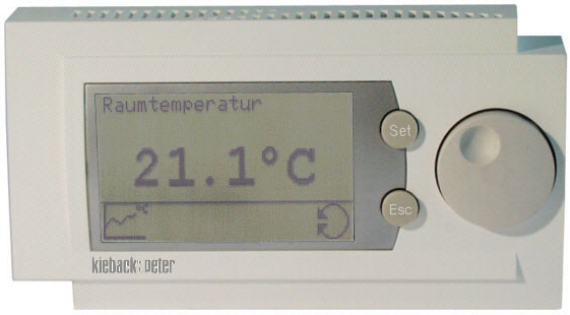
Device Description — DDC130 Room Module

Application



The bus-capable room module DDC130 with a graphics display serves in the DDC3000 system as the room temperature input as well as being a convenient device for room regulation.
It has two function buttons as well as a rotating knob for the display and setting of the room parameters, e.g. room actual value, date/time-of-day, setpoint , day/night/automatic operation, utilization period program etc.
The room parameters are entered in the DDC3000 Central Control Unit DDC3002, DDC3003, DDC3200 or DDC3300 and transferred to the room module DDC130 by means of the field bus so that settings can be made from the room module.
The display texts can be modified by parameterization.
Furthermore, the room module has one freely parameterizable contact input, e.g. for the connection of a window contact or proximity detector.

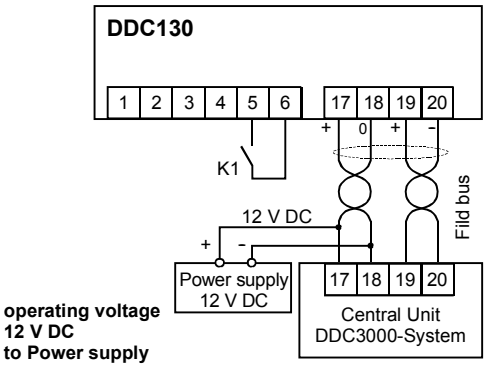
Type

DDC130	Room module with graphic display for room temperature input and setting of the room regulation

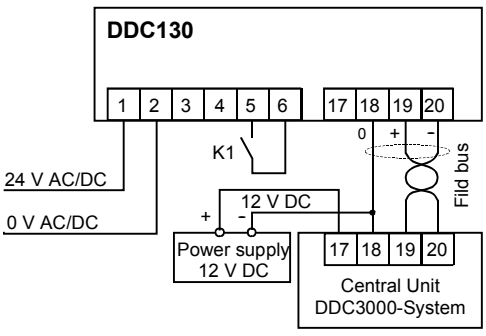
Technical Data

Function	Room temperature input with the setting of the room control loops
Mains	12 V DC ±20%, 1,2 VA or 24 V AC/DC ±10%, 3,5 VA AC/1,6 VA DC, electronic security
Bus	DDC field bus, software addressing (non-volatile storage)
Measuring	Room temperature in living and business rooms
Measuring system	Integrated digital temperature sensor –25..+50°C
Entry	Closer K1, voltage-free (parameterizable, e.g. for window contact, proximity detector etc.)
Display	full graphics, 70 x 42 mm, 128 x 64 Pixel – Room temperature, resolution 0,1 K, switch over to graphic trend value display – Timer function (parameterizable, e.g. utilization-period on, setting 0,5..4,0 hours) – Current date and time-of-day (display of the system clock from the DDC3000 system) – Display and setting of 5 setpoints, by parameterization in the DDC3000 system – Display and setting of 5 switching functions, by parameterization in the DDC3000 system – Display and setting of the utilization-period programs, by parameterization in the DDC3000 system – Notification display by parameterization in the DDC3000 system (i.e. for service and malfunction messages)
Service elements	Rotating knob and 2 buttons for the display and setting of the functions
Housing	Hood/Connection-Socket plastic, color RAL 9010 (pure white) Display cover plate plastic, color RAL 9006 (white aluminum) Rotating knob/service buttons plastic, color RAL 7035 (light gray)
Environmental temperature	0..45°C, Air humidity non-condensing
Degree of enclosure protection	IP30
Measurements	W x H x D = 154 x 83,4 x 38 (mm)

Device connection



operating voltage 12 V DC to Power supply alternatively operating voltage 24 V AC/DC



Installation

Warning

The electrical installation and the connection of the device may only be carried out by qualified personnel!

