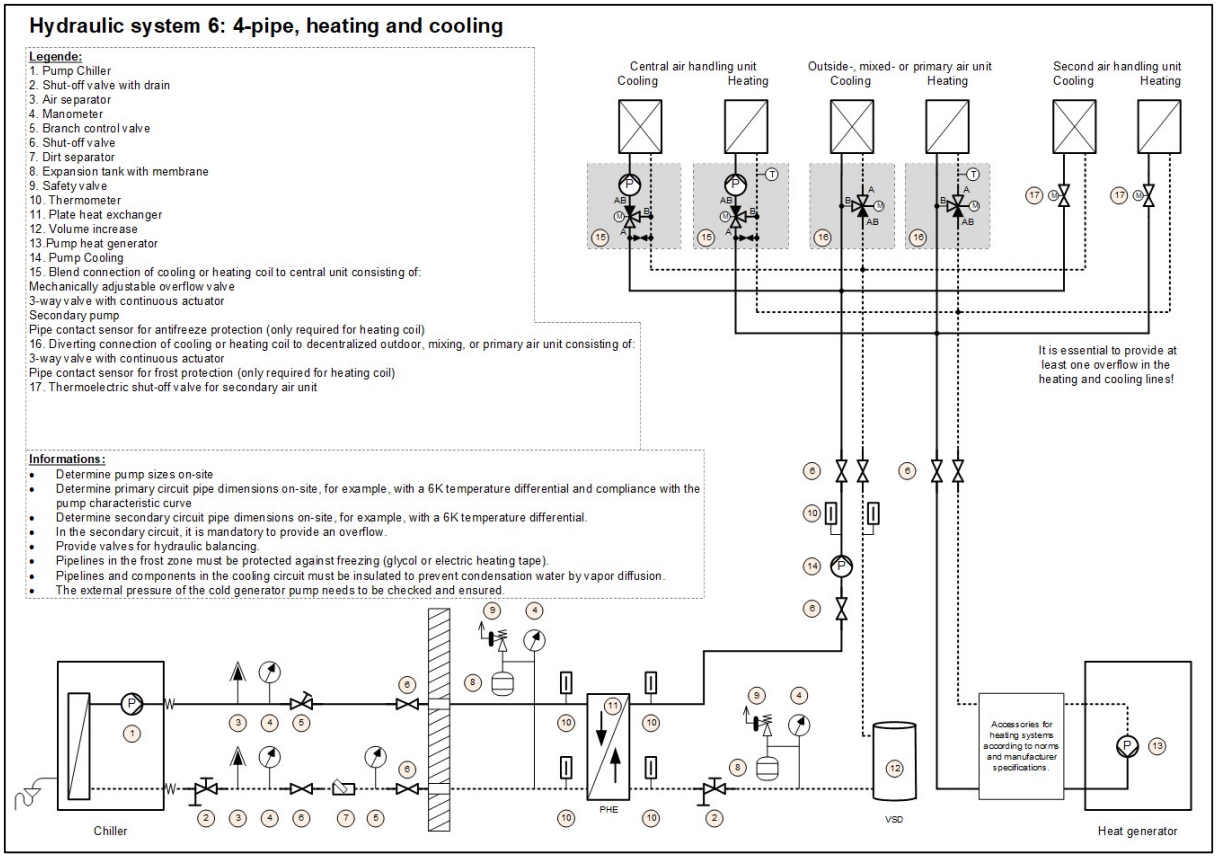
The following table shows all the multifunctional input and output choices for this hydraulic system.

Multifunctional inputs:	Multifunctional outputs:
Heat pump fault	Heat pump enabled
Heat pump circuit pump fault	Heat pump H/C changeover
Heat generator fault	Heat pump circuit pump enabled
Heat generator circuit pump fault	Heat generator enabled
Heating/cooling pump fault	Heat generator circuit pump enabled
Heat demand	Heating/cooling pump enabled
Cooling demand	Switch-over valve HP/HG
Summer/winter changeover (maintained contact)	Heat demand
Summer/winter switch-over (momentary contact)	Cooling demand
	Summer mode
	Winter mode

Example: Changeover depending on the outside temperatureD:



12.1.6 4-pipe system



Selecting hydraulic system option “6” in dialogue box 061 defines a 4-pipe system that can supply heating and cooling energy simultaneously via separate generators.

The following table shows all the multifunctional input and output options for this hydraulic system.

Multifunctional inputs:	Multifunctional outputs:
Heat generator fault	Heat generator enabled
Heat generator circuit pump fault	Heat generator circuit pump enabled
Chiller fault	Chiller enabled
Chiller circuit pump fault	Chiller circuit pump enabled
Heat demand	Heat demand
Cooling demand	Cooling demand
Summer/winter changeover (maintained contact)	Summer mode
Summer/winter switch-over (momentary contact)	Winter mode

12.1.7 Dialogue boxes and parameters

```
 Heating Cooling
71                    001
Control
Fault..........:    0
Man. operation.:    0
Operating mode.:    1
0=Off
1=Automatic
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Control

The “Fault” operating state displays whether there a fault is pending that affects energy generation operation.
0=No fault
1=Fault

The signal outputs may be set to specific values depending on the current fault. The fault currently affecting the signal outputs can be found in the “Fault responses” tables.

The “Man. operation” operating status displays whether a manual mode is currently enabled that affects energy generation operation.
0 = No manual mode enabled
1 = Manual mode enabled

The “Operating mode” parameter can be used to completely switch off energy generation or enable it for automatic mode.
0 = Off
1 = Automatic mode

Parameter	min.	max.	default
Operating mode	0	1	1

```
 Heating Cooling
71                    002
Signal states
Hydraulic LPHW..:   0
Hydraulic CHW...:   0
Summer/Winter...:   0
Heating mode....:   0
Cooling mode....:   0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Display of current signal states

The “Hydraulic LPHW” signal state displays whether an LPHW heating coil is fitted. The signal state is automatically set or reset via the “hydraulic system” configuration.
0 = No LPHW heating coil installed
1 = LPHW heating coil installed

The “Hydraulic CHW” signal state displays whether a CHW heating coil is fitted. The signal state is automatically set or reset via the “hydraulic system” configuration.
0 = No CHW cooling coil
1 = CHW cooling coil

The “Summer/Winter” signal state displays whether the system should be controlled to the summer or winter temperature setpoint in the closed-loop temperature control system. In the 2-pipe system, the signal state also displays whether the hydraulic system is switched to heating or cooling. The signal state is automatically set or reset via the “Summer/Winter” configurations.
0 = Winter
1 = Summer

The “Heating mode” signal state displays whether heating mode is disabled by date, time, outside temperature and/or room temperature.
0 = Heating mode disabled
1 = Heating mode enabled

The “Cooling mode” signal state displays whether cooling mode is disabled by date, time, outside temperature and/or room temperature.
0 = Cooling mode disabled
1 = Cooling mode enabled

```
 Heating Cooling
71                    003
Signal states
SI heat require..:   0
Heat requirement.:   0
SI cold require..:   0
Cold requirement.:   0
Special function.:   0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Display of current signal states

The “Heat demand” signal state is automatically set or reset by the “SI heat dem.” signal input. The reset can be delayed.
0 = Heat demand disabled
1 = Heat demand enabled

The “Cold demand” signal state is automatically set or reset by the “SI cold dem.” signal input. The reset can be delayed.
0 = Cooling demand disabled
1 = Cooling demand enabled

The “Special function” signal state displays whether a special function is currently enabled.
0 = Special function disabled
1 = Special function enabled

```
 Heating Cooling
71                    004
Signal states
HP Enable.......:   0
HP H/C..........:   0
HP Fault........:   0
P HP Enable.....:   0
P HP Fault......:   0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Display of current signal states

The “HP Enable” signal state displays the control signal currently output to enable the heat pump.
0 = Heat pump locked
1 = Heat pump enabled

The “HP H/C” signal state displays the control signal currently output for the heating/cooling changeover of the heat pump.
0 = Heating
1 = Cooling

The “HP Fault” signal state displays the heat pump fault control signal currently received.
0 = Heat pump fault disabled
1 = Heat pump fault enabled

The “P HP Enable” signal state displays the control signal currently output to enable the pump of heat generator 1.
0 = Pump disabled (off)
1 = Pump enabled (on)

The “P HP Fault” signal state displays the fault control signal of the pump for heat generator 1 currently received.
0 = Pump fault
1 = Pump fault

Important notes:
The dialogue box is hidden if one of the following settings has been preselected in the hydraulic system configuration:
- Hydraulic system = 1 (2-pipe system, cooling only)
- Hydraulic system = 2 (2-pipe system, heating only)
- Hydraulic system = 3 (2-pipe system, heating/cooling)
- Hydraulic system = 6 (4-pipe system)

```
 Heating Cooling
71                    005
Signal states
HG Enable::.....:   0
HG Fault........:   0
P HG Enable.....:   0
P HG Fault......:   0
```

Dialogue box visible in:	
User level	
Expert level	X

Display of current signal states

The “HG Enable” signal state displays the control signal currently output to enable the heat generator.
0 = Heat generator disabled
1 = Heat generator enabled

The “HG Fault” signal state displays the heat generator fault control signal currently received.
0 = Heat generator fault disabled
1 = Heat generator fault enabled

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Manufacturer level	X

The “P HG Enable” signal state displays the control signal currently output to enable the heat generator pump.
0 = Pump disabled (off)
1 = Pump enabled (on)

The “P HG Fault” signal state displays the heat generator pump fault control signal currently received.
0 = Pump fault
1 = Pump fault

Important notes:
The dialogue box is hidden if one of the following settings has been preselected in the hydraulic system configuration:
- Hydraulic system = 2 (2-pipe system, cooling only)
- Hydraulic system = 4 (2-pipe system, monovalent heat pump)

```
 Heating Cooling
71                    006
Signal states
CG Enable.......:   0
CG Fault........:   0
P CG Enable.....:   0
P CG Fault......:   0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Display of current signal states

The “CG Enable” signal state displays the control signal currently output to enable the chiller.
0 = Chiller disabled
1 = Chiller enabled

The “CG Fault” signal state displays the chiller fault control signal currently received.
0 = Chiller fault disabled
1 = Chiller fault enabled

The “P CG Enable” signal state displays the control signal currently output to enable the chiller pump.
0 = Pump disabled (off)
1 = Pump enabled (on)

The “P CG Fault” signal state displays the chiller pump fault control signal currently received.
0 = Pump fault
1 = Pump fault

Important notes:
The dialogue box is hidden if one of the following settings has been preselected in the hydraulic system configuration:
- Hydraulic system = 1 (2-pipe system, heating only)
- Hydraulic system = 4 (2-pipe system, monovalent heat pump)
- Hydraulic system = 5 (2-pipe system, alternative bivalent heat pump)

```
 Heating Cooling
71                    007
Signal states
P H/C Enable....:   0
P H/C Fault.....:   0
Ventil H/C......:   0
Ventil HP/HG....:   0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

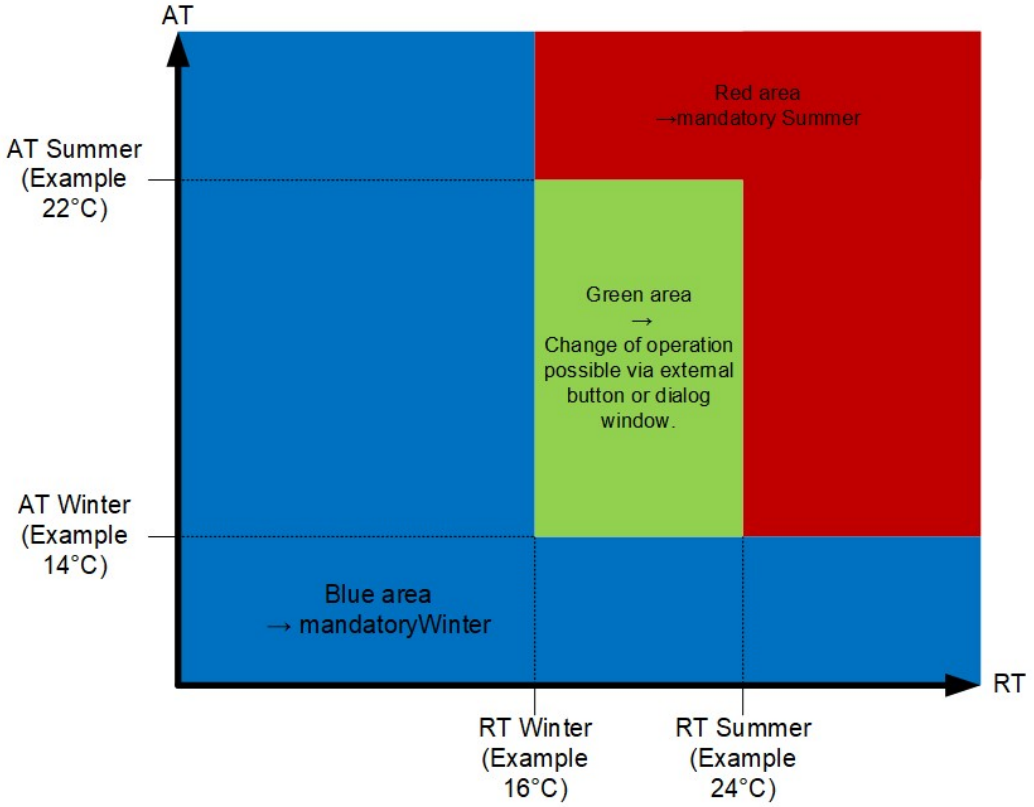
Display of current signal states

The “P H/C Enable” signal state displays the control signal currently output to enable the heating/cooling pump.
0 = Heating/cooling pump disabled (off)
1 = Heating/cooling pump enabled (on)

The “P H/C Fault” signal state displays the heating/cooling pump fault control signal currently received.
0 = Fault, heating/cooling pump disabled
1 = Fault, heating/cooling pump enabled

The “Valve H/C” signal state displays the control signal currently output for the heating/cooling changeover valve.
0 = Heating/cooling valve opened in the direction of the heat generator
1 = Heating/cooling valve opened in the direction of the chiller

	The “Valve HP/HG” signal state displays the control signal currently output for the valve that effects the changeover from the heat pump to the second heat generator. 0 = Valve opened in the direction of the heat pump 1 = Heating/cooling valve opened in the heat generator Important notes: The “P H/C Enable” signal state is hidden if one of the following settings has been preselected in the hydraulic system configuration: - Hydraulic system = 1 (2-pipe system, heating only) - Hydraulic system = 2 (2-pipe system, cooling only) - Hydraulic system = 6 (4-pipe system) The “P H/C Fault” signal state is hidden if one of the following settings has been preselected in the hydraulic system configuration: - Hydraulic system = 1 (2-pipe system, heating only) - Hydraulic system = 2 (2-pipe system, cooling only) - Hydraulic system = 6 (4-pipe system) The “Valve H/C” signal state is hidden if one of the following settings has been preselected in the hydraulic system configuration: - Hydraulic system = 1 (2-pipe system, heating only) - Hydraulic system = 2 (2-pipe system, cooling only) - Hydraulic system = 4 (2-pipe system, monovalent heat pump) - Hydraulic system = 5 (2-pipe system, alternative bivalent heat pump) - Hydraulic system = 6 (4-pipe system) The “Valve HP/HG” signal state is hidden if one of the following settings has been preselected in the hydraulic system configuration: - Hydraulic system = 1 (2-pipe system, heating only) - Hydraulic system = 2 (2-pipe system, cooling only) - Hydraulic system = 3 (2-pipe system) - Hydraulic system = 4 (2-pipe system) - Hydraulic system = 6 (4-pipe system)



The changeover between summer and winter can be effected by date, outside temperature, room temperature, external switching contact, external button and/or dialogue boxes.
A changeover by an external button (falling edge) does not need to be enabled in the configuration. A suitably configured multifunctional input for this function is sufficient.
If the “Changeover by external switching contact” function is enabled, all other summer/winter changeover functions are disabled.
If the “Changeover by outside temperature and room temperature” functions are enabled, then summer/winter changeover is as shown in the above diagram.

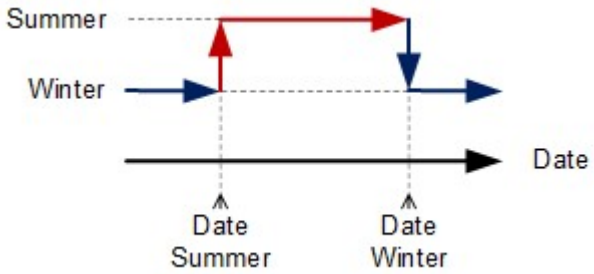
```
 Heating Cooling
71                  008
Su/Wi via Date
Date Winter....:01.10.
Date Summer....:01.04.
Date ..........:01.08.

Summer/Winter..:    0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Setpoints → Summer/winter via date

This function is used to switch between the summer and winter room temperature control setpoint on a calendar date specified in the temperature control.
This function also affects the system changeover in the 2-pipe heating/cooling system.

The “Date Winter” parameter defines the date on which the changeover to winter mode takes place (summer/winter = 0).
The “Date Summer” parameter defines the date on which the changeover to summer mode takes place (summer/winter = 1).



The current date and current status of the summer/winter signal output are displayed.

0 = Winter
1 = Summer

Parameter	min.	max.	default
Date Winter	01.01.	31.12.	01.10.
Date Summer	01.01.	31.12.	01.04.

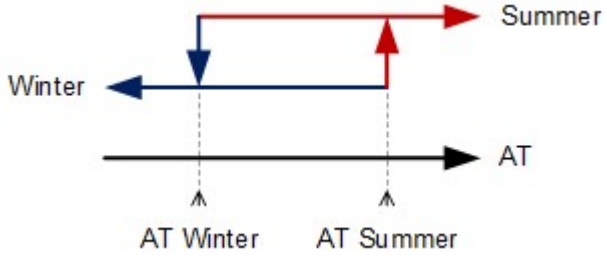
Important notes:
The dialogue box is hidden if the function is not enabled by the configuration.
The dialogue box is hidden if the “Su/Wi via contact” function (see dialogue box 11) is enabled by the configuration.

```
 Heating Cooling
71                    009
Su/Wi via OT
OT Winter....:< 14.0°C
OT Summer ...:> 22.0°C
OT ..........:  20.0°C

Summer/Winter:      0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Setpoints → Summer/winter via outside temperature

This function is used to switch between the summer and winter room temperature control setpoint based on the outside temperature specified in the temperature control.
This function also affects the system changeover in the 2-pipe heating/cooling system.



The “OT Winter” parameter defines the outside temperature at which the changeover to winter mode takes place (Summer/Winter = 0).
The “OT Summer” parameter defines the outside temperature at which the changeover to summer mode takes place (summer/winter = 1).

The current outside temperature and the current status of the summer/winter signal output are displayed.

Parameter	min.	max.	default
OT winter	-99.0°C	99.0°C	14.0°C
OT summer	-99.0°C	99.0°C	22.0°C

Important notes:
The dialogue box is hidden if the function is not enabled by the configuration or if the “Su/Wi via contact” function is enabled (see dialogue box 11).

```
 Heating Cooling
71                    010
Su/Wi via RT
RT Winter....:< 16.0°C
RT Summer ...:> 24.0°C
RT ..........:  20.0°C

Summer/Winter:      0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Setpoints → Summer/winter via room temperature

This function is used to switch between the summer and winter room temperature control setpoint based on the room temperature specified the temperature control.
This function also affects the system changeover in the 2-pipe heating/cooling system.

The “RT Winter” parameter defines the room temperature at which the changeover to winter mode takes place (summer/winter = 0).
The “RT Summer” parameter defines the room temperature at which the changeover to summer mode takes place (summer/winter = 1).

The current room temperature and current status of the summer/winter signal output are displayed.

Parameter	min.	max.	default
RT Winter	-99.0°C	99.0°C	16.0°C

RT Summer	-99.0°C	99.0°C	24.0°C

Important notes:
The dialogue box is hidden if the function is not enabled by the configuration.
The dialogue box is hidden if the “Su/Wi via contact” function (see dialogue box 11) is enabled by the configuration.

```
 Heating Cooling
71                  011
Su/Wi via Contact
Contact Su/Wi..:    0


Summer/Winter..:    0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Setpoints → Summer/winter via contact

This function is used to specify summer or winter mode by an external switching contact.
This function also affects the system changeover in the 2-pipe heating/cooling system.

External contact = “0” means winter (summer/winter = 0).
External contact = “1” means summer (summer/winter = 1).

The current states of the contact signal input of the Su/Wi contact and of the Summer/Winter signal output are displayed.

Important notes:
Dialogue boxes 8, 9, 10 and 12 are hidden if this function is enabled by the configuration. This function therefore has the highest priority when it is enabled.
The dialogue box is hidden if the function is not enabled by the configuration.

```
 Heating Cooling
71                  012
Su/Wi via hand
Op-mode change.:    0


Summer/Winter..:    0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Setpoints → Summer/winter by hand

This function is used to switch between the summer and winter room temperature control setpoint using the dialogue box in the temperature control.
This function also affects the system changeover in the 2-pipe heating/cooling system.

If the “Summer/Winter via calendar” and “Summer/Winter via external contact” functions are not enabled in the configuration, the changeover can be carried out manually using the dialogue box.

If the “Summer/Winter via outside temperature” function is enabled in the configuration, a changeover is only possible when the outside temperature is between the changeover points.

If the “Summer/Winter via room temperature” function is enabled in the configuration, a changeover is only possible when the room temperature is between the changeover points.

The current summer/winter status can be changed by setting the “Op-mode change” parameter to “1”.

Once the parameter has been set to “1”, it is automatically reset to “0”.

The current state of the summer/winter signal output is displayed.
0 = Winter
1 = Summer

Parameter	min.	max.	default
Op-mode change	0	1	0

Important notes:
The dialogue box is hidden if the “Su/Wi via contact” function (see dialogue box 11) is enabled in the configuration.

```
 Heating Cooling
71                    013
Su/Wi changeover delay
Wait. time Su..: 120min
Wait. time yet.: 120min
Wait. time Wi..: 120min
Wait. time yet.: 120min
Summer/Winter.:    0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Setpoints → Summer/winter changeover delay

This function is used to prevent unnecessary switching from winter to summer or from summer to winter during the shoulder months.

The “Wait. time Su” parameter defines the time during which the functions enabled for summer mode in the configuration must be fulfilled in order to change to summer.

The “Wait. time Wi” parameter defines the time during which the functions enabled for winter mode in the configuration must be fulfilled in order to change to winter.

The current waiting times and the current “Summer/Winter” signal state are displayed.

Parameter	min.	max.	default
Wait. time Su	000min.	480min.	120 min.
Wait. time Wi	000min.	480min.	120 min.

Important notes:
The dialogue box is hidden if the function is not enabled in the configuration.

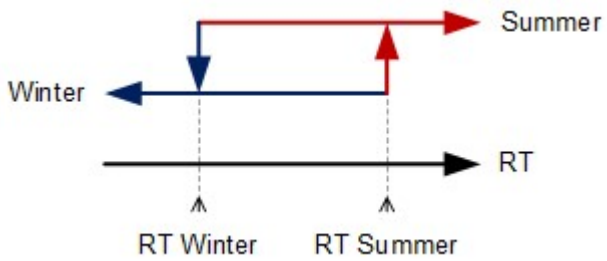
The heating mode can be enabled via the date, time, outside temperature and/or room temperature. If the lock is enabled, the associated heat generators and pumps are disabled.

```
 Heating Cooling
71                    014
H Block via DT
DT barrier on: 01.04.
DT barrier of: 01.10.
Date.........: 00.00.
Heating mode.:      0
Enable LPH...:      0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Setpoints → Lock heating mode by date

This function is used if no heating energy is to be generated between certain dates.
All the associated energy generators and pumps are locked.



The “DT barrier on” parameter defines the date from which the generation of heating energy is disabled.
The “DT barrier off” parameter defines the date from which the generation of heating energy is possible.

The current date and current status of the “Heating mode” and “Enable LPHW” signal outputs are displayed.

Parameter	min.	max.	default
DT barrier on	00.00.	31.12.	01.04.
DT barrier off	00.00.	31.12.	01.10.

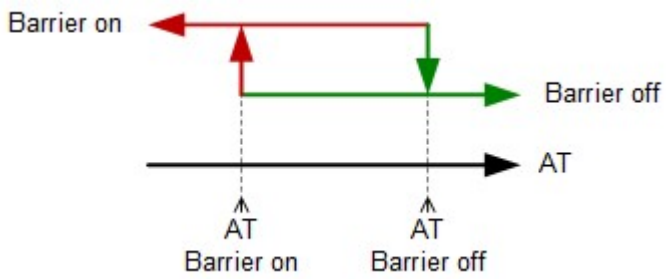
Important notes:
The dialogue box is hidden if the function is not enabled in the configuration or if one of the following settings has been preselected in the hydraulic system configuration:
- Hydraulic system = 2 (2-pipe system, cooling only)

```
 Heating Cooling
71                    015
H block via TM
TM block on..: 22:00
TM block of..: 06:00
Uhrzeit......: 00.00
Heating mode.:      0
Enable LPH...:      0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Setpoints → Lock heating mode by time

This function is used if no heating energy is to be generated between certain times.
All the associated energy generators and pumps are locked.



The “TM block on” parameter defines the time from which the generation of heating energy is disabled.
The “TM block off” parameter defines the time from which the generation of heating energy is possible.

The current time and current status of the “Heating mode” and “Enable LPHW” signal outputs are displayed.

Parameter	min.	max.	default
TM block on	00:00	23:59	22:00
TM block off	00:00	23:59	06:00

Important notes:
The dialogue box is hidden if the function is not enabled in the configuration or if one of the following settings has been preselected in the hydraulic system configuration:
- Hydraulic system = 2 (2-pipe system, cooling only)

```
 Heating Cooling
71                    016
H block via OT
OT block on..:> 22.0°C
OT block of..:< 14.0°C
OT ..........:   0.0°C
Heating mode.:      0
Enable LPH.:     0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Setpoints → Lock heating mode by outside temperature

This function is used to prevent heating energy being generated if an outside temperature is exceeded.
All the associated energy generators and pumps are locked.

The “OT block on” parameter defines the outside temperature above which the generation of heating energy is disabled.
The “OT block off” parameter defines the outside temperature below which the generation of heating energy is possible.

The current outside temperature and the current status of the “Heating mode” and Enable LPHW” signal outputs are displayed.

Parameter	min.	max.	default
OT block on	-99.0°C	99.0°C	22.0°C
OT block off	-99.0°C	99.0°C	14.0°C

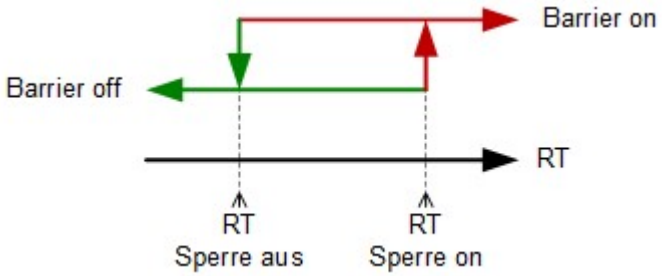
Important notes:
The dialogue box is hidden if the function is not enabled in the configuration or if one of the following settings has been preselected in the hydraulic system configuration:
- Hydraulic system = 2 (2-pipe system, cooling only)

```
 Heating Cooling
71                    017
H block via RT
RT block on..:> 24.0°C
RT block of..:< 16.0°C
RT ..........:   0.0°C
Heating mode.:      0
Enable LPH...:      0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Setpoints → Lock heating mode by room temperature

This function is used if heating energy is not to be generated when a room temperature is exceeded.
All the associated energy generators and pumps are locked.



The “RT barri. on” parameter defines the room temperature above which the generation of heating energy is disabled.
The “RT barri. off” parameter defines the room temperature below which the generation of heating energy is possible.

The current room temperature and the current status of the “Heating mode” and “Enable LPHW” signal outputs are displayed.

Parameter	min.	max.	default
RT barrier on	-99.0°C	99.0°C	24.0°C
RT barrier off	-99.0°C	99.0°C	16.0°C

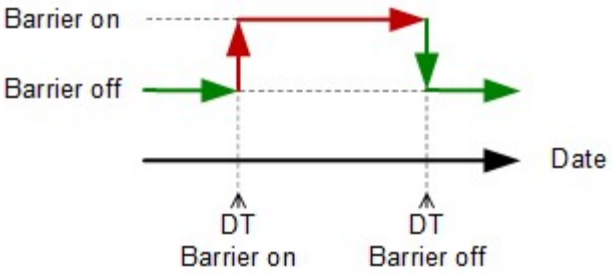
Important notes:
The dialogue box is hidden if the function is not enabled in the configuration or if one of the following settings has been preselected in the hydraulic system configuration:
- Hydraulic system = 2 (2-pipe system, cooling only)

```
 Heating Cooling
71                    018
C block via DT
DT barrier on: 01.10.
DT barrier of: 01.04.
Date.........: 00.00.
Cooling mode.:      0
Enable CHW...:      0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Setpoints → Lock cooling mode by date

This function is used if no cooling energy is to be generated between certain calendar dates.
All the associated energy generators and pumps are locked.



The “DT barrier on” parameter defines the date from which the generation of cooling energy is disabled.
The “DT barrier off” parameter defines the date from which the generation of cooling energy is possible.

The current date and current status of the “Cooling mode” and “Enable CHW” signal outputs are displayed.

Parameter	min.	max.	default
DT barrier on	01.01	31.12.	01.10.
DT barrier off	01.01	31.12.	01.04.

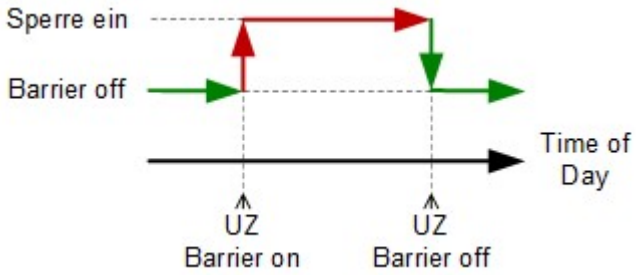
Important notes:
The dialogue box is hidden if the function is not enabled by the configuration or if one of the following settings has been preselected in the hydraulic system configuration:
- Hydraulic system = 1 (2-pipe system, heating only)

```
 Heating Cooling
71                    019
C block via TM
TM block on..: 22:00
TM block of..: 06:00
Time of day..: 00.00
Cooling mode.:      0
Enable CHW...:      0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Setpoints → Lock cooling mode by time

This function is used if no cooling energy is to be generated between certain times.
All the associated energy generators and pumps are locked.



The “TM block on” parameter defines the time from which the generation of cooling energy is disabled.
The “TM block off” parameter defines the time from which the generation of cooling energy is possible.

The current time and current status of the “Cooling mode” and “Enable CHW” signal outputs are displayed.

Parameter	min.	max.	default
TM block on	00:00	23:59	22:00
TM block off	00:00	23:59	06:00

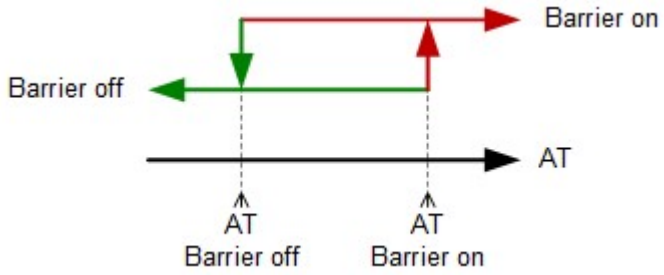
Important notes:
The dialogue box is hidden if the function is not enabled in the configuration or if one of the following settings has been preselected in the hydraulic system configuration:
- Hydraulic system = 1 (2-pipe system, heating only)

```
 Heating Cooling
71                    020
C block via TM
TM block on..:< 16.0°C
TM block of..:> 25.0°C
TM ..........:   0.0°C
Cooling mode.:      0
Enable CHW...:      0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Setpoints → Lock cooling mode by outside temperature

This function is used if cooling energy is not to be generated if an outside temperature is undercut.
All the associated energy generators and pumps are locked.



D

The “OT block on” parameter defines the outside temperature below which the generation of cooling energy is disabled.

The “OT block off” parameter defines the outside temperature above which the generation of cooling energy is possible.

The current outside temperature and current status of the “Cooling mode” and “Enable CHW” signal outputs are displayed.

Parameter	min.	max.	default
OT block on	-99.0°C	99.0°C	16.0°C
OT block off	-99.0°C	99.0°C	25.0°C

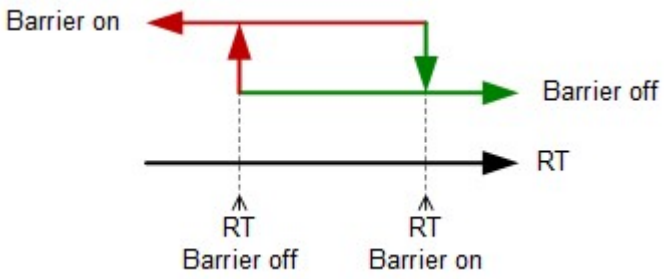
Important notes:
The dialogue box is hidden if the function is not enabled by the configuration or if one of the following settings has been preselected in the hydraulic system configuration:
- Hydraulic system = 1 (2-pipe system, heating only)

```
 Heating Cooling
71                    021
C block via RT
RT barrier on:< 16.0°C
RT barrier of:> 24.0°C
RT ..........:   0.0°C
Cooling mode.:      0
Enable CHW...:      0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Setpoints → Lock cooling mode by room temperature

This function is used if cooling energy is not to be generated if a room temperature is exceeded.
All the associated energy generators and pumps are locked.



The “RT barrier on” parameter defines the room temperature below which the generation of cooling energy is disabled.
The “RT barrier off” parameter defines the room temperature above which the generation of cooling energy is possible.

The current room temperature and current status of the “Cooling mode” and “Enable CHW” signal outputs are displayed.

Parameter	min.	max.	default
RT barrier on	-99.0°C	99.0°C	16.0°C
RT barrier off	-99.0°C	99.0°C	24.0°C

Important notes:
The dialogue box is hidden if the function is not enabled by the configuration or if one of the following settings has been preselected in the hydraulic system configuration:
- Hydraulic system = 1 (2-pipe system, heating only)

A switch-off delay can be assigned to disable a heating and/or cooling demand by a consumer.

```
 Heating Cooling
71                    022
Heat requirement
Delay off......:
Run-time.......: 10min
Run-time yet...: 10min
HG-Demand......:    0
HG-State.......:    0
```

Setpoints → Heat demand switch-off delay

If there is a heat demand from one of the connected groups or an external contact (HG-Demand), the heat demand status (HG-State) is set. This “Heat demand” signal can be used to control a heat generator or a pump via a potential-free contact.

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

The “Runtime” parameter defines how long the heat demand (HG-Demand) is applied once no more heat is required (HG-State).

The “Remaining runtime” value displays the remaining run-on time.

Parameter	min.	max.	default
Runtime	000min.	480min.	010min.

Important notes:
The dialogue box is hidden if the function is not enabled in the configuration or if one of the following settings has been preselected in the hydraulic system configuration:
- Hydraulic system = 2 (2-pipe system, cooling only)

```
 Heating Cooling
71                    023
Cooling requirement
Delay off
Run-time.......: 10min
Run-time yet...: 10min
CG-Demand......:  0
CG-State.......:  0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Setpoints →Cooling demand switch-off delay

If there is a cooling requirement from one of the connected groups or by an external contact (KE-Demand), the heat demand status (KE-State) is set. This “Cooling requirement” signal can be used to control a chiller or a pump via a potential-free contact.

The “Runtime” parameter defines how long the cooling demand (KE-Demand) is applied once cooling is no longer required (KE-State).

The “Remaining runtime” value displays the remaining run-on time.

Parameter	min.	max.	default
Runtime	000min.	480min.	010min.

Important notes:
The dialogue box is hidden if the function is not enabled in the configuration or if one of the following settings has been preselected in the hydraulic system configuration:
- Hydraulic system = 1 (2-pipe system, heating only)

The following energy generators can be controlled depending on the configuration of the hydraulic system:

- Heat generator (boiler)
- Cooling generator (chiller)
- Reversible heat pump or chiller

Switch-on and switch-off delays can be configured for these generators. Enables can also be configured for chillers and heat pumps via the return temperature and return time.

```
 Heating Cooling
71                    024
HG Switch on delay
Waiting time..:    0min
Wait. time yet:    0min

HG Enable.....:    0
HG Fault......:    0
```

Dialogue box visible in:	
User level	
Expert level	X

Setpoints → Heat generator switch-on delay

This function is used to switch on the generator with a delay.

The “Waiting time” parameter defines the time during which the generator remains disabled when there is demand.
The waiting time starts when enabled by other functions.

The current waiting time and current “HG Enable” and “HG Fault” signal states are displayed.

Parameter	min.	max.	default
Waiting time	000min.	480min.	000min.

Manufacturer level	X

Important notes:
The dialogue box is hidden if the function is not enabled in the configuration or if one of the following settings has been preselected in the hydraulic system configuration:
- Hydraulic system = 2 (2-pipe system, cooling only)
- Hydraulic system = 4 (2-pipe system, monovalent heat pump)

```
 Heating Cooling
71                  025
HG Switch off delay
Run-time......:    0min
Run-time yet..:    0min

HG Enable.....:    0
HG Fault......:    0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Setpoints → Heat generator switch-off delay

This function is used to switch off the generator with a delay.

