

## Device Description

## DDC131 Room Module

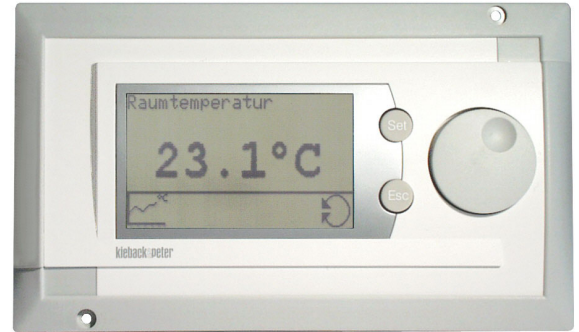
### Application

The bus-capable service module DDC131 for front installation in the switching cabinet is supplied with a graphic display and in the DDC3000 system for the convenient operation of the DDC control loop.

It has two function buttons and a rotating knob for the display and setting of parameters, e.g. actual value, time-of-day, setpoint, day/night/automatic operation, usage time program etc.

The parameters are set in the DDC3000 Central Control Unit DDC3002, DDC3003, DDC3200 or DDC3300 and transferred by means of the field bus to the operation module DDC131, so that the setting can be made from the operation module.

The display texts can be modified by parameterization. Furthermore, the operation module has a freely-parameterizable contact input



### Type

DDC131 Operation module for front installation in the switching cabinet with graphic display for the temperature input and servicing of a DDC-control loop

### Technical Data

Function	Operation of a DDC-control loop	
Mains	12 V DC $\pm 20\%$ , 1,2 VA or 24 V AC/DC $\pm 10\%$ , 3,5 VA AC/1,6 VA DC, electronic fusing	
Bus	DDC field bus, software addressing (non-volatile storage)	
Measuring system	Integrated digital temperature sensor $-25..+50^{\circ}\text{C}$ , can be switched off	
Entry	Closer K1, voltage-free (parameterizable)	
Connection	Terminal connection, leads max. 2,5 mm <sup>2</sup>	
Display	full graphics, 70 x 42 mm, 128 x 64 Pixel	
	– Temperature, resolution 0,1 K, can be switched 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 operation and malfunction messages)	
Operation elements	Rotating knob and 2 buttons for the display and setting of the functions	
Housing	Housing/connection socket	plastic, color RAL 9010 (pure white)
	Display cover plate	plastic, color RAL 9006 (white aluminum)
	Rotating knob/operation buttons	plastic, color RAL 7035 (light gray)
	Frame	plastic, color RAL 7035 (light gray)
Environment temperature	0..45°C, Air humidity non-condensing	
Degree of enclosure protection	IP30, IP40 for front mounting in the control panel	

### 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.

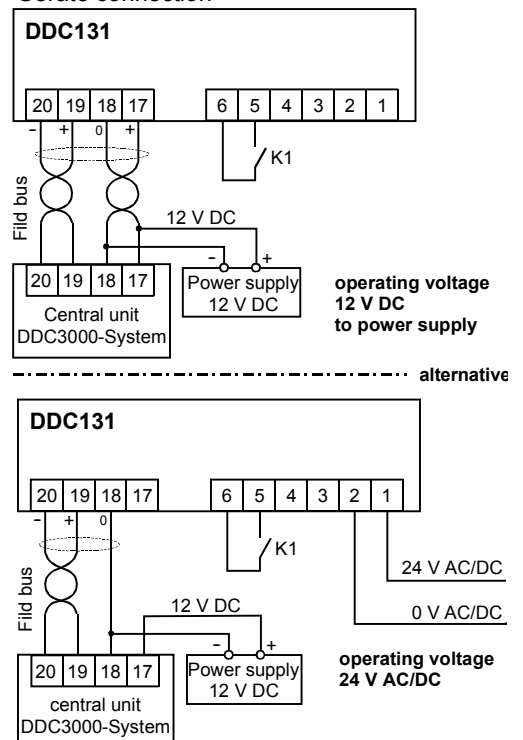
Leads for the operating voltage 12 V DC must be in the form of twisted pairs.

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  $\Omega$  (terminator resistor is available in the Central Unit accessory kit).

- As an alternative to the operating voltage (12 V DC), the operation module DDC131 can be supplied with an operating voltage of 24 V AC/DC.

#### Geräte connection



Date 22.11.2000

**Assembly**

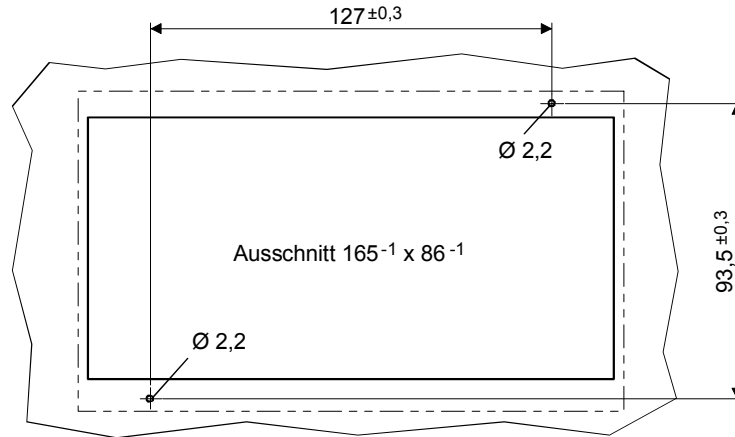


Warning

The operation module DDC131 is mounted in the switching panel front.