VDE provisions and the local regulations must be observed.

- Leads for the operating voltage 12 V DC and for the field bus should be located in a common insulated cable, minimal cable type JY(St)Y 2x2x0.8 Lg.
  Leads for the operating voltage 12 V DC must be in the form of twisted pairs.
  Leads for the field bus must be in the form of twisted pairs.
  At the end of the field bus (most distant point from the Central Unit, max. 2000 m) the two connection leads from the field bus must be supplied one time with a terminator resistor ca. 180 Ω (terminator resistor is available in the Central Unit accessory kit).
- Alternatively to the operating voltage (12 V DC), the room module DDC130 can be supplied with an operating voltage of 24 AC/DC.

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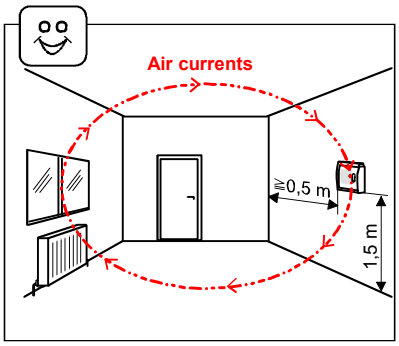
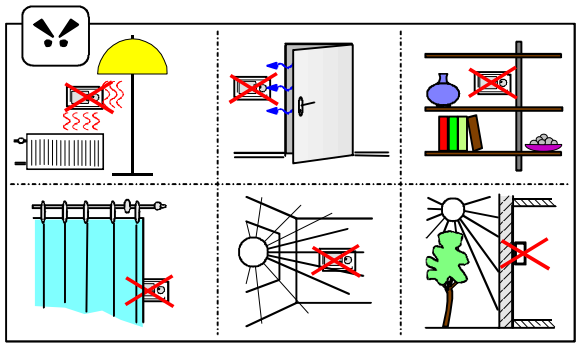
Assembly

The room module DDC110-3 can be mounted on the wall or flush-mounted.

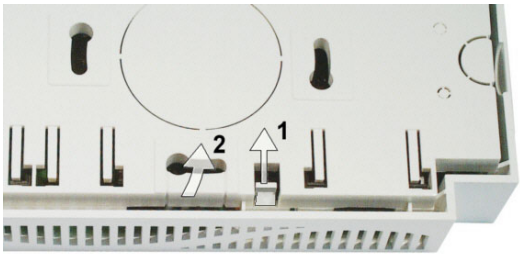
For the rapid and correct measuring of the room temperature, the room module should be mounted in such a way that the air currents of the room are best utilized.



Correct
for living and business rooms



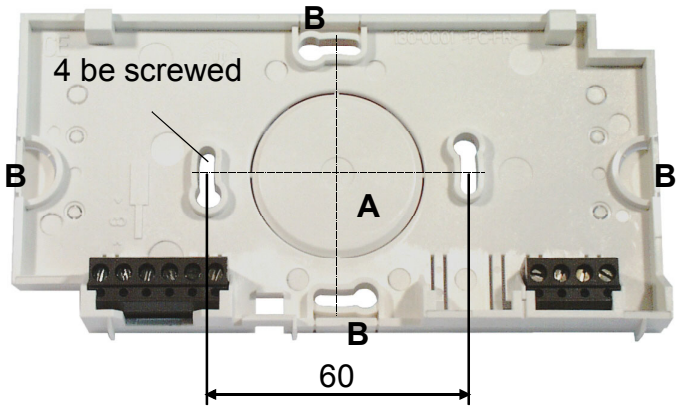
Incorrect



Opening housing:
Press supporting clamp in the direction of the arrow (1) and remove connection base (2)

If the room module is mounted, the supporting clamp can be pressed in at the bottom and the housing can be pulled off.