The “Runtime” parameter defines how long the generator continues to run when the demand is disabled.
The runtime starts if the demand is disabled by other functions.

The current runtime and the current “HG Enable” and “HG Fault” signal states are displayed.

Parameter	min.	max.	default
Runtime	000min.	480min.	000min.

Important notes:
The dialogue box is hidden if the function is not enabled in the configuration or if one of the following settings has been preselected in the hydraulic system configuration:
- Hydraulic system = 2 (2-pipe system, cooling only)
- Hydraulic system = 4 (2-pipe system, monovalent heat pump)

```
 Heating Cooling
71                  026
CG Switch on delay
Waiting time..:    0min
Wait. time yet:    0min

CG Enable.....:    0
CG Fault......:    0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Setpoints → Chiller switch-on delay

This function is used to switch on the generator with a delay.

The “Waiting time” parameter defines the time during which the generator remains disabled when there is demand.
The waiting time starts when it is enabled by other functions.

The current waiting time and current “CG Enable” and “CG Fault” signal states are displayed.

Parameter	min.	max.	default
Waiting time	000min.	480min.	000min.

Important notes:
The dialogue box is hidden if the function is not enabled by the configuration or if one of the following settings has been preselected in the hydraulic system configuration:
- Hydraulic system = 1 (2-pipe system, heating only)
- Hydraulic system = 4 (2-pipe system, heating/cooling, monovalent heat pump)

- Hydraulic system = 5 (2-pipe system, heating/cooling, alternative bivalent heat pump)

```
 Heating Cooling
71                    027
CG delay off
Run-time......:    0min
Run-time yet..:    0min

CG Enable.....:    0
CG Fault......:    0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Setpoints → Chiller switch-off delay

This function is used to switch off the generator with a delay.

The “Runtime” parameter defines how long the generator continues to run when the demand is disabled.
The runtime starts if the demand is disabled by other functions.

The current runtime and the current “CG Enable” and “CG Fault” signal states are displayed.

Parameter	min.	max.	default
Runtime	000min.	480min.	000min.

Important notes:
The dialogue box is hidden if the function is not enabled in the configuration or if one of the following settings has been preselected in the hydraulic system configuration:
- Hydraulic system = 1 (2-pipe system, heating only)
- Hydraulic system = 4 (2-pipe system, heating/cooling, monovalent heat pump)

- Hydraulic system = 5 (2-pipe system, heating/cooling, alternative bivalent heat pump)

```
 Heating Cooling
71                    028
CG Enable via RET
RET Enable...:< 30.0°C
Run-time.....:     5min
Run-time yet.:     5min
RET actual...:    0.0°C
CG Enable....:      0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Setpoints → Chiller enable via return temperature

This function is used when the temperature of the medium admitted to the chiller must not be too high and must be allowed to cool down before the chiller can be enabled.

The “RET Enable” parameter defines the return temperature at which the chiller can be enabled.

The “Runtime” parameter defines the time which the return temperature must remain below the “RET Enable” parameter for the chiller to be enabled.

The runtime starts when a changeover to cooling takes place and the “RET Enable” parameter is undershot for the first time.
Each time it is exceeded within the runtime, the current runtime is reset to the “Runtime” parameter.

The current runtime, current return temperature and current signal state “KE Enable” are displayed.

Parameter	min.	max.	default
RET Enable	00.0°C	99.0°C	30.0°C
Runtime	000min.	480min.	005min.

Important notes:
The dialogue box is hidden if the function is not enabled in the configuration or if one of the following settings has been preselected in the hydraulic system configuration:
- Hydraulic system = 1 (2-pipe system, heating only)
- Hydraulic system = 2 (2-pipe system, cooling only)
- Hydraulic system = 4 (2-pipe system, heating/cooling, monovalent heat pump)

- Hydraulic system = 5 (2-pipe system, heating/cooling, alternative bivalent heat pump)

- Hydraulic system = 6 (4-pipe system)

```
 Heating Cooling
71                    029
CG Enable via RTI
Run-time......: 120min
Run-time yet..:   0min

CG Enable.....:   0
CG Fault......:   0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Setpoints → Chiller enabled via return time

This function is used when the temperature of the medium admitted to the chiller must not be too high and must be allowed to cool down, assuming a waiting time, before the chiller can be enabled.

The “Runtime” parameter defines how much time must elapse before the chiller can be enabled.
The runtime starts when the changeover from heating to cooling is to take place.

The current runtime and the current “CG Enable” and “CG Fault” signal states are displayed.

Parameter	min.	max.	default
Runtime	000min.	480min.	120min.

Important notes:
The dialogue box is hidden if the function is not enabled in the configuration or if one of the following settings has been preselected in the hydraulic system configuration:
- Hydraulic system = 1 (2-pipe system, heating only)
- Hydraulic system = 2 (2-pipe system, cooling only)
- Hydraulic system = 4 (2-pipe system, heating/cooling, monovalent heat pump)

- Hydraulic system = 5 (2-pipe system, heating/cooling, alternative bivalent heat pump)

- Hydraulic system = 6 (4-pipe system)

```
 Heating Cooling
71                    030
HP Switch on delay
Waiting time...:   0min
Wait. time yet.:   0min

HP Enable.....:   0
HP Fault......:   0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Setpoints → Heat pump switch-on delay

This function is used to switch on the generator with a delay.

The “Waiting time” parameter defines the time during which the generator remains disabled when there is demand.
The waiting time starts when it is enabled by other functions.

The current waiting time and the current “HP Enable” and “HP Fault” signal states are displayed.

Parameter	min.	max.	default
Waiting time	000min.	480min.	000min.

Important notes:
The dialogue box is hidden if the function is not enabled in the configuration or if one of the following settings has been preselected in the hydraulic system configuration:
- Hydraulic system = 1 (2-pipe system, heating only)
- Hydraulic system = 2 (2-pipe system, cooling only)
- Hydraulic system = 3 (2-pipe system, heating/cooling)
- Hydraulic system = 6 (4-pipe system)

```
 Heating Cooling
71                  031
HP Switch off dealy
Run-time......:    0min
Run-time yet..:    0min

HP Enable.....:    0
HP Fault......:    0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Setpoints → Heat pump switch-off delay

This function is used to switch off the generator with a delay.

The “Runtime” parameter defines how long the generator continues to run when the demand is disabled.
The runtime starts if the demand is disabled by other functions.

The current runtime and the current “HP Enable” and “HP Fault” signal states are displayed.

Parameter	min.	max.	default
Runtime	000min.	480min.	000min.

Important notes:
The dialogue box is hidden if the function is not enabled in the configuration or if one of the following settings has been preselected in the hydraulic system configuration:
- Hydraulic system = 1 (2-pipe system, heating only)
- Hydraulic system = 2 (2-pipe system, cooling only)
- Hydraulic system = 3 (2-pipe system, heating/cooling)
- Hydraulic system = 6 (4-pipe system)

```
 Heating Cooling
71                  032
HP Enable Cooling RET
RET Enable...:< 30.0°C
Run-time.....:     5min
Run-time yet.:     0min
RET actual...:   0.0°C
HP Enable....:      0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Setpoints → Heat pump enable in cooling mode via return temperature

This function is used when the heat pump is switching over from heating to cooling and the temperature of the medium admitted to it must not be too high and must be cooled down before the heat pump can be enabled.

The “RET Enable” parameter defines the return temperature below which the heat pump can be enabled.

The “Runtime” parameter defines the time which the return temperature must remain below the “RET Enable” parameter for the heat pump to be enabled.

The runtime starts when the heat pump switches over from heating to cooling and the “RET Enable” parameter is undershot for the first time.
Each time it is exceeded within the runtime, the current runtime is reset to the “Runtime” parameter.

The current runtime, current return temperature and current signal state “WP Enable” are displayed.

Parameter	min.	max.	default
RET Enable	00.0°C	99.0°C	30.0°C
Runtime	000min.	480min.	005min.

Important notes:
The dialogue box is hidden if the function is not enabled in the configuration or if one of the following settings has been preselected in the hydraulic system configuration:
- Hydraulic system = 1 (2-pipe system, heating only)
- Hydraulic system = 2 (2-pipe system, cooling only)
- Hydraulic system = 3 (2-pipe system, heating/cooling)
- Hydraulic system = 6 (4-pipe system)

```
 Heating Cooling
71                    033
HP  Enable  Cooling  RTI
Run-time......: 120min
Run-time yet..:   0min

HP Enable.....:   0
HP Fault......:   0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Setpoints → Heat pump enable in heating mode via return time

This function is used when the heat pump is switching over from heating to cooling and the temperature of the medium admitted to it must not be too high and must be cooled down, assuming a waiting time, before the heat pump can be enabled.

The “Runtime” parameter defines the time that must elapse before the heat pump can be enabled.
The runtime starts when the heat pump changes over from heating to cooling.

The current runtime and the current “HP Enable” and “HP Fault” signal states are displayed.

Parameter	min.	max.	default
Runtime	000min.	480min.	120 min.

Important notes:
The dialogue box is hidden if the function is not enabled in the configuration or if one of the following settings has been preselected in the hydraulic system configuration:
- Hydraulic system = 1 (2-pipe system, heating only)
- Hydraulic system = 2 (2-pipe system, cooling only)
- Hydraulic system = 3 (2-pipe system, heating/cooling)
- Hydraulic system = 6 (4-pipe system)

```
 Heating Cooling
71                    034
HP Enable Heating RET
RET Enable...:< 30.0°C
Run-time.....:    5min
Run-time yet.:    0min
RET Enable...:   0.0°C
HP Fault.....:     0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Setpoints → Heat pump enable in heating mode via return temperature

This function is used in bivalent alternative mode when switching between heat pumps and the temperature of the medium admitted to the heat pump must not be too high and must be cooled down before the heat pump can be enabled.

The “RET Enable” parameter defines the return temperature below which the heat pump can be enabled.

The “Runtime” parameter defines the time which the return temperature must remain below the “RET Enable” parameter for the heat pump to be enabled.

The runtime starts when the changeover valve switches to heat pump and the “RET Enable” parameter is undershot for the first time.
Each time it is exceeded within the runtime, the current runtime is reset to the “Runtime” parameter.

The current runtime, current return temperature and current signal state “WP Enable” are displayed.

Parameter	min.	max.	default
RET Enable	00.0°C	99.0°C	30.0°C
Runtime	000min.	480min.	005min.

Important notes:
The dialogue box is hidden if the function is not enabled in the configuration or if one of the following settings has been preselected in the hydraulic system configuration:
- Hydraulic system = 1 (2-pipe system, heating only)
- Hydraulic system = 2 (2-pipe system, cooling only)
- Hydraulic system = 3 (2-pipe system, heating/cooling)
- Hydraulic system = 4 (2-pipe system, heating/cooling, monovalent heat pump)

- Hydraulic system = 6 (4-pipe system)

```
 Heating Cooling
71                    035
HP Enable Heating RTI
Run-time......: 120min
Run-time yet..:   0min

HP Enable.....:   0
HP Fault......:   0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Setpoints → Heat pump enable in heating mode via return time

This function is used in bivalent alternative mode when switching between heat pumps and the temperature of the medium admitted to the heat pump must not be too high and must be cooled down, assuming a waiting time, before the heat pump can be enabled.

The “Runtime” parameter defines the time that must elapse before the heat pump can be enabled.
The runtime starts when the switch-over valve switches to heat pump.

The current runtime and the current “HP Enable” and “HP Fault” signal states are displayed.

Parameter	min.	max.	default
Runtime	000min.	480min.	120 min.

Important notes:
The dialogue box is hidden if the function is not enabled in the configuration or if one of the following settings has been preselected in the hydraulic system configuration:
- Hydraulic system = 1 (2-pipe system, heating only)
- Hydraulic system = 2 (2-pipe system, cooling only)
- Hydraulic system = 3 (2-pipe system, heating/cooling)
- Hydraulic system = 4 (2-pipe system, heating/cooling, monovalent heat pump)

- Hydraulic system = 6 (4-pipe system)

The following pumps can be controlled depending on the configuration of the hydraulic system:

- Heat generator circuit pump
- Chiller circuit pump
- Heat pump circuit pump
- Heating/cooling pump

On and off delays and cyclical activation can be configured as blocking protection for these pumps.

```
 Heating Cooling
71                    036
P HG Switch off delay
Run-time.....:   0min
Run-time yet.:   0min

P HG Enable...:   0
P HG Fault....:   0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Setpoints → Heat generator pump switch-on delay

This function is used to switch on the pump with a delay.

The “Waiting time” parameter defines the time during which the pump remains disabled when there is demand.
The waiting time starts when it is enabled by other functions.

The current waiting time and the current “P HG Enable” and “P HG Fault” signal states are displayed.

Parameter	min.	max.	default
Waiting time	000min.	480min.	000min.

Important notes:
The dialogue box is hidden if the function is not enabled in the configuration or if one of the following settings has been preselected in the hydraulic system configuration:
- Hydraulic system = 2 (2-pipe system, cooling only)
- Hydraulic system = 4 (2-pipe system, monovalent heat pump)

```
 Heating Cooling
71                    037
P HG Switch delay off
Run-time......:    0min
Run-time yet..:    0min

P HG Enable...:    0
P HG Fault....:    0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Setpoints → Heat generator pump switch-off delay

This function is used to switch off the generator with a delay.

The “Runtime” parameter defines how long the generator continues to run when the demand is disabled.
The runtime starts if it is disabled by other functions.

The current runtime and the current “P HG Enable” and “P HG Fault” signal states are displayed.

Parameter	min.	max.	default
Runtime	000min.	480min.	000min.

Important notes:
The dialogue box is hidden if the function is not enabled in the configuration or if one of the following settings has been preselected in the hydraulic system configuration:
- Hydraulic system = 2 (2-pipe system, cooling only)
- Hydraulic system = 4 (2-pipe system, monovalent heat pump)

```
 Heating Cooling
71                    038
P HG Cyclical
Weekday.......: So
Time of day...: 00:00
Run-time......:    10s
P HG Enable...:    0
P HG Fault....:    0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Setpoints → Cyclical switch-on of the heat generator pump

To prevent the pump from seizing during a prolonged downtime, it can be enabled cyclically for a runtime.

The “Weekday” parameter defines on which day the pump is to be switched on.
Mo = Monday
Tu = Tuesday
We = Wednesday
Th = Thursday
Fr = Friday
Sa = Saturday
Su = Sunday

The “Time of day” parameter defines the time at which the pump is to be switched on.

The “Runtime” parameter defines for how long the pump is to be switched on.

The current “P HG Enable” and “P HG Fault” signal states are displayed.

Parameter	min.	max.	default
Weekday	Mo	Su	Su
Time	00:00	23:59	00:00
Runtime	000s	480s	010s

Important notes:
The dialogue box is hidden if the function is not enabled in the configuration or if one of the following settings has been preselected in the hydraulic system configuration:
- Hydraulic system = 2 (2-pipe system, cooling only)
- Hydraulic system = 4 (2-pipe system, monovalent heat pump)

```
 Heating Cooling
71                    039
P CG Switch delay on
Run-time......:    0min
Run-time yet..:    0min

P CG Enable...:    0
P CG Fault....:    0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Setpoints → Chiller pump switch-on delay

This function is used to switch on the pump with a delay.

The “Waiting time” parameter defines the time during which the pump remains disabled when there is demand.
The waiting time starts when it is enabled by other functions.

The current waiting time and the current “P CG Enable” and “P CG Fault” signal states are displayed.

Parameter	min.	max.	default
Waiting time	000min.	480min.	000min.

Important notes:
The dialogue box is hidden if the function is not enabled in the configuration or if one of the following settings has been preselected in the hydraulic system configuration:
- Hydraulic system = 1 (2-pipe system, heating only)
- Hydraulic system = 4 (2-pipe system, heating/cooling, monovalent heat pump)

- Hydraulic system = 5 (2-pipe system, heating/cooling, alternative bivalent heat pump)

```
 Heating Cooling
71                    040
P CG Switch delay off
Run-time......:    0min
Run-time yet..:    0min

P CG Enable...:    0
P CG Fault....:    0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Setpoints → Chiller pump switch-off delay

This function is used to switch off the generator with a delay.

The “Runtime” parameter defines the time for which the pump remains running when demand is disabled.
The runtime starts if it is disabled by other functions.

The current runtime and the current “P CG Enable” and “P CG Fault” signal states are displayed.

Parameter	min.	max.	default
Runtime	000min.	480min.	000min.

Important notes:
The dialogue box is hidden if the function is not enabled in the configuration or if one of the following settings has been preselected in the hydraulic system configuration:
- Hydraulic system = 1 (2-pipe system, heating only)
- Hydraulic system = 4 (2-pipe system, heating/cooling, monovalent heat pump)

- Hydraulic system = 5 (2-pipe system, heating/cooling, alternative bivalent heat pump)

```
 Heating Cooling
71                    041
P CG Cyclical
Weekday.......: So
Time of day...: 00:00
Run-time......:    10s
P CG Enable...:    0
P CG Fault....:    0
```

Dialogue box visible in:	
User level	

Setpoints → Cyclical switch-on of the chiller pump

To prevent the pump from seizing during a prolonged downtime, it can be enabled cyclically for a runtime.

The “Weekday” parameter defines the day the pump is to be switched on.
Mo = Monday
Tu = Tuesday
We = Wednesday
Th = Thursday
Fr = Friday

Expert level	X
Manufacturer level	X

Sa = Saturday
Su = Sunday

The “Time of day” parameter defines the time at which the pump is to be switched on.

The “Runtime” parameter defines for how long the pump is to be switched on.

The current “P CG Enable” and “P CG Fault” signal states are displayed.

Parameter	min.	max.	default
Weekday	Mo	Su	Su
Time	00:00	23:59	00:00
Runtime	000s	480s	010s

Important notes:
The dialogue box is hidden if the function is not enabled in the configuration or if one of the following settings has been preselected in the hydraulic system configuration:
- Hydraulic system = 1 (2-pipe system, heating only)
- Hydraulic system = 4 (2-pipe system, heating/cooling, monovalent heat pump)

- Hydraulic system = 5 (2-pipe system, heating/cooling, alternative bivalent heat pump)

```
 Heating Cooling
71                  042
P HP Switch delay on
Waiting time..:    0min
Wait. Time....:    0min

P HP Enable...:    0
P HP Fault....:    0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Setpoints → Heat pump pump switch-on delay

This function is used to switch on the pump with a delay.

The “Waiting time” parameter defines the time during which the pump remains disabled when there is demand.
The waiting time starts when it is enabled by other functions.

The current waiting time and the current “P HG Enable” and “P HG Fault” signal states are displayed.

Parameter	min.	max.	default
Waiting time	000min.	480min.	000min.

Important notes:
The dialogue box is hidden if the function is not enabled in the configuration or if one of the following settings has been preselected in the hydraulic system configuration:
- Hydraulic system = 1 (2-pipe system, heating only)
- Hydraulic system = 2 (2-pipe system, cooling only)
- Hydraulic system = 3 (2-pipe system, heating/cooling)
- Hydraulic system = 6 (4-pipe system)

```
 Heating Cooling
71                  043
P HP Switch delay off
Run-time......:    0min
Run-time yet..:    0min

P HP Enable...:    0
P HP Fault....:    0
```

Dialogue box visible in:	
User level	

Setpoints → Heat pump pump switch-off delay

This function is used to switch off the generator with a delay.

The “Runtime” parameter defines how long the generator continues to run when the demand is disabled.
The runtime starts when disabled by other functions.

The current runtime and the current “P HG Enable” and “P HG Fault” signal states are displayed.

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Expert level	X
Manufacturer level	X

Parameter	min.	max.	default
Runtime	000min.	480min.	000min.

Important notes:
The dialogue box is hidden if the function is not enabled in the configuration or if one of the following settings has been preselected in the hydraulic system configuration:
- Hydraulic system = 1 (2-pipe system, heating only)
- Hydraulic system = 2 (2-pipe system, cooling only)
- Hydraulic system = 3 (2-pipe system, heating/cooling)
- Hydraulic system = 6 (4-pipe system)

```
 Heating Cooling
71                    044
P HG Caclical
Weekday.......: So
Time of day...: 00:00
Run-time......:    10s
P HP Enable...:     0
P HP Fault....:     0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Setpoints → Cyclical switch-on of the heat pump pump

To prevent the pump from seizing during a prolonged downtime, it can be enabled cyclically for a runtime.

The “Weekday” parameter defines the day the pump is to be switched on.
Mo = Monday
Tu = Tuesday
We = Wednesday
Th = Thursday
Fr = Friday
Sa = Saturday
Su = Sunday

The “Time of day” parameter defines the time at which the pump is to be switched on.

The “Runtime” parameter defines for how long the pump is to be switched on.

The current “P HG Enable” and “P HG Fault” signal states are displayed.

Parameter	min.	max.	default
Weekday	Mo	Su	Su
Time	00:00	23:59	00:00
Runtime	000s	480s	010s

Important notes:
The dialogue box is hidden if the function is not enabled in the configuration or if one of the following settings has been preselected in the hydraulic system configuration:
- Hydraulic system = 1 (2-pipe system, heating only)
- Hydraulic system = 2 (2-pipe system, cooling only)
- Hydraulic system = 3 (2-pipe system, heating/cooling)
- Hydraulic system = 6 (4-pipe system)

```
 Heating Cooling
71                    045
P H/C Switch delay on
Waiting time..:    0min
Wait. time yet:    0min

P H/C Enable..:    0
P H/C Fault...:    0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Setpoints → Heating/cooling pump switch-on delay

This function is used to switch on the pump with a delay.

The “Waiting time” parameter defines the time during which the pump remains disabled when there is demand.
The waiting time starts when it is enabled by other functions.

The current waiting time and the current “P H/C Enable” and “P H/C Fault” signal states are displayed.

Parameter	min.	max.	default
Waiting time	000min.	480min.	000min.

Important notes:
The dialogue box is hidden if the function is not enabled in the configuration or if one of the following settings has been preselected in the hydraulic system configuration:
- Hydraulic system = 1 (2-pipe system, heating only)
- Hydraulic system = 2 (2-pipe system, cooling only)
- Hydraulic system = 6 (4-pipe system)

```
 Heating Cooling
71                    046
P H/C Switch delay off
Run-time......:    0min
Run-time yet..:    0min

P H/C Enable..:    0
P H/C Fault...:    0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Setpoints → Heating/cooling pump switch-off delay

This function is used to switch off the generator with a delay.

The “Runtime” parameter defines how long the generator continues to run when the demand is disabled.
The runtime starts when disabled by other functions.

The current runtime and the current “P H/C Enable” and “P H/C Fault” signal states are displayed.

Parameter	min.	max.	default
Waiting time	000min.	480min.	000min.

Important notes:
The dialogue box is hidden if the function is not enabled in the configuration or if one of the following settings has been preselected in the hydraulic system configuration:
- Hydraulic system = 1 (2-pipe system, heating only)
- Hydraulic system = 2 (2-pipe system, cooling only)
- Hydraulic system = 6 (4-pipe system)

```
 Heating Cooling
71                    047
P H/C Cyclical
Weekday.......: So
Time of day...: 00:00
Run-time......:    10s
P H/C Enable..:     0
P H/C Fault...:     0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Setpoints → Cyclical switch-on of the heating/cooling pump

To prevent the pump from seizing during a prolonged downtime, it can be enabled cyclically for a runtime.

The “Weekday” parameter defines the day the pump is to be switched on.
Mo = Monday
Tu = Tuesday
We = Wednesday
Th = Thursday
Fr = Friday
Sa = Saturday
Su = Sunday

The “Time of day” parameter defines the time the pump is to be switched on.

The “Runtime” parameter defines for how long the pump is to be switched on.

The current “P H/C Enable” and “P H/C Fault” signal states are displayed.

Parameter	min.	max.	default
Weekday	Mo	Su	Su
Time	00:00	23:59	0:00
Runtime	000s	480s	010s

Important notes:
The dialogue box is hidden if the function is not enabled in the configuration or if one of the following settings has been preselected in the hydraulic system configuration:
- Hydraulic system = 1 (2-pipe system, heating only)

	- Hydraulic system = 2 (2-pipe system, cooling only) - Hydraulic system = 6 (4-pipe system)

If option “3” (Heating/Cooling) is chosen for the hydraulic system configuration, heating/cooling switch-over valves are required. A runtime can be configured for these switch-over valves.

```
 Heating Cooling
71                    048
V H/C Run-time
Run-time.....:     90s
Run-time yet.:      0s

Valve H/C....:      0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Setpoints → Heating/cooling valve run time

This function is used when the heating↔cooling changeover process prevents the supply of energy. All energy generators and pumps are switched off during the runtime

The “Runtime” parameter defines how long energy will not be available. The signal outputs “Enable LPHW” and “Enable CHW” are also set to “0” for this time.

The current runtime and the current “Valve H/C” signal state are displayed.
0 = Valve opened in the direction of the heat generator
1 = Valve opened in the direction of the chiller

Parameter	min.	max.	default
Runtime	000s	480s	090s

Important notes:
The dialogue box is hidden if the function is not enabled in the configuration or if one of the following settings has been preselected in the hydraulic system configuration:
- Hydraulic system = 1 (2-pipe system, heating only)
- Hydraulic system = 2 (2-pipe system, cooling only)
- Hydraulic system = 4 (2-pipe system, heating/cooling, monovalent heat pump)

- Hydraulic system = 5 (2-pipe system, heating/cooling, alternative bivalent heat pump)

- Hydraulic system = 6 (4-pipe system)

Heat pump/heat generator switch-over valves are required if the hydraulic system is configured to “5” (2-pipe, heating/cooling, bivalent alternative heat pump). The bivalence point and a runtime can be configured for these changeover valves.

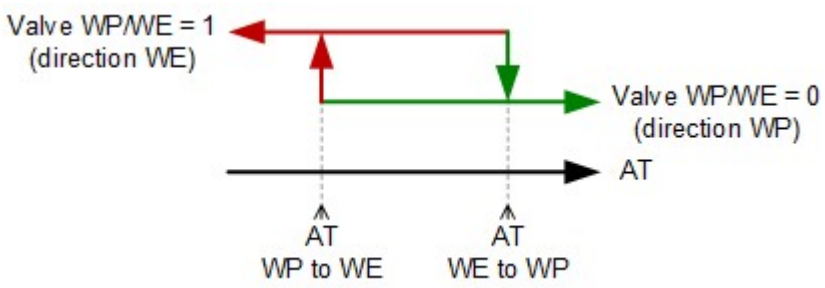
```
 Heating Cooling
71                    049
V HP/HG via OT
OT HP to HG..:<   0.0°C
OT HG to HP..:>   2.0°C
OT ..........:    0.0°C

Valve HP/HG..:      0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Setpoints → HP/HG valve switch-over via outside temperature (Bivalence point)

This function is used with heat pumps in bivalent alternative mode to switch between the heat pump and second heat generator via the outside temperature. The relevant energy generators and pumps are enabled when the valve is in the corresponding position.



The “OT HP to HG” parameter defines the outside temperature below which the valve moves to the heat generator position.
The “OT HG to HP” parameter defines the outside temperature above which the valve moves to the heat pump position.

The current outside temperature and the current “Valve HP/HG” signal state are displayed.

Parameter	min.	max.	default
OT HP to HG	-99.0°C	99.0°C	00.0°C
OT HG to HP	-99.0°C	99.0°C	02.0°C

Important notes:
The dialogue box is hidden if the function is not enabled in the configuration or if one of the following settings has been preselected in the hydraulic system configuration:
- Hydraulic system = 1 (2-pipe system, heating only)
- Hydraulic system = 2 (2-pipe system, cooling only)
- Hydraulic system = 3 (2-pipe system, heating/cooling)
- Hydraulic system = 4 (2-pipe system, heating/cooling, monovalent heat pump)

- Hydraulic system = 6 (4-pipe system)

```
 Heating Cooling
71                    050
V HP/HG Run-time
Run-time.....:      10s
Run-time yet.:       0s


Valve HP/HG..:      0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Setpoints → HP/HG valve runtime

This function is used when the changeover process between the heat pump and heat generator prevents the supply of energy. All energy generators and pumps are switched off during the runtime

The “Runtime” parameter defines how long energy will not be available. The signal outputs “Enable LPHW” and “Enable CHW” are also set to “0” for this time.

The current run time and the current “Valve HP/HG” signal state are displayed.

Parameter	min.	max.	default
Runtime	000s	480s	010s

Important notes:
The dialogue box is hidden if the function is not enabled in the configuration or if one of the following settings has been preselected in the hydraulic system configuration:
- Hydraulic system = 1 (2-pipe system, heating only)
- Hydraulic system = 2 (2-pipe system, cooling only)
- Hydraulic system = 3 (2-pipe system, heating/cooling)
- Hydraulic system = 4 (2-pipe system, heating/cooling, monovalent heat pump)

- Hydraulic system = 6 (4-pipe system)

```
 Heating Cooling
71                    051
Manual operation
Heat Gernerator
Auto=0 Hand=1.:      0
Hand value DO.:      0
HG Enable.....:      0
HG Fault......:      0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Manual operation → Heat Generator

The parameter “Auto=0 Hand=1” can be used to overwrite signal outputs in automatic mode with manual values.
0 = Signal output is assigned by automatic mode
1 = Signal output is assigned by manual mode

The “Hand value DO” parameter defines the value of the digital output “HG Enable” when manual mode is enabled.

In the event of a heat generator fault, the “HG Enable” output is always set to “0”.

The current “HG Enable” and “HG Fault” signal states are displayed.

Parameter	min.	max.	default
Auto=0 Manual =1	0	1	0
Manual value DO	0	1	0

Important notes:
An enabled manual mode is displayed in the fault message list.
The dialogue box is hidden if one of the following settings has been preselected in the hydraulic system configuration:
- Hydraulic system = 2 (2-pipe system, cooling only)
- Hydraulic system = 4 (2-pipe system, monovalent heat pump)

```
 Heating Cooling
71                  052
Manual operation
Cool Generator
Auto=0 Hand=1.:     0
Hand value DO.:     0
CG Enable.....:     0
CG Fault......:     0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Manual operation → Cooling generator (chiller)

The “Auto=0 Manual=1” parameter can be used to overwrite signal outputs in automatic mode with manual values.
0 = Signal output is assigned by automatic mode
1 = Signal output is assigned by manual mode

The “Manual value DO” parameter defines the value of the digital output “CG Enable” when manual mode is enabled.

In the event of a chiller fault, the output “CG Enable” is always set to “0”.

The current “CG Enable” and “CG Fault” signal states are displayed.

Parameter	min.	max.	default
Auto=0 Manual =1	0	1	0
Manual value DO	0	1	0

Important notes:
An enabled manual mode is displayed in the fault message list.
The dialogue box is hidden if one of the following settings has been preselected in the hydraulic system configuration:
- “1” (2-pipe system, heating only)
- “4” (2-pipe system, monovalent heat pump)
- “5” (2-pipe system, alternative bivalent heat pump)

```
 Heating Cooling
71                  053
Manual operation
Heat Pump Enable
Auto=0 Hand=1.:     0
Hand value DO.:     0
HP Enable.....:     0
HP Fault......:     0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Manual operation → Heat pump enable

The “Auto=0 Manual=1” parameter can be used to overwrite signal outputs in automatic mode with manual values.
0 = Signal output is assigned by automatic mode
1 = Signal output is assigned by manual mode

The “Manual value DO” parameter defines the value of the digital output “HP Enable” when manual mode is enabled.

In the event of a heat pump fault, the output “HP Enable” is always set to “0”.

The current “HP Enable” and “HP Fault” signal states are displayed.

Parameter	min.	max.	default
Auto=0 Manual =1	0	1	0
Manual value DO	0	1	0

Important notes:
An enabled manual mode is displayed in the fault message list.
The dialogue box is hidden if one of the following settings has been preselected in the hydraulic system configuration:
- “1” (2-pipe system, heating only)

	- “2” (2-pipe system, cooling only) - “3” (2-pipe system, heating/cooling) - “6” (4-pipe system)

```
 Heating Cooling
71                    054
Manual operation
Heat Pump H/C
Auto=0 Hand=1.:      0
Hand value DO.:      0

HP H/C........:      0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Manual operation → Heating/cooling heat pump

The “Auto=0 Manual=1” parameter can be used to overwrite signal outputs in automatic mode with manual values.
0 = Signal output is assigned by automatic mode
1 = Signal output is assigned by manual mode

The “Manual value DO” parameter defines the value of the digital output “HP Enable” when manual mode is enabled.

The current signal state “HP H/C” is displayed.

Parameter	min.	max.	default
Auto=0 Manual =1	0	1	0
Manual value DO	0	1	0

Important notes:
An enabled manual mode is displayed in the fault message list.
The dialogue box is hidden if one of the following settings has been preselected in the hydraulic system configuration:
- “1” (2-pipe system, heating only)
- “2” (2-pipe system, cooling only)
- “3” (2-pipe system, heating/cooling)
- “6” (4-pipe system)

```
 Heating Cooling
71                    055
Manual operation
Pump Heat Generator
Auto=0 Hand=1.:      0
Hand value DO.:      0
P HG Enable...:      0
P HG Fault....:      0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Manual operation → Heat generator pump

The “Auto=0 Manual=1” parameter can be used to overwrite signal outputs in automatic mode with manual values.
0 = Signal output is assigned by automatic mode
1 = Signal output is assigned by manual mode

The “Manual value DO” parameter defines the value of the digital output “P HG Enable” when manual mode is enabled.

In the event of a pump fault, the “P HG Enable” output is always set to “0”.

The current “P HG Enable” and “P HG Fault” signal states are displayed.

Parameter	min.	max.	default
Auto=0 Manual =1	0	1	0
Manual value DO	0	1	0

Important notes:
An enabled manual mode is displayed in the fault message list.
The dialogue box is hidden if one of the following settings has been preselected in the hydraulic system configuration:
- Hydraulic system = 2 (2-pipe system, cooling only)
- Hydraulic system = 4 (2-pipe system, monovalent heat pump)

```
 Heating Cooling
71                    056
Manual operation
Pump Cool Generator
Auto=0 Hand=1.:      0
Hand value DO.:      0
P CG Enable...:      0
P CG Fault....:      0
```

Manual operation → Cooling generator (chiller) pump

The “Auto=0 Manual=1” parameter can be used to overwrite signal outputs in automatic mode with manual values.
0 = Signal output is assigned by automatic mode
1 = Signal output is assigned by manual mode

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

The “Manual value DO” parameter defines the value of the digital output “P CG Enable” when manual mode is enabled.

In the event of a pump fault, the output “P CG Enable” is always set to “0”.

The current “P CG Enable” and “P CG Fault” signal states are displayed.

Parameter	min.	max.	default
Auto=0 Manual =1	0	1	0
Manual value DO	0	1	0

Important notes:
An enabled manual mode is displayed in the fault message list.
The dialogue box is hidden if one of the following settings has been preselected in the hydraulic system configuration:
- “1” (2-pipe system, heating only)
- “4” (2-pipe system, monovalent heat pump)
- “5” (2-pipe system, alternative bivalent heat pump)

```
 Heating Cooling
71                  057
Manual operating
Pump Heat Pump
Auto=0 Hand=1.:     0
Hand value DO.:     0
P HP Enable...:     0
P HP Fault....:     0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Manual operation → Pump Heat pump

The “Auto=0 Manual=1” parameter can be used to overwrite signal outputs in automatic mode with manual values.
0 = Signal output is assigned by automatic mode
1 = Signal output is assigned by manual mode

The “Manual value DO” parameter defines the value of the digital output “P HP Enable” when manual mode is enabled.

In the event of a pump fault, the output “P HP Enable” is always set to “0”.

The current “P HP Enable” and “P HP Fault” signal states are displayed.

Parameter	min.	max.	default
Auto=0 Manual =1	0	1	0
Manual value DO	0	1	0

Important notes:
An enabled manual mode is displayed in the fault message list.
The dialogue box is hidden if one of the following settings has been preselected in the hydraulic system configuration:
- “1” (2-pipe system, heating only)
- “2” (2-pipe system, cooling only)
- “3” (2-pipe system, heating/cooling)
- “6” (4-pipe system)

```
 Heating Cooling
71                  058
Manual operating
Pump Heating/Cooling
Auto=0 Hand=1.:     0
Hand value DO.:     0
P H/C Enable..:     0
P H/C Fault...:     0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Manual operation → Heating/cooling pump

The “Auto=0 Manual=1” parameter can be used to overwrite signal outputs in automatic mode with manual values.
0 = Signal output is assigned by automatic mode
1 = Signal output is assigned by manual mode

The “Manual value DO” parameter defines the value of the digital output “P H↔K Enable” when manual mode is enabled.

In the event of a pump fault, the output “P H/C Enable” is always set to “0”.

The current “P H/C Enable” and “P H/C Fault” signal states are displayed.