1



The connection socket can be screwed to the fastening sockets on the flush-mounted box or onto the wall.
For cable entry, break away the appropriate perforated segments of the base:

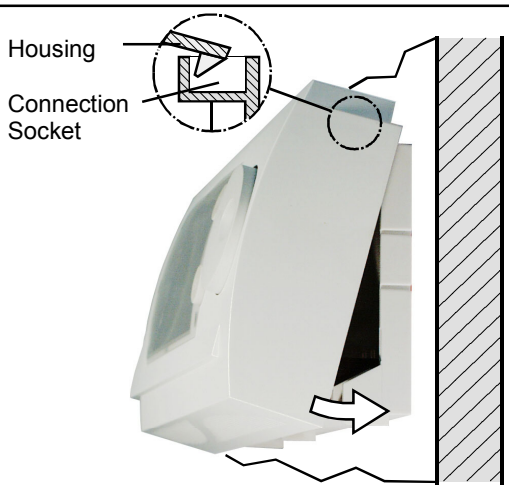
A for flush-mounting cabling or assembly on the flush-mounted box
B for surface mounting cabling

2

Warning

Assembly may be carried out by qualified personnel only!

Turn power on only after the commissioning engineer/technician has examined and adjusted the device!



After the base has been mounted, the room module DDC130 should be snapped onto the connection base.

3

System settings

Warning

The System Settings customize the operation module to the DDC3000 system.
The System Settings may only be carried out by a commissioning engineer/technician!
Improper changes can lead to function disturbances in the DDC3000 system!

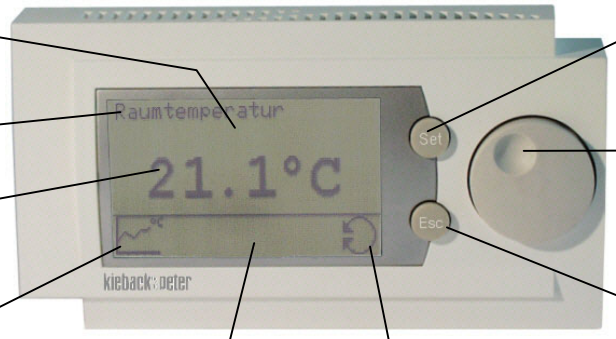
Setting:

Press button Esc for 5 sec.
Set code number with the rotating knob and confirm with Set.
A selection window opens with the following settings options:

Address	setting of the field bus address (01..63), (delivery with address 00, symbol for operating control ☹ =no field bus transfer)
Tone signal	setting of the tone signal for pressing button (on/off)
Trend recording	setting of the trend recording time period (0,1 h, 1 h, 24 h or off)
Contrast	visual display setting
Sensor 1	Display of the integrated temperature sensors (on/off)

The selection of the individual system settings is carried out with the rotating knob.
The setting window is opened with Set and the values are set with the rotating knob.
Set stores to non-volatile system memory of the room module DDC130.
Pressing on Esc causes the system settings to be locked. The basic display of the room temperature is shown.
The locking process occurs automatically if in the following 20 sec. no other settings are made.

Operation

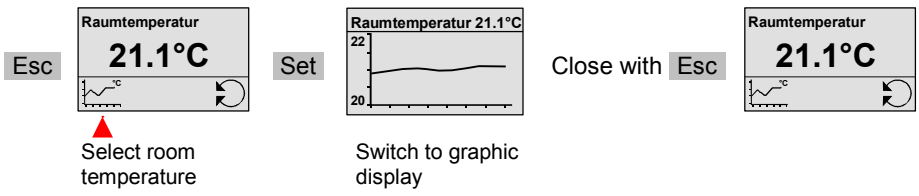


Graphic display
Parameter text (can be edited)
Value display
Function symbol displays the selected function (, , etc.)
Field for other program information, e.g. Display of remaining time for a utilization-period increase
Symbol for user guidence, other displays/functions selected by rotating knob
Button Set (address or store)
Rotating knob (Scroll display or set values)
Button Esc (cancel/close)

Notice

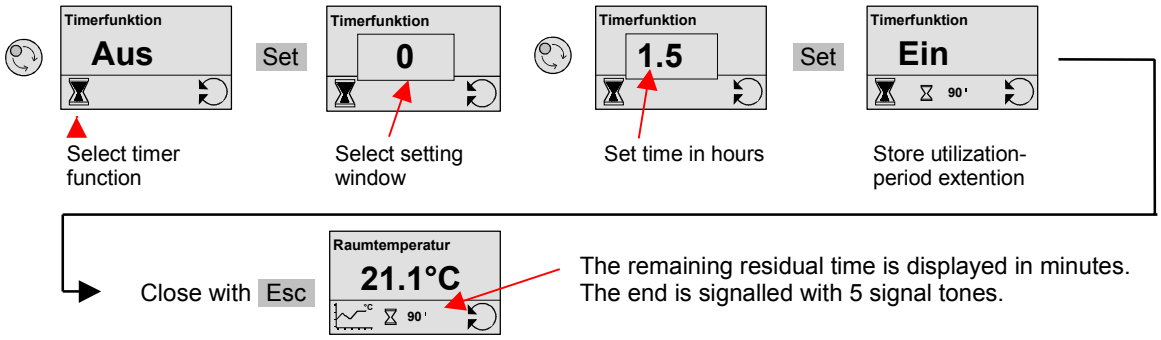
The following descriptions are delivered as the standard parameter texts.
The parameter texts can be edited and can appear differently. The selection of the displayed functions should be carried out with the respective functions symbols (, , etc.).
Set signifies: press button Set, Esc signifies: press button Esc, signifies: turn rotating knob.
The respective display is shown to the right next to the service symbols,.

Trend value display for room temperature

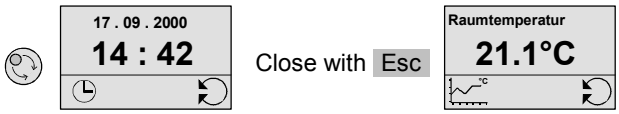


Select room temperature
Switch to graphic display

Timer function, e.g. utilization period ON for 1.5 Std. (other timer functions are possible)



Display date/time-of-day



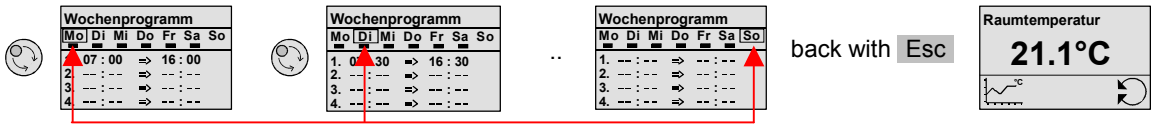
Hinweis

Other displays and settings are only possible after the parameterization of the connected DDC system. Individual programs can be canceled before storage with Esc

Utilization-period program (Only for the parameterization of the connected DDC system)