Parameter	min.	max.	default
Auto=0 Manual =1	0	1	0

Manual value DO	0	1	0

Important notes:
An enabled manual mode is displayed in the fault message list.
The dialogue box is hidden if one of the following settings has been preselected in the hydraulic system configuration:
- “1” (2-pipe system, heating only)
- “2” (2-pipe system, cooling only)
- “6” (4-pipe system)

```
 Heating Cooling
71                    059
Manualoperating
Valve Heating/Coooling
Auto=0 Hand=1.:     0
Hand value DO.:     0

Valve H/C.....:     0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Manual operation → Heating/cooling valve

The “Auto=0 Manual=1” parameter can be used to overwrite signal outputs in automatic mode with manual values.
0 = Signal output is assigned by automatic mode
1 = Signal output is assigned by manual mode

The “Manual value DO” parameter defines the value of the digital output “Valve H/C” when manual mode is enabled.

The current signal state “Valve H/C” is displayed.

Parameter	min.	max.	default
Auto=0 Manual =1	0	1	0
Manual value DO	0	1	0

Important notes:
An enabled manual mode is displayed in the fault message list.
The dialogue box is hidden if one of the following settings has been preselected in the hydraulic system configuration:
- “1” (2-pipe system, heating only)
- “2” (2-pipe system, cooling only)
- “4” (2-pipe system, monovalent heat pump)
- “5” (2-pipe system, alternative bivalent heat pump)
- “6” (4-pipe system)

```
 Heating Cooling
71                    060
Manual operating
Valve HP/HG
Auto=0 Hand=1.:     0
Hand value DO.:     0

Valve HP/HG...:     0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Manual operation → Heat pump/heat generator valve

The “Auto=0 Manual=1” parameter can be used to overwrite signal outputs in automatic mode with manual values.
0 = Signal output is assigned by automatic mode
1 = Signal output is assigned by manual mode

The “Manual value DO” parameter defines the value of the digital output “Valve HP/HG” when manual mode is enabled.

The current signal state “Valve HP/HG” is displayed.

Parameter	min.	max.	default
Auto=0 Manual =1	0	1	0
Manual value DO	0	1	0

Important notes:
An enabled manual mode is displayed in the fault message list.
The dialogue box is hidden if one of the following settings has been preselected in the hydraulic system configuration:
- “1” (2-pipe system, heating only)
- “2” (2-pipe system, cooling only)
- “3” (2-pipe system, heating/cooling)
- “4” (2-pipe system, monovalent heat pump)
- “6” (4-pipe system)

```
 Heating Cooling
71                    061
Configuration
Hydraulic system
Selection.........: 1

Hydraulic LPHW....: 1
Hydraulic CHW.....: 0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Configuration of the hydraulic system

The configuration allows the control to be adapted to the existing hydraulic system.

Selection = 1 → 2-pipe, heating only:
The hydraulic system can only supply heating medium.

Selection = 2 → 2-pipe, cooling only:
The hydraulic system can only supply cooling medium.

Selection = 3 → 2-pipe, heating/cooling:
The hydraulic system can either supply heating medium or cooling medium from separate energy generators (boiler and chiller).

Selection = 4 → 2-pipe, heating/cooling, monovalent heat pump:
The hydraulic system can either supply heating medium or cooling medium from a heat pump.

Selection = 5 → 2-pipe, heating/cooling, alternative bivalent heat pump
The hydraulic system can either supply heating medium or cooling medium from a heat pump. It switches over to a boiler in cold outside temperatures.

Selection = 6 → 4-pipe system. Heating and cooling in succession
The hydraulic system can supply heating medium and cooling medium simultaneously.

The current statuses of the “Hydraulic LPHW” and “Hydraulic CHW” signal outputs are displayed.

Parameter	min.	max.	default
Selection	1	6	1

Important notes:
Configuration is absolutely essential. This dialogue box is therefore always displayed.

```
 Heating Cooling
71                    062
Conficuration Function
Su/Wi via Date....: 1
Su/Wi via OT......: 1
Su/Wi via RT......: 0
Su/Wi via contact.: 0
Su/Wi change delay: 1
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Configuration of functions → Summer/Winter

The “Su/Wi via Date” parameter generally enables or disables the “Summer/winter changeover via calendar” function.
0= function disabled
1= function enabled (without neutral zone for RT or OT)
2= function enabled (with neutral zone for RT or OT)

The “Su/Wi via OT” parameter generally enables or disables the “Heating↔Cooling changeover via outside temperature” function.
0= function disabled
1= function enabled

The “Su/Wi via RT” parameter generally enables or disables the “Summer/winter changeover via room temperature” function.
0= function disabled
1= function enabled

The “Su/Wi via contact” parameter generally enables or disables the “Summer/winter changeover via external contact” function.
0= function disabled
1= function enabled

The “Su/Wi change delay” parameter generally enables or disables the “Summer/winter changeover via room temperature” function.
0= function disabled
1= function enabled

Parameter	min.	max.	default
Su/Wi via calender	0	2	1
Su/Wi via OT	0	1	1
Su/Wi via RT	0	1	0
Su/Wi via contact	0	1	0
Su/Wi change delay	0	1	1

Important notes:
Configuration is absolutely essential. This dialogue box is therefore always displayed.
The Su/WI changeover always affects the temperature setpoint of the closed-loop temperature control.
The Su/Wi changeover affects the signal output “Valve H/C” if “3” (2-wire system, heating/cooling) is preselected in the hydraulic system configuration.
The Su/Wi changeover affects the signal output “HP H/C” if “4” (2-wire system, monovalent heat pump) or “5” (2-pipe system, alternative bivalent heat pump) is preselected in the hydraulic system configuration.
The following applies to the “Su/Wi via calender” parameter:
Function enabled (without neutral zone) => If it is summer according to the calender, a changeover to “Summer” takes place directly, provided that enabled functions, such as “Changeover via OT” or “Changeover via RT” do not specify “Winter” as a mandatory requirement, i.e. have undershot the lower switching point.
Function enabled (with neutral zone): => If summer is set according to the calender, a changeover to “Summer” only takes place if enabled functions, such as “Changeover via OT” or “Changeover via RT” also specify “summer” for at least a short time, i.e. have exceeded the upper switching point, providing that enabled functions, such as “Changeover via OT” or “Changeover via RT” do not specify “winter” as a mandatory requirement, i.e. have undershot the lower switching point.

```
 Heating Cooling
71                  063
Configuration Cunction
H block via DT....: 0
H block via TM....: 0
H block via OT....: 0
H block via RT....: 0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Configuration of functions → Heating circuit

The “H block via DT” parameter generally enables or disables the “Heating circuit block via date” function.
0= function disabled
1= function enabled

The “H block via TM” parameter generally enables or disables the “Heating circuit block via time” function.
0= function disabled
1= function enabled

The “H block via OT” parameter generally enables or disables the “Heating circuit block via outside temperature” function.
0= function disabled
1= function enabled

The “H block via RT” parameter generally enables or disables the “Heating circuit block via room temperature” function.
0= function disabled
1= function enabled

Parameter	min.	max.	default
H block via DT	0	1	0
H block via TM	0	1	0
H block via OT	0	1	0
H block via RT	0	1	0

Important notes:

	The dialogue box is hidden if “2” (2-pipe system, cooling only) was preselected in the hydraulic system configuration:

```
 Heating Cooling
71                  064
Konfiguration Funktion
K block via DT....: 0
K block via TM....: 0
K block via OT....: 0
K block via RT....: 0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Configuration of functions → Cooling circuit

The “C block via DT” parameter generally enables or disables the “Cooling circuit block via date” function.
0= function disabled
1= function enabled

The “C block via TM” parameter generally enables or disables the “Cooling circuit block via time” function.
0= function disabled
1= function enabled

The “C block via OT” parameter generally enables or disables the “Cooling circuit block via outside temperature” function.
0= function disabled
1= function enabled

The “C block via RT” parameter generally enables or disables the “Cooling circuit block via room temperature” function.
0= function disabled
1= function enabled

Parameter	min.	max.	default
C block via DT	0	1	0
C block via TM	0	1	0
C block via OT	0	1	0
C block via RT	0	1	0

Note:
The dialogue box is hidden if “1” (2-pipe system, heating only) was preselected in the hydraulic system configuration:

```
 Heating Cooling
71                  065
Configuration Function
Heating Demand....: 1
Cooling Demand....: 0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Configuration of functions → Heating and cooling demand

The “Heating demand” parameter generally enables or disables the “Heat demand switch-off delay” function.
0= function disabled
1= function enabled

The “Cooling demand” parameter generally enables or disables the “Cooling demand switch-off delay” function.
0= function disabled
1= function enabled

Parameter	min.	max.	default
Heat demand	0	1	1
Cooling demand	0	1	0

Important notes:
The “Heat demand” parameter is hidden if “2” (2-pipe system, cooling only) was preselected in the hydraulic system configuration.
The “Cooling demand” parameter is hidden if “1” (2-pipe system, heating only) was preselected in the hydraulic system configuration.

```
 Heating Cooling
71                  066
Configuration Function
HG Switch on del..: 0
HG Switch of del..: 0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Configuration of functions → Heat generator

The “HG switch-on del.” parameter generally enables or disables the “Heat generator switch-on delay” function.
0= function disabled
1= function enabled

The “HG switch-off del.” parameter generally enables or disables the “Heat generator switch-off delay” function.
0= function disabled
1= function enabled

Parameter	min.	max.	default
HG switch-on del.	0	1	0
HG switch-off del.	0	1	0

Important notes:
The dialogue box is hidden if one of the following settings has been preselected in the hydraulic system configuration:
- Hydraulic system = 2 (2-pipe system, cooling only)
- Hydraulic system = 4 (2-pipe system, monovalent heat pump)

```
 Heating Cooling
71                  067
Configuration Function
CG Switch on del..: 0
CG Switch of del..: 0
CG Enable RETT....: 1
CG Enable RTI.....: 0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Configuration of functions → Chiller

The “CG switch-on del.” parameter generally enables or disables the “Chiller switch-on delay” function.
0= function disabled
1= function enabled

The “CG switch-off del.” parameter generally enables or disables the “Chiller switch-off delay” function.
0= function disabled
1= function enabled

The “CG Enable RETT” parameter generally enables or disables the “Enable chiller via return temperature” function.
0= function disabled
1= function enabled

The “CG Enable RTI” parameter generally enables or disables the “Enable chiller via return time” function.
0= function disabled
1= function enabled

Parameter	min.	max.	default
CG switch-on del.	0	1	0
CG switch-off del.	0	1	0
CG Enable RETT	0	1	1
CG Enable RTI	0	1	0

Important notes:
The “CH Enable RETT” and “CG Enable RTI” parameters are hidden if one of the following settings has been preselected in the hydraulic system configuration:
- “2” (2-pipe system, cooling only)
- “6” (4-pipe system)
The dialogue box is hidden if one of the following settings has been preselected in the hydraulic system configuration:
- “1” (2-pipe system, heating only)
- “4” (2-pipe system, monovalent heat pump)
- “5” (2-pipe system, alternative bivalent heat pump)

```
 Heating Cooling
71                    068
Configuration Function
HP Switch on del..: 0
HP Switch of del..: 0
HP Enable RETT....: 1
HP Enable RTI.....: 0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Configuration of functions → Heat pump

The “HP switch-on del.” parameter generally enables or disables the “Heat pump switch-on delay” function.
0= function disabled
1= function enabled

The “HP switch-off del.” parameter generally enables or disables the “Heat pump switch-off delay” function.
0= function disabled
1= function enabled

The “HP Enable RETT” parameter generally enables or disables the “Heat pump enable via return temperature” function.
0= function disabled
1= function enabled

The “HP Enable RTI” parameter generally enables or disables the “Heat pump enable via return time” function.
0= function disabled
1= function enabled

Parameter	min.	max.	default
HP switch-on del.	0	1	0
HP switch-off del.	0	1	0
HP Enable RETT	0	1	1
HP Enable RTI	0	1	0

Important notes:
The dialogue box is hidden if one of the following settings has been preselected in the hydraulic system configuration:
- “1” (2-pipe system, heating only)
- “2” (2-pipe system, cooling only)
- “3” (2-pipe system, heating/cooling)
- “6” (4-pipe system)

```
 Heating Cooling
71                    069
Configuration Function
P HG Switch on delay: 0
P HG Switch of delay: 0
P HG Cyclical.......: 0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Configuration of functions → Heat generator pump

The “P HG switch-on del.” parameter generally enables or disables the “Heat generator pump switch-on delay” function.
0= function disabled
1= function enabled

The “P HG switch-off del.” parameter generally enables or disables the “Heat generator pump switch-off delay” function.
0= function disabled
1= function enabled

The “P HG Cyclical” parameter generally enables or disables the “Chiller pump cyclical switch-on” function.
0= function disabled
1= function enabled

Parameter	min.	max.	default
P HG switch-on del.	0	1	0
P HG switch-off del.	0	1	0
P HG cyclical	0	1	0

Important notes:
The dialogue box is hidden if one of the following settings has been preselected in the hydraulic system configuration:
- Hydraulic system = 2 (2-pipe system, cooling only)
- Hydraulic system = 4 (2-pipe system, monovalent heat pump)

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```
 Heating Cooling
71                    070
Configuration Function
P CG Switch on del: 0
P CG Switch of del: 0
P CG Cyclical.....: 0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Configuration of functions → Chiller pump

The “P CG switch on del.” parameter generally enables or disables the “Chiller pump switch-on delay” function.
0= function disabled
1= function enabled

The “P CG switch-off del.” parameter generally enables or disables the “Chiller pump switch-off delay” function.
0= function disabled
1= function enabled

The “P CG Cyclical” parameter generally enables or disables the “Chiller pump cyclical switch-on” function.
0= function disabled
1= function enabled

Parameter	min.	max.	default
P CG switch-on del.	0	1	0
P CG switch-off del.	0	1	0
P CG Cyclical	0	1	0

Important notes:
The dialogue box is hidden if one of the following settings has been preselected in the hydraulic system configuration:
- “1” (2-pipe system, heating only)
- “4” (2-pipe system, monovalent heat pump)
- “5” (2-pipe system, alternative bivalent heat pump)

```
 Heating Cooling
71                    071
Configuration Function
P HP Switch on del: 0
P HP Switch of del: 0
P HP Cyclical.....: 0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Configuration of functions → Heat pump pump

The “P HP switch-on del.” parameter generally enables or disables the “Heat pump pump switch-on delay” function.
0= function disabled
1= function enabled

The “P HP switch-off del.” parameter generally enables or disables the “Heat pump pump switch-off delay” function.
0= function disabled
1= function enabled

The “P HP Cyclical” parameter generally enables or disables the “Heat pump pump cyclical switch-on” function.
0= function disabled
1= function enabled

Parameter	min.	max.	default
P HP switch-on del.	0	1	0
P HP switch-off del.	0	1	0
P HP Cyclical	0	1	0

Important notes:
The dialogue box is hidden if one of the following settings has been preselected in the hydraulic system configuration:
- “1” (2-pipe system, heating only)
- “2” (2-pipe system, cooling only)
- “3” (2-pipe system, heating/cooling)
- “6” (4-pipe system)

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```
 Heating Cooling
71                    072
Configuration Function
P H/C Switch on del: 0
P H/C Switch of del: 0
P H/C Cyclical.....: 0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Configuration of functions → Heating/cooling pump

The “P H/C switch-on del.” parameter generally enables or disables the “Heating/cooling pump switch-on delay” function.
0= function disabled
1= function enabled

The “P H/C switch-off del.” parameter generally enables or disables the “Heating/cooling pump switch-off delay” function.
0= function disabled
1= function enabled

The “P H/C Cyclical” parameter generally enables or disables the “The heating/cooling pump cyclical switch-on” function.
0= function disabled
1= function enabled

Parameter	min.	max.	default
P H/C switch-on del.	0	1	0
P H/C switch-off del.	0	1	0
P H/C Cyclical	0	1	0

Important notes:
The dialogue box is hidden if one of the following settings has been preselected in the hydraulic system configuration:
- “1” (2-pipe system, heating only)
- “2” (2-pipe system, cooling only)
- “6” (4-pipe system)

```
 Heating Cooling
71                    073
Configuration Function
V H/C Run-time....: 0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Configuration of functions → Heating/cooling valve

The “Valve H/C runtime” parameter generally enables or disables the “Valve runtime” function.
0= function disabled
1= function enabled

Parameter	min.	max.	default
V H/C runtime	0	1	0

Important notes:
The dialogue box is hidden if one of the following settings has been preselected in the hydraulic system configuration:
- “1” (2-pipe system, heating only)
- “2” (2-pipe system, cooling only)
- “4” (2-pipe system, monovalent heat pump)
- “5” (2-pipe system, alternative bivalent heat pump)
- “6” (4-pipe system) “6” (4-pipe system)

```
 Heating Cooling
71                    074
Konfiguration Funktion
V HP/HG via OT....: 0
V HP/HG Run-time..: 0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Configuration of functions → Heat pump valve↔Heat generator

The “V HP/HG via OT” parameter generally enables or disables the “Heat pump/heat pump valve changeover via outside temperature” function.
0= function disabled
1= function enabled

The “V HP/HG runtime” parameter generally enables or disables the “Valve runtime” function.
0= function disabled
1= function enabled

Parameter	min.	max.	default
V HP/HG via OT	0	1	0

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V HP/HG runtime	0	1	0

The dialogue box is hidden if one of the following settings has been preselected in the hydraulic system configuration:
- “1” (2-pipe system, heating only)
- “2” (2-pipe system, cooling only)
- “3” (2-pipe system, heating/cooling)
- “4” (2-pipe system, monovalent heat pump)
- “6” (4-pipe system)

12.2 Special functions

12.2.1 BA KE

This menu entry is displayed, but the sub-menu cannot be accessed to ensure that the menu structure is consistent with other software versions.

12.2.2 Modbus motors

This menu entry is displayed, but the sub-menu cannot be accessed to ensure that the menu structure is consistent with other software versions.

12.2.3 Filter monitoring

This menu entry is displayed, but the sub-menu cannot be accessed to ensure that the menu structure is consistent with other software versions.

12.2.4 Fault setting

With certain faults, the behaviour (interlocking or non-interlocking) and a delay time (minimum time that the fault must be pending before it is displayed) can be configured.

Some dialogue box numbers are missing and have been skipped to ensure that the menu structure and numbering is identical to other versions of the software.

```
 Fault settings
724                 006
Fault FS priority 1
Locking.........:   1
Delay time......:   0s
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Fault FS priority 1

The “Locking” parameter defines whether the fault persists after it occurs until the cause of the occurrence no longer exists and has subsequently been acknowledged (locking) or whether the fault only persists for as long as the cause of the occurrence no longer exists (not locking).
0=no locking of the fault
1=fault is locked until it is acknowledged

The “Delay time” parameter defines for how long the cause of a fault needs to be present before it is detected as a fault.

Parameter	min.	max.	default
Locking	0	1	1
Delay time	0s	999s	000s

```
 Fault settings
724                 009
Fault HP
Locking.........:   0
Delay time......:180s
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Fault HP

The “Locking” parameter defines whether the fault persists after it occurs until the cause of the occurrence no longer exists and has subsequently been acknowledged (locking) or whether the fault only persists for as long as the cause of the occurrence no longer exists (not locking).
0=no locking of the fault
1=fault is locked until it is acknowledged

The “Delay time” parameter defines for how long the cause of a fault needs to be present before it is detected as a fault.

Parameter	min.	max.	default
Locking	0	1	0
Delay time	0s	999s	180s

```
 Fault settings
724                    010
Fault P HP
Locking.........:   0
Delay time......:   0s
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Fault P HP

The “Locking” parameter defines whether the fault persists after it occurs until the cause of the occurrence no longer exists and has subsequently been acknowledged (locking) or whether the fault only persists for as long as the cause of the occurrence no longer exists (not locking).
0=no locking of the fault
1=fault is locked until it is acknowledged

The “Delay time” parameter defines for how long the cause of a fault needs to be present before it is detected as a fault.

Parameter	min.	max.	default
Locking	0	1	0
Delay time	0s	999s	000s

```
 Fault settings
724                    011
Fault HG
Locking.........:   0
Delay time......:   0s
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Fault HG

The “Locking” parameter defines whether the fault persists after it occurs until the cause of the occurrence no longer exists and has subsequently been acknowledged (locking) or whether the fault only persists for as long as the cause of the occurrence no longer exists (not locking).
0=no locking of the fault
1=fault is locked until it is acknowledged

The “Delay time” parameter defines for how long the cause of a fault needs to be present before it is detected as a fault.

Parameter	min.	max.	default
Locking	0	1	0
Delay time	0s	999s	000s

```
 Fault settings
724                    012
Fault P HP
Locking.........:   0
Delay time......:   0s
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Fault P HG

The “Locking” parameter defines whether the fault persists after it occurs until the cause of the occurrence no longer exists and has subsequently been acknowledged (locking) or whether the fault only persists for as long as the cause of the occurrence no longer exists (not locking).
0=no locking of the fault
1=fault is locked until it is acknowledged

The “Delay time” parameter defines for how long the cause of a fault needs to be present before it is detected as a fault.

Parameter	min.	max.	default
Locking	0	1	0
Delay time	0s	999s	000s

```
 Fault settings
724                    013
Fault CG
Locking.........:   0
Delay time......:180s
```

Dialogue box visible in:	
User level	

Fault CG

The “Locking” parameter defines whether the fault persists after it occurs until the cause of the occurrence no longer exists and has subsequently been acknowledged (locking) or whether the fault only persists for as long as the cause of the occurrence no longer exists (not locking).
0=no locking of the fault
1=fault is locked until it is acknowledged

The “Delay time” parameter defines for how long the cause of a fault needs to be present before it is detected as a fault.

Expert level	X
Manufacturer level	X

Parameter	min.	max.	default
Locking	0	1	0
Delay time	0s	999s	180s

```
 Fault settings
724                    014
Fault P CG
Locking.........:   0
Delay time......:   0s
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Fault P CG

The “Locking” parameter defines whether the fault persists after it occurs until the cause of the occurrence no longer exists and has subsequently been acknowledged (locking) or whether the fault only persists for as long as the cause of the occurrence no longer exists (not locking).
0=no locking of the fault
1=fault is locked until it is acknowledged

The “Delay time” parameter defines for how long the cause of a fault needs to be present before it is detected as a fault.

Parameter	min.	max.	default
Locking	0	1	0
Delay time	0s	999s	000s

```
 Fault settings
724                    015
Fault P HC
Locking.........:   0
Delay time......:   0s
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Fault P HC

The “Locking” parameter defines whether the fault persists after it occurs until the cause of the occurrence no longer exists and has subsequently been acknowledged (locking) or whether the fault only persists for as long as the cause of the occurrence no longer exists (not locking).
0=no locking of the fault
1=fault is locked until it is acknowledged

The “Delay time” parameter defines for how long the cause of a fault needs to be present before it is detected as a fault.

Parameter	min.	max.	default
Locking	0	1	0
Delay time	0s	999s	000s

```
 Fault settings
724                    028
Fault zone Pump 1
Locking.........:   0
Delay time......:   0s
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Zone pump 1

The “Locking” parameter defines whether the fault persists after it occurs until the cause of the occurrence no longer exists and has subsequently been acknowledged (locking) or whether the fault only persists for as long as the cause of the occurrence no longer exists (not locking).
0=no locking of the fault
1=fault is locked until it is acknowledged

The “Delay time” parameter defines for how long the cause of a fault needs to be present before it is detected as a fault.

Parameter	min.	max.	default
Locking	0	1	0
Delay time	0s	999s	000s

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```
 Fault settings
724                    029
Fault zone Pump 2
Locking.........:   0
Delay time......:   0s
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Zone pump 2

The “Locking” parameter defines whether the fault persists after it occurs until the cause of the occurrence no longer exists and has subsequently been acknowledged (locking) or whether the fault only persists for as long as the cause of the occurrence no longer exists (not locking).
0=no locking of the fault
1=fault is locked until it is acknowledged

The “Delay time” parameter defines for how long the cause of a fault needs to be present before it is detected as a fault.

Parameter	min.	max.	default
Locking	0	1	0
Delay time	0s	999s	000s

```
 Fault settings
724                    030
Fault zone Pump 3
Locking.........:   0
Delay time......:   0s
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Zone pump 3

The “Locking” parameter defines whether the fault persists after it occurs until the cause of the occurrence no longer exists and has subsequently been acknowledged (locking) or whether the fault only persists for as long as the cause of the occurrence no longer exists (not locking).
0=no locking of the fault
1=fault is locked until it is acknowledged

The “Delay time” parameter defines for how long the cause of a fault needs to be present before it is detected as a fault.

Parameter	min.	max.	default
Locking	0	1	0
Delay time	0s	999s	000s

```
 Fault settings
724                    031
Fault zone Pump 4
Locking.........:   0
Delay time......:   0s
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Zone pump 4

The “Locking” parameter defines whether the fault persists after it occurs until the cause of the occurrence no longer exists and has subsequently been acknowledged (locking) or whether the fault only persists for as long as the cause of the occurrence no longer exists (not locking).
0=no locking of the fault
1=fault is locked until it is acknowledged

The “Delay time” parameter defines for how long the cause of a fault needs to be present before it is detected as a fault.

Parameter	min.	max.	default
Locking	0	1	0
Delay time	0s	999s	000s

```
 Fault settings
724                    032
Fault zone Pump 5
Locking.........:   0
Delay time......:   0s
```

Dialogue box visible in:	
User level	

Zone pump 5

The “Locking” parameter defines whether the fault persists after it occurs until the cause of the occurrence no longer exists and has subsequently been acknowledged (locking) or whether the fault only persists for as long as the cause of the occurrence no longer exists (not locking).
0=no locking of the fault
1=fault is locked until it is acknowledged

The “Delay time” parameter defines for how long the cause of a fault needs to be present before it is detected as a fault.

Expert level	X
Manufacturer level	X

Parameter	min.	max.	default
Locking	0	1	0
Delay time	0s	999s	000s

```
 Fault settings
724                    033
Fault zone Pump 6
Locking.........:   0
Delay time......:   0s
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Zone pump 6

The “Locking” parameter defines whether the fault persists after it occurs until the cause of the occurrence no longer exists and has subsequently been acknowledged (locking) or whether the fault only persists for as long as the cause of the occurrence no longer exists (not locking).
0=no locking of the fault
1=fault is locked until it is acknowledged

The “Delay time” parameter defines for how long the cause of a fault needs to be present before it is detected as a fault.

Parameter	min.	max.	default
Locking	0	1	0
Delay time	0s	999s	000s

12.2.5 BMS connection

```
 Connection BMS
725                    001
BACnet
BACnet ID..:          1
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

BACnet

A separate licence key is required to use BACnet.

The “BACnet ID” parameter defines the ID used to locate the device on the BACnet network.

Parameter	min.	max.	default
BACnet ID	0	4194304	1

```
 Connection BMS
725                    002
BACnet
Language.........:    1

Reset Naming.....:    0

Counter (max 400): 400
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

BACnet

The descriptions of the BACnet data points are available in two languages. The “Language” parameter defines this.
0=German
1=English

The descriptions of the BACnet data points can be overwritten externally. These changes can be reset using the “Reset Naming” parameter. The name also needs to be reset to change the language. The Reset parameter automatically resets from “1” to “0”.
0=no reset
1=start reset

The “Counter” parameter displays the current progress of the renaming.

Parameter	min.	max.	default
Language	0	1	1
Reset Naming	0	1	1

12.2.6 Secondary pumps

This menu entry is displayed, but the sub-menu cannot be accessed to ensure that the menu structure is consistent with other software versions.

12.2.7 Extensions

This menu entry is displayed, but the sub-menu cannot be accessed to ensure that the menu structure is consistent with other software versions.

12.2.8 Zone pumps

Individual zone pumps may be required depending on the hydraulic integration. They can be configured separately.
A zone pump can be parametrised as a pump for heating mode, cooling mode or heating and cooling. Individual zones (ventilation and recirculation group 1-25) can be assigned to the pump.
When configured as a pump for heating mode, the pump is switched on as soon as one of the assigned zones requires heating medium.
When configured as a pump for cooling mode, the pump is switched on as soon as one of the assigned zones requires cooling medium.
When configured as a pump for heating and cooling mode, the pump is switched on as soon as one of the assigned zones requires heating medium in winter mode or cooling medium in summer mode.

Continuous operation, depending on the outside temperature, to protect against cooling down, a weekly cyclical operation to prevent the pump from seizing, and a run-on time can be enabled for each zone pump.

A supply temperature control can also be enabled for each zone pump. Depending on the configuration of the pump, the control can be used to control the supply for heating mode and cooling mode. The supply temperature for heating mode is regulated with reference to a setpoint which depends on the outside temperature (weather-dependent control), while the supply temperature for cooling mode is regulated with reference to a fixed setpoint.

Direct correlations with faults, such as “frost protection” are not linked, and instead are made indirectly via responses triggered in the fault. (Example: A frost protection fault triggers a demand for heat, which in turn would demand heating medium via the assigned zone pump, so the zone pump would switch on).

```
 Zone Pumps
728                    001
Signal states
ZPump 1 Enable:    0
ZPump 1 Fault.:    0
ZPump 1 Valve.:    0%
ZPump 1 INL SP: 23.0°C
ZPump 1 INL AV: 23.0°C
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Display of current signal states

The “ZPump 1 Enable” signal state displays the control signal currently output to enable the zone pump.
0 = Zone pump enable not enabled
1 = Zone pump enable enabled

The “ZPump 1 Fault” signal state displays the signal from the zone pump fault currently received.
0 = Zone pump fault disabled
1 = Zone pump fault enabled

The “ZPump 1 valve” signal state displays the control signal currently output for the supply temperature control valve. With certain configurations this parameter is hidden.
0% = minimum valve opening
100% = maximum valve opening

The signal state “ZPump 1 INL SP” displays the current setpoint of the supply temperature control. With certain configurations this value is hidden.

The signal state “ZPump 1 INL AV” displays the current sensor value of the supply temperature sensor. With certain configurations this value is hidden.

```
 Zone Pumps
728                 002
Signal states
ZPump 2 Enable:     0
ZPump 2 Fault.:     0
ZPump 2 Valve.:     0%
ZPump 2 INL SP:  23.0°C
ZPump 2 INL AV:  23.0°C
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Display of current signal states

The “ZPump 2 Enable” signal state displays the control signal currently output to enable the zone pump.
0 = Zone pump enable not enabled
1 = Zone pump enable enabled

The “ZPump 2 Fault” signal state displays the signal from the zone pump fault currently received.
0 = Zone pump fault disabled
1 = Zone pump fault enabled

The “ZPump 2 valve” signal state displays the control signal currently output for the supply temperature control valve. With certain configurations this parameter is hidden.
0% = minimum valve opening
100% = maximum valve opening

The signal state “ZPump 2 INL SP” displays the current setpoint of the supply temperature control. With certain configurations this value is hidden.

The signal state “ZPump 2 INL AV” displays the current sensor value of the supply temperature sensor. With certain configurations this value is hidden.

```
 Zone Pumps
728                 003
Signal states
ZPump 3 Enable:     0
ZPump 3 Fault.:     0
ZPump 3 Valve.:     0%
ZPump 3 INL SP:  23.0°C
ZPump 3 INL AV:  23.0°C
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Display of current signal states

The “ZPump 3 Enable” signal state displays the control signal currently output to enable the zone pump.
0 = Zone pump enable not enabled
1 = Zone pump enable enabled

The “ZPump 3 Fault” signal state displays the zone pump fault signal currently received.
0 = Zone pump fault disabled
1 = Zone pump fault enabled

The “ZPump 3 valve” signal state displays the control signal currently output for the supply temperature control valve. With certain configurations this parameter is hidden.
0% = minimum valve opening
100% = maximum valve opening

The signal state “ZPump 3 INL SP” displays the current setpoint of the supply temperature control. With certain configurations this value is hidden.

The signal state “ZPump 3 INL AV” displays the current sensor value of the supply temperature sensor. With certain configurations this value is hidden.

```
 Zone Pumps
728                 004
Signal states
ZPump 4 Enable:     0
ZPump 4 Fault.:     0
ZPump 4 Valve.:     0%
ZPump 4 INL SP:  23.0°C
ZPump 4 INL AV:  23.0°C
```

Display of current signal states

The “ZPump 4 Enable” signal state displays the control signal currently output to enable the zone pump.
0 = Zone pump enable not enabled
1 = Zone pump enable enabled

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Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

The “ZPump 4 Fault” signal state displays the zone pump fault signal currently received.
0 = Zone pump fault disabled
1 = Zone pump fault enabled

The “ZPump 4 valve” signal state displays the control signal currently output for the supply temperature control valve. With certain configurations this parameter is hidden.
0% = minimum valve opening
100% = maximum valve opening

The signal state “ZPump 4 INL SP” displays the current setpoint of the supply temperature control. With certain configurations this value is hidden.

The signal state “ZPump 4 INL AV” displays the current sensor value of the supply temperature sensor. With certain configurations this value is hidden.

```
 Zone Pumps
728                 005
Signal states
ZPump 5 Enable:     0
ZPump 5 Fault.:     0
ZPump 5 Valve.:     0%
ZPump 5 INL SP: 23.0°C
ZPump 5 INL AV: 23.0°C
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Display of current signal states

The “ZPump 5 Enable” signal state displays the control signal currently output to enable the zone pump.
0 = Zone pump enable not enabled
1 = Zone pump enable enabled

The “ZPump 5 Fault” signal state displays the zone pump fault signal currently received.
0 = Zone pump fault disabled
1 = Zone pump fault enabled

The “ZPump 5 valve” signal state displays the control signal currently output for the supply temperature control valve. With certain configurations this parameter is hidden.
0% = minimum valve opening
100% = maximum valve opening

The signal state “ZPump 5 INL SP” displays the current setpoint of the supply temperature control. With certain configurations this value is hidden.

The signal state “ZPump 5 INL AV” displays the current sensor value of the supply temperature sensor. With certain configurations this value is hidden.

```
 Zone Pumps
728                 006
Signal states
ZPump 6 Enable:     0
ZPump 6 Fault.:     0
ZPump 6 Valve.:     0%
ZPump 6 INL SP: 23.0°C
ZPump 6 INL AV: 23.0°C
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Display of current signal states

The “ZPump 6 Enable” signal state displays the control signal currently output to enable the zone pump.
0 = Zone pump enable not enabled
1 = Zone pump enable enabled

The “ZPump 6 Fault” signal state displays the signal from the zone pump fault currently received.
0 = Zone pump fault disabled
1 = Zone pump fault enabled

The “ZPump 6 valve” signal state displays the control signal currently output for the supply temperature control valve. With certain configurations this parameter is hidden.
0% = minimum valve opening
100% = maximum valve opening

The signal state “ZPump 6 INL SP” displays the current setpoint of the supply temperature control. With certain configurations this value is hidden.

The signal state “ZPump 6 INL AV” displays the current sensor value of the supply temperature sensor. With certain configurations this value is hidden.

```
 Zone Pumps
728                    007
ZP 1 Follow-up time
Run-time......:    5min
Run-time yet..:    5min
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Run-on time

The “Runtime” parameter defines the length of the run-on time (switch-off delay) for zone pump 1 and, if necessary, the associated supply control.

The “Remaining runtime” parameter displays the remaining run-on time.

The zone pump also runs on for the specified time if the ventilation system is switched off by the timer program, etc.

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
Runtime	000min.	480min.	005min.

```
 Zone Pumps
728                    008
ZP 1 contin Mode OT
OT<...........:   8.0°C
OT actual.....: 20.0°C
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

OT continuous mode

The “OT<” parameter defines the outside temperature below which zone pump 1 remains permanently switched on.

The hysteresis is 2.0 K and cannot be edited.

The “OT actual” value shows the current outside temperature.

Certain configurations hide this dialogue box in all dialogue box levels.

Parameter	min.	max.	default
OT<	-25.0°C	50.0°C	8.0°C

```
 Zone Pumps
728                    009
ZP 1 Cyclical
Weekday.......: Mo
Time of day...: 00:00
Run-time......:    10s
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Cyclical switch-on

To prevent the zone pump 1 from seizing during a prolonged downtime, it can be enabled cyclically for a runtime.

The “Weekday” parameter defines the day the pump is to be switched on.
Mo = Monday
Tu = Tuesday
We = Wednesday
Th = Thursday
Fr = Friday
Sa = Saturday
Su = Sunday

The “Time of day” parameter defines the time at which the pump is to be switched on.

The “Runtime” parameter defines for how long the pump is to be switched on.

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
Weekday	Mo	Su	Mo
Time	00:00	23:59	00:00
Runtime	000s	480s	010s

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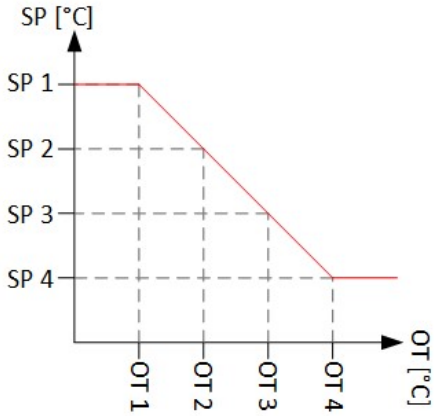
```
Zone Pumps
728                    010
ZP 1 FTC Setpoint H
OT1:-10°C     SP1: 65°C
OT2:  0°C     SP2: 55°C
OT3: 10°C     SP3: 45°C
OT4: 20°C     SP4: 35°C
OT : 15°C     SP : 40°C
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Supply temperature control setpoint, heating

Parameters “OT1”, “OT2”, “OT3” and “OT4” define the outside temperatures of the respective interpolation points of the characteristic curve set up for the “outside temperature-dependent supply temperature control in heating mode” function.

Parameters “SP1”, “SP2”, “SP3” and “SP4” define the setpoints of the respective interpolation points of the characteristic curve set up for the “outside temperature-dependent supply temperature control in heating mode” function.