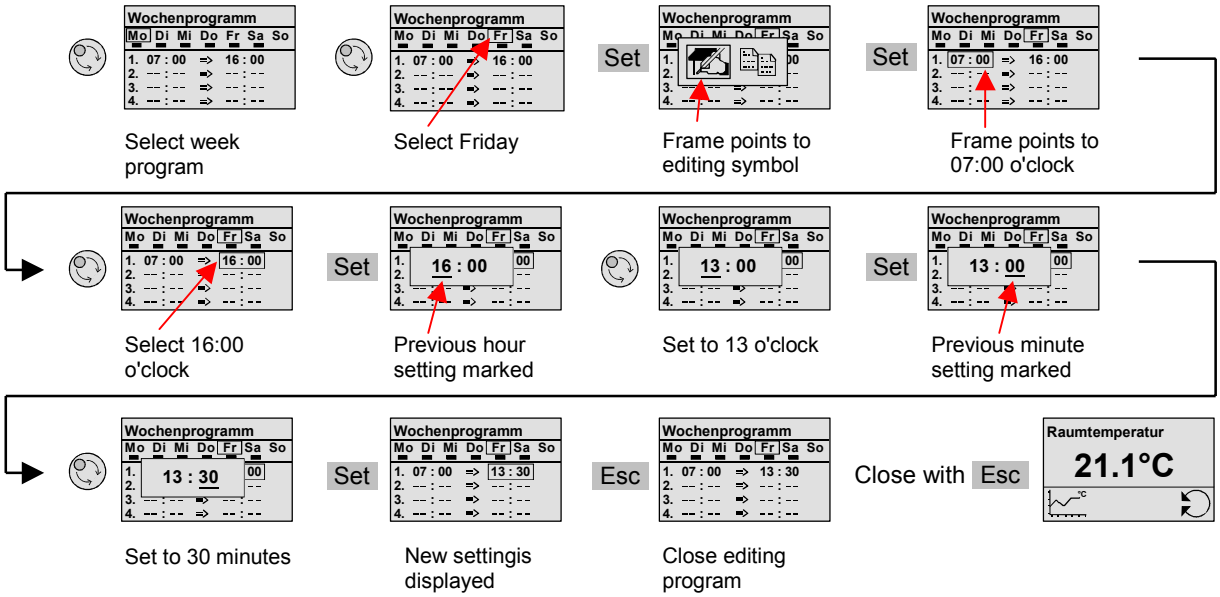
The daily operation of the room regulation for the entire week (Mon..Sun) is set in the utilization-period program.
4 utilization periods can be set for every day.

- **View the week program**

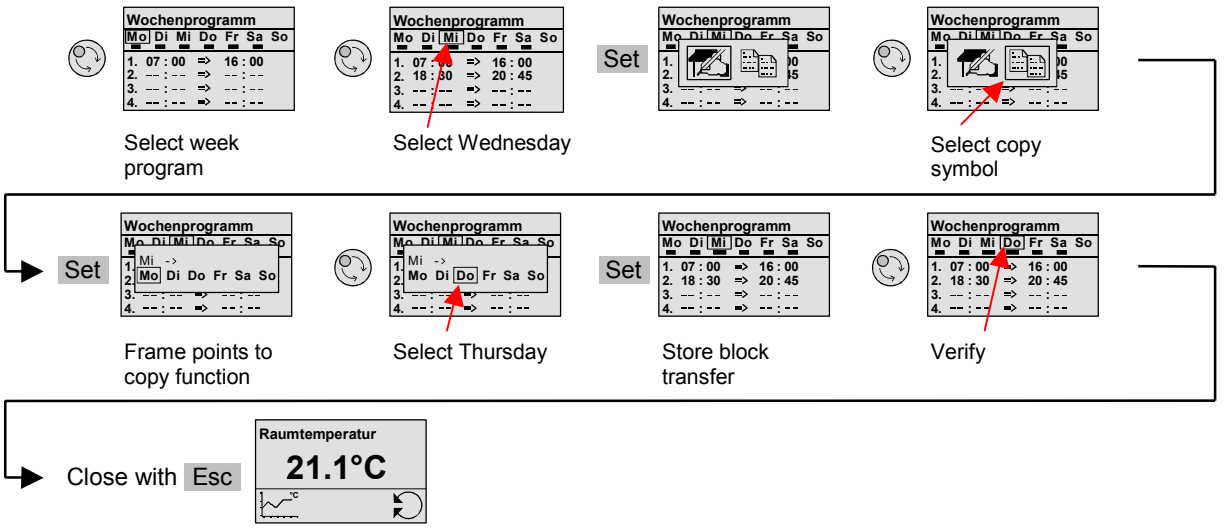


The frame shows the selected weekday.
The bar marking beneath the day shows the selected utilization-period. In the example: Without utilization-period