The “OT” value shows the current outside temperature.

The “SP” value shows the current setpoint resulting from this characteristic curve.

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
OT1	-20°C	50°C	-10°C
OT2	-20°C	50°C	0°C
OT3	-20°C	50°C	10°C
OT4	-20°C	50°C	20°C
SP1	5°C	95°C	65°C
SP2	5°C	95°C	55°C
SP3	5°C	95°C	45°C
SP4	5°C	95°C	35°C

```
Zone Pumps
728                    011
ZP 1 FTC Setpoint C
SP..............:   5°C
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Supply temperature control, cooling setpoint

Parameter “SP” defines the setpoint for the “Supply temperature control in cooling mode” function.

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
SP	0°C	45°C	5°C

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```
 Zone Pumps
728                    012
Controlpar. ZP 1 FTC H
W..: 22.8°C   P..:  5.0
X..: 11.9°C   I..: 120s
X-W:-11.1K    D..:   0s
Enable..........:    1
Output..........: 100%
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Supply temperature control heating

Value “W” shows the current supply temperature setpoint.

Value “X” shows the current supply temperature actual value.

Value “X-W” shows the current temperature deviation.

Parameter “P” defines the proportional component of the PID controller.

Parameter “I” defines the integral-action component of the PID controller.

Parameter “D” defines the derivative component of the PID controller.

The “Enable” operating status displays whether the PID controller is enabled for closed-loop control or disabled by certain states.
0 = not enabled, closed-loop control not active
1 = enabled, closed-loop control active

The “Output” signal displays the control signal of the PID controller currently output.

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
P	0.1	99.9	5.0
I	0	999	120
D	0	999	0

```
 Zone Pumps
728                    013
Controlerpar.ZP 1 FTC C
W..: 22.8°C   P..:  5.0
X..: 11.9°C   I..: 120s
W-X:-11.1K    D..:   0s
Enable..........:    1
Output..........: 100%
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Supply temperature control, cooling

Value “W” shows the current supply temperature setpoint.

Value “X” shows the current supply temperature actual value.

The value “W-X” displays the current temperature deviation.

Parameter “P” defines the proportional component of the PID controller.

Parameter “I” defines the integral-action component of the PID controller.

Parameter “D” defines the derivative component of the PID controller.

The “Enable” operating status displays whether the PID controller is enabled for closed-loop control or disabled by certain states.
0 = not enabled, closed-loop control not active
1 = enabled, closed-loop control active

The “Output” signal displays the control signal of the PID controller currently output.

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
P	0.1	99.9	5.0
I	0	999	120
D	0	999	0

KAMPMANN Genau mein Klima.

```
 Zone Pumps
728                    014
ZP 2 Follow-up time
Run-time......:    5min
Run-time yet..:    5min
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Run-on time

The “Runtime” parameter defines the length of the run-on time (switch-off delay) for zone pump 2 and, if necessary, the associated supply control.

The “Remaining runtime” parameter displays the remaining run-on time.

The zone pump also runs on for the specified time if the ventilation system is switched off by the timer program, for example.

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
Runtime	000min.	480min.	005min.

```
 Zone Pumps
728                    015
ZP 2 contin Mode OT
OT<...........:  8.0°C
OT actual.....: 20.0°C
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

OT continuous mode

The “OT<” parameter defines the outside temperature below which zone pump 2 remains permanently switched on.

The hysteresis is 2.0 K and cannot be edited.

The “OT actual” value shows the current outside temperature.

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
OT<	-25.0°C	50.0°C	8.0°C

```
 Zone Pumps
728                    016
ZP 2 Cyclical
Weekday.......: Mo
Time of day...: 00:00
Run-time......:    10s
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Cyclical switch-on

To prevent the zone pump 2 from seizing during a prolonged downtime, it can be enabled cyclically for a runtime.

The “Weekday” parameter defines the day the pump is to be switched on.
Mo = Monday
Tu = Tuesday
We = Wednesday
Th = Thursday
Fr = Friday
Sa = Saturday
Su = Sunday

The “Time of day” parameter defines the time at which the pump is to be switched on.

The “Runtime” parameter defines for how long the pump is to be switched on.

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
Weekday	Mo	Su	Mo
Time	00:00	23:59	00:00
Runtime	000s	480s	010s

KAMPMANN Genau mein Klima.

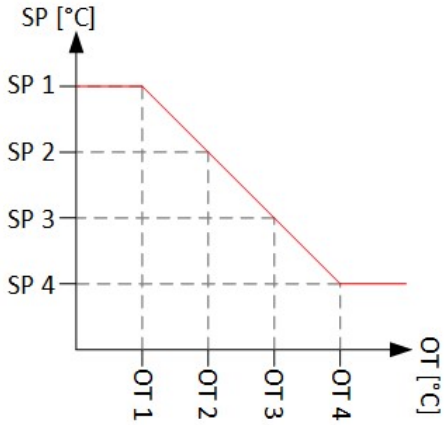
```
Zone Pumps
728                    017
ZP 2 FTC Setpoint H
OT1:-10°C     SP1: 65°C
OT2:  0°C     SP2: 55°C
OT3: 10°C     SP3: 45°C
OT4: 20°C     SP4: 35°C
OT : 15°C     SP : 40°C
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Supply temperature control setpoint, heating

Parameters “OT1”, “OT2”, “OT3” and “OT4” define the outside temperatures of the respective interpolation points of the characteristic curve set up for the “outside temperature-dependent supply temperature control in heating mode” function.

Parameters “SP1”, “SP2”, “SP3” and “SP4” define the setpoints of the respective interpolation points of the characteristic curve set up for the “outside temperature-dependent supply temperature control in heating mode” function.



The “OT” value shows the current outside temperature.

The “SP” value shows the current setpoint resulting from this characteristic curve.

With certain configurations this dialogue box is hidden in all dialogue box levels.

Parameter	min.	max.	default
OT1	-20°C	50°C	-10°C
OT2	-20°C	50°C	0°C
OT3	-20°C	50°C	10°C
OT4	-20°C	50°C	20°C
SP1	5°C	95°C	65°C
SP2	5°C	95°C	55°C
SP3	5°C	95°C	45°C
SP4	5°C	95°C	35°C

```
Zone Pumps
728                    018
ZP 2 FTC Setpoint C
SP..............:   5°C
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Supply temperature control, cooling setpoint

Parameter “SP” defines the setpoint for the “Supply temperature control in cooling mode” function.

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
SP	0°C	45°C	5°C

```
 Zone Pumps
728                    019
Controlpar. ZP 2 FTC H
W..: 22.8°C  P..:  5.0
X..: 11.9°C  I..: 120s
X-W:-11.1K   D..:   0s
Enable..........:   1
Output..........: 100%
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Supply temperature control, heating

Value “W” shows the current supply temperature setpoint.

Value “X” shows the current supply temperature actual value.

Value “X-W” shows the current temperature deviation.

Parameter “P” defines the proportional component of the PID controller.

Parameter “I” defines the integral-action component of the PID controller.

Parameter “D” defines the derivative component of the PID controller.

The “Enable” operating status displays whether the PID controller is enabled for closed-loop control or disabled by certain states.
0 = not enabled, closed-loop control not active
1 = enabled, closed-loop control active

The “Output” signal displays the control signal of the PID controller currently output.

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
P	0.1	99.9	5.0
I	0	999	120
D	0	999	0

```
 Zone Pumps
728                    020
Controlpar. ZP 2 FTC C
W..: 22.8°C  P..:  5.0
X..: 11.9°C  I..: 120s
W-X:-11.1K   D..:   0s
Enable..........:   1
Output..........: 100%
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Supply temperature control, cooling

Value “W” shows the current supply temperature setpoint.

Value “X” shows the current supply temperature actual value.

The value “W-X” displays the current temperature deviation.

Parameter “P” defines the proportional component of the PID controller.

Parameter “I” defines the integral-action component of the PID controller.

Parameter “D” defines the derivative component of the PID controller.

The “Enable” operating status displays whether the PID controller is enabled for closed-loop control or disabled by certain states.
0 = not enabled, closed-loop control not active
1 = enabled, closed-loop control active

The “Output” signal displays the control signal of the PID controller currently output.

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
P	0.1	99.9	5.0
I	0	999	120
D	0	999	0

KAMPMANN Genau mein Klima.

```
 Zone Pumps
728                    021
ZP 3 Follow-up time
Run-time......:    5min
Run-time yet..:    5min
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Run-on time

The “Runtime” parameter defines the length of the run-on time (switch-off delay) for zone pump 3 and, if necessary, the associated supply control.

The “Remaining runtime” parameter displays the remaining run-on time.

The zone pump also runs on for the specified time if the ventilation system is switched off by the timer program, for example.

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
Runtime	000min.	480min.	005min.

```
 Zone Pumps
728                    022
ZP 3 contin Mode OT
OT<...........:  8.0°C
OT actual.....: 20.0°C
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

OT continuous mode

The “OT<” parameter defines the outside temperature below which zone pump 3 remains permanently switched on.

The hysteresis is 2.0 K and cannot be edited.

The “OT actual” value shows the current outside temperature.

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
OT<	-25.0°C	50.0°C	8.0°C

```
 Zone Pumps
728                    023
ZP 3 Cyclical
Weekday.......: Mo
Time of day...: 00:00
Run-time......:    10s
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Cyclical switch-on

To prevent the zone pump 3 from seizing during a prolonged downtime, it can be enabled cyclically for a runtime.

The “Weekday” parameter defines the day the pump is to be switched on.
Mo = Monday
Tu = Tuesday
We = Wednesday
Th = Thursday
Fr = Friday
Sa = Saturday
Su = Sunday

The “Time of day” parameter defines the time at which the pump is to be switched on.

The “Runtime” parameter defines for how long the pump is to be switched on.

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
Weekday	Mo	Su	Mo
Time	00:00	23:59	00:00
Runtime	000s	480s	010s

KAMPMANN Genau mein Klima.

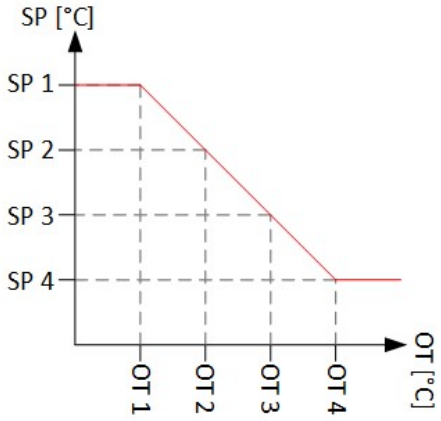
```
Zone Pumps
728                    024
ZP 3 FTC Setpoint H
OT1:-10°C     SP1: 65°C
OT2:  0°C     SP2: 55°C
OT3: 10°C     SP3: 45°C
OT4: 20°C     SP4: 35°C
OT : 15°C     SP : 40°C
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Supply temperature control setpoint, heating

Parameters “OT1”, “OT2”, “OT3” and “OT4” define the outside temperatures of the respective interpolation points of the characteristic curve set up for the “outside temperature-dependent supply temperature control in heating mode” function.

Parameters “SP1”, “SP2”, “SP3” and “SP4” define the setpoints of the respective interpolation points of the characteristic curve set up for the “outside temperature-dependent supply temperature control in heating mode” function.



The “OT” value shows the current outside temperature.

The “SP” value shows the current setpoint resulting from this characteristic curve.

Certain configurations hide this dialogue box in all dialogue box levels.

Parameter	min.	max.	default
OT1	-20°C	50°C	-10°C
OT2	-20°C	50°C	0°C
OT3	-20°C	50°C	10°C
OT4	-20°C	50°C	20°C
SP1	5°C	95°C	65°C
SP2	5°C	95°C	55°C
SP3	5°C	95°C	45°C
SP4	5°C	95°C	35°C

```
Zone Pumps
728                    025
ZP 3 FTC Setpoint C
SW..............:   5°C
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Supply temperature control, cooling setpoint

Parameter “SP” defines the setpoint for the “Supply temperature control in cooling mode” function.

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
SP	0°C	45°C	5°C

```
 Zone Pumps
728                    026
Controlpar. ZP 3 FTC H
W..: 22.8°C  P..:  5.0
X..: 11.9°C  I..: 120s
X-W:-11.1K   D..:   0s
Enable..........:   1
Output..........: 100%
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Supply temperature control, heating

The value “W” shows the current supply temperature setpoint.

The value “X” shows the current supply temperature actual value.

Value “X-W” shows the current temperature deviation.

Parameter “P” defines the proportional component of the PID controller.

Parameter “I” defines the integral-action component of the PID controller.

Parameter “D” defines the derivative component of the PID controller.

The “Enable” operating status displays whether the PID controller is enabled for closed-loop control or disabled by certain states.
0 = not enabled, closed-loop control not active
1 = enabled, closed-loop control active

The “Output” signal displays the control signal of the PID controller currently output.

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
P	0.1	99.9	5.0
I	0	999	120
D	0	999	0

```
 Zone Pumps
728                    027
Controlpar. ZP 3 FTC C
W..: 22.8°C  P..:  5.0
X..: 11.9°C  I..: 120s
W-X:-11.1K   D..:   0s
Enable..........:   1
Output..........: 100%
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Supply temperature control, cooling

The value “W” shows the current supply temperature setpoint.

The value “X” shows the current supply temperature actual value.

The value “W-X” displays the current temperature deviation.

Parameter “P” defines the proportional component of the PID controller.

Parameter “I” defines the integral-action component of the PID controller.

Parameter “D” defines the derivative component of the PID controller.

The “Enable” operating status displays whether the PID controller is enabled for closed-loop control or disabled by certain states.
0 = not enabled, closed-loop control not active
1 = enabled, closed-loop control active

The “Output” signal displays the control signal of the PID controller currently output.

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
P	0.1	99.9	5.0
I	0	999	120
D	0	999	0

KAMPMANN Genau mein Klima.

```
 Zone Pumps
728                    028
ZP 4 Follow-up time
Run-time......:    5min
Run-time yet..:    5min
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Run-on time

The “Runtime” parameter defines the length of the run-on time (switch-off delay) for zone pump 4 and, if necessary, the associated supply control.

The “Remaining runtime” parameter displays the remaining run-on time.

The zone pump also runs on for the specified time if the ventilation system is switched off by the timer program, for example.

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
Runtime	000min.	480min.	005min.

```
 Zone Pumps
728                    029
ZP 4 contin Mode OT
OT<...........:  8.0°C
OT actual.....: 20.0°C
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

OT continuous mode

The “OT<” parameter defines the outside temperature below which zone pump 4 remains permanently switched on.

The hysteresis is 2.0 K and cannot be edited.

The “OT actual” value shows the current outside temperature.

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
OT<	-25.0°C	50.0°C	8.0°C

```
 Zone Pumps
728                    030
ZP 4 Cyclical
Weekday.......: Mo
Time of day...: 00:00
Run-time......:    10s
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Cyclical switch-on

To prevent the zone pump 4 from seizing during a prolonged downtime, it can be enabled cyclically for a runtime.

The “Weekday” parameter defines the day the pump is to be switched on.
Mo = Monday
Tu = Tuesday
We = Wednesday
Th = Thursday
Fr = Friday
Sa = Saturday
Su = Sunday

The “Time of day” parameter defines the time at which the pump is to be switched on.

The “Runtime” parameter defines for how long the pump is to be switched on.

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
Weekday	Mo	Su	Mo
Time	00:00	23:59	00:00
Runtime	000s	480s	010s

KAMPMANN Genau mein Klima.

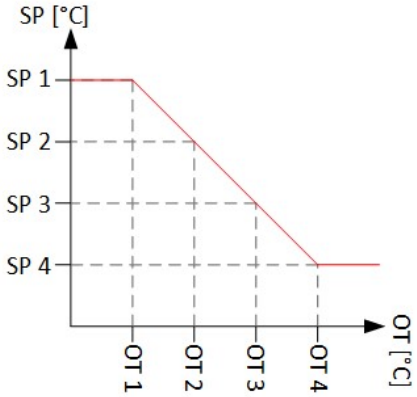
```
Zone Pumps
728                    031
ZP 4 FTC Setpoint H
OT1:-10°C     SP1: 65°C
OT2:  0°C     SP2: 55°C
OT3: 10°C     SP3: 45°C
OT4: 20°C     SP4: 35°C
OT : 15°C     SP : 40°C
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Supply temperature control setpoint, heating

Parameters “OT1”, “OT2”, “OT3” and “OT4” define the outside temperatures of the respective interpolation points of the characteristic curve set up for the “outside temperature-dependent supply temperature control in heating mode” function.

Parameters “SP1”, “SP2”, “SP3” and “SP4” define the setpoints of the respective interpolation points of the characteristic curve set up for the “outside temperature-dependent supply temperature control in heating mode” function.



The “OT” value shows the current outside temperatureDe.

The “SP” value shows the current setpoint resulting from this characteristic curve.

With certain configurations this dialogue box is hidden in all dialogue box levels.

Parameter	min.	max.	default
OT1	-20°C	50°C	-10°C
OT2	-20°C	50°C	0°C
OT3	-20°C	50°C	10°C
OT4	-20°C	50°C	20°C
SP1	5°C	95°C	65°C
SP2	5°C	95°C	55°C
SP3	5°C	95°C	45°C
SP4	5°C	95°C	35°C

```
Zone Pumps
728                    032
ZP 4 FTC Setpoint C
SP.............:   5°C
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Supply temperature control, cooling setpoint

Parameter “SP” defines the setpoint for the “Supply temperature control in cooling mode” function.

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
SP	0°C	45°C	5°C

```
 Zone Pumps
728                    033
Controlpar. ZP 4 FTC H
W..: 22.8°C  P..:  5.0
X..: 11.9°C  I..: 120s
X-W:-11.1K   D..:   0s
Enable..........:   1
Output..........: 100%
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Supply temperature control, heating

The value “W” shows the current supply temperature setpoint.

The value “X” shows the current supply temperature actual value.

Value “X-W” shows the current temperature deviation.

Parameter “P” defines the proportional component of the PID controller.

Parameter “I” defines the integral-action component of the PID controller.

Parameter “D” defines the derivative component of the PID controller.

The “Enable” operating status displays whether the PID controller is enabled for closed-loop control or disabled by certain states.
0 = not enabled, closed-loop control not active
1 = enabled, closed-loop control active

The “Output” signal displays the control signal of the PID controller currently output.

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
P	0.1	99.9	5.0
I	0	999	120
D	0	999	0

```
 Zone Pumps
728                    034
Controlpar. ZP 4 FTC C
W..: 22.8°C  P..:  5.0
X..: 11.9°C  I..: 120s
W-X:-11.1K   D..:   0s
Enable..........:   1
Output..........: 100%
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Supply temperature control, cooling

The value “W” shows the current supply temperature setpoint.

The value “X” shows the current supply temperature actual value.

The value “W-X” displays the current temperature deviation.

Parameter “P” defines the proportional component of the PID controller.

Parameter “I” defines the integral-action component of the PID controller.

Parameter “D” defines the derivative component of the PID controller.

The “Enable” operating status displays whether the PID controller is enabled for closed-loop control or disabled by certain states.
0 = not enabled, closed-loop control not active
1 = enabled, closed-loop control active

The “Output” signal displays the control signal of the PID controller currently output.

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
P	0.1	99.9	5.0
I	0	999	120
D	0	999	0

KAMPMANN Genau mein Klima.

```
 Zone Pumps
728                    035
ZP 5 Flollow-up time
Run-time......:    5min
Run-time yet..:    5min
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Run-on time

The “Runtime” parameter defines the length of the run-on time (switch-off delay) for zone pump 5 and, if necessary, the associated supply control.

The “Remaining runtime” parameter displays the remaining run-on time.

The zone pump also runs on for the specified time if the ventilation system is switched off by the timer program, for example.

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
Runtime	000min.	480min.	005min.

```
 Zone Pumps
728                    036
ZP 5 contin Mode OT
OT<...........:  8.0°C
OT actual.....: 20.0°C
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

OT continuous mode

The “OT<” parameter defines the outside temperature below which zone pump 5 remains permanently switched on.

The hysteresis is 2.0 K and cannot be edited.

The “OT actual” value shows the current outside temperature.

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
OT<	-25.0°C	50.0°C	8.0°C

```
 Zone Pumps
728                    037
ZP 5 Cyclical
Weekday.......: Mo
Time of day...: 00:00
Run-time......:    10s
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Cyclical switch-on

To prevent the zone pump 5 from seizing during a prolonged downtime, it can be enabled cyclically for a runtime.

The “Weekday” parameter defines the day the pump is to be switched on.
Mo = Monday
Tu = Tuesday
We = Wednesday
Th = Thursday
Fr = Friday
Sa = Saturday
Su = Sunday

The “Time of day” parameter defines the time at which the pump is to be switched on.

The “Runtime” parameter defines for how long the pump is to be switched on.

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
Weekday	Mo	Su	Mo
Time	00:00	23:59	00:00
Runtime	000s	480s	010s

KAMPMANN Genau mein Klima.

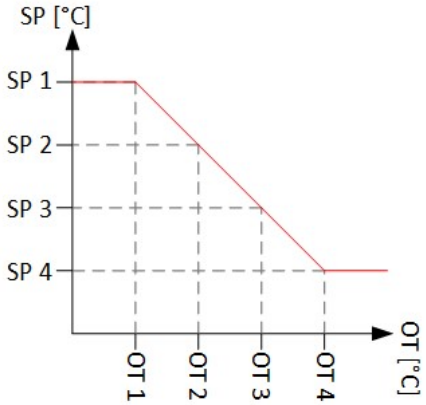
```
Zone Pumps
728                    038
ZP 5 FTC Setpoint H
OT1:-10°C     SP1: 65°C
OT2:  0°C     SP2: 55°C
OT3: 10°C     SP3: 45°C
OT4: 20°C     SP4: 35°C
OT : 15°C     SP : 40°C
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Supply temperature control setpoint, heating

Parameters “OT1”, “OT2”, “OT3” and “OT4” define the outside temperatures of the respective interpolation points of the characteristic curve set up for the “outside temperature-dependent supply temperature control in heating mode” function.

Parameters “SP1”, “SP2”, “SP3” and “SP4” define the setpoints of the respective interpolation points of the characteristic curve set up for the “outside temperature-dependent supply temperature control in heating mode” function.



The “OT” value shows the current outside temperature.

The “SP” value shows the current setpoint resulting from this characteristic curve.

With certain configurations this dialogue box is hidden in all dialogue box levels.

Parameter	min.	max.	default
OT1	-20°C	50°C	-10°C
OT2	-20°C	50°C	0°C
OT3	-20°C	50°C	10°C
OT4	-20°C	50°C	20°C
SP1	5°C	95°C	65°C
SP2	5°C	95°C	55°C
SP3	5°C	95°C	45°C
SP4	5°C	95°C	35°C

```
Zone Pumps
728                    039
ZP 5 FTC Setpoint C
SP..............:  5°C
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Supply temperature control, cooling setpoint

Parameter “SP” defines the setpoint for the “Supply temperature control in cooling mode” function.

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
SP	0°C	45°C	5°C

KAMPMANN Genau mein Klima.

```
 Zone Pumps
728                    040
Controlpar. ZP 5 FTC H
W..: 22.8°C  P..:  5.0
X..: 11.9°C  I..: 120s
X-W:-11.1K   D..:   0s
Enable..........:   1
Output..........: 100%
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Supply temperature control, heating

The value “W” shows the current supply temperature setpoint.

The value “X” shows the current supply temperature actual value.

Value “X-W” shows the current temperature deviation.

Parameter “P” defines the proportional component of the PID controller.

Parameter “I” defines the integral-action component of the PID controller.

Parameter “D” defines the derivative component of the PID controller.

The “Enable” operating status displays whether the PID controller is enabled for closed-loop control or disabled by certain states.
0 = not enabled, closed-loop control not active
1 = enabled, closed-loop control active

The “Output” signal displays the control signal of the PID controller currently output.

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
P	0.1	99.9	5.0
I	0	999	120
D	0	999	0

```
 Zone Pumps
728                    041
Controlpar. ZP 5 FTC C
W..: 22.8°C  P..:  5.0
X..: 11.9°C  I..: 120s
W-X:-11.1K   D..:   0s
Enable..........:   1
Output..........: 100%
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Supply temperature control, cooling

The value “W” shows the current supply temperature setpoint.

The value “X” shows the current supply temperature actual value.

The value “W-X” displays the current temperature deviation.

Parameter “P” defines the proportional component of the PID controller.

Parameter “I” defines the integral-action component of the PID controller.

Parameter “D” defines the derivative component of the PID controller.

The “Enable” operating status displays whether the PID controller is enabled for closed-loop control or disabled by certain states.
0 = not enabled, closed-loop control not active
1 = enabled, closed-loop control active

The “Output” signal displays the control signal of the PID controller currently output.

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
P	0.1	99.9	5.0
I	0	999	120
D	0	999	0

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```
 Zone Pumps
728                    042
ZP 6 Follow-up time
Run-time......:    5min
Run-time yet..:    5min
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Run-on time

The “Runtime” parameter defines the length of the run-on time (switch-off delay) for zone pump 6 and, if necessary, the associated supply control.

The “Remaining runtime” parameter displays the remaining run-on time.

The zone pump also runs on for the specified time if the ventilation system is switched off by the timer program, for example.

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
Runtime	000min.	480min.	005min.

```
 Zone Pumps
728                    043
ZP 6 contin Mode OT
OT<...........:  8.0°C
OT actual.....: 20.0°C
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

OT continuous mode

The “OT<” parameter defines the outside temperature below which zone pump 6 remains permanently switched on.

The hysteresis is 2.0 K and cannot be edited.

The “OT actual” value shows the current outside temperature.

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
OT<	-25.0°C	50.0°C	8.0°C

```
 Zone Pumps
728                    044
ZP 6 Cyclical
Weekday.......: Mo
Time of day...: 00:00
Run-time......:    10s
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Cyclical switch-on

To prevent the zone pump 6 from seizing during a prolonged downtime, it can be enabled cyclically for a runtime.

The “Weekday” parameter defines the day the pump is to be switched on.
Mo = Monday
Tu = Tuesday
We = Wednesday
Th = Thursday
Fr = Friday
Sa = Saturday
Su = Sunday

The “Time of day” parameter defines the time at which the pump is to be switched on.

The “Runtime” parameter defines for how long the pump is to be switched on.

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
Weekday	Mo	Su	Mo
Time	00:00	23:59	00:00
Runtime	000s	480s	010s

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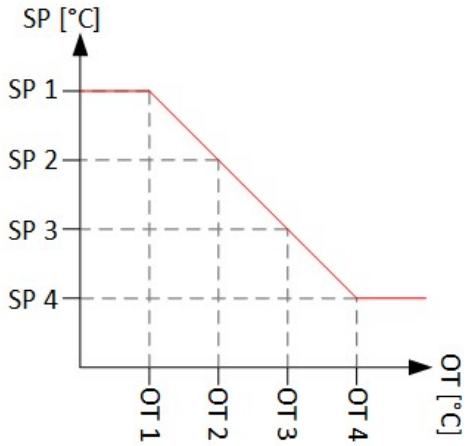
```
Zone Pumps
728                    045
ZP 6 FTC Setpoint H
OT1:-10°C     SP1: 65°C
OT2:  0°C     SP2: 55°C
OT3: 10°C     SP3: 45°C
OT4: 20°C     SP4: 35°C
OT : 15°C     SP : 40°C
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Supply temperature control setpoint, heating

Parameters “OT1”, “OT2”, “OT3” and “OT4” define the outside temperatures of the respective interpolation points of the characteristic curve set up for the “outside temperature-dependent supply temperature control in heating mode” function.

Parameters “SP1”, “SP2”, “SP3” and “SP4” define the setpoints of the respective interpolation points of the characteristic curve set up for the “outside temperature-dependent supply temperature control in heating mode” function.



The “OT” value shows the current outside temperature.

The “SP” value shows the current setpoint resulting from this characteristic curve.

With certain configurations this dialogue box is hidden in all dialogue box levels.

Parameter	min.	max.	default
OT1	-20°C	50°C	-10°C
OT2	-20°C	50°C	0°C
OT3	-20°C	50°C	10°C
OT4	-20°C	50°C	20°C
SP1	5°C	95°C	65°C
SP2	5°C	95°C	55°C
SP3	5°C	95°C	45°C
SP4	5°C	95°C	35°C

```
Zone Pumps
728                    046
ZP 6 FTC Setpoint C
SP..............:  5°C
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Supply temperature control, cooling setpoint

Parameter “SP” defines the setpoint for the “Supply temperature control in cooling mode” function.

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
SP	0°C	45°C	5°C

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```
 Zone Pumps
728                    047
Controlpar. ZP 6 FTC H
W..: 22.8°C  P..:  5.0
X..: 11.9°C  I..: 120s
X-W:-11.1K   D..:   0s
Enable..........:   1
Output..........: 100%
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Supply temperature control, heating

The value “W” shows the current supply temperature setpoint.

The value “X” shows the current supply temperature actual value.

The value “X-W” shows the current temperature deviation.

Parameter “P” defines the proportional component of the PID controller.

Parameter “I” defines the integral-action component of the PID controller.

Parameter “D” defines the derivative component of the PID controller.

The “Enable” operating status displays whether the PID controller is enabled for closed-loop control or disabled by certain states.
0 = not enabled, closed-loop control not active
1 = enabled, closed-loop control active

The “Output” signal displays the control signal of the PID controller currently output.

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
P	0.1	99.9	5.0
I	0	999	120
D	0	999	0

```
 Zone Pumps
728                    048
Controlpar. ZP 6 FTC C
W..: 22.8°C  P..:  5.0
X..: 11.9°C  I..: 120s
W-X:-11.1K   D..:   0s
Enable..........:   1
Output..........: 100%
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Supply temperature control, cooling

The value “W” shows the current supply temperature setpoint.

The value “X” shows the current supply temperature actual value.

The value “W-X” displays the current temperature deviation.

Parameter “P” defines the proportional component of the PID controller.

Parameter “I” defines the integral-action component of the PID controller.

Parameter “D” defines the derivative component of the PID controller.

The “Enable” operating status displays whether the PID controller is enabled for closed-loop control or disabled by certain states.
0 = not enabled, closed-loop control not active
1 = enabled, closed-loop control active

The “Output” signal displays the control signal of the PID controller currently output.

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
P	0.1	99.9	5.0
I	0	999	120
D	0	999	0

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```
 Zone Pumps
728                    049
ZP 1 Manual Mode
Auto=0 Hand=1:      0
Hand value DO:      0
Output  DO...:      0
Hand value AO:      0%
Output  AO...:      0%
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Manual mode

The “Auto=0 Manual=1” parameter can be used to overwrite signal outputs in automatic mode with manual values.
0 = Signal output is assigned by automatic mode
1 = Signal output is assigned by manual mode

The “Manual value DO” parameter defines the value of the digital output “Pump” of the zone when manual mode is enabled.

The “Output DO” signal state displays the digital control signal currently applied at the “Pump” output of the zone.

The “Manual value AO” parameter defines the value of the analogue output “Valve” of the zone when manual mode is enabled.

The “Output AO” signal state displays the analogue control signal currently applied at the “Valve” output of the zone.

An enabled manual mode is displayed in the fault message list.

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
Auto=0 Manual =1	0	1	0
Manual value DO	0	1	0
Manual value AO	0%	100%	0

```
 Zone Pumps
728                    050
ZP 2 Manual Mode
Auto=0 Hand=1:      0
Hand value DO:      0
Output  DO...:      0
Hand value AO:      0%
Output  AO...:      0%
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Manual mode

The “Auto=0 Manual=1” parameter can be used to overwrite signal outputs in automatic mode with manual values.
0 = Signal output is assigned by automatic mode
1 = Signal output is assigned by manual mode

The “Manual value DO” parameter defines the value of the digital output “Pump” of the zone when manual mode is enabled.

The “Output DO” signal state displays the digital control signal currently applied at the “Pump” output of the zone.

The “Manual value AO” parameter defines the value of the analogue output “Valve” of the zone when manual mode is enabled.

The “Output AO” signal state displays the analogue control signal currently applied at the “Valve” output of the zone.

An enabled manual mode is displayed in the fault message list.

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
Auto=0 Manual =1	0	1	0
Manual value DO	0	1	0
Manual value AO	0%	100%	0

```
 Zone Pumps
728                    051
ZP 3 Manual Mode
Auto=0 Hand=1:      0
Hand value DO:      0
Output  DO...:      0
Hand value AO:      0%
Output  AO...:      0%
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Manual mode

The “Auto=0 Manual=1” parameter can be used to overwrite signal outputs in automatic mode with manual values.
0 = Signal output is assigned by automatic mode
1 = Signal output is assigned by manual mode

The “Manual value DO” parameter defines the value of the digital output “Pump” of the zone when manual mode is enabled.

The “Output DO” signal state displays the digital control signal currently applied at the “Pump” output of the zone.

The “Manual value AO” parameter defines the value of the analogue output “Valve” of the zone when manual mode is enabled.

The “Output AO” signal state displays the analogue control signal currently applied at the “Valve” output of the zone.

An enabled manual mode is displayed in the fault message list.

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
Auto=0 Manual =1	0	1	0
Manual value DO	0	1	0
Manual value AO	0%	100%	0

```
 Zone Pumps
728                    052
ZP 4 Manual Mode
Auto=0 Hand=1:      0
Hand value DO:      0
Output  DO...:      0
Hand value AO:      0%
Output  AO...:      0%
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Manual mode

The “Auto=0 Manual=1” parameter can be used to overwrite signal outputs in automatic mode with manual values.
0 = Signal output is assigned by automatic mode
1 = Signal output is assigned by manual mode

The “Manual value DO” parameter defines the value of the digital output “Pump” of the zone when manual mode is enabled.

The “Output DO” signal state displays the digital control signal currently applied at the “Pump” output of the zone.

The “Manual value AO” parameter defines the value of the analogue output “Valve” of the zone when manual mode is enabled.

The “Output AO” signal state displays the analogue control signal currently applied at the “Valve” output of the zone.

An enabled manual mode is displayed in the fault message list.

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
Auto=0 Manual =1	0	1	0
Manual value DO	0	1	0
Manual value AO	0%	100%	0

```
 Zone Pumps
728                    053
ZP 5 Manual Mode
Auto=0 Hand=1:      0
Hand value DO:      0
Output  DO...:      0
Hand value AO:      0%
Output  AO...:      0%
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Manual mode

The “Auto=0 Manual=1” parameter can be used to overwrite signal outputs in automatic mode with manual values.
0 = Signal output is assigned by automatic mode
1 = Signal output is assigned by manual mode

The “Manual value DO” parameter defines the value of the digital output “Pump” of the zone when manual mode is enabled.

The “Output DO” signal state displays the digital control signal currently applied at the “Pump” output of the zone.

The “Manual value AO” parameter defines the value of the analogue output “Valve” of the zone when manual mode is enabled.

The “Output AO” signal state displays the analogue control signal currently applied at the “Valve” output of the zone.

An enabled manual mode is displayed in the fault message list.

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
Auto=0 Manual =1	0	1	0
Manual value DO	0	1	0
Manual value AO	0%	100%	0

```
 Zone Pumps
728                    054
ZP 6 Manual Mode
Auto=0 Hand=1:      0
Hand value DO:      0
Output  DO...:      0
Hand value AO:      0%
Output  AO...:      0%
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Manual mode

The “Auto=0 Manual=1” parameter can be used to overwrite signal outputs in automatic mode with manual values.
0 = Signal output is assigned by automatic mode
1 = Signal output is assigned by manual mode

The “Manual value DO” parameter defines the value of the digital output “Pump” of the zone when manual mode is enabled.

The “Output DO” signal state displays the digital control signal currently applied at the “Pump” output of the zone.

The “Manual value AO” parameter defines the value of the analogue output “Valve” of the zone when manual mode is enabled.

The “Output AO” signal state displays the analogue control signal currently applied at the “Valve” output of the zone.

An enabled manual mode is displayed in the fault message list.

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
Auto=0 Manual =1	0	1	0
Manual value DO	0	1	0
Manual value AO	0%	100%	0

```
 Zone Pumps
728                    055
Configuration ZP 1
RA  1: 0     RA  2: 0
RA  3: 0     RA  4: 0
RA  5: 0     RA  6: 0
RA  7: 0     RA  8: 0
RA  9: 0     RA 10: 0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Zone pump configuration (zone assignment)

The individual zones can be assigned to the corresponding zone pump using parameters “RA 1” to “RA 10”.
0 = Zone not assigned to the pump
1 = Zone assigned to the pump

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
RA 1	0	1	0
RA 2	0	1	0
RA 3	0	1	0
RA 4	0	1	0
RA 5	0	1	0
RA 6	0	1	0
RA 7	0	1	0
RA 8	0	1	0
RA 9	0	1	0
RA 10	0	1	0

```
 Zone Pumps
728                    056
Configuration ZP 1
RA  11: 0     RA  12: 0
RA  13: 0     RA  14: 0
RA  15: 0     RA  16: 0
RA  17: 0     RA  18: 0
RA  19: 0     RA  20: 0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Zone pump configuration (zone assignment)

The individual zones can be assigned to the corresponding zone pump using parameters “RA 11” to “RA 20”.
0 = Zone not assigned to the pump
1 = Zone assigned to the pump

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
RA 11	0	1	0
RA 12	0	1	0
RA 13	0	1	0
RA 14	0	1	0
RA 15	0	1	0
RA 16	0	1	0
RA 17	0	1	0
RA 18	0	1	0
RA 19	0	1	0
RA 20	0	1	0

```
 Zone Pumps
728                    057
Configuration ZP 1
RA  21: 0     RA  22: 0
RA  23: 0     RA  24: 0
RA  25: 0     AUL   : 0
```

Dialogue box visible in:	
User level	
Expert level	X

Zone pump configuration (zone assignment)

Parameters “RA 21” to “RA 25” and “AUL” (outside air) can be used to assign the individual zones to the corresponding zone pump.
0 = Zone not assigned to the pump
1 = Zone assigned to the pump

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
RA 21	0	1	0

Manufacturer level	X

RA 22	0	1	0
RA 23	0	1	0
RA 24	0	1	0
RA 25	0	1	0
Outside air	0	1	0

```
 Zone Pumps
728                    058
Configuration ZP 2
RA  1: 0      RA  2: 0
RA  3: 0      RA  4: 0
RA  5: 0      RA  6: 0
RA  7: 0      RA  8: 0
RA  9: 0      RA 10: 0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Zone pump configuration (zone assignment)

The individual zones can be assigned to the corresponding zone pump using parameters “RA 1” to “RA 10”.
0 = Zone not assigned to the pump
1 = Zone assigned to the pump

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
RA 1	0	1	0
RA 2	0	1	0
RA 3	0	1	0
RA 4	0	1	0
RA 5	0	1	0
RA 6	0	1	0
RA 7	0	1	0
RA 8	0	1	0
RA 9	0	1	0
RA 10	0	1	0

```
 Zone Pumps
728                    059
Configuration ZP 2
RA 11: 0      RA 12: 0
RA 13: 0      RA 14: 0
RA 15: 0      RA 16: 0
RA 17: 0      RA 18: 0
RA 19: 0      RA 20: 0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Zone pump configuration (zone assignment)

The individual zones can be assigned to the corresponding zone pump using parameters “RA 11” to “RA 20”.
0 = Zone not assigned to the pump
1 = Zone assigned to the pump

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
RA 11	0	1	0
RA 12	0	1	0
RA 13	0	1	0
RA 14	0	1	0
RA 15	0	1	0
RA 16	0	1	0
RA 17	0	1	0
RA 18	0	1	0
RA 19	0	1	0
RA 20	0	1	0

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```
 Zone Pumps
728                    060
Configuration ZP 2
RA 21: 0      RA 22: 0
RA 23: 0      RA 24: 0
RA 25: 0     AUL   : 0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Zone pump configuration (zone assignment)

Parameters “RA 21” to “RA 25” and “AUL” (outside air) can be used to assign the individual zones to the corresponding zone pump.
0 = Zone not assigned to the pump
1 = Zone assigned to the pump

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
RA 21	0	1	0
RA 22	0	1	0
RA 23	0	1	0
RA 24	0	1	0
RA 25	0	1	0
Outside air	0	1	0

```
 Zone Pumps
728                    061
Configuration ZP 3
RA  1: 0      RA  2: 0
RA  3: 0      RA  4: 0
RA  5: 0      RA  6: 0
RA  7: 0      RA  8: 0
RA  9: 0      RA 10: 0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Zone pump configuration (zone assignment)

The individual zones can be assigned to the corresponding zone pump using parameters “RA 1” to “RA 10”.
0 = Zone not assigned to the pump
1 = Zone assigned to the pump

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
RA 1	0	1	0
RA 2	0	1	0
RA 3	0	1	0
RA 4	0	1	0
RA 5	0	1	0
RA 6	0	1	0
RA 7	0	1	0
RA 8	0	1	0
RA 9	0	1	0
RA 10	0	1	0

```
 Zone Pumps
728                    062
Configuration ZP 3
RA 11: 0      RA 12: 0
RA 13: 0      RA 14: 0
RA 15: 0      RA 16: 0
RA 17: 0      RA 18: 0
RA 19: 0      RA 20: 0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Zone pump configuration (zone assignment)

The individual zones can be assigned to the corresponding zone pump using parameters “RA 11” to “RA 20”.
0 = Zone not assigned to the pump
1 = Zone assigned to the pump

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
RA 11	0	1	0
RA 12	0	1	0
RA 13	0	1	0
RA 14	0	1	0
RA 15	0	1	0

RA 16	0	1	0
RA 17	0	1	0
RA 18	0	1	0
RA 19	0	1	0
RA 20	0	1	0

```
 Zone Pumps
728                    063
Configuration ZP 3
RA 21: 0      RA 22: 0
RA 23: 0      RA 24: 0
RA 25: 0     AUL   : 0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Zone pump configuration (zone assignment)

Parameters “RA 21” to “RA 25” and “AUL” can be used to assign the individual zones to the corresponding zone pump.
0 = Zone not assigned to the pump
1 = Zone assigned to the pump

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
RA 21	0	1	0
RA 22	0	1	0
RA 23	0	1	0
RA 24	0	1	0
RA 25	0	1	0
Outside air	0	1	0

```
 Zone Pumps
728                    064
Configuration ZP 4
RA  1: 0      RA  2: 0
RA  3: 0      RA  4: 0
RA  5: 0      RA  6: 0
RA  7: 0      RA  8: 0
RA  9: 0      RA 10: 0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Zone pump configuration (zone assignment)

The individual zones can be assigned to the corresponding zone pump using parameters “RA 1” to “RA 10”.
0 = Zone not assigned to the pump
1 = Zone assigned to the pump

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
RA 1	0	1	0
RA 2	0	1	0
RA 3	0	1	0
RA 4	0	1	0
RA 5	0	1	0
RA 6	0	1	0
RA 7	0	1	0
RA 8	0	1	0
RA 9	0	1	0
RA 10	0	1	0

```
 Zone Pumps
728                    065
Configuration ZP 4
RA 11: 0      RA 12: 0
RA 13: 0      RA 14: 0
RA 15: 0      RA 16: 0
RA 17: 0      RA 18: 0
RA 19: 0      RA 20: 0
```

Dialogue box visible in:

Zone pump configuration (zone assignment)

The individual zones can be assigned to the corresponding zone pump using parameters “RA 11” to “RA 20”.
0 = Zone not assigned to the pump
1 = Zone assigned to the pump

With certain configurations this value is hidden in all dialogue box levels.

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User level	
Expert level	X
Manufacturer level	X

Parameter	min.	max.	default
RA 11	0	1	0
RA 12	0	1	0
RA 13	0	1	0
RA 14	0	1	0
RA 15	0	1	0
RA 16	0	1	0
RA 17	0	1	0
RA 18	0	1	0
RA 19	0	1	0
RA 20	0	1	0

```
 Zone Pumps
728                    066
Configuration ZP 4
RA 21: 0      RA 22: 0
RA 23: 0      RA 24: 0
RA 25: 0     AUL   : 0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Zone pump configuration (zone assignment)

Parameters “RA 21” to “RA 25” and “AUL” can be used to assign the individual zones to the corresponding zone pump.
0 = Zone not assigned to the pump
1 = Zone assigned to the pump

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
RA 21	0	1	0
RA 22	0	1	0
RA 23	0	1	0
RA 24	0	1	0
RA 25	0	1	0
Outside air	0	1	0

```
 Zone Pumps
728                    067
Configuration ZP 5
RA  1: 0      RA  2: 0
RA  3: 0      RA  4: 0
RA  5: 0      RA  6: 0
RA  7: 0      RA  8: 0
RA  9: 0      RA 10: 0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Zone pump configuration (zone assignment)

The individual zones can be assigned to the corresponding zone pump using parameters “RA 1” to “RA 10”.
0 = Zone not assigned to the pump
1 = Zone assigned to the pump

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
RA 1	0	1	0
RA 2	0	1	0
RA 3	0	1	0
RA 4	0	1	0
RA 5	0	1	0
RA 6	0	1	0
RA 7	0	1	0
RA 8	0	1	0
RA 9	0	1	0
RA 10	0	1	0

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```
 Zone Pumps
728                    068
Configuration ZP 5
RA 11: 0      RA 12: 0
RA 13: 0      RA 14: 0
RA 15: 0      RA 16: 0
RA 17: 0      RA 18: 0
RA 19: 0      RA 20: 0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Zone pump configuration (zone assignment)

The individual zones can be assigned to the corresponding zone pump using parameters “RA 11” to “RA 20”.
0 = Zone not assigned to the pump
1 = Zone assigned to the pump

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
RA 11	0	1	0
RA 12	0	1	0
RA 13	0	1	0
RA 14	0	1	0
RA 15	0	1	0
RA 16	0	1	0
RA 17	0	1	0
RA 18	0	1	0
RA 19	0	1	0
RA 20	0	1	0

```
 Zone Pumps
728                    069
Configuration ZP 5
RA 21: 0      RA 22: 0
RA 23: 0      RA 24: 0
RA 25: 0     AUL   : 0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Zone pump configuration (zone assignment)

Parameters “RA 21” to “RA 25” and “AUL” can be used to assign the individual zones to the corresponding zone pump.
0 = Zone not assigned to the pump
1 = Zone assigned to the pump

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
RA 21	0	1	0
RA 22	0	1	0
RA 23	0	1	0
RA 24	0	1	0
RA 25	0	1	0
Outside air	0	1	0

```
 Zone Pumps
728                    070
Configuration ZP 6
RA  1: 0      RA  2: 0
RA  3: 0      RA  4: 0
RA  5: 0      RA  6: 0
RA  7: 0      RA  8: 0
RA  9: 0      RA 10: 0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Zone pump configuration (zone assignment)

The individual zones can be assigned to the corresponding zone pump using parameters “RA 1” to “RA 10”.
0 = Zone not assigned to the pump
1 = Zone assigned to the pump

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
RA 1	0	1	0
RA 2	0	1	0
RA 3	0	1	0
RA 4	0	1	0
RA 5	0	1	0

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RA 6	0	1	0
RA 7	0	1	0
RA 8	0	1	0
RA 9	0	1	0
RA 10	0	1	0

```
 Zone Pumps
728                    071
Configuration ZP 6
RA 11: 0      RA 12: 0
RA 13: 0      RA 14: 0
RA 15: 0      RA 16: 0
RA 17: 0      RA 18: 0
RA 19: 0      RA 20: 0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Zone pump configuration (zone assignment)

The individual zones can be assigned to the corresponding zone pump using parameters “RA 11” to “RA 20”.
0 = Zone not assigned to the pump
1 = Zone assigned to the pump

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
RA 11	0	1	0
RA 12	0	1	0
RA 13	0	1	0
RA 14	0	1	0
RA 15	0	1	0
RA 16	0	1	0
RA 17	0	1	0
RA 18	0	1	0
RA 19	0	1	0
RA 20	0	1	0

```
 Zone Pumps
728                    072
Configuration ZP 6
RA 21: 0      RA 22: 0
RA 23: 0      RA 24: 0
RA 25: 0     AUL    : 0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Zone pump configuration (zone assignment)

Parameters “RA 21” to “RA 25” and “AUL” can be used to assign the individual zones to the corresponding zone pump.
0 = Zone not assigned to the pump
1 = Zone assigned to the pump

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
RA 21	0	1	0
RA 22	0	1	0
RA 23	0	1	0
RA 24	0	1	0
RA 25	0	1	0
Outside air	0	1	0

```
 Zone Pumps
728                    073
Configuration Function
ZP 1 HC............: 0
ZP 1 Follow-up....: 0
ZP 1 Contin.mode..: 0
ZP 1 Cyclical.....: 0
ZP 1 FlowTempContr: 0
```

Dialogue box visible in:

Configuration of functions

Parameter “ZP 1 HC” defines the function of the pump of the zone.
0= Pump not available
1= Pump for heating medium only
2= Pump for cooling medium only
3= Pump for heating and cooling medium

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User level	
Expert level	X
Manufacturer level	X

Parameter “ZP 1 Run-on” is used to generally enable or disable the “run-on time” function of the pump of the zone.
0= function disabled
1= function enabled

Parameter “ZP 1 Cont. oper” is used to generally enable or disable the “Continuous operation when a specified outside temperature is undershot” function of the pump of the zone.
0= function disabled
1= function enabled

Parameter “ZP 1 Cyclical” is used to generally enable or disable the “Cyclical switch-on of the pump” function of the pump of the zone.
0= function disabled
1= function enabled

Parameter “ZP 1 FlowTempContr” is used to generally enable or disable the “Supply temperature control” function of the pump of the zone.
0= function disabled
1= function enabled

Parameter	min.	max.	default
ZP 1 HC	0	3	0
ZP 1 Run-on	0	1	0
ZP 1 Cont. oper	0	1	0
ZP 1 Cyclical	0	1	0
ZP 1 FlowTempContr	0	1	0

```
 Zone Pumps
728                 074
Configuration Function
ZP 2 HC............: 0
ZP 2 Follow-up....: 0
ZP 2 contin.mode..: 0
ZP 2 cyclical.....: 0
ZP 2 FlowTempContr: 0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Configuration of functions

Parameter “ZP 2 HC” defines the function for the pump of the zone.
0= Pump not available
1= Pump for heating medium only
2= Pump for cooling medium only
3= Pump for heating and cooling medium

Parameter “ZP 2 Run-on” is used to generally enable or disable the “run-on time” function of the pump of the zone.
0= function disabled
1= function enabled

Parameter “ZP 2 Contin. oper” is used to generally enable or disable the “Continuous mode when a specified outside temperature is undershot” function of the pump of the zone.
0= function disabled
1= function enabled

Parameter “ZP 2 Cyclical” is used to generally enable or disable the “Cyclical switch-on of the pump” function of the pump of the zone.
0= function disabled
1= function enabled

Parameter “ZP 2 FlowTempContr” is used to generally enable or disable the “Supply temperature control” function of the pump of the zone.
0= function disabled
1= function enabled

Parameter	min.	max.	default
ZP 2 HC	0	3	0
ZP 2 Run-on	0	1	0
ZP 2 Cont. oper	0	1	0
ZP 2 Cyclical	0	1	0

ZP 2 FlowTempContr	0	1	0

```
 Zone Pumps
728                    075
Configuration Function
ZP 3 HC............: 0
ZP 3 Follow-up....: 0
ZP 3 contin.mode..: 0
ZP 3 cyclical.....: 0
ZP 3 FlowTempContr: 0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Configuration of functions

Parameter “ZP 3 HC” defines the function of the pump of the zone.
0= Pump not available
1= Pump for heating medium only
2= Pump for cooling medium only
3= Pump for heating and cooling medium

Parameter “ZP 3 Run-on” is used to generally enable or disable the “run-on time” function of the pump of the zone.
0= function disabled
1= function enabled

Parameter “ZP 3 Cont. oper” is used to generally enable or disable the “Continuous operation when a specified outside temperature is undershot” function of the pump of the zone.
0= function disabled
1= function enabled

Parameter “ZP 3 Cyclical” is used to generally enable or disable the “Cyclical switch-on of the pump” function of the pump of the zone.
0= function disabled
1= function enabled

Parameter “ZP 3 FlowTempContr” is used to generally enable or disable the “Supply temperature control” function of the pump of the zone.
0= function disabled
1= function enabled

Parameter	min.	max.	default
ZP 3 HC	0	3	0
ZP 3 Run-on	0	1	0
ZP 3 Cont. oper	0	1	0
ZP 3 Cyclical	0	1	0
ZP 3 FlowTempContr	0	1	0

```
 Zone Pumps
728                    076
Configuration Function
ZP 4 HC............: 0
ZP 4 Follow-up....: 0
ZP 4 contin.mode..: 0
ZP 4 cyclical.....: 0
ZP 4 FlowTempContr: 0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Configuration of functions

Parameter “ZP 4 HC” defines the function of the pump of the zone.
0= Pump not available
1= Pump for heating medium only
2= Pump for cooling medium only
3= Pump for heating and cooling medium

Parameter “ZP 4 Run-on” is used to generally enable or disable the “run-on time” function of the pump of the zone.
0= function disabled
1= function enabled

Parameter “ZP 4 Cont. oper” is used to generally enable or disable the “Continuous operation when a specified outside temperature is undershot” function of the pump of the zone.
0= function disabled
1= function enabled

Parameter “ZP 4 Cyclical” is used to generally enable or disable the “Cyclical switch-on of the pump” function of the pump of the zone.
0= function disabled
1= function enabled

Parameter “ZP 4 FlowTempContr” is used to generally enable or disable the “Supply temperature control” function of the pump of the zone.
0= function disabled
1= function enabled

Parameter	min.	max.	default
ZP 4 HC	0	3	0
ZP 4 Run-on	0	1	0
ZP 4 Cont. oper	0	1	0
ZP 4 Cyclical	0	1	0
ZP 4 FlowTempContr	0	1	0

```
 Zone Pumps
728                 077
Configuration Function
ZP 5 HC...........: 0
ZP 5 Follow-up....: 0
ZP 5 contin.mode..: 0
ZP 5 cyclical.....: 0
ZP 5 FlowTempContr: 0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Configuration of functions

Parameter “ZP 5 HC” defines the function of the pump of the zone.
0= Pump not available
1= Pump for heating medium only
2= Pump for cooling medium only
3= Pump for heating and cooling medium

Parameter “ZP 5 Run-on” is used to generally enable or disable the “run-on time” function of the pump of the zone.
0= function disabled
1= function enabled

Parameter “ZP 5 Cont. oper” is used to generally enable or disable the “Continuous operation when a specified outside temperature is undershot” function of the pump of the zone.
0= function disabled
1= function enabled

Parameter “ZP 5 Cyclical” is used to generally enable or disable the “Cyclical switch-on of the pump” function of the pump of the zone.
0= function disabled
1= function enabled

Parameter “ZP 5 FlowTempContr” is used to generally enable or disable the “Supply temperature control” function of the pump of the zone.
0= function disabled
1= function enabled

Parameter	min.	max.	default
ZP 5 HC	0	3	0
ZP 5 Run-on	0	1	0
ZP 5 Cont. oper	0	1	0
ZP 5 Cyclical	0	1	0
ZP 5 FlowTempContr	0	1	0

```
 Zone Pumps
728                 078
Configuration Function
ZP 6 HC...........: 0
ZP 6 Follow-up....: 0
ZP 6 contin.mode..: 0
ZP 6 cyclical.....: 0
ZP 6 FlowTempContr: 0
```

Dialogue box visible in:	
User level	
Expert level	X

Configuration of functions

Parameter “ZP 6 HC” defines the function of the pump of the zone.
0= Pump not available
1= Pump for heating medium only
2= Pump for cooling medium only
3= Pump for heating and cooling medium

Parameter “ZP 6 Run-on” is used to generally enable or disable the “run-on time” function of the pump of the zone.
0= function disabled
1= function enabled

Manufacturer level	X

Parameter “ZP 6 Cont. oper” is used to generally enable or disable the “Continuous mode when a specified outside temperature is undershot” function of the pump of the zone.
0= function disabled
1= function enabled

Parameter “ZP 6 Cyclical” is used to generally enable or disable the “Cyclical switch-on of the pump” function of the pump of the zone.
0= function disabled
1= function enabled

Parameter “ZP 6 FlowTempContr” is used to generally enable or disable the “Supply temperature control” function of the pump of the zone.
0= function disabled
1= function enabled

Parameter	min.	max.	default
ZP 6 HC	0	3	0
ZP 6 Run-on	0	1	0
ZP 6 Cont. oper	0	1	0
ZP 6 Cyclical	0	1	0
ZP 6 FlowTempContr	0	1	0

12.2.9 Zone ventilation

Depending on the connection of individual zones to ventilation systems, potential-free contacts may be needed to control individual zone ventilation systems. They can be configured separately.

```
 Zone Venting
729                    001
Signal states
ZVent. 1 Enable..:   0
ZVent. 2 Enable..:   0
ZVent. 3 Enable..:   0
ZVent. 4 Enable..:   0
ZVent. 5 Enable..:   0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Display of current signal states

The “ZVent. 1 Enable” signal state displays the control signal currently output to enable zone ventilation for zone 1.
0 = Zone ventilation enable not active
1 = Zone ventilation enable active

The “ZVent. 2 Enable” signal state displays the control signal currently output to enable zone ventilation for zone 2.
0 = Zone ventilation enable not active
1 = Zone ventilation enable active

The “ZVent. 3 Enable” signal state displays the control signal currently output to enable zone ventilation for zone 3.
0 = Zone ventilation enable not active
1 = Zone ventilation enable active

The “ZVent. 4 Enable” signal state displays the control signal currently output to enable zone ventilation for zone 4.
0 = Zone ventilation enable not active
1 = Zone ventilation enable active

The “ZVent. 5 Enable” signal state displays the control signal currently output to enable zone ventilation for zone 5.
0 = Zone ventilation enable not active
1 = Zone ventilation enable active

```
 Zone Venting
729                    002
Signal states
ZVent. 6 Enable..:   0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Display of current signal states

The “ZVent. 6 Enable” signal state displays the control signal currently output to enable zone ventilation for zone 6.
0 = Zone ventilation enable not active
1 = Zone ventilation enable active

```
 Zone Venting
729                    003
ZV 1 Manual Mode
Auto=0 Hand=1.:     0
Hand value DO.:     0
Output  DO....:     0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Manual mode

The “Auto=0 Manual=1” parameter can be used to overwrite signal outputs in automatic mode with manual values.
0 = Signal output is assigned by automatic mode
1 = Signal output is assigned by manual mode

The “Manual value DO” parameter defines the value of the digital output “Ventilation control” of the zone when manual mode is enabled.

The “Output DO” signal state displays the digital control signal currently output for the “Ventilation control” output of the zone.

An enabled manual mode is displayed in the fault message list.

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
Auto=0 Manual =1	0	1	0
Manual value DO	0	1	0

```
 Zone Venting
729                    004
ZV 2 Manual Mode
Auto=0 Hand=1.:     0
Hand value DO.:     0
Output  DO....:     0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Manual mode

The “Auto=0 Manual=1” parameter can be used to overwrite signal outputs in automatic mode with manual values.
0 = Signal output is assigned by automatic mode
1 = Signal output is assigned by manual mode

The “Manual value DO” parameter defines the value of the digital output “Ventilation control” of the zone when manual mode is enabled.

The “Output DO” signal state displays the digital control signal currently applied at the “Ventilation control” output of the zone.

An enabled manual mode is displayed in the fault message list.

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
Auto=0 Manual =1	0	1	0
Manual value DO	0	1	0

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```
 Zone Venting
729                    005
ZV 3 Manual Mode
Auto=0 Hand=1.:      0
Hand value DO.:      0
Output  DO....:      0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Manual mode

The “Auto=0 Manual=1” parameter can be used to overwrite signal outputs in automatic mode with manual values.
0 = Signal output is assigned by automatic mode
1 = Signal output is assigned by manual mode

The “Manual value DO” parameter defines the value of the digital output “Ventilation control” of the zone when manual mode is enabled.

The “Output DO” signal state displays the digital control signal currently applied at the “Ventilation control” output of the zone.

An enabled manual mode is displayed in the fault message list.

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
Auto=0 Manual =1	0	1	0
Manual value DO	0	1	0

```
 Zone Venting
729                    006
ZV 4 Manual Mode
Auto=0 Hand=1.:      0
Hand value DO.:      0
Output  DO....:      0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Manual mode

The “Auto=0 Manual=1” parameter can be used to overwrite signal outputs in automatic mode with manual values.
0 = Signal output is assigned by automatic mode
1 = Signal output is assigned by manual mode

The “Manual value DO” parameter defines the value of the digital output “Ventilation control” of the zone when manual mode is enabled.

The “Output DO” signal state displays the digital control signal currently applied at the “Ventilation control” output of the zone.

An enabled manual mode is displayed in the fault message list.

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
Auto=0 Manual =1	0	1	0
Manual value DO	0	1	0

```
 Zone Venting
729                    007
ZV 5 Manual Mode
Auto=0 Hand=1.:      0
Hand value DO.:      0
Output  DO....:      0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Manual mode

The “Auto=0 Manual=1” parameter can be used to overwrite signal outputs in automatic mode with manual values.
0 = Signal output is assigned by automatic mode
1 = Signal output is assigned by manual mode

The “Manual value DO” parameter defines the value of the digital output “Ventilation control” of the zone when manual mode is enabled.

The “Output DO” signal state displays the digital control signal currently applied at the “Ventilation control” output of the zone.

An enabled manual mode is displayed in the fault message list.

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
Auto=0 Manual =1	0	1	0
Manual value DO	0	1	0

```
 Zone Venting
729                    008
ZV 6 Manual Mode
Auto=0 Hand=1.:      0
Hand value DO.:      0
Output  DO....:      0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Manual mode

The “Auto=0 Manual=1” parameter can be used to overwrite signal outputs in automatic mode with manual values.
0 = Signal output is assigned by automatic mode
1 = Signal output is assigned by manual mode

The “Manual value DO” parameter defines the value of the digital output “Ventilation control” of the zone when manual mode is enabled.

The “Output DO” signal state displays the digital control signal currently applied at the “Ventilation control” output of the zone.

An enabled manual mode is displayed in the fault message list.

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
Auto=0 Manual =1	0	1	0
Manual value DO	0	1	0

```
 Zone Venting
729                    009
Configuration ZV 1
RA  1: 0      RA  2: 0
RA  3: 0      RA  4: 0
RA  5: 0      RA  6: 0
RA  7: 0      RA  8: 0
RA  9: 0      RA 10: 0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Zone ventilation configuration (zone assignment)

Parameters “RA 1” to “RA 10” can be used to assign the individual zones to the corresponding zone ventilation systems.
0 = Zone not assigned to zone ventilation system
1 = Zone assigned to zone ventilation system

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
RA 1	0	1	0
RA 2	0	1	0
RA 3	0	1	0
RA 4	0	1	0
RA 5	0	1	0
RA 6	0	1	0
RA 7	0	1	0
RA 8	0	1	0
RA 9	0	1	0
RA 10	0	1	0

```
 Zone Venting
729                    010
Configuration ZV 1
RA 11: 0      RA 12: 0
RA 13: 0      RA 14: 0
RA 15: 0      RA 16: 0
RA 17: 0      RA 18: 0
RA 19: 0      RA 20: 0
```

Zone ventilation configuration (zone assignment)

Parameters “RA 11” to “RA 20” can be used to assign the individual zones to the corresponding zone ventilation systems.
0 = Zone not assigned to zone ventilation system
1 = Zone assigned to zone ventilation system

With certain configurations this value is hidden in all dialogue box levels.

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Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Parameter	min.	max.	default
RA 11	0	1	0
RA 12	0	1	0
RA 13	0	1	0
RA 14	0	1	0
RA 15	0	1	0
RA 16	0	1	0
RA 17	0	1	0
RA 18	0	1	0
RA 19	0	1	0
RA 20	0	1	0

```
 Zone Venting
729                    011
Configuration ZV 1
RA 21: 0      RA 22: 0
RA 23: 0      RA 24: 0
RA 25: 0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Zone ventilation configuration (zone assignment)

Parameters “RA 21” to “RA 25” can be used to assign the individual zones to the corresponding zone ventilation systems.
0 = Zone not assigned to zone ventilation system
1 = Zone assigned to zone ventilation system

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
RA 21	0	1	0
RA 22	0	1	0
RA 23	0	1	0
RA 24	0	1	0
RA 25	0	1	0

```
 Zone Venting
729                    012
Configuration ZV 2
RA  1: 0      RA  2: 0
RA  3: 0      RA  4: 0
RA  5: 0      RA  6: 0
RA  7: 0      RA  8: 0
RA  9: 0      RA 10: 0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Zone ventilation configuration (zone assignment)

Parameters “RA 1” to “RA 10” can be used to assign the individual zones to the corresponding zone ventilation systems.
0 = Zone not assigned to zone ventilation system
1 = Zone assigned to zone ventilation system

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
RA 1	0	1	0
RA 2	0	1	0
RA 3	0	1	0
RA 4	0	1	0
RA 5	0	1	0
RA 6	0	1	0
RA 7	0	1	0
RA 8	0	1	0
RA 9	0	1	0
RA 10	0	1	0

```
 Zone Venting
729                    013
Configuration ZV 2
RA 11: 0      RA 12: 0
RA 13: 0      RA 14: 0
RA 15: 0      RA 16: 0
RA 17: 0      RA 18: 0
RA 19: 0      RA 20: 0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Zone ventilation configuration (zone assignment)

Parameters “RA 11” to “RA 20” can be used to assign the individual zones to the corresponding zone ventilation systems.
0 = Zone not assigned to zone ventilation system
1 = Zone assigned to zone ventilation system

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
RA 11	0	1	0
RA 12	0	1	0
RA 13	0	1	0
RA 14	0	1	0
RA 15	0	1	0
RA 16	0	1	0
RA 17	0	1	0
RA 18	0	1	0
RA 19	0	1	0
RA 20	0	1	0

```
 Zone Veting
729                    014
Configuration ZV 2
RA 21: 0      RA 22: 0
RA 23: 0      RA 24: 0
RA 25: 0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Zone ventilation configuration (zone assignment)

Parameters “RA 21” to “RA 25” can be used to assign the individual zones to the corresponding zone ventilation systems.
0 = Zone not assigned to zone ventilation system
1 = Zone assigned to zone ventilation system

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
RA 21	0	1	0
RA 22	0	1	0
RA 23	0	1	0
RA 24	0	1	0
RA 25	0	1	0

```
 Zone Venting
729                    015
Configuration ZV 3
RA  1: 0      RA  2: 0
RA  3: 0      RA  4: 0
RA  5: 0      RA  6: 0
RA  7: 0      RA  8: 0
RA  9: 0      RA 10: 0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Zone ventilation configuration (zone assignment)

Parameters “RA 1” to “RA 10” can be used to assign the individual zones to the corresponding zone ventilation systems.
0 = Zone not assigned to zone ventilation system
1 = Zone assigned to zone ventilation system

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
RA 1	0	1	0
RA 2	0	1	0
RA 3	0	1	0
RA 4	0	1	0
RA 5	0	1	0
RA 6	0	1	0

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RA 7	0	1	0
RA 8	0	1	0
RA 9	0	1	0
RA 10	0	1	0

```
 Zone Venting
729                    016
Configuration ZV 3
RA 11: 0      RA 12: 0
RA 13: 0      RA 14: 0
RA 15: 0      RA 16: 0
RA 17: 0      RA 18: 0
RA 19: 0      RA 20: 0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Zone ventilation configuration (zone assignment)

Parameters “RA 11” to “RA 20” can be used to assign the individual zones to the corresponding zone ventilation systems.
0 = Zone not assigned to zone ventilation system
1 = Zone assigned to zone ventilation system

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
RA 11	0	1	0
RA 12	0	1	0
RA 13	0	1	0
RA 14	0	1	0
RA 15	0	1	0
RA 16	0	1	0
RA 17	0	1	0
RA 18	0	1	0
RA 19	0	1	0
RA 20	0	1	0

```
 Zone Venting
729                    017
Configuration ZV 3
RA 21: 0      RA 22: 0
RA 23: 0      RA 24: 0
RA 25: 0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Zone ventilation configuration (zone assignment)

Parameters “RA 21” to “RA 25” can be used to assign the individual zones to the corresponding zone ventilation systems.
0 = Zone not assigned to zone ventilation system
1 = Zone assigned to zone ventilation system

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
RA 21	0	1	0
RA 22	0	1	0
RA 23	0	1	0
RA 24	0	1	0
RA 25	0	1	0

```
 Zone Venitng
729                    018
Configuration ZV 4
RA  1: 0      RA  2: 0
RA  3: 0      RA  4: 0
RA  5: 0      RA  6: 0
RA  7: 0      RA  8: 0
RA  9: 0      RA 10: 0
```

Dialogue box visible in:	
User level	
Expert level	X

Zone ventilation configuration (zone assignment)

Parameters “RA 1” to “RA 10” can be used to assign the individual zones to the corresponding zone ventilation systems.
0 = Zone not assigned to zone ventilation system
1 = Zone assigned to zone ventilation system

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default

Manufacturer level	X

RA 1	0	1	0
RA 2	0	1	0
RA 3	0	1	0
RA 4	0	1	0
RA 5	0	1	0
RA 6	0	1	0
RA 7	0	1	0
RA 8	0	1	0
RA 9	0	1	0
RA 10	0	1	0

```
 Zone Venting
729                    019
Configuration ZV 4
RA 11: 0      RA 12: 0
RA 13: 0      RA 14: 0
RA 15: 0      RA 16: 0
RA 17: 0      RA 18: 0
RA 19: 0      RA 20: 0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Zone ventilation configuration (zone assignment)

Parameters “RA 11” to “RA 20” can be used to assign the individual zones to the corresponding zone ventilation systems.
0 = Zone not assigned to zone ventilation system
1 = Zone assigned to zone ventilation system

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
RA 11	0	1	0
RA 12	0	1	0
RA 13	0	1	0
RA 14	0	1	0
RA 15	0	1	0
RA 16	0	1	0
RA 17	0	1	0
RA 18	0	1	0
RA 19	0	1	0
RA 20	0	1	0

```
 Zone Venting
729                    020
Configuration ZV 4
RA 21: 0      RA 22: 0
RA 23: 0      RA 24: 0
RA 25: 0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Zone ventilation configuration (zone assignment)

Parameters “RA 21” to “RA 25” can be used to assign the individual zones to the corresponding zone ventilation systems.
0 = Zone not assigned to zone ventilation system
1 = Zone assigned to zone ventilation system

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
RA 21	0	1	0
RA 22	0	1	0
RA 23	0	1	0
RA 24	0	1	0
RA 25	0	1	0

```
 Zone Vetning
729                    021
Configuration ZV 5
RA  1: 0      RA  2: 0
RA  3: 0      RA  4: 0
RA  5: 0      RA  6: 0
RA  7: 0      RA  8: 0
RA  9: 0      RA 10: 0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Zone ventilation configuration (zone assignment)

Parameters “RA 1” to “RA 10” can be used to assign the individual zones to the corresponding zone ventilation systems.
0 = Zone not assigned to zone ventilation system
1 = Zone assigned to zone ventilation system

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
RA 1	0	1	0
RA 2	0	1	0
RA 3	0	1	0
RA 4	0	1	0
RA 5	0	1	0
RA 6	0	1	0
RA 7	0	1	0
RA 8	0	1	0
RA 9	0	1	0
RA 10	0	1	0

```
 Zone Venting
729                    022
Configuration ZV 5
RA 11: 0      RA 12: 0
RA 13: 0      RA 14: 0
RA 15: 0      RA 16: 0
RA 17: 0      RA 18: 0
RA 19: 0      RA 20: 0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Zone ventilation configuration (zone assignment)

Parameters “RA 11” to “RA 20” can be used to assign the individual zones to the corresponding zone ventilation systems.
0 = Zone not assigned to zone ventilation system
1 = Zone assigned to zone ventilation system

Certain configurations hide this dialogue box in all dialogue box levels.

Parameter	min.	max.	default
RA 11	0	1	0
RA 12	0	1	0
RA 13	0	1	0
RA 14	0	1	0
RA 15	0	1	0
RA 16	0	1	0
RA 17	0	1	0
RA 18	0	1	0
RA 19	0	1	0
RA 20	0	1	0

```
 Zone Venting
729                    023
Configuration ZV 5
RA 21: 0      RA 22: 0
RA 23: 0      RA 24: 0
RA 25: 0
```

Dialogue box visible in:	
User level	
Expert level	X

Zone ventilation configuration (zone assignment)

Parameters “RA 21” to “RA 25” can be used to assign the individual zones to the corresponding zone ventilation systems.
0 = Zone not assigned to zone ventilation system
1 = Zone assigned to zone ventilation system

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
RA 21	0	1	0

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Manufacturer level	X

RA 22	0	1	0
RA 23	0	1	0
RA 24	0	1	0
RA 25	0	1	0

```
 Zone Venting
729                 024
Configuration ZV 6
RA  1: 0      RA  2: 0
RA  3: 0      RA  4: 0
RA  5: 0      RA  6: 0
RA  7: 0      RA  8: 0
RA  9: 0      RA 10: 0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Zone ventilation configuration (zone assignment)

Parameters “RA 1” to “RA 10” can be used to assign the individual zones to the corresponding zone ventilation systems.
0 = Zone not assigned to zone ventilation system
1 = Zone assigned to zone ventilation system

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
RA 1	0	1	0
RA 2	0	1	0
RA 3	0	1	0
RA 4	0	1	0
RA 5	0	1	0
RA 6	0	1	0
RA 7	0	1	0
RA 8	0	1	0
RA 9	0	1	0
RA 10	0	1	0

```
 Zone Venting
729                 025
Configuration ZV 6
RA 11: 0      RA 12: 0
RA 13: 0      RA 14: 0
RA 15: 0      RA 16: 0
RA 17: 0      RA 18: 0
RA 19: 0      RA 20: 0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Zone ventilation configuration (zone assignment)

Parameters “RA 11” to “RA 20” can be used to assign the individual zones to the corresponding zone ventilation systems.
0 = Zone not assigned to zone ventilation system
1 = Zone assigned to zone ventilation system

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
RA 11	0	1	0
RA 12	0	1	0
RA 13	0	1	0
RA 14	0	1	0
RA 15	0	1	0
RA 16	0	1	0
RA 17	0	1	0
RA 18	0	1	0
RA 19	0	1	0
RA 20	0	1	0

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```
 Zone Venting
729                    026
Configuration ZV 6
RA 21: 0      RA 22: 0
RA 23: 0      RA 24: 0
RA 25: 0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Zone ventilation configuration (zone assignment)

Parameters “RA 21” to “RA 25” can be used to assign the individual zones to the corresponding zone ventilation systems.
0 = Zone not assigned to zone ventilation system
1 = Zone assigned to zone ventilation system

With certain configurations this value is hidden in all dialogue box levels.

Parameter	min.	max.	default
RA 21	0	1	0
RA 22	0	1	0
RA 23	0	1	0
RA 24	0	1	0
RA 25	0	1	0