- **Modify utilization-period** (Example: change Friday from 7:00 to 16:00, from 07:00 to 13:30)

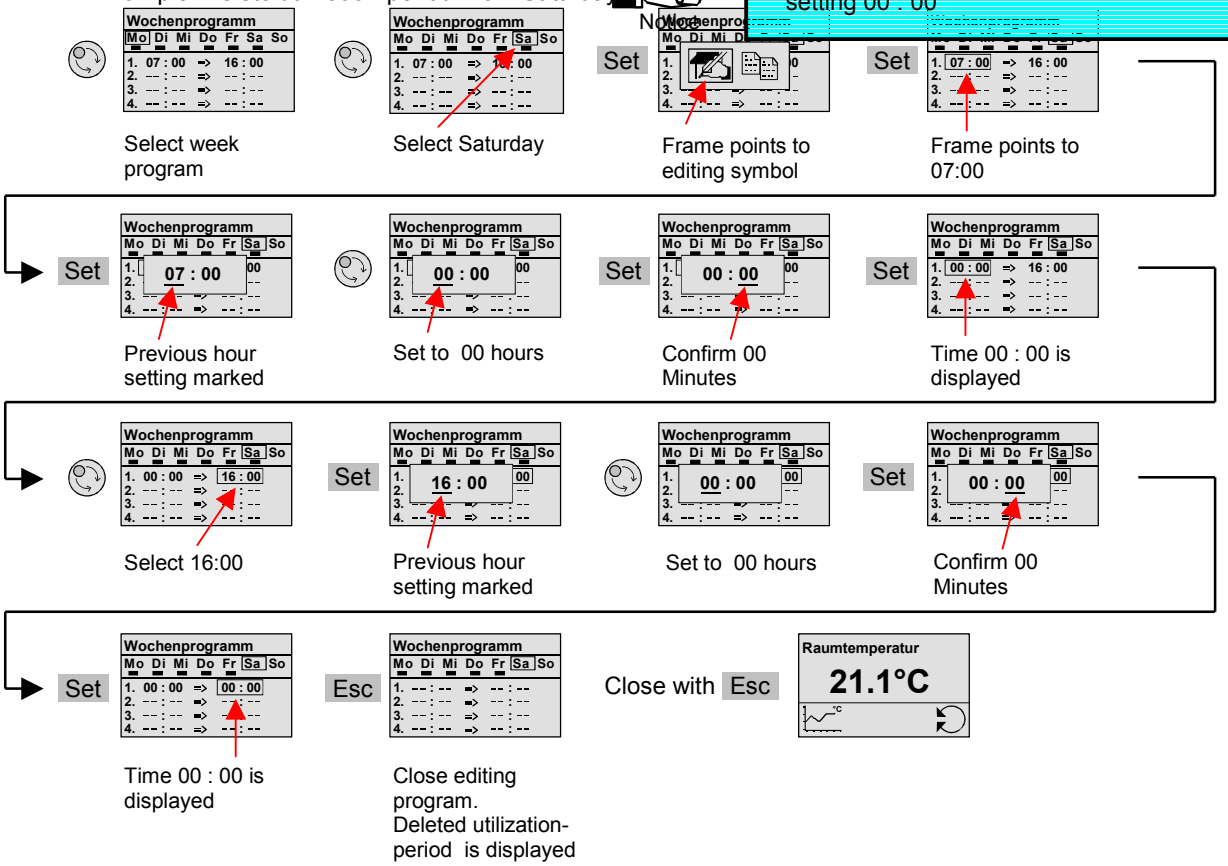


- **Block transfer**
  With block transfer, a complete daily program with 1..4 utilization-periods can be transferred from one day to another.
  Example: Transfer day program from Wednesday to Thursday.