```
 Zone Venting
729                    027
Configuration Function
ZV 1 existent.....: 0
ZV 2 existent.....: 0
ZV 3 existent.....: 0
ZV 4 existent.....: 0
ZV 5 existent.....: 0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Configuration of functions

Parameter “ZV 1 available” defines the function of the ventilation system of the zone.
0= not available
1= available

Parameter “ZV 2 available” defines the function of the ventilation system of the zone.
0= not available
1= available

Parameter “ZV 3 available” defines the function of the ventilation system of the zone.
0= not available
1= available

Parameter “ZV 4 available” defines the function of the ventilation system of the zone.
0= not available
1= available

Parameter “ZV 5 available” defines the function of the ventilation system of the zone.
0= not available
1= available

Parameter	min.	max.	default
ZV 1 available	0	1	0
ZV 2 available	0	1	0
ZV 3 available	0	1	0
ZV 4 available	0	1	0
ZV 5 available	0	1	0

```
 Zone Venting
729                    028
Configuration Function
ZV 6 existent.....: 0
```

Dialogue box visible in:

Configuration of functions

Parameter “ZV 6 available” defines the function of the ventilation system of the zone.
0= not available
1= available

Parameter	min.	max.	default
ZV 6 available	0	1	0

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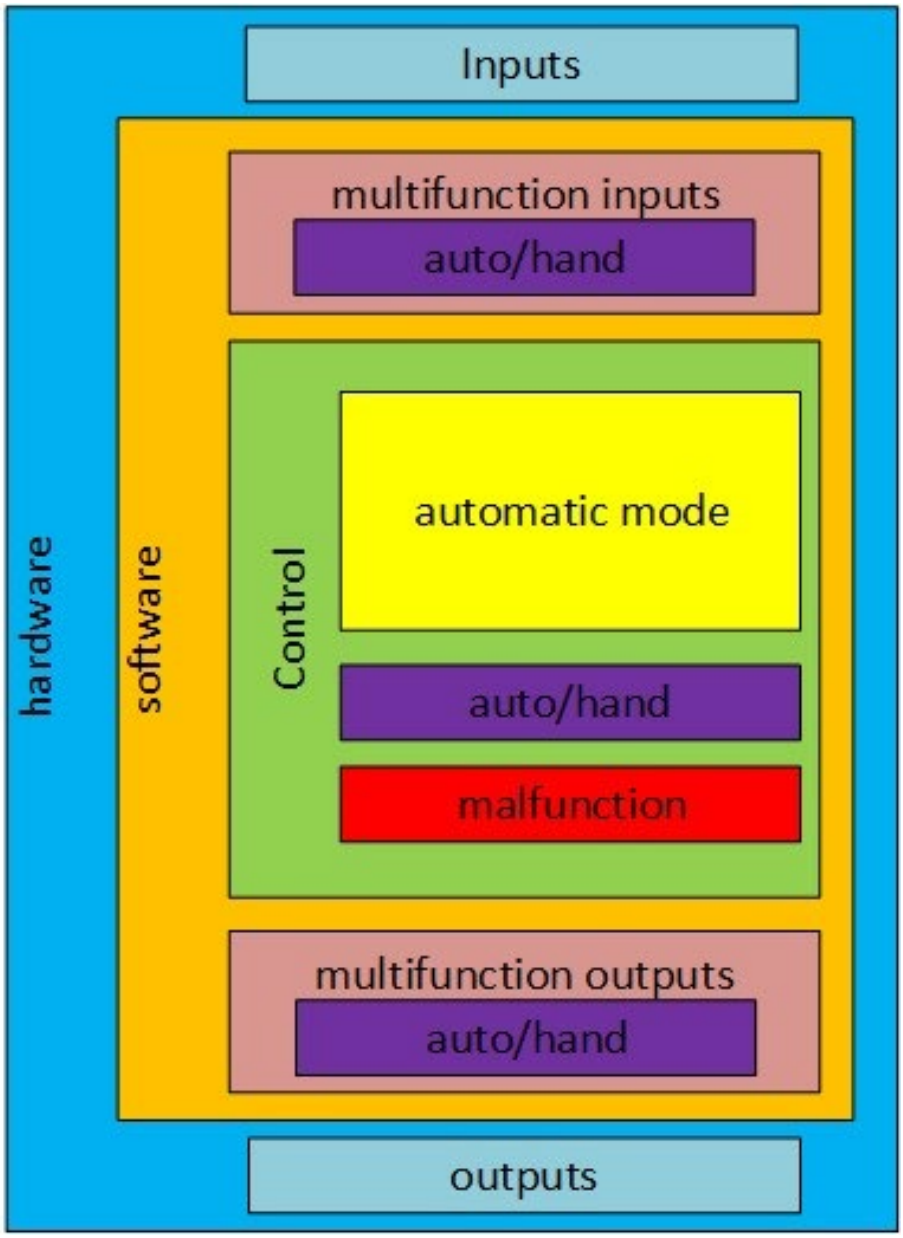
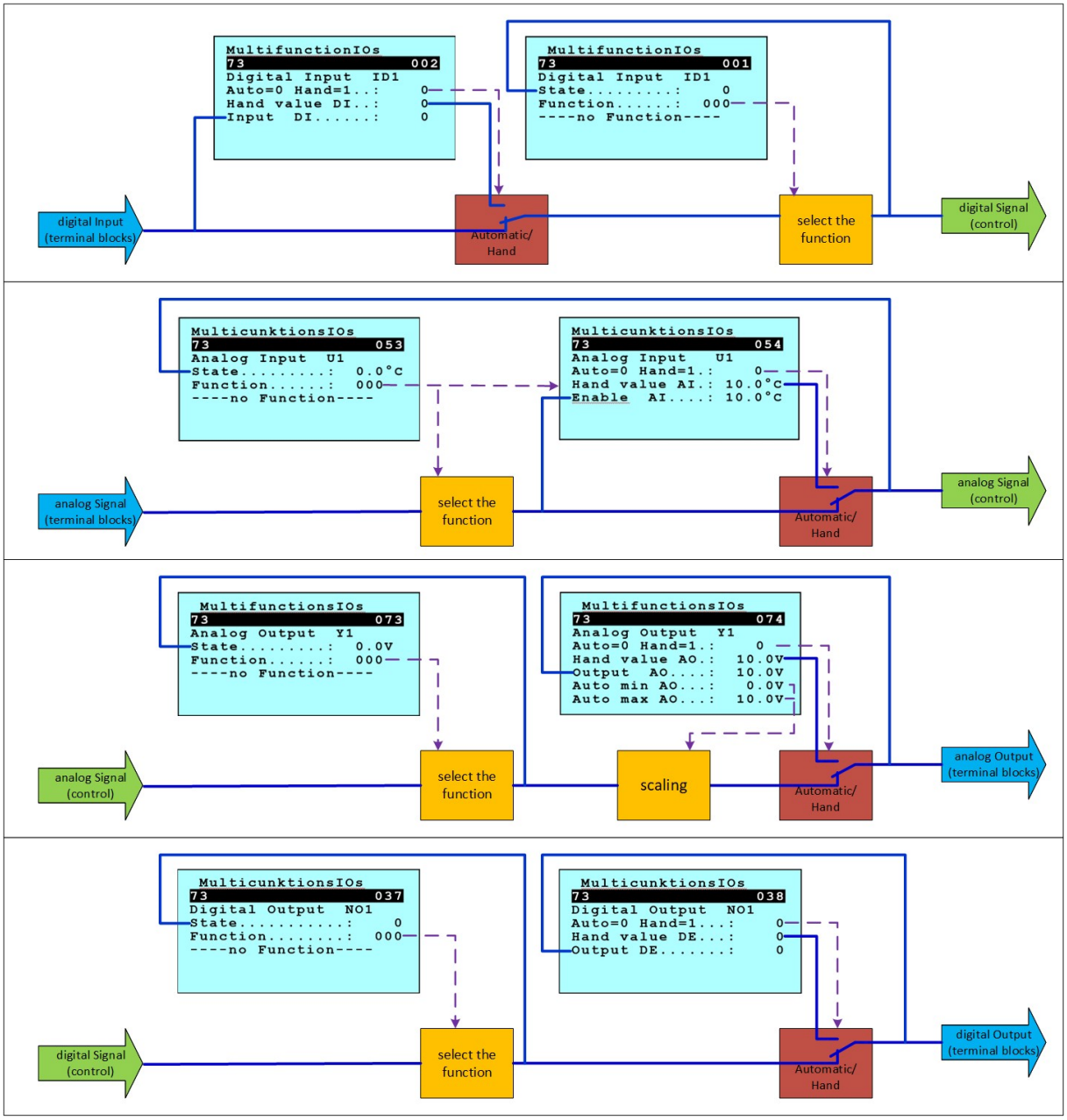
User level	
Expert level	X
Manufacturer level	X

12.3 Multifunctional IOs

All analogue and digital inputs and outputs can be assigned multifunctionally specific functions. This is mostly done automatically using the quick configuration. The following diagram illustrates the signal flow from the hardware to the software (inputs) and vice-versa (outputs):



The following diagram illustrates how manual operation of the analogue and digital inputs and outputs is integrated into the signal flow:



The following list contains the possible functions of the analogue and digital inputs and outputs. There may be gaps in the numbering to ensure consistency with other software versions:

DI
==

```
000  -----no function-----
009  -- Button Acknowle-NO-
011  -- fault FS prio.1-NC-
014  -- fault FS prio.1-NO-
017  -- TSP 1   Day    -NO-
018  -- TSP 1   Extra  -NO-
019  -- TSP 1   Eco    -NO-
020  -- TSP 1   Off    -NO-
021  -- TSP 2   Day    -NO-
022  -- TSP 2   Extra  -NO-
023  -- TSP 2   Eco    -NO-
024  -- TSP 2   Off    -NO-
025  -- TSP 3   Day    -NO-
026  -- TSP 3   Extra  -NO-
027  -- TSP 3   Eco    -NO-
028  -- TSP 3   Off    -NO-
029  -- TSP 4   Day    -NO-
030  -- TSP 4   Extra  -NO-
031  -- TSP 4   Eco    -NO-
032  -- TSP 4   Off    -NO-
033  -- TSP 5   Day    -NO-
034  -- TSP 5   Extra  -NO-
035  -- TSP 5   Eco    -NO-
036  -- TSP 5   Off    -NO-
037  -- TSP 1   Day    -NC-
038  -- TSP 1   Extra  -NC-
039  -- TSP 1   Eco    -NC-
040  -- TSP 1   Off    -NC-
041  -- TSP 2   Day    -NC-
042  -- TSP 2   Extra  -NC-
043  -- TSP 2   Eco    -NC-
044  -- TSP 2   Off    -NC-
045  -- TSP 3   Day    -NC-
046  -- TSP 3   Extra  -NC-
047  -- TSP 3   Eco    -NC-
048  -- TSP 3   Off    -NC-
049  -- TSP 4   Day    -NC-
050  -- TSP 4   Extra  -NC-
051  -- TSP 4   Eco    -NC-
052  -- TSP 4   Off    -NC-
053  -- TSP 5   Day    -NC-
054  -- TSP 5   Extra  -NC-
055  -- TSP 5   Eco    -NC-
056  -- TSP 5   Off    -NC-
057  -- TSP 1-5 Day    -NO-
058  -- TSP 1-5 Extra  -NO-
059  -- TSP 1-5 Eco    -NO-
060  -- TSP 1-5 Off    -NO-
061  -- TSP 1-5 Day    -NC-
062  -- TSP 1-5 Extra  -NC-
063  -- TSP 1-5 Eco    -NC-
064  -- TSP 1-5 Off    -NC-
065  -- TSP 1   DOE but-NO-
066  -- TSP 2   DOE but-NO-
067  -- TSP 3   DOE but-NO-
068  -- TSP 4   DOE but-NO-
069  -- TSP 5   DOE but-NO-
070  -- TSP 1-5 DOE but-NO-
073  -- Remote On/Off  -NO-
074  -- Remote On/Off  -NC-
075  -- Heat demand    -NO-
076  -- Heat demand    -NC-
077  -- Heat demand    -NO-
078  -- Heat demand    -NC-
079  -- Fault   HG     -NO-
080  -- Fault   HG     -NC-
081  -- Fault   CG     -NO-
082  -- Fault   CG     -NC-
083  -- Fault   HP     -NO-
084  -- Fault   HP     -NC-
085  -- Fault   Pum HG -NO-
086  -- Fault   Pum HG -NC-
087  -- Fault   Pum CG -NO-
088  -- Fault   Pum CG -NC-
089  -- Fault   Pum HP -NO-
090  -- Fault   Pum HP -NC-
091  -- Fault   Pum HC -NO-
092  -- Fault   Pum HC -NC-
093  -- buton   Su/Wi  -NO-
094  -- Contact Su/Wi  -NO-
095  -- Contact Su/Wi  -NC-
124  -- Fault external -NO-
125  -- Fault external -NC-
126  -- maint. external-NO-
127  -- maint. external-NC-
128  -- Message HG     -NO-
129  -- Message HG     -NC-
130  -- Message CG     -NO-
131  -- Message CG     -NC-
132  -- Message HP     -NO-
133  -- Message HP     -NC-
134  -- Message Pum HG -NO-
135  -- Message Pum HG -NC-
136  -- Message Pum CG -NO-
137  -- Message Pum CG -NC-
138  -- Message Pum HP -NO-
139  -- Message Pum HP -NC-
140  -- Message Pum HC -NO-
141  -- Message Pum HC -NC-
196  -- F. Zone pump .1-NC-
197  -- F. Zone pump .1-NO-
198  -- F. Zone pump .2-NC-
199  -- F. Zone pump .2-NO-
200  -- F. Zone pump .3-NC-
201  -- F. Zone pump .3-NO-
202  -- F. Zone pump .4-NC-
203  -- F. Zone pump .4-NO-
204  -- F. Zone pump .5-NC-
205  -- F. Zone pump .5-NO-
206  -- F. Zone pump .6-NC-
207  -- F. Zone pump .6-NO-
```

DO
==

```
000  -----no function-----
001  -- Heating deman    --
002  -- Cooling demand   --
003  -- cangeing HK      --
004  -- FSd priority  1  --
008  -- collective fault --
009  -- Man. mode active --
010  -- TSP 1 Day        --
011  -- TSP 1 Extra      --
012  -- TSP 1 Eco        --
013  -- TSP 1 Off        --
014  -- TSP 2 Day        --
015  -- TSP 2 Extra      --
016  -- TSP 2 Eco        --
017  -- TSP 2 Off        --
018  -- TSP 3 Day        --
019  -- TSP 3 Extra      --
020  -- TSP 3 Eco        --
021  -- TSP 3 Off        --
022  -- TSP 4 Day        --
023  -- TSP 4 Extra      --
024  -- TSP 4 Eco        --
025  -- TSP 4 Off        --
026  -- TSP 5 Day        --
```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```
027  -- TSP 5 Extra      --
028  -- TSP 5 Eco        --
029  -- TSP 5 Off        --
030  -- Summer           --
031  -- Winter           --
032  -- Heating mode     --
033  -- Cooling mode     --
034  -- Release  HG      --
035  -- Release  CG      --
036  -- Release  HP      --
037  -- HCHP             --
038  -- Release Pump  HG --
039  -- Release Pump  CG --
040  -- Release Pump  HP --
041  -- Release Pump HC  --
042  -- Valve HC         --
043  -- Valve HPHG       --
055  -- Remote On/Off    --
074  -- Maintenance      --
097  -- Zone pump  1     --
098  -- Zone pump  2     --
099  -- Zone pump  3     --
100  -- Zone pump  4     --
101  -- Zone pump  5     --
102  -- Zone pump  6     --
103  -- Zone venting 1   --
104  -- Zone venting 2   --
105  -- Zone venting 3   --
106  -- Zone venting 4   --
107  -- Zone venting 5   --
108  -- Zone venting 6   --
```

AI
==

```
000  -----no function-----
003  -- RETT-Sensor      --
004  -- OT-Sensor        --
019  -- INLT-Sensor      --
020  -- RLT-Sensor CHW   --
021  -- INLT -Sensor CHW --
022  -- RET-Sensor PHW   --
023  -- INLT -Sensor PHW  --
024  -- INLT Zone pump  1 --
025  -- INLT Zone pump  2 --
026  -- INLT Zone pump  3 --
027  -- INLT Zone pump  4 --
028  -- INLT Zone pump  5 --
029  -- INLT Zone pump  6 --
```

AO
==

```
000  -----no function-----
027  - Valve Zone pump   1-
028  - Valve Zone pump   2-
029  - Valve Zone pump   3-
030  - Valve Zone pump   4-
031  - Valve Zone pump   5-
032  - Valve Zone pump   6-
```

Some dialogue box numbers are missing and have been skipped to ensure that the menu structure and numbering is identical to other versions of the software.

```
 MultifunctionIOs
73                  001
Digital Input  ID1
State.........:     0
Function......:   000
----no Function----
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Digital input ID 1

The digital input can be parametrised for different functions.

The “State” value displays whether the digital input is currently wired:
0 = disabled
1 = enabled

The “Function” parameter defines the function of the digital input:

Parameter	min.	max.	default
Function	0	207	0

```
MultifunctionIOs
73                    002
Digital Input  ID1
Auto=0 Hand=1..:      0
Hand value DI..:      0
Input  DI......:      0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Digital input ID 1

The “Auto=0 Manual=1” parameter can be used to overwrite signal inputs with manual values.
0=Signal input is assigned
1=Manual value is assigned

Parameter “Manual value DI” defines the value of the digital input “DI” when manual mode is enabled.

The signal state “Input DI” displays the currently pending digital signal “DI”.
0 = not wired
1 = wired

An enabled manual mode is displayed in the fault message list.

Parameter	min.	max.	default
Auto=0 Manual=1	0	1	0
Manual value DI	0	1	0

```
MultifunctionIOs
73                    003
Digital Input  ID2
State.........:       0
Function......:     000
----no Function----
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Digital input ID 2

The digital input can be parametrised for different functions.

The “State” value displays whether the digital input is currently wired:
0 = disabled
1 = enabled

The “Function” parameter defines the function of the digital input:

Parameter	min.	max.	default
Function	0	207	0

```
MultifunctionIOs
73                    004
Digital Input  ID2
Auto=0 Hand=1..:      0
Hand value DI..:      0
Input  DI......:      0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Digital input ID 2

The “Auto=0 Manual=1” parameter can be used to overwrite signal inputs with manual values.
0=Signal input is assigned
1=Manual value is assigned

Parameter “Manual value DI” defines the value of the digital input “DI” when manual mode is enabled.

The signal state “Input DI” displays the currently pending digital signal “DI”.
0 = not wired
1 = wired

An enabled manual mode is displayed in the fault message list.

Parameter	min.	max.	default
Auto=0 Manual=1	0	1	0
Manual value DI	0	1	0

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```
MultifunctionIOs
73                    029
Digital Input  U7
State.......:     0
Function......:  000
----no Function----
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Digital input U 7

The digital input can be parametrised for different functions.

The “State” value displays whether the digital input is currently wired:
0 = disabled
1 = enabled

The “Function” parameter defines the function of the digital input:

Parameter	min.	max.	default
Function	0	207	0

```
MultifunctionIOs
73                    030
Digital Input  U7
Auto=0 Hand=1..:     0
Hand value DI..:     0
Input  DI......:     0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Digital input U 7

The “Auto=0 Manual=1” parameter can be used to overwrite signal inputs with manual values.
0=Signal input is assigned
1=Manual value is assigned

Parameter “Manual value DI” defines the value of the digital input “DI” when manual mode is enabled.

The signal state “Input DI” displays the currently pending digital signal “DI”.
0 = not wired
1 = wired

An enabled manual mode is displayed in the fault message list.

Parameter	min.	max.	default
Auto=0 Manual=1	0	1	0
Manual value DI	0	1	0

```
MultifunctionIOs
73                    031
Digital Input  U8
State.......:     0
Function......:  000
----no Function----
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Digital input U 8

The digital input can be parametrised for different functions.

The “State” value displays whether the digital input is currently wired:
0 = disabled
1 = enabled

The “Function” parameter defines the function of the digital input:

Parameter	min.	max.	default
Function	0	207	0

```
MultifunctionIOs
73                    032
Digital Input U8
Auto=0 Hand=1..:     0
Hand value DI..:     0
Input  DI......:     0
```

Dialogue box visible in:	
User level	

Digital input U 8

The “Auto=0 Manual=1” parameter can be used to overwrite signal inputs with manual values.
0=Signal input is assigned
1=Manual value is assigned

Parameter “Manual value DI” defines the value of the digital input “DI” when manual mode is enabled.

The signal state “Input DI” displays the currently pending digital

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Expert level	X
Manufacturer level	X

signal “DI”.
0 = not wired
1 = wired

An enabled manual mode is displayed in the fault message list.

Parameter	min.	max.	default
Auto=0 Manual=1	0	1	0
Manual value DI	0	1	0

```
MultifunctionIOs
73                    033
Digital Input  U9
State.........v.:     0
Function......v.:   000
----no Function----
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Digital input U 9

The digital input can be parametrised for different functions.

The “State” value displays whether the digital input is currently wired:
0 = disabled
1 = enabled

The “Function” parameter defines the function of the digital input:

Parameter	min.	max.	default
Function	0	207	0

```
MultifunctionIOs
73                    034
Digital Input  U9
Auto=0 Hand=1...:     0
Hand value DE...:     0
Input  DE.......:     0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Digital input U 9

The “Auto=0 Manual=1” parameter can be used to overwrite signal inputs with manual values.
0=Signal input is assigned
1=Manual value is assigned

Parameter “Manual value DI” defines the value of the digital input “DI” when manual mode is enabled.

The signal state “Input DI” displays the currently pending digital signal “DI”.
0 = not wired
1 = wired

An enabled manual mode is displayed in the fault message list.

Parameter	min.	max.	default
Auto=0 Manual=1	0	1	0
Manual value DI	0	1	0

```
 MulticunktionsIOs
73                    035
Digital Input  U10
State.........v.:     0
Function......v.:   000
----no Function----
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Digital input U 10

The digital input can be parametrised for different functions.

The “State” value displays whether the digital input is currently wired:
0 = disabled
1 = enabled

The “Function” parameter defines the function of the digital input:

Parameter	min.	max.	default
Function	0	207	0

KAMPMANN Genau mein Klima.

```
 MulticunktionsIOs
73                    036
Digital Input  U10
Auto=0 Hand=1...:     0
Hand value DE...:     0
Input  DE.......:     0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Digital input U 10

The “Auto=0 Manual=1” parameter can be used to overwrite signal inputs with manual values.
0=Signal input is assigned
1=Manual value is assigned

Parameter “Manual value DI” defines the value of the digital input “DI” when manual mode is enabled.

The signal state “Input DI” displays the currently pending digital signal “DI”.
0 = not wired
1 = wired

An enabled manual mode is displayed in the fault message list.

Parameter	min.	max.	default
Auto=0 Manual=1	0	1	0
Manual value DI	0	1	0

```
 MulticunktionsIOs
73                    037
Digital Output  NO1
State...........:     0
Function........:   000
----no Function----
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Digital output NO 1

The digital output can be parametrised for different functions.

The “State” value displays whether the digital output is currently switched:
0 = not switched
1 = switched

The “Function” parameter defines the function of the digital output:

Parameter	min.	max.	default
Function	0	108	0

```
 MulticunktionsIOs
73                    038
Digital Output  NO1
Auto=0 Hand=1...:     0
Hand value DE...:     0
Output DE.......:     0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Digital output NO 1

The “Auto=0 Manual=1” parameter can be used to overwrite signal outputs in automatic mode with manual values.
0=Signal output is assigned by automatic mode
1 = Signal output is assigned by manual mode

Parameter “Manual value DO” defines the value of the digital output “DO” when manual mode is enabled.

The signal state “Output DO” displays the currently output digital control signal.

An enabled manual mode is displayed in the fault message list.

Note: Certain higher priority faults may cause the output to be actuated by a different signal.

Parameter	min.	max.	default
Auto=0 Manual=1	0	1	0
Manual value DO	0	1	0

KAMPMANN Genau mein Klima.

```
 MulticunktionsIOs
73                  039
Digital Output  NO2
State...........:     0
Function........:   000
----no Function----
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Digital output NO 2

The digital output can be parametrised for different functions.

The “State” value displays whether the digital output is currently switched:
0 = not switched
1 = switched

The “Function” parameter defines the function of the digital output:

Parameter	min.	max.	default
Function	0	108	0

```
MulticunktionsIOs
73                  040
Digital Output  NO2
Auto=0 Hand=1...:     0
Hand value DE...:     0
Output DE.......:     0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Digital output NO 2

The “Auto=0 Manual=1” parameter can be used to overwrite signal outputs in automatic mode with manual values.
0=Signal output is assigned by automatic mode
1 = Signal output is assigned by manual mode

Parameter “Manual value DO” defines the value of the digital output “DO” when manual mode is enabled.

The signal state “Output DO” displays the currently output digital control signal.

An enabled manual mode is displayed in the fault message list.

Note: Certain higher priority faults may cause the output to be actuated by a different signal.

Parameter	min.	max.	default
Auto=0 Manual=1	0	1	0
Manual value DO	0	1	0

```
 MulticunktionsIOs
73                  041
Digital Output  NO3
State...........:     0
Function........:   000
----no Function----
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Digital output NO 3

The digital output can be parametrised for different functions.

The “State” value displays whether the digital output is currently switched:
0 = not switched
1 = switched

The “Function” parameter defines the function of the digital output:

Parameter	min.	max.	default
Function	0	108	0

```
MulticunktionsIOs
73                  042
Digital Output  NO3
Auto=0 Hand=1...:     0
Hand value DE...:     0
Output DE.......:     0
```

Digital output NO 3

The “Auto=0 Manual=1” parameter can be used to overwrite signal outputs in automatic mode with manual values.
0=Signal output is assigned by automatic mode
1 = Signal output is assigned by manual mode

Parameter “Manual value DO” defines the value of the digital output “DO” when manual mode is enabled.

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Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

The signal state “Output DO” displays the currently output digital control signal.

An enabled manual mode is displayed in the fault message list.

Note: Certain higher priority faults may cause the output to be actuated by a different signal.

Parameter	min.	max.	default
Auto=0 Manual=1	0	1	0
Manual value DO	0	1	0

```
MulticunktionsIOs
73                    043
Digital Output   NO4
State...........:     0
Function........:   000
----no Function----
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Digital output NO 4

The digital output can be parametrised for different functions.

The “State” value displays whether the digital output is currently switched:
0 = not switched
1 = switched

The “Function” parameter defines the function of the digital output:

Parameter	min.	max.	default
Function	0	108	0

```
MulticunktionsIOs
73                    044
Digital Output   NO4
Auto=0 Hand=1...:     0
Hand value DE...:     0
Output DE.......:     0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Digital output NO 4

The “Auto=0 Manual=1” parameter can be used to overwrite signal outputs in automatic mode with manual values.
0=Signal output is assigned by automatic mode
1 = Signal output is assigned by manual mode

Parameter “Manual value DO” defines the value of the digital output when manual mode is enabled.

The signal state “Output DO” displays the currently output digital control signal.

An enabled manual mode is displayed in the fault message list.

Note: Certain higher priority faults may cause the output to be actuated by a different signal.

Parameter	min.	max.	default
Auto=0 Manual=1	0	1	0
Manual value DO	0	1	0

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```
MulticunktionsIOs
73                    045
Digital Output  NO5
State...........:     0
Function........:   000
----no Function----
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Digital output NO 5

The digital output can be parametrised for different functions.

The “State” value displays whether the digital output is currently switched:
0 = not switched
1 = switched

The “Function” parameter defines the function of the digital output:

Parameter	min.	max.	default
Function	0	108	0

```
MulticunktionsIOs
73                    046
Digital Output  NO5
Auto=0 Hand=1...:     0
Hand value DE...:     0
Output DE.......:     0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Digital output NO 5

The “Auto=0 Manual=1” parameter can be used to overwrite signal outputs in automatic mode with manual values.
0=Signal output is assigned by automatic mode
1 = Signal output is assigned by manual mode

Parameter “Manual value DO” defines the value of the digital output when manual mode is enabled.

The signal state “Output DO” displays the currently output digital control signal.

An enabled manual mode is displayed in the fault message list.

Note: Certain higher priority faults may cause the output to be actuated by a different signal.

Parameter	min.	max.	default
Auto=0 Manual=1	0	1	0
Manual value DO	0	1	0

```
MulticunktionsIOs
73                    047
Digitalausgang  NO6
Zustand........:     0
Funktion.......:   000
----Keine Funktion----
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Digital output NO 6

The digital output can be parametrised for different functions.

The “State” value displays whether the digital output is currently switched:
0 = not switched
1 = switched

The “Function” parameter defines the function of the digital output:

Parameter	min.	max.	default
Function	0	108	0

```
MulticunktionsIOs
73                    048
Digital Output  NO6
State...........:     0
Function........:   000
----no Function----
```

Digital output NO 6

The “Auto=0 Manual=1” parameter can be used to overwrite signal outputs in automatic mode with manual values.
0 = Signal output is assigned by automatic mode
1 = Signal output is assigned by manual mode

Parameter “Manual value DO” defines the value of the digital output when manual mode is enabled.

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Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

The signal state “Output DO” displays the currently output digital control signal.

An enabled manual mode is displayed in the fault message list.

Note: Certain higher priority faults may cause the output to be actuated by a different signal.

Parameter	min.	max.	default
Auto=0 Manual=1	0	1	0
Manual value DO	0	1	0

```
MulticunktionsIOs
73                    053
Analog Input   U1
State.........:   0.0°C
Function......:   000
----no Function----
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Analogue input U 1

The analogue input can be parametrised for different functions.

The “State” value displays the value currently applied at the analogue input.

The “Function” parameter defines the function of the analogue input:

Parameter	min.	max.	default
Function	0	29	0

```
MulticunktionsIOs
73                    054
Analog Input    U1
Auto=0 Hand=1.:     0
Hand value AI.: 10.0°C
Enable  AI....: 10.0°C
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Analogue input U 1

The “Auto=0 Manual=1” parameter can be used to overwrite signal inputs with manual values.
0=Signal input is assigned
1=Manual value is assigned

Parameter “Manual value AI” defines the value of the analogue input when manual mode is enabled.

The signal state “Input AI” displays the analogue signal currently applied at the input.

An enabled manual mode is displayed in the fault message list.

Parameter	min.	max.	default
Auto=0 Manual=1	0	1	0
Manual value AI	-20.0	50.0	10.0

```
MulticunktionsIOs
73                    055
Analog Input   U2
State.........:   0.0°C
Function......:   000
----no Function----
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Analogue input U 2

The analogue input can be parametrised for different functions.

The “State” value displays the value currently applied at the analogue input.

The “Function” parameter defines the function of the analogue input:

Parameter	min.	max.	default
Function	0	29	0

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```
 MulticunktionsIOs
                    056
Analog Input   U2
Auto=0 Hand=1.:     0
Hand value AI.: 10.0°C
Enable  AI....: 10.0°C
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Analogue input U 2

The “Auto=0 Manual=1” parameter can be used to overwrite signal inputs with manual values.
0=Signal input is assigned
1=Manual value is assigned

Parameter “Manual value AI” defines the value of the analogue input when manual mode is enabled.

The signal state “Input AI” displays the analogue signal currently applied at the input.

An enabled manual mode is displayed in the fault message list.

Parameter	min.	max.	default
Auto=0 Manual=1	0	1	0
Manual value AI	-20.0	50.0	10.0

```
 MulticunktionsIOs
73                  057
Analog Input  U3
State.........:  0.0°C
Function......:  000
----no Function----
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Analogue input U 3

The analogue input can be parametrised for different functions.

The “State” value displays the value currently applied at the analogue input.

The “Function” parameter defines the function of the analogue input:

Parameter	min.	max.	default
Function	0	29	0

```
 MultifunctionsIOs
73                  058
Analog Input   U3
Auto=0 Hand=1.:     0
Hand value AI.: 10.0°C
Enable  AI....: 10.0°C
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Analogue input U 3

The “Auto=0 Manual=1” parameter can be used to overwrite signal inputs with manual values.
0=Signal input is assigned
1=Manual value is assigned

Parameter “Manual value AI” defines the value of the analogue input when manual mode is enabled.

The signal state “Input AI” displays the analogue signal currently applied at the input.

An enabled manual mode is displayed in the fault message list.

Parameter	min.	max.	default
Auto=0 Manual=1	0	1	0
Manual value AI	-20.0	50.0	10.0

```
 MultifunctionsIOs
73                    059
Analog Input   U5
State.........:   0.0°C
Function......:   000
----no Function----
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Analogue input U 4

The analogue input can be parametrised for different functions.

The “State” value displays the value currently applied at the analogue input.

The “Function” parameter defines the function of the analogue input:

Parameter	min.	max.	default
Function	0	29	0

```
 MultifunctionsIOs
73                    060
Analog Input    U4
Auto=0 Hand=1.:     0
Hand value AI.: 10.0°C
Enable  AI....: 10.0°C
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Analogue input U 4

The “Auto=0 Manual=1” parameter can be used to overwrite signal inputs with manual values.
0=Signal input is assigned
1=Manual value is assigned

Parameter “Manual value AI” defines the value of the analogue input when manual mode is enabled.

The signal state “Input AI” displays the analogue signal currently applied at the input.

An enabled manual mode is displayed in the fault message list.

Parameter	min.	max.	default
Auto=0 Manual=1	0	1	0
Manual value AI	-20.0	50.0	10.0

```
 MultifunctionsIOs
73                    061
Analog Input   U5
State.........:   0.0°C
Function......:   000
----no Function----
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Analogue input U 5

The analogue input can be parametrised for different functions.

The “State” value displays the value currently applied at the analogue input.

The “Function” parameter defines the function of the analogue input:

Parameter	min.	max.	default
Function	0	29	0

```
 MultifunctionsIOs
73                    062
Analog Input    U5
Auto=0 Hand=1.:     0
Hand value AI.: 10.0°C
Enable  AI....: 10.0°C
```

Dialogue box visible in:	
User level	
Expert level	X

Analogue input U 5

The “Auto=0 Manual=1” parameter can be used to overwrite signal inputs with manual values.
0=Signal input is assigned
1=Manual value is assigned

Parameter “Manual value AI” defines the value of the analogue input when manual mode is enabled.

The signal state “Input AI” displays the analogue signal currently applied at the input.

Manufacturer level	X

An enabled manual mode is displayed in the fault message list.

Parameter	min.	max.	default
Auto=0 Manual=1	0	1	0
Manual value AI	-20.0	50.0	10.0

```
 MultifunctionsIOs
73                  063
Analog Input  U1
State.........:  0.0°C
Function......:  000
----no Function----
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Analogue input U 6

The analogue input can be parametrised for different functions.

The “State” value displays the value currently applied at the analogue input.

The “Function” parameter defines the function of the analogue input:

Parameter	min.	max.	default
Function	0	29	0

```
 MultifunctionsIOs
73                  064
Analog Input   U6
Auto=0 Hand=1.:     0
Hand value AI.: 10.0°C
Enable  AI....: 10.0°C
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Analogue input U 6

The “Auto=0 Manual=1” parameter can be used to overwrite signal inputs with manual values.
0=Signal input is assigned
1=Manual value is assigned

Parameter “Manual value AI” defines the value of the analogue input when manual mode is enabled.

The signal state “Input AI” displays the analogue signal currently applied at the input.

An enabled manual mode is displayed in the fault message list.

Parameter	min.	max.	default
Auto=0 Manual=1	0	1	0
Manual value AI	-20.0	50.0	10.0

```
 MultifunctionsIOs
73                  073
Analog Output  Y1
State.........:  0.0V
Function......:  000
----no Function----
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Analogue output Y 1

The analogue output can be parametrised for different functions.

The “State” value displays the value currently output at the analogue output.

The “Function” parameter defines the function of the analogue output:

Parameter	min.	max.	default
Function	0	32	0

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```
 MultifunctionsIOs
73                    074
Analog Output  Y1
Auto=0 Hand=1.:     0
Hand value AO.:   10.0V
Output  AO....:   10.0V
Auto min AO...:    0.0V
Auto max AO...:   10.0V
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Analogue output Y 1

The “Auto=0 Manual=1” parameter can be used to overwrite signal outputs in automatic mode with manual values.
0=Signal output is assigned by automatic mode
1 = Signal output is assigned by manual mode

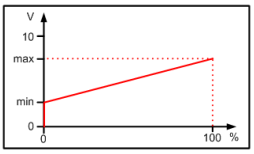
Parameter “Manual value AO” defines the value of the analogue output when manual mode is enabled.

The signal state “Output AO” displays the analogue control signal currently output.

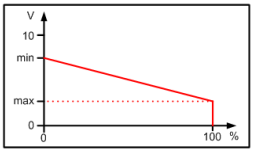
An enabled manual mode is displayed in the fault message list.

The analogue output signal can be scaled using the “Auto min. AO” and “Auto max. AO” parameters. If the signal state is between 0% and 100%, a voltage is output at the signal output that is linear to the signal state in the range between the parametrised values “Auto min. AO” and “Auto max. AO”.

If the parameter “Auto min. AO” is set to less than the parameter “Auto max. AO”, a voltage of 0 V is always output at the signal output with a signal state of 0%.



If the parameter “Auto min. AO” is set to more than the parameter “Auto max. AO”, a voltage of 0 V is always output at the signal output with a signal state of 100%.



Note: Certain higher priority faults may cause the output to be actuated by a different signal.

Parameter	min.	max.	default
Auto=0 Manual=1	0	1	0
Manual value AO	0.0	10.0	0.0
Auto min. AO	0.0	10.0	0.0
Auto max. AO	0.0	10.0	10.0

```
 MultifunctionsIOs
73                    075
Analog Output  Y2
State.........:   0.0V
Function......:   000
----no Function----
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Analogue output Y 2

The analogue output can be parametrised for different functions.

The “State” value displays the value currently output at the analogue output.

The “Function” parameter defines the function of the analogue output:

Parameter	min.	max.	default
Function	0	32	0

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```
 MultifunctionsIOs
73                    076
Analog Output   Y2
Auto=0 Hand=1.:     0
Hand value AO.:   10.0V
Output  AO....:   10.0V
Auto min AO...:    0.0V
Auto max AO...:   10.0V
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Analogue output Y 2

The “Auto=0 Manual=1” parameter can be used to overwrite signal outputs in automatic mode with manual values.
0=Signal output is assigned by automatic mode
1=Signal output is assigned by manual mode

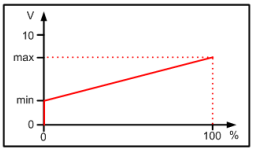
Parameter “Manual value AO” defines the value of the analogue output when manual mode is enabled.

The signal state “Output AO” displays the analogue control signal currently output.

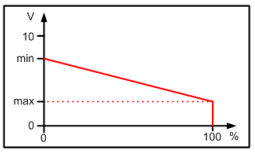
An enabled manual mode is displayed in the fault message list.

The analogue output signal can be scaled using the “Auto min. AO” and “Auto max. AO” parameters. If the signal state is between 0% and 100%, a voltage is output at the signal output that is linear to the signal state in the range between the parametrised values “Auto min. AO” and “Auto max. AO”.

If the parameter “Auto min. AO” is set to less than the parameter “Auto max. AO”, a voltage of 0 V is always output at the signal output with a signal state of 0%.



If the parameter “Auto min. AO” is set to more than the parameter “Auto max. AO”, a voltage of 0 V is always output at the signal output with a signal state of 100%.



Note: Certain higher priority faults may cause the output to be actuated by a different signal.

Parameter	min.	max.	default
Auto=0 Manual=1	0	1	0
Manual value AO	0.0	10.0	0.0
Auto min. AO	0.0	10.0	0.0
Auto max. AO	0.0	10.0	10.0

12.4 Sensors

Some dialogue box numbers are missing and have been skipped to ensure that the menu structure and numbering is identical to other versions of the software.

```
 Sensors
74                    001
Offset
Outdoor temperature
Measured value: 22.0°C
Correction....: -1.1K
Corrects......: 20.9°C
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Outside temperature offset

The “Offset” parameter can be used to correct a measured value deviation of the sensor within certain limits.

Parameter	min.	max.	default
Offset	-5.0 k	5.0K	0.0K

```
 Sensors
74                    003
Offset
Return temperature
Measured value: 22.0°C
Correction....: -1.1K
Corrects......: 20.9°C
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Return temperature offset

The “Offset” parameter can be used to correct a measured value deviation of the sensor within certain limits.

Parameter	min.	max.	default
Offset	-5.0 k	5.0K	0.0K

```
 Sensors
74                    009
Offset
Inlet temperature
Measured value: 22.0°C
Correction....: -1.1K
Corrects......: 20.9°C
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Supply temperature offset

The “Offset” parameter can be used to correct a measured value deviation of the sensor within certain limits.

Parameter	min.	max.	default
Offset	-5.0 k	5.0K	0.0K

```
 Sensors
74                    010
Offset
Return temperature CHW
Measured value: 22.0°C
Correction....: -1.1K
Corrects......: 20.9°C
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

CHW return temperature offset

The “Offset” parameter can be used to correct a measured value deviation of the sensor within certain limits.

Parameter	min.	max.	default
Offset	-5.0 k	5.0K	0.0K

```
 Sensors
74                    011
Offset
Inlet temperature CHW
Measured value: 22.0°C
Correction....: -1.1K
Corrects......: 20.9°C
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

CHW supply temperature offset

The “Offset” parameter can be used to correct a measured value deviation of the sensor within certain limits.

Parameter	min.	max.	default
Offset	-5.0 k	5.0K	0.0K

```
 Sensors
74                    012
Offset
Return temperature PHW
Measured value: 22.0°C
Correction....: -1.1K
Corrects......: 20.9°C
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

LPHW return temperature offset

The “Offset” parameter can be used to correct a measured value deviation of the sensor within certain limits.

Parameter	min.	max.	default
Offset	-5.0 k	5.0K	0.0K

```
 Sensors
74                    013
Offset
Inlettemperature PHW
Measured value: 22.0°C
Correction....: -1.1K
Corrects......: 20.9°C
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

LPHW inlet temperature offset

The “Offset” parameter can be used to correct a measured value deviation of the sensor within certain limits.

Parameter	min.	max.	default
Offset	-5.0 k	5.0K	0.0K

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```
 Sensors
74                    014
Offset
Inlet temperature ZP 1
Measured value: 22.0°C
Correction....: -1.1K
Corrects......: 20.9°C
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Inlet temperature zone pump 1 offset

The “Offset” parameter can be used to correct a measured value deviation of the sensor within certain limits.

Parameter	min.	max.	default
Offset	-5.0 k	5.0K	0.0K

```
 Sensors
74                    015
Offset
Inlet temperature ZP 2
Measured value: 22.0°C
Correction....: -1.1K
Corrects......: 20.9°C
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Inlet temperature zone pump 2 offset

The “Offset” parameter can be used to correct a measured value deviation of the sensor within certain limits.

Parameter	min.	max.	default
Offset	-5.0 k	5.0K	0.0K

```
 Sensors
74                    016
Offset
Inlet temperature ZP 3
Measured value: 22.0°C
Correction....: -1.1K
Corrects......: 20.9°C
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Inlet temperature zone pump 3 offset

The “Offset” parameter can be used to correct a measured value deviation of the sensor within certain limits.

Parameter	min.	max.	default
Offset	-5.0 k	5.0K	0.0K

```
 Sensors
74                    017
Offset
Inlet temperature ZP 4
Measured value: 22.0°C
Correction....: -1.1K
Corrects......: 20.9°C
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Inlet temperature zone pump 4 offset

The “Offset” parameter can be used to correct a measured value deviation of the sensor within certain limits.

Parameter	min.	max.	default
Offset	-5.0 k	5.0K	0.0K

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```
 Sensors
74                    018
Offset
Inlet temperature ZP 5
Measured value: 22.0°C
Correction....: -1.1K
Corrects......: 20.9°C
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Inlet temperature zone pump 5 offset

The “Offset” parameter can be used to correct a measured value deviation of the sensor within certain limits.

Parameter	min.	max.	default
Offset	-5.0 k	5.0K	0.0K

```
 Sensors
74                    019
Offset
Inlet temperatur ZP 6
Measured value: 22.0°C
Correction....: -1.1K
Corrects......: 20.9°C
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Inlet temperature zone pump 6 offset

The “Offset” parameter can be used to correct a measured value deviation of the sensor within certain limits.

Parameter	min.	max.	default
Offset	-5.0 k	5.0K	0.0K

12.5 Group configuration

Some dialogue box numbers are missing and have been skipped to ensure that the menu structure and numbering is identical to other versions of the software.

```
 Group configuration
75                    002
RA1............:    0
RA2............:    0
RA3............:    0
RA4............:    0
RA5............:    0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Recirculating air group 1-5

Parameter “RAx” can be used to assign the timer program for the corresponding recirculating air group. If no timer program is assigned, the recirculating air group is disabled and the corresponding menus are hidden.
0 = disabled
1 = timer program 1
2 = timer program 2
3 = timer program 3
4 = timer program 4
5 = timer program 5
6 = group follows previous group with its own sensor (not RA 1)
7 = group follows previous group without its own sensor (not RA 1)
8 = timer program of the recirculating air unit (smart board and KaController)

Parameter	min.	max.	default
RA1	0	8	0
RA2	0	8	0
RA3	0	8	0
RA4	0	8	0
RA5	0	8	0

```
 Group configuration
75                    003
RA6............:    0
RA7............:    0
RA8............:    0
RA9............:    0
RA10...........:    0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Recirculating air group 6-10

Parameter “RAx” can be used to assign the timer program for the corresponding recirculating air group. If no timer program is assigned, the recirculating air group is disabled and the corresponding menus are hidden.
0 = disabled
1 = timer program 1
2 = timer program 2
3 = timer program 3
4 = timer program 4
5 = timer program 5
6 = group follows previous group with its own sensor
7 = group follows previous group without its own sensor
8 = timer program of the recirculating air unit (smart board and KaController)

Parameter	min.	max.	default
RA6	0	8	0
RA7	0	8	0
RA8	0	8	0
RA9	0	8	0
RA10	0	8	0

```
 Group configuration
75                    004
RA11...........:    0
RA12...........:    0
RA13...........:    0
RA14...........:    0
RA15...........:    0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Recirculating air group 11-15

Parameter “RAx” can be used to assign the timer program for the corresponding recirculating air group. If no timer program is assigned, the recirculating air group is disabled and the corresponding menus are hidden.
0 = disabled
1 = timer program 1
2 = timer program 2
3 = timer program 3
4 = timer program 4
5 = timer program 5
6 = group follows previous group with its own sensor
7 = group follows previous group without its own sensor
8 = timer program of the recirculating air unit (smart board and KaController)

Parameter	min.	max.	default
RA11	0	8	0
RA12	0	8	0
RA13	0	8	0
RA14	0	8	0
RA15	0	8	0

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```
Group configuration
75                    005
RA16............:     0
RA17............:     0
RA18............:     0
RA19............:     0
RA20............:     0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Recirculating air group 16-20

Parameter “RAx” can be used to assign the timer program for the corresponding recirculating air group. If no timer program is assigned, the recirculating air group is disabled and the corresponding menus are hidden.
0 = disabled
1 = timer program 1
2 = timer program 2
3 = timer program 3
4 = timer program 4
5 = timer program 5
6 = group follows previous group with its own sensor
7 = group follows previous group without its own sensor
8 = timer program of the recirculating air unit (smart board and KaController)

Parameter	min.	max.	default
RA16	0	8	0
RA17	0	8	0
RA18	0	8	0
RA19	0	8	0
RA20	0	8	0

```
Group configuration
75                    006
RA21............:     0
RA22............:     0
RA23............:     0
RA24............:     0
RA25............:     0
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Recirculating air group 21-25

Parameter “RAx” can be used to assign the timer program for the corresponding recirculating air group. If no timer program is assigned, the recirculating air group is disabled and the corresponding menus are hidden.
0 = disabled
1 = timer program 1
2 = timer program 2
3 = timer program 3
4 = timer program 4
5 = timer program 5
6 = group follows previous group with its own sensor
7 = group follows previous group without its own sensor
8 = timer program of the recirculating air unit (smart board and KaController)

Parameter	min.	max.	default
RA21	0	8	0
RA22	0	8	0
RA23	0	8	0
RA24	0	8	0
RA25	0	8	0

12.6 IO monitor

This menu entry is displayed, but the sub-menu cannot be accessed to ensure that the menu structure is consistent with other software versions.

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12.7 Information

```
 Info
77                    001
Softwareversion:
1_02_004-002_01_01
Date:     20.04.2021
QS-Ver:   4.7.001
Cycle:    00273ms
Project:  00-00000
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Software

Different software versions can be clearly identified by their name. The corresponding date, the bios used, and the time required to run the program are also displayed. The Kampmann project number can also be entered. This makes assignment easier when carrying out service work.

```
 Info
77                    002
Manudacturer
Kampmann GmbH & Co. KG
Friedrich-Ebert-Str.
128-130
49811 Lingen (Ems)
```

Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

Manufacturer

The contact details ensure access to information even if documentation is lost.

```
 Info
77                    003
Manufacturer
Kampmann GmbH & Co. KG
www.kampmann.de
+49-591-7108-0
```

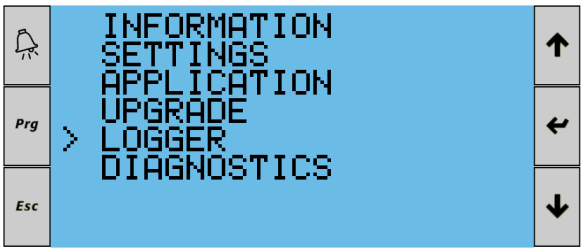
Dialogue box visible in:	
User level	
Expert level	X
Manufacturer level	X

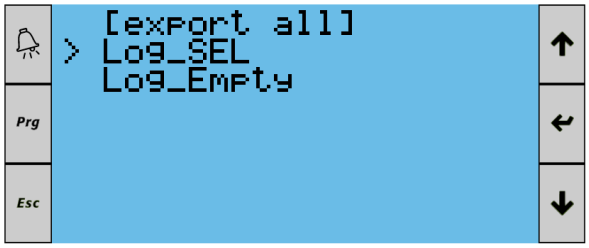
Manufacturer

The contact details ensure access to information even if documentation is lost.

13 Trend data

A selection of the key actual values and signals is recorded cyclically and stored in the controller. This data can be loaded from the controller with an empty USB memory stick (micro-USB connector, formatting FAT32). The connecting socket is located on the top of the controller and is covered with a plastic cap. This needs to be opened to connect the USB memory stick and then closed again once the trend data has been exported.
The export can be started using PGD. To do so, just press and hold down the “Bell” or “Alarm” button and “Enter” at the same time for three seconds. There is a corresponding button below which can be used to perform a multiple selection on the touch screen. There is also a button below which can be used to select data for a specific period. Then select the menu item “Logger” and then “Export Logs”. Then select the “Log_SEL” file. The download starts as soon as you press “Enter”. The exported data is saved on the USB stick as a CSV file. A spreadsheet program, like Excel, can then be used to further edit and visualise the CSV file. The data points are recorded every five minutes or are event-driven. The logging period is approximately 31 days.





The following table shows which actual values and signals are saved.

Data point:	Description:
Time	Time
Event	Event
Devices.Katherm_Group_01.Ctrl_SPnt_Kathermboard	Recirculating air group 1 setpoint
Devices.Katherm_Group_01.AVal_IDAT	Recirculating air group 1 actual value
Devices.Katherm_Group_01.AVal_Fan_Speed	Recirculating air group 1 fan speed
Devices.Katherm_Group_02.Ctrl_SPnt_Kathermboard	Recirculating air group 2 setpoint
Devices.Katherm_Group_02.AVal_IDAT	Recirculating air group 2 actual value
Devices.Katherm_Group_02.AVal_Fan_Speed	Recirculating air group 2 fan speed
Devices.Katherm_Group_03.Ctrl_SPnt_Kathermboard	Recirculating air group 3 setpoint
Devices.Katherm_Group_03.AVal_IDAT	Recirculating air group 3 actual value
Devices.Katherm_Group_03.AVal_Fan_Speed	Recirculating air group 3 fan speed
Devices.Katherm_Group_04.Ctrl_SPnt_Kathermboard	Recirculating air group 4 setpoint
Devices.Katherm_Group_04.AVal_IDAT	Recirculating air group 4 actual value
Devices.Katherm_Group_04.AVal_Fan_Speed	Recirculating air group 4 fan speed
Devices.Katherm_Group_05.Ctrl_SPnt_Kathermboard	Recirculating air group 5 setpoint
Devices.Katherm_Group_05.AVal_IDAT	Recirculating air group 5 actual value
Devices.Katherm_Group_05.AVal_Fan_Speed	Recirculating air group 5 fan speed
Devices.Katherm_Group_06.Ctrl_SPnt_Kathermboard	Recirculating air group 6 setpoint
Devices.Katherm_Group_06.AVal_IDAT	Recirculating air group 6 actual value

Data point:	Description:
Time	Time
Event	Event
Devices.Katherm_Group_06.AVal_Fan_Speed	Recirculating air group 6 fan speed
Devices.Katherm_Group_07.Ctrl_SPnt_Kathermboard	Recirculating air group 7 setpoint
Devices.Katherm_Group_07.AVal_IDAT	Recirculating air group 7 actual value
Devices.Katherm_Group_07.AVal_Fan_Speed	Recirculating air group 7 fan speed
Devices.Katherm_Group_08.Ctrl_SPnt_Kathermboard	Recirculating air group 8 setpoint
Devices.Katherm_Group_08.AVal_IDAT	Recirculating air group 8 actual value
Devices.Katherm_Group_08.AVal_Fan_Speed	Recirculating air group 8 fan speed
Devices.Katherm_Group_09.Ctrl_SPnt_Kathermboard	Recirculating air group 9 setpoint
Devices.Katherm_Group_09.AVal_IDAT	Recirculating air group 9 actual value
Devices.Katherm_Group_09.AVal_Fan_Speed	Recirculating air group 9 fan speed
Devices.Katherm_Group_10.Ctrl_SPnt_Kathermboard	Recirculating air group 10 setpoint
Devices.Katherm_Group_10.AVal_IDAT	Recirculating air group 10 actual value
Devices.Katherm_Group_10.AVal_Fan_Speed	Recirculating air group 10 fan speed
Devices.Katherm_Group_11.Ctrl_SPnt_Kathermboard	Recirculating air group 11 setpoint
Devices.Katherm_Group_11.AVal_IDAT	Recirculating air group 11 actual value
Devices.Katherm_Group_11.AVal_Fan_Speed	Recirculating air group 11 fan speed
Devices.Katherm_Group_12.Ctrl_SPnt_Kathermboard	Recirculating air group 12 setpoint
Devices.Katherm_Group_12.AVal_IDAT	Recirculating air group 12 actual value
Devices.Katherm_Group_12.AVal_Fan_Speed	Recirculating air group 12 fan speed
Devices.Katherm_Group_13.Ctrl_SPnt_Kathermboard	Recirculating air group 13 setpoint
Devices.Katherm_Group_13.AVal_IDAT	Recirculating air group 13 actual value
Devices.Katherm_Group_13.AVal_Fan_Speed	Recirculating air group 13 fan speed
Devices.Katherm_Group_14.Ctrl_SPnt_Kathermboard	Recirculating air group 14 setpoint
Devices.Katherm_Group_14.AVal_IDAT	Recirculating air group 14 actual value
Devices.Katherm_Group_14.AVal_Fan_Speed	Recirculating air group 14 fan speed
Devices.Katherm_Group_15.Ctrl_SPnt_Kathermboard	Recirculating air group 15 setpoint
Devices.Katherm_Group_15.AVal_IDAT	Recirculating air group 15 actual value
Devices.Katherm_Group_15.AVal_Fan_Speed	Recirculating air group 15 fan speed
Devices.Katherm_Group_16.Ctrl_SPnt_Kathermboard	Recirculating air group 16 setpoint
Devices.Katherm_Group_16.AVal_IDAT	Recirculating air group 16 actual value
Devices.Katherm_Group_16.AVal_Fan_Speed	Recirculating air group 16 fan speed
Devices.Katherm_Group_17.Ctrl_SPnt_Kathermboard	Recirculating air group 17 setpoint
Devices.Katherm_Group_17.AVal_IDAT	Recirculating air group 17 actual value
Devices.Katherm_Group_17.AVal_Fan_Speed	Recirculating air group 17 fan speed
Devices.Katherm_Group_18.Ctrl_SPnt_Kathermboard	Recirculating air group 18 setpoint
Devices.Katherm_Group_18.AVal_IDAT	Recirculating air group 18 actual value
Devices.Katherm_Group_18.AVal_Fan_Speed	Recirculating air group 18 fan speed
Devices.Katherm_Group_19.Ctrl_SPnt_Kathermboard	Recirculating air group 19 setpoint
Devices.Katherm_Group_19.AVal_IDAT	Recirculating air group 19 actual value
Devices.Katherm_Group_19.AVal_Fan_Speed	Recirculating air group 19 fan speed
Devices.Katherm_Group_20.Ctrl_SPnt_Kathermboard	Recirculating air group 20 setpoint
Devices.Katherm_Group_20.AVal_IDAT	Recirculating air group 20 actual value
Devices.Katherm_Group_20.AVal_Fan_Speed	Recirculating air group 20 fan speed
Devices.Katherm_Group_21.Ctrl_SPnt_Kathermboard	Recirculating air group 21 setpoint
Devices.Katherm_Group_21.AVal_IDAT	Recirculating air group 21 actual value
Devices.Katherm_Group_21.AVal_Fan_Speed	Recirculating air group 21 fan speed
Devices.Katherm_Group_22.Ctrl_SPnt_Kathermboard	Recirculating air group 22 setpoint
Devices.Katherm_Group_22.AVal_IDAT	Recirculating air group 22 actual value
Devices.Katherm_Group_22.AVal_Fan_Speed	Recirculating air group 22 fan speed
Devices.Katherm_Group_23.Ctrl_SPnt_Kathermboard	Recirculating air group 23 setpoint
Devices.Katherm_Group_23.AVal_IDAT	Recirculating air group 23 actual value
Devices.Katherm_Group_23.AVal_Fan_Speed	Recirculating air group 23 fan speed
Devices.Katherm_Group_24.Ctrl_SPnt_Kathermboard	Recirculating air group 24 setpoint
Devices.Katherm_Group_24.AVal_IDAT	Recirculating air group 24 actual value
Devices.Katherm_Group_24.AVal_Fan_Speed	Recirculating air group 24 fan speed
Devices.Katherm_Group_25.Ctrl_SPnt_Kathermboard	Recirculating air group 25 setpoint
Devices.Katherm_Group_25.AVal_IDAT	Recirculating air group 25 actual value
Devices.Katherm_Group_25.AVal_Fan_Speed	Recirculating air group 25 fan speed
AVal_ODAT	Outside temperature
AVal_RETT	Return temperature
AVal_INLET	Supply temperature
AVal_RETT_C	Cooling circuit return temperature

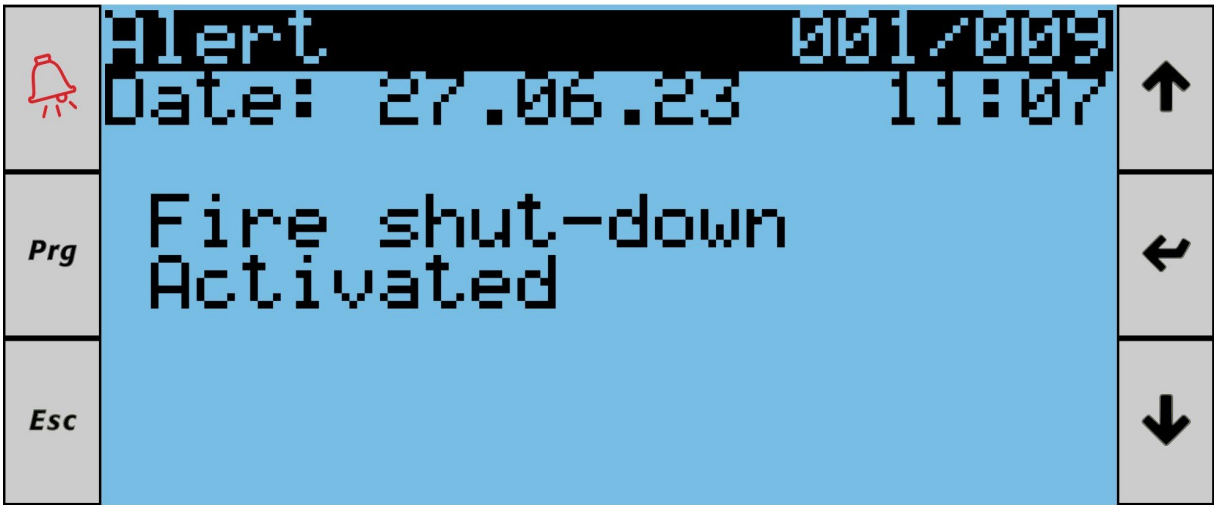
Data point:	Description:
Time	Time
Event	Event
AVal_INLET_C	Cooling circuit supply temperature
AVal_RETT_H	Heating circuit return temperature
AVal_INLET_H	Heating circuit supply temperature
En_HSrc	Heat generator enable
En_Pump_HSrc	Heat generator pump activation
En_Chil	Chiller enable
En_Pump_Chil	Chiller pump enable
En_HP	Heat pump enable
En_Pump_HP	Heat pump enable
En_Pump_HC	Heating/cooling pump enable
C_Active	Cooling active
H_Active	Heating active
S_Active	Summer active
AVal_INLET_ZonePump_1	Supply temperature zone pump 1
AVal_INLET_ZonePump_2	Supply temperature zone pump 2
AVal_INLET_ZonePump_3	Supply temperature zone pump 3
AVal_INLET_ZonePump_4	Supply temperature zone pump 4
AVal_INLET_ZonePump_5	Supply temperature zone pump 5
AVal_INLET_ZonePump_6	Supply temperature zone pump 6
En_ZonePump_1	Zone pump 1 enable
En_ZonePump_2	Zone pump 2 enable
En_ZonePump_3	Zone pump 3 enable
En_ZonePump_4	Zone pump 4 enable
En_ZonePump_5	Zone pump 5 enable
En_ZonePump_6	Zone pump 6 enable

14 Alarms, messages, and events

The “Bell” or “Alarm” button lights up red as soon as a fault or message occurs. Pressing the “Bell” or “Alarm” button opens the “Alarms and Messages” menu. Pressing the “Bell” or “Alarm” button again opens the “Events” menu.

14.1 Alarms and messages

The Alarm and Messages menu displays active alarms and messages. Pressing the “Up” or “Down” button enables the user to scroll between the individual alarms and messages. The following figure shows an active alarm.



The following table lists the alarms issued by the controller and their causes.

Alarms and messages:	Description:
Fire shut-down	The fire shut-down function is enabled. (A digital input may have been wired accordingly.)
Group X unit Y offline	Unit Y in group X is offline. Communication has been interrupted or disrupted. Check the power supply, addressing, parametrisation, wiring, etc.
Group X unit Y control sensor faulty	The sensor or virtual sensor connected to unit Y in group X detects an implausible measured value. The fan is switched off and the valves close. Check the wiring, sensor, etc.
Group X unit Y motor fault	The motor of unit Y in group X signals a fault. The fan is switched off and the cooling valve is closed. Check the motor or fan, the power supply, wiring, etc.
Group X unit Y room frost protection	The room temperature of unit Y in group X is lower than 8 °C. The fan is switched to stage 1 and the heating valve is open. Check the supply of heating medium, valves, etc.
Group X unit Y condensate alarm	To much condensate is being detected in unit Y in group X. The fan is switched to stage 1 and the cooling valve is closed. Check the condensate pump, the condensate drain, etc.
Group X unit Y general alarm	A general alarm is detected at unit Y in group X. The fan is switched off and the valves close. Check parametrisation, wiring, etc.
Group X unit Y sensor faulty	One of the sensors connected to unit Y in group X is detecting an implausible measured value. The fan is switched off and the valves close. Check the wiring, sensor, etc.
Group X unit Y unit frost protection	The room temperature of unit Y in group X is lower than 4 °C. The fan will be switched off and the valves

Alarms and messages:	Description:
	opened. Check the supply of heating medium, valves, etc.
Group X unit Y EEPROM faulty	A fault is present in the EEPROM of unit Y in group X. Communication in the tLAN network and control will be interrupted. The fan will switched off and the valves closed, if necessary. Check and possibly replace the control board.
Group X unit Y tLAN fault	A tLAN fault is detected at unit Y in group X. The fan will be switched off and the valves closed. Check the wiring, cable length, etc.
Manual operation digital input ID1 (73 - 002)	The digital input ID1 is set to manual mode in dialogue box 73 – 002.
Manual operation digital input ID2 (73 - 004)	The digital input ID2 is set to manual mode in dialogue box 73 – 004.
Manual operation digital input U7 (73 - 030)	The digital input U7 is set to manual mode in dialogue box 73 – 030.
Manual operation digital input U8 (73 - 032)	The digital input U8 is set to manual mode in dialogue box 73 – 032.
Manual operation digital input U9 (73 - 034)	The digital input U9 is set to manual mode in dialogue box 73 – 034.
Manual operation digital input U10 (73 - 036)	The digital input U10 is set to manual mode in dialogue box 73 – 036.
Manual operation digital output NO1 (73 - 038)	The digital output NO1 is set to manual mode in dialogue box 73 – 038.
Manual operation digital output NO2 (73 - 040)	The digital output NO2 is set to manual mode in dialogue box 73 – 040.
Manual operation digital output NO3 (73 - 042)	The digital output NO3 is set to manual mode in dialogue box 73 – 042.
Manual operation digital output NO4 (73 - 044)	The digital output NO4 is set to manual mode in dialogue box 73 – 044.
Manual operation digital output NO5 (73 - 046)	The digital output NO5 is set to manual mode in dialogue box 73 – 046.
Manual operation digital output NO6 (73 - 048)	The digital output NO6 is set to manual mode in dialogue box 73 – 048.
Manual operation analogue input U1 (73 - 054)	The analogue input U1 is set to manual mode in dialogue box 73 – 054.
Manual operation analogue input U2 (73 - 056)	The analogue input U2 is set to manual mode in dialogue box 73 – 056.
Manual operation analogue input U3 (73 - 058)	The analogue input U3 is set to manual mode in dialogue box 73 – 058.
Manual operation analogue input U4 (73 - 060)	The analogue input U4 is set to manual mode in dialogue box 73 – 060.
Manual operation analogue input U5 (73 - 062)	The analogue input U5 is set to manual mode in dialogue box 73 – 062.
Manual operation analogue input U6 (73 - 064)	The analogue input U6 is set to manual mode in dialogue box 73 – 064.
Manual operation analogue output Y1 (73 - 074)	The analogue output Y1 is set to manual mode in dialogue box 73 – 074.
Manual operation analogue output Y2 (73 - 076)	The analogue output Y2 is set to manual mode in dialogue box 73 – 076.
Sensor input U1 fault	The sensor connected to sensor input U1 is detecting an implausible measured value. Check the wiring, sensor, etc.
Sensor input U2 fault	The sensor connected to sensor input U2 is detecting an implausible measured value. Check the wiring, sensor, etc.
Sensor input U3 fault	The sensor connected to sensor input U3 is detecting an implausible measured value. Check the wiring, sensor, etc.
Sensor input U4 fault	The sensor connected to sensor input U4 is detecting an implausible measured value. Check the wiring, sensor, etc.
Sensor input U5 fault	The sensor connected to sensor input U5 is detecting an implausible measured value. Check the wiring, sensor, etc.

Alarms and messages:	Description:
Sensor input U6 fault	The sensor connected to sensor input U6 is detecting an implausible measured value. Check the wiring, sensor, etc.
Manual operation heat generator (71 - 051)	The heat generator is set to manual operation in dialogue box 71 – 051.
Manual operation chiller (71 - 052)	The chiller is set to manual operation in dialogue box 71 – 052.
Manual operation heat pump (71 - 053)	The heat pump is set to manual operation in dialogue box 71 – 053.
Manual operation H/C heat pump (71 - 054)	The heating/cooling changeover of the heat pump is set to manual operation in dialogue box 71 – 054.
Manual operation heat generator pump (71 - 055)	The heat generator's pump is set to manual operation in dialogue box 71 – 055.
Manual operation chiller pump (71 - 056)	The chiller’s pump is set to manual operation in dialogue box 71 – 056.
Manual operation heat pump pump (71 - 057)	The pump of the heat pump is set to manual operation in dialogue box 71 – 057.
Manual operation heating/cooling pump (71 - 058)	The heating/cooling pump is set to manual operation in dialogue box 71 – 058.
Manual operation heating/cooling valve (71 - 059)	The heating/cooling value is set to manual operation in dialogue box 71 – 059.
Manual operation HP/HG valve (71 - 060)	The HP/HG valve is set to manual operation in dialogue box 71 – 060.
Heat generator fault	The heat generator is malfunctioning. Check the heat generator. It may be possible to read an error code from the the heat generator control system.
Heat generator pump fault	The heat generator pump is malfunctioning and needs to be checked. The pump may have a display showing an error code.
Chiller fault	The chiller is malfunctioning. Check the chiller. It may be possible to read an error code from the chiller control system.
Chiller pump fault	The chiller pump is malfunctioning and needs to be checked. The pump may have a display showing an error code.
Heat pump fault	The heat pump is malfunctioning. Check the heat pump. It may be possible to read an error code from the heat pump control system.
Heat pump pump fault	The pump of the heat pump is malfunctioning and needs to be checked. The pump may have a display showing an error code.
Heating/cooling pump fault	The heating/cooling pump is malfunctioning and needs to be checked. The pump may have a display showing an error code.
Manual operation zone pump 1 (728 - 049)	Zone pump 1 is set to manual operation in dialogue box 728 – 049.
Manual operation zone pump 2 (728 - 050)	Zone pump 2 is set to manual operation in dialogue box 728 – 050.
Manual operation zone pump 3 (728 - 051)	Zone pump 3 is set to manual operation in dialogue box 728 – 051.
Manual operation zone pump 4 (728 - 052)	Zone pump 4 is set to manual operation in dialogue box 728 – 052.
Manual operation zone pump 5 (728 - 053)	Zone pump 5 is set to manual operation in dialogue box 728 – 053.
Manual operation zone pump 6 (728 - 054)	Zone pump 6 is set to manual operation in dialogue box 728 – 054.
Zone pump 1 fault	Zone pump 1 is malfunctioning and needs to be checked. The pump may have a display showing an error code.
Zone pump 2 fault	Zone pump 2 is malfunctioning and needs to be checked. The pump may have a display showing an error code.
Zone pump 3 fault	Zone pump 3 is malfunctioning and needs to be checked. The pump may have a display showing an error code.

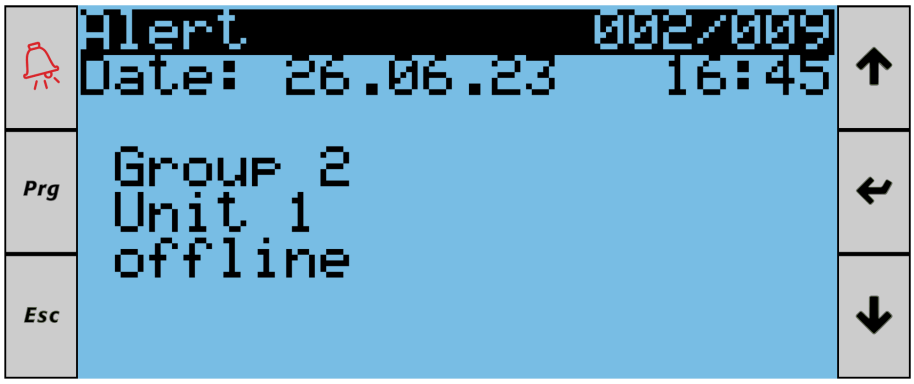
Alarms and messages:	Description:
Zone pump 4 fault	Zone pump 4 is malfunctioning and needs to be checked. The pump may have a display showing an error code.
Zone pump 5 fault	Zone pump 5 is malfunctioning and needs to be checked. The pump may have a display showing an error code.
Zone pump 6 fault	Zone pump 6 is malfunctioning and needs to be checked. The pump may have a display showing an error code.
Modbus test recirculating air unit enabled	The Modbus test RA unit function is enabled (code 7333). This disables the Modbus communication required for normal operation.
External fault enabled	An external fault is enabled. Check the component connected to the corresponding digital input.
Fault due to double assignment of analogue inputs	A sensor to detect a signal has been configured on more than one analogue input. That is not permitted. Mean values can therefore also not be generated.

The following table lists the messages issued by the controller and their causes.

Message:	Description:
Heat generator message	The heat generator is issuing a message. Check the heat generator. It may be possible to read an error code from the the heat generator control system.
Heat generator pump message	The heat generator pump is issuing a message and needs to be checked. The pump may have a display showing an error code.
Chiller message	The chiller is issuing a message. Check the chiller. It may be possible to read an error code from the chiller control system.
Chiller pump message	The chiller pump is issuing a message and needs to be checked. The pump may have a display showing an error code.
Heat pump message	The heat pump is issuing a message. Check the heat pump. It may be possible to read an error code from the heat pump control system.
Heat pump message	The pump of the heat pump is issuing a message and needs to be checked. The pump may have a display showing an error code.
Heating/cooling pump message	The heating/cooling pump is issuing a message and needs to be checked. The pump may have a display showing an error code.
External maintenance	External maintenance is due. Check the component connected to the corresponding digital input.

14.2 Events

The last 128 alarms and messages are stored in the event memory with the date and time. Pressing the “Up” or “Down” button enables the user to scroll between the individual saved events. The following figure shows a saved event.