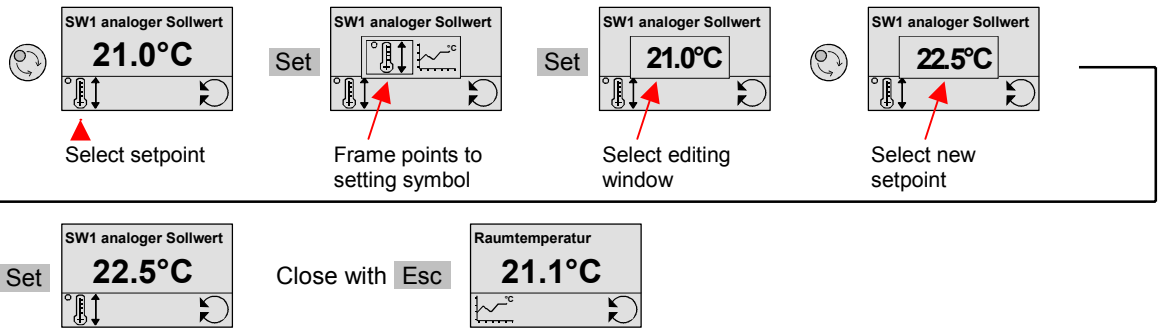
- **Delete utilization-period**
  Example: Delete utilization-period from Saturday

Note: Utilization periods are deleted with the setting 00 : 00

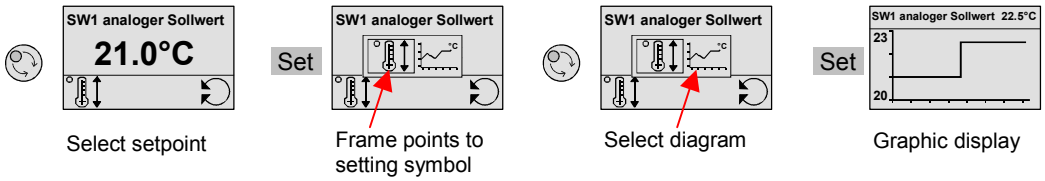


Modify setpoint (Only for the parameterization of a connected DDC system, Texts can vary)

Example: Modify setpoint from 21,0°C to 22,5°C.

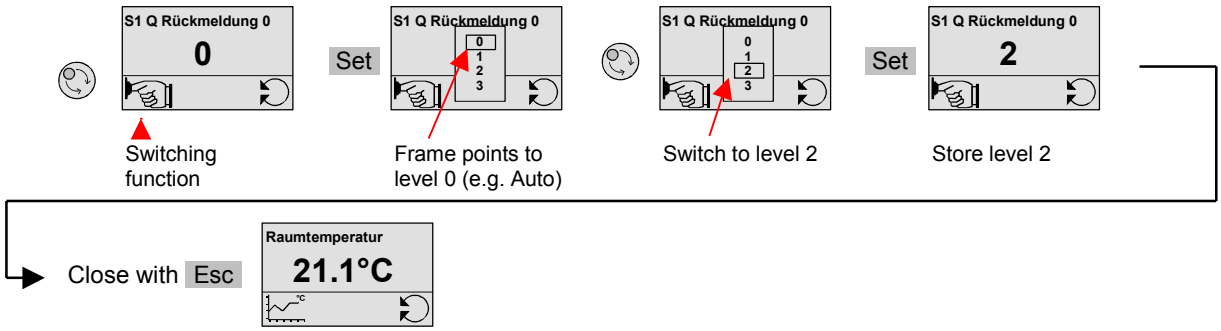


Example: Switch setpoint onto graphic display.



Switching (Only for the parameterization of a connected DDC system, Texts can vary)

Example: 2-level ventilator switched from automatic operation to level 2.



Messages (Only for the parameterization of a connected DDC system, Texts can vary)

The malfunction and operating messages that have come in are immediately shown on the display with a signal tone and must be confirmed with Set.