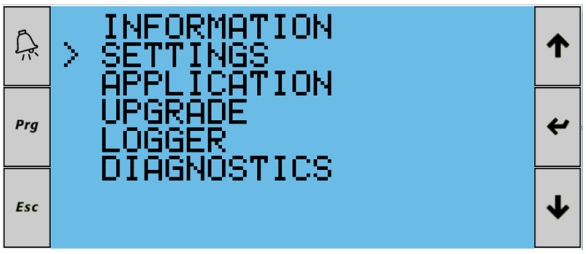
15 Interfaces

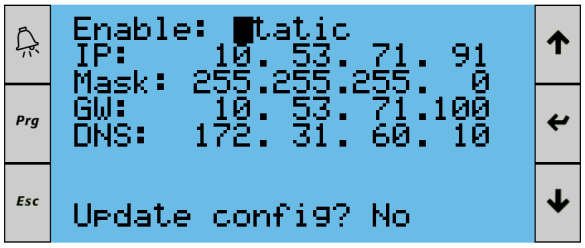
The KaControl SEL4.0 control panel has an interface (Ethernet) for access to building services management system and an interface (Fieldbus) for communication with field devices.

15.1 Ethernet

The web server integrated in the SEL control panel can be accessed via the Ethernet interface. The Ethernet interface also enables access to the SEL control panel via Modbus TCP or BACnet IP (licence required). Corresponding Modbus TCP data point lists or BACnet IP EDE files are available for this.

The IP address parameters are set via the PGD. To do so, just press and hold down the “Bell” or “Alarm” button and “Enter” at the same time for three seconds. There is a corresponding button below which can be used to perform a multiple selection on the touch screen. There is also a button below which can be used to select data for a specific period. Then select the “Settings” menu item and then “TCP-IPv4 Settings”.
The IP address parameters can be set automatically using DHCP or statically by manual input. The interface can also be completely disabled. Any change needs to be confirmed with “Update Config? Yes”.





15.2 FieldBus

Interface for communication with recirculating air units (Modbus RTU). The Modbus addresses assigned to the recirculating air units are fixed. Each address may only be assigned once in the bus network, otherwise malfunctions will occur. For more information, refer to “Modbus addressing of the recirculating air units”.

The transmission format is also fixed:
Data bits: 8
Parity: N
Stop bits: 2
Baud rates: 9600

16 Web server

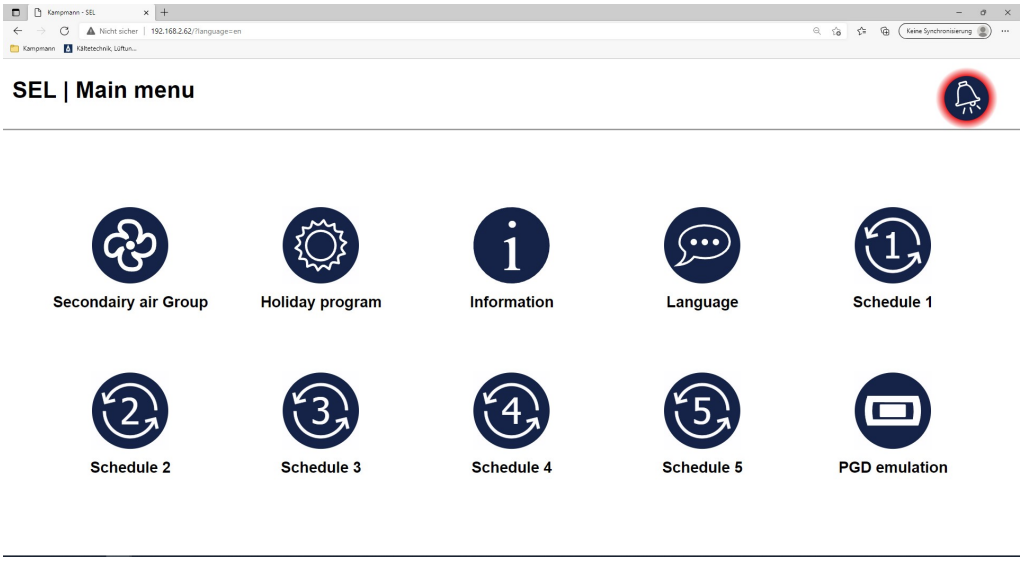
The SEL control panel features an integral web server. The menu structure and user management is identical to the display operation. The IP address can be issued statically or by DHCP. In principle, ten clients can access the server simultaneously. However, for optimum performance and depending on the number of data points, we recommend only one client!

16.1 Access to visualisation in the browser

The web server can be accessed via the device-specific, parametrisable IPv4 address in the corresponding network. More detailed information on setting up the IPv4 address can be found in the “Interfaces” section.
A parameter can be transmitted along with the URL so that the appropriate language is displayed as soon as the web server is accessed.
http://192.168.0.1/?language=de (in this case IPv4: 192.168.0.1 in German).
Depending on the required language, either “de” or “en” must be appended to the end of the link. If no parameter is transmitted, then the visualisation is in English.

16.2 Main menu

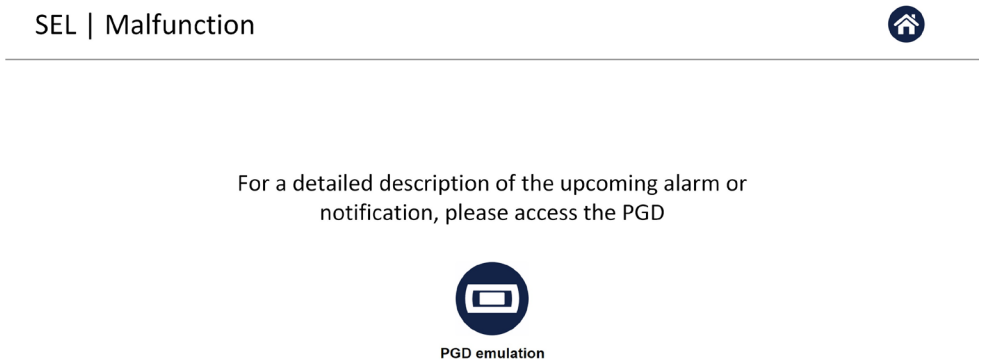
The main menu of the web view can be accessed via the browser with the corresponding IP address, as described above.
From the main menu, pressing the respective button calls up the overviews of the recirculating air groups and timer programs. Information on the software version can be displayed, as well as menus to change the system language and open the PGD emulation.



Navigation within the individual submenus generally takes place by pressing the buttons with the corresponding symbols. “Left arrow” means “scroll to the left”, “Right arrow” means “scroll to the right” and “Up arrow” means “one level up”.
To select a menu, press the respective button in the browser. If there is a fault or message, this is displayed in the menu bar in the top right of the browser. The button to select the recirculating air group also has a red border if it is affected by the fault.

16.3 Fault

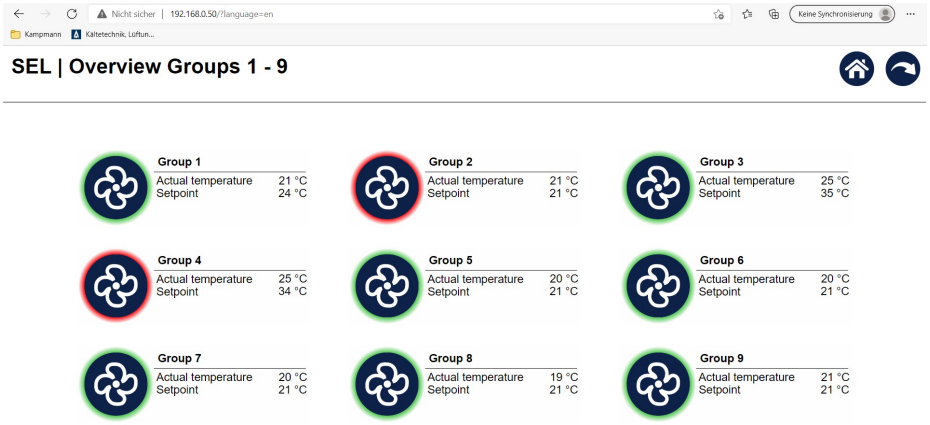
More information on the pending fault can be obtained by pressing “Fault”.



More information about the faults can be obtained by pressing the “PGD Emulation” button or symbol. The fault can be acknowledged with the emulated PGD. The corresponding displays and borders disappear once all faults in the PGD have been acknowledged. The displays and borders continue to light up if the faults could not be acknowledged. The responsible specialist company then needs to be contacted.

16.4 Overview of recirculating air groups

The overview of the recirculating air groups can be accessed by pressing the relevant button.

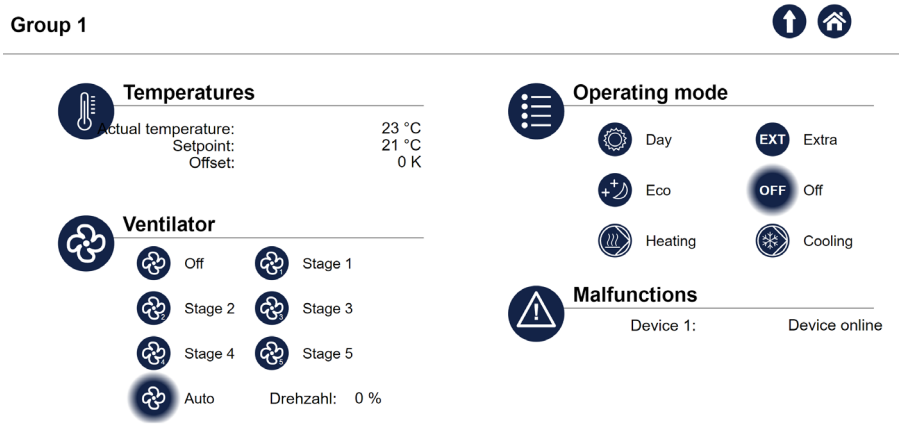


Detailed information on the respective recirculating air groups can be called up by pressing the corresponding buttons. See “Detailed view of a group” for more information. Use the navigation buttons to scroll between the individual groups. If a fault or message is present within a recirculating air group, the buttons to select the relevant overviews of the unit groups have a red border. Otherwise they have a green border.

16.5 Detailed view of a group

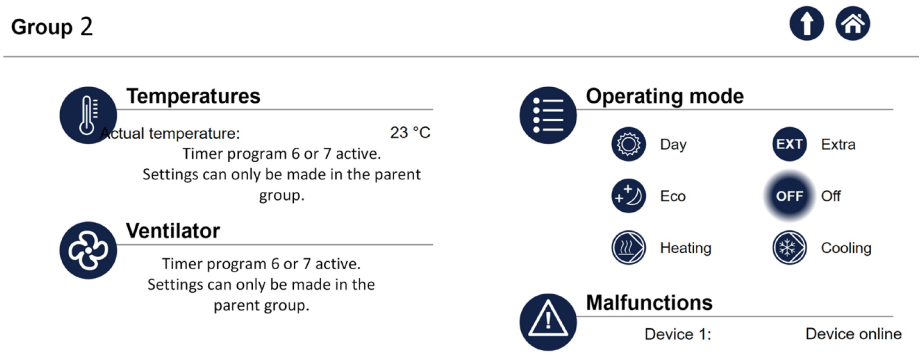
The detailed view of a group can be accessed by pressing the button for the corresponding group. Five different views can generally be displayed.

16.5.1 Recirculating air units with timer program 1 – 5



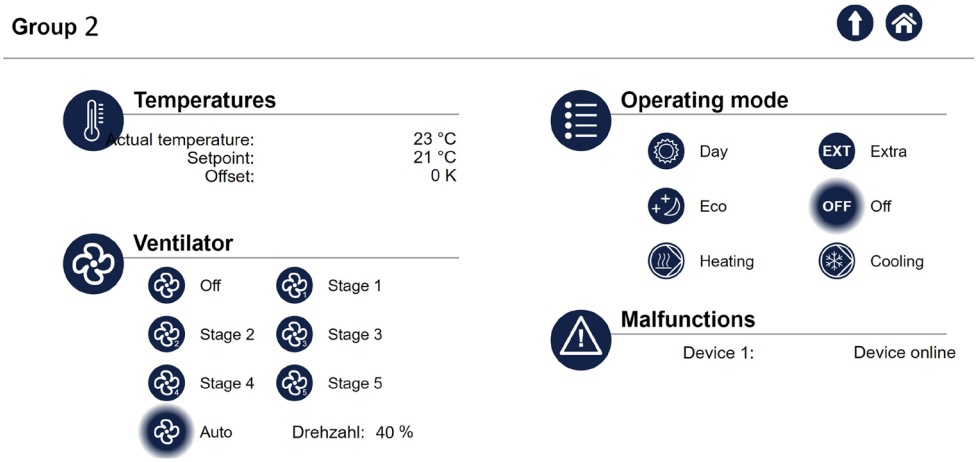
Top left: Display of the current actual temperature, set temperature and the offset. The offset can be changed by pressing the current Kelvin value.
Top right: Display of the current operating mode (heating, cooling) or (Day, Eco, Extra, Off)
Bottom left: Display of the actual fan speed or fan stage, which can be changed by pressing the required fan stage.
Bottom right: Display of faults and information. Refer to the “Error messages” section for details on the messages.

16.5.2 Recirculating air units with timer program 6 – 7



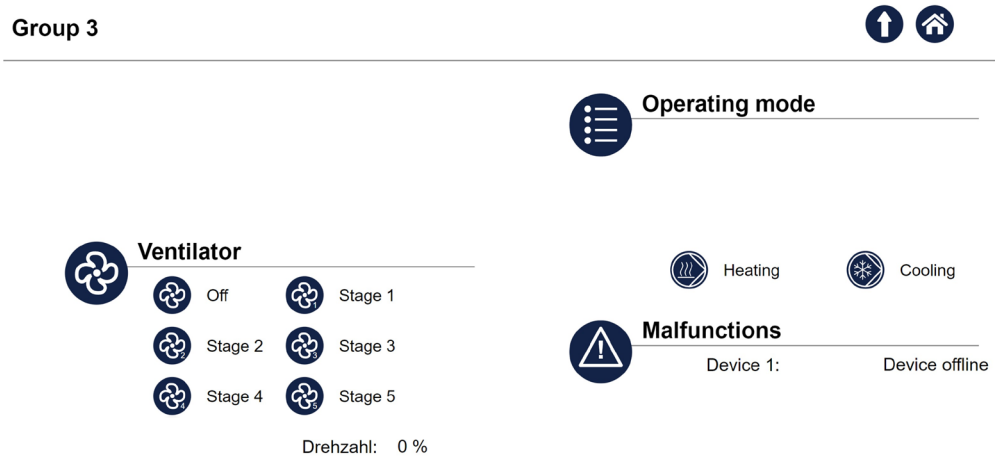
Top left: Display of the current actual temperature
Top right: Display of the current operating mode (heating, cooling) or (Day, Eco, Extra, Off)
Bottom right: Display of faults and information. Refer to the “Error messages” section for details on the messages.
The setpoint temperature and the actual fan speed or fan stage are not displayed and cannot be changed as they have been carried over from the previous group.

16.5.3 Recirculating air units with timer program 8



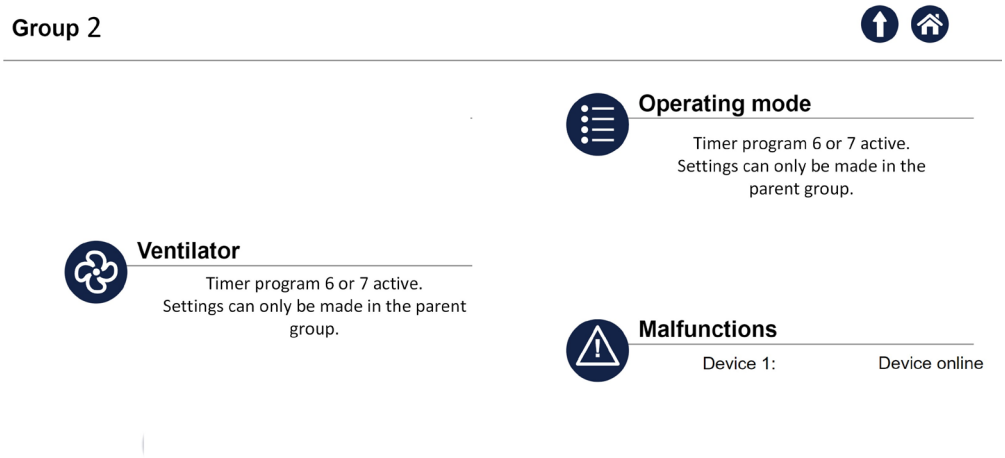
Top left: Display of the current actual temperature and the set temperature The setpoint temperature can be changed by pressing the current temperature value.
Top right: Display of the current operating mode (heating, cooling) or (Day, Eco, Extra, Off)
Bottom left: Display of the actual fan speed or fan stage, which can be changed by pressing the required fan stage.
Bottom right: Display of faults and information. Refer to the “Error messages” section for details on the messages.

16.5.4 Door air curtain group with timer program 1 – 5, 8



Top left: Display of the actual fan speed or fan stage, press the button or tile to access the settings view
Top right: Display of the current operating mode (heating, ventilation). The current operating mode can be changed by pressing the button
Bottom right: Display of faults and information. Refer to the “Error messages” section for details on the messages.

16.5.5 Door air curtain group with timer program 6-7



Bottom right: Display of faults and information. Refer to the “Error messages” section for details on the messages.
The current operating mode and the actual fan speed or fan stage are not displayed and cannot be changed as they have been carried over from the previous group.

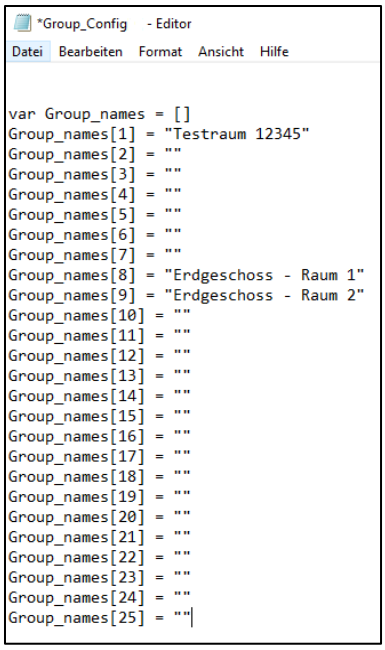
16.6 Error messages

Depending on the system configuration, the status of the connected units of the respective recirculating air group is displayed as plain text at the bottom right of the detailed view of the respective group. The following displays are possible:

- Unit online (all OK)
- Unit offline (communication with the unit is disrupted)
- Faulty control sensor
- Motor malfunction
- Room frost protection
- Condensate alarm
- General alarm
- Sensor AI1, AI2, or AI3 faulty
- Unit frost protection
- Faulty EEPROM
- Offline slave in the tLAN network

16.7 Changing the group name

The group names of the web server of the SEL control panel cannot be adopted from the controller and need to be adapted in the web server.
Group names can be changed using a config file. Open this file with a file manager, such as Windows Explorer. To do so, type “ftp://192.168.0.1/HTTP/Config/” into the file manager. “192.168.0.1” is the corresponding IPv4 address of the controller. This is unit-specific and needs to be adapted depending on the parameter settings of the SEL control panel (ref to the “Interfaces” section). The displayed folder contains a “Group_Config.js” file, which can then be downloaded and opened with a text editor.




```
var Group_names = []
Group_names[1] = "Testraum 12345"
Group_names[2] = ""
Group_names[3] = ""
Group_names[4] = ""
Group_names[5] = ""
Group_names[6] = ""
Group_names[7] = ""
Group_names[8] = "Erdgeschoss - Raum 1"
Group_names[9] = "Erdgeschoss - Raum 2"
Group_names[10] = ""
Group_names[11] = ""
Group_names[12] = ""
Group_names[13] = ""
Group_names[14] = ""
Group_names[15] = ""
Group_names[16] = ""
Group_names[17] = ""
Group_names[18] = ""
Group_names[19] = ""
Group_names[20] = ""
Group_names[21] = ""
Group_names[22] = ""
Group_names[23] = ""
Group_names[24] = ""
Group_names[25] = ""
```

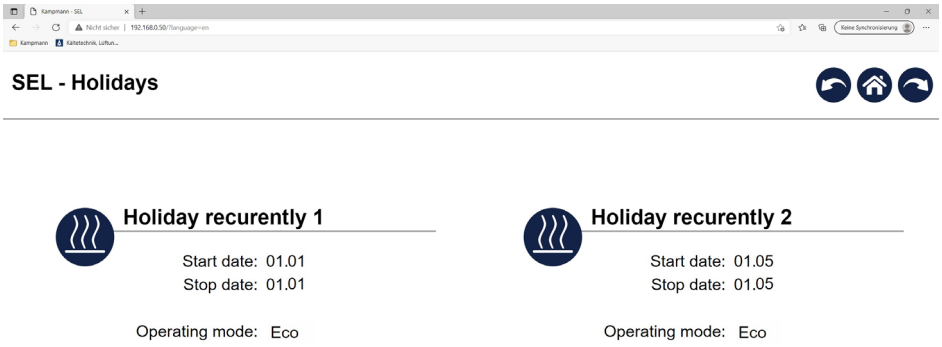
The group names can be changed as needed in this file. Then save the file and upload it to the server. Do not rename the file, as it needs to retain the name “Group_Config.js”.

16.8 Holiday program

The overview of the holiday program can be accessed by pressing the relevant button.

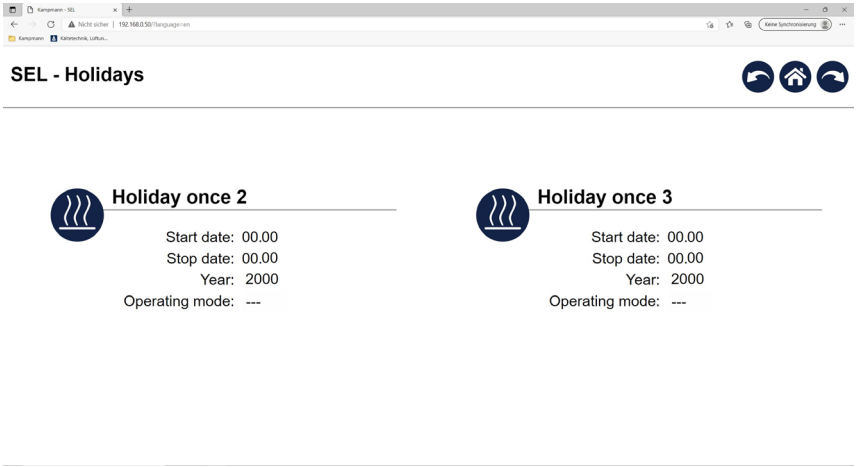
The view to change the maximum of nine recurring holiday days or holiday periods and the maximum of nine one-off holiday programs or holiday periods shows the date of the start days and end days of the periods, as well as the assigned operating modes. The year is also displayed in the one-off holiday timer program. Use the navigation keys to scroll between the individual periods.

16.9 Recurring holidays



A switching point can be edited by pressing the corresponding date or operating mode. The date can then be entered using the keyboard, and the operating mode selected from a drop-down menu.

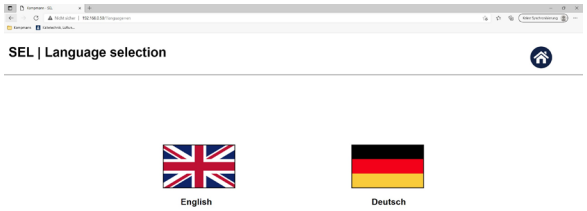
16.10 One-off holidays



A switching point can be edited by pressing the corresponding date or operating mode. The date and year can then be entered using the keyboard, and the operating mode selected from a drop-down menu.

16.11 Language settings

The language can be changed by pressing the relevant button.



Pressing the respective button or flag changes the language accordingly. The main menu opens once the language has been selected.

16.12 PGD Emulation

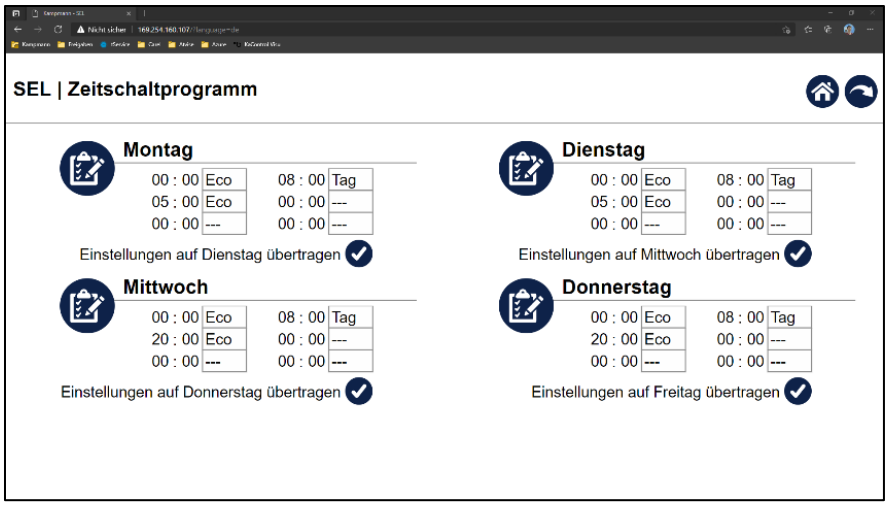
PGD emulation can be accessed by pressing the relevant button.

It is operated using six grey buttons arranged at the sides. The menu is organised in several levels (Operator level, User level, Expert level and Manufacturer level). The User, Expert and Manufacturer levels can only be accessed by entering specific passwords.
The “Alarm” button flashes red as soon as a fault or message occurs. Pressing the “Alarm” button accesses the “Alarm” menu, and pressing the “Alarm” button once more opens the “Event” menu.
The “Alarm” menu displays any faults in plain text. Pressing the “Up” or “Down” button enables the user to scroll between several faults that have occurred. The relevant fault can be acknowledged by pressing the “Select” button. The entry is cleared if it was possible to acknowledge the fault. The entry remains if it was not possible to acknowledge the fault. The responsible specialist company then needs to be contacted.
The “Event” menu displays faults and messages that have occurred in plain text with the date and time. Pressing the “Up” or “Down” button enables the user to scroll between the individual entries.
Press the “Back” button to navigate backwards through the screens as far as the start screen.
Pressing the “Circle with dot” button opens the “Password entry” menu. The “Password entry” menu can be used to switch to the “User level” menu, the “Expert level” menu or the “Manufacturer level” menu by entering the corresponding password.
Pressing the “Left arrow” button (bottom left) takes the user back to the original view of the main menu. This exits the emulation of the PGD.

16.13 Timer programs

The overview of the timer programs can be accessed by pressing the relevant button.

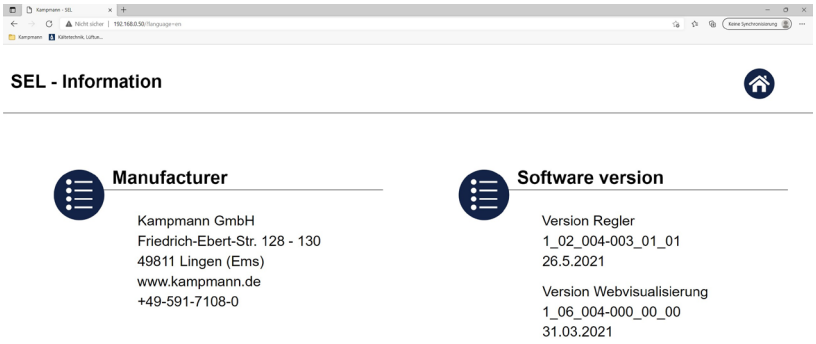
The view to change the respective timer programs displays the switching times and the assigned operating modes for each weekday. Use the navigation keys to scroll between the individual weekdays.
A switching point can be edited by pressing the corresponding time or operating mode. The time can then be entered using the keyboard, and the operating mode selected from a drop-down menu.
Selected settings can be carried over to the following day by pressing the “Apply” symbol (tick).



16.14 Information

The information overview can be accessed by pressing the relevant button.

Information and details of the manufacturer are listed on the left. Information about the software version is displayed on the right.



17 Modbus addressing of recirculating air units

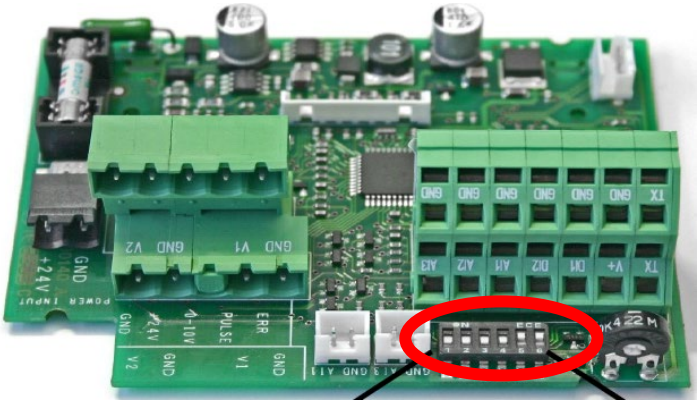
Fixed addresses must be defined for all recirculating air groups or for all recirculating air units. A maximum of 25 groups each containing a maximum of six units can be connected. The addresses are listed in the following table:

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
Group 1	11	12	13	14	15	16
Group 2	17	18	19	20	21	22
Group 3	23	24	25	26	27	28
Group 4	29	30	31	32	33	34
Group 5	35	36	37	38	39	40
Group 6	41	42	43	44	45	46
Group 7	47	48	49	50	51	52
Group 8	53	54	55	56	57	58
Group 9	59	60	61	62	63	64
Group 10	65	66	67	68	69	70
Group 11	71	72	73	74	75	76
Group 12	77	78	79	80	81	82
Group 13	83	84	85	86	87	88
Group 14	89	90	91	92	93	94
Group 15	95	96	97	98	99	100
Group 16	101	102	103	104	105	106
Group 17	107	108	109	110	111	112
Group 18	113	114	115	116	117	118
Group 19	119	120	121	122	123	124
Group 20	125	126	127	128	129	130
Group 21	131	132	133	134	135	136
Group 22	137	138	139	140	141	142
Group 23	143	144	145	146	147	148
Group 24	149	150	151	152	153	154
Group 25	155	156	157	158	159	160

The recirculating air units or KaControl board integrated in each one and mounted Modbus card must be configured with a KaController. A commissioning KaController

may need to be connected for this purpose. Each unit needs to be individually parametrised and addressed. The following figure illustrates how to mount the Modbus card on the KaControl PCB.

To enable service and maintenance work to be carried out at a later date, the relevant Modbus address should be noted on an adhesive label and affixed to the control board or the unit and also be entered in a table specifying the “Device”, “Location”, “Modbus address” and, if necessary, additional information.
The DIP switches on the KaControl PCB need to be parametrised as follows:



DIP1: OFF (always)

DIP2: OFF (always)

DIP3: OFF (always)

DIP4 OFF (always)

DIP5: OFF = 2-pipe system
ON = 4-pipe system

DIP6: OFF = room control on external room sensor
ON = room control on sensor in the KaController
or with slave units

With master units, a 1 kOhm resistor must be used between the terminals “V+” and “GND” after addressing if no KaController is to be permanently connected.

The following steps are needed to set the MODBUS network address:

1. Switch off the KaController by:
   - Pressing the ON/OFF button
   or
   - Pressing the navigator dial for a minimum of five seconds
   or
   - Turning the navigator dial to the left until OFF is displayed

2. Press the navigator dial for a minimum of 10 seconds to call up the Service menu. The display shows “Para” followed by “CODE” with the value 000.

3. Select the password (Code) 22 by turning the navigator and confirm by pressing the navigator. You are now in service level 1 and the display shows the current software version (P000=...).

4. Select parameter P92 (access to service level 2) by turning the navigator dial and setting the value P92=66. Confirm by pressing the navigator dial. You are now in service level 2 and can set the parameters by turning the navigator dial as follows:
   - Activation of MODBUS communication:
     Select P054 and set the value to 1.
     (P054 = 1 => MODBUS protocol)
   - Setting the MODBUS address:
     Select P069 and set the value to the corresponding Modbus address.
     (P069 = MODBUS address)

5. Exit the service menu and access the default view by:
   - Not using the navigator dial for longer than two minutes
   or
   - Holding down the navigator dial for a minimum of five seconds
   or
   - Turning the navigator dial to select the “ESC” display confirming the selection by pressing the navigator dial

KAMPMANN
Genau mein Klima.

18 Software name and versions

The software is named according to the following key. The placeholders are explained below.

A_BB_CCC-DDD_EE_FF_GG-HHIII

A: Application
1 Standard software
2 Concept software
3 Project software

BB: Destination system
01 AUL control panel (either with or without H2 central unit)
02 SEL control panel
03 WRG control panel
04 KG control cabinet (either with or without extension module)
05 K2O control panel
06 SEL control panel web server
07 KaConnect SEL control panel
08 AUL control panel web server
09 KaConnect AUL control panel
10 KaVisu

CCC: Software version

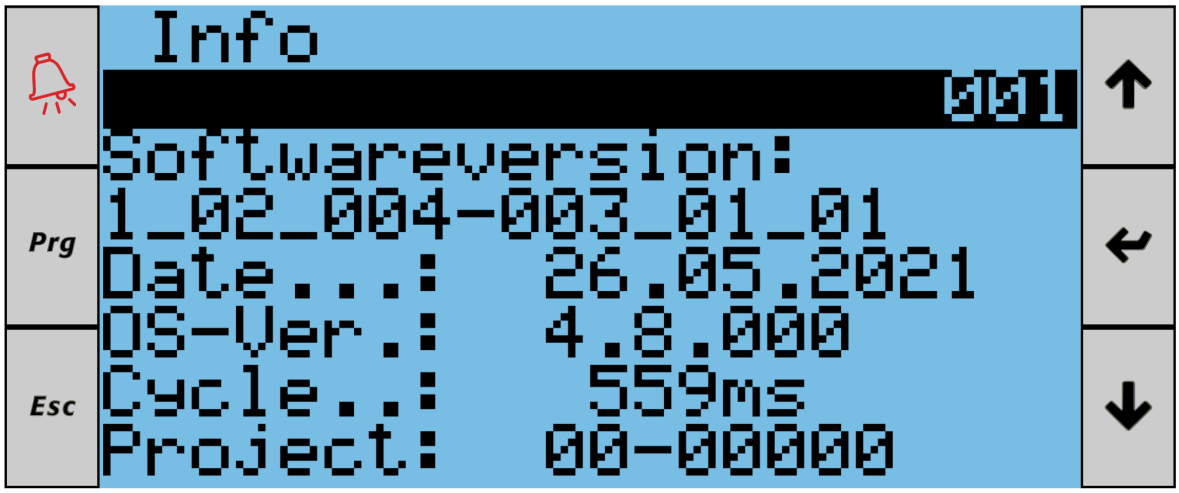
DDD: Intermediate software version

EE: Sequential number (e.g. with multiple units in a project)

FF: Controller in the pLAN network

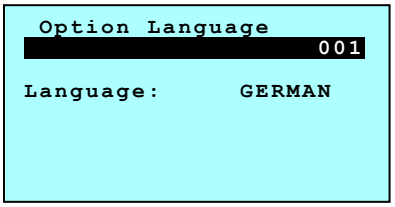
GG-HHIII: Project number

Example:



19 Language

The “Language” menu (1111) is used to completely change the parameter names displayed in plain text. The languages “German” and “English” can be selected (Up arrow key). The window closes automatically after ten seconds.



20 Extra Monitor

The “Extra Monitor” menu (7333) is used for Modbus function analysis only by the specifically trained expert!

Some dialogue box numbers are missing and have been skipped to ensure that the menu structure and numbering is identical to other versions of the software.

```
 Extramonitor
X                    013
Modbus-Test RA-device
Enable........:    0
Adress........:    1


COM-Status....:OFFLINE
```

```
 Extramonitor
X                    014
Modbus-Test RA-device
COM-Status........:1
KaController/1kOhm:0
Dip 1:0       Dip 4:0
Dip 2:0       Dip 5:0
Dip 3:0       Dip 6:0
```

```
 Extramonitor
X                    015
Modbus-Test RA-device


Softwareversion:    0
```

```
 Extramonitor
X                    016
ModBus-Test RA-device
Parameter    2:   0.0K
Parameter    4:   0.0K
Parameter    5:   0.0K
Parameter    6:   0.0K
Parameter    7:   0.0K
```

```
 Extramonitor
X                    017
ModBus-Test RA-device
Parameter    8:   0.0K
Parameter   10:     0°C
Parameter   11:     0°C
Parameter   12:     0°C
Parameter   13:   0.0K
```

```
 Extramonitor
X                    018
ModBus-Test RA-device
Parameter   14:     0°C
Parameter   15:     0
Parameter   16:     0
Parameter   17:     0
Parameter   18:   0.0K
```

```
 Extramonitor
X                    019
ModBus-Test RA-device
Parameter   19:   0.0K
Parameter   29:     0
Parameter   43:     0
Parameter   44:     0
```

```
 Extramonitor
X                    022
Summer/Wintertime-
 Automatic
```

```
 Extramonitor
X                    020
ModBus-Test RA-device
Parameter   52:     0



Parameter   69:     0
```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21 Revision index

Version:	Revision:
004.001	Revised Tera alarm management
004.002	Revised Tera alarm management
004.003	ModBus TCP data points added

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