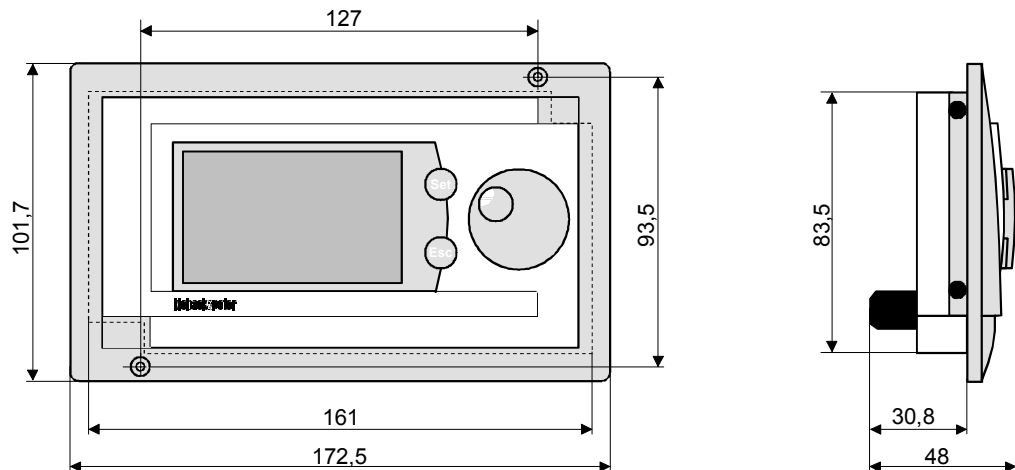
**Assembly may be carried out by qualified personnel only!**

**Switching panel cut-out**



Hole Ø 2.2 for sheet metal screws 2.9 x 13 according to ISO 7049-ST or ISO 1481-ST

**Device measurements**



**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 fieldbus 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.

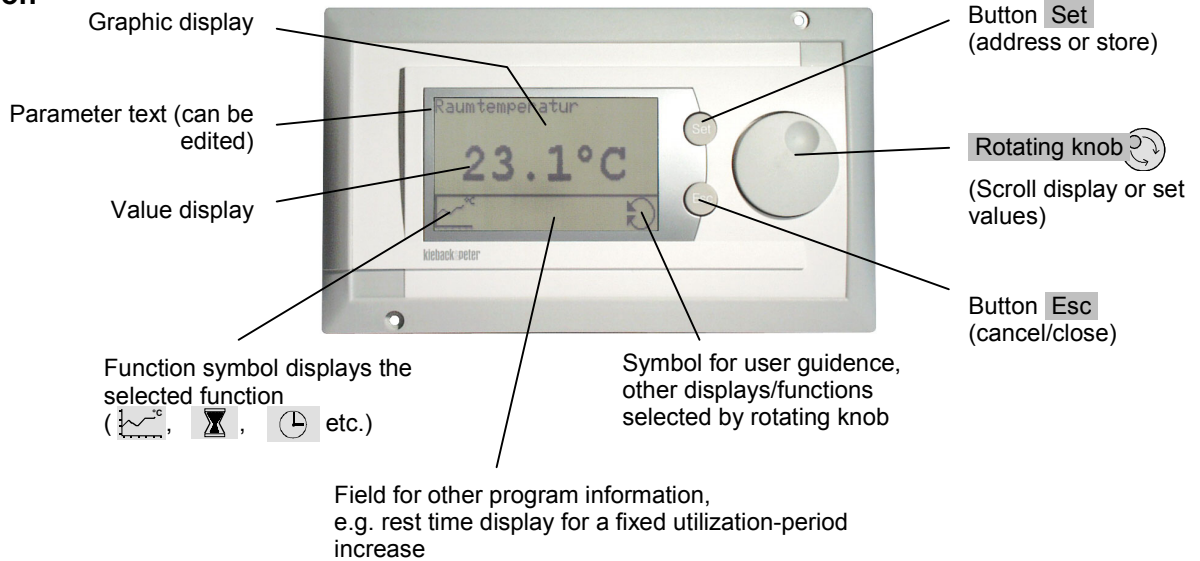
Pressing on **Esc** causes the system settings to be locked. The basic display of the room temperature is shown.

The locking process occurs automatically if in the following 20 sec. no other settings are made.

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Operation



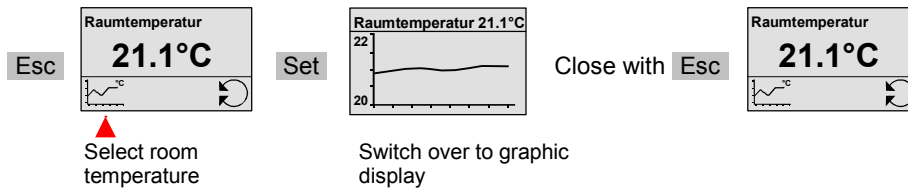
The following descriptions are delivered as the standard parameter texts. The parameter texts can be edited and can appear differently. The selection of the displayed functions should be carried out with the respective functions symbols ( , , etc.).

**Set** signifies: press button Set, **Esc** signifies: press button Esc, signifies: turn rotating knob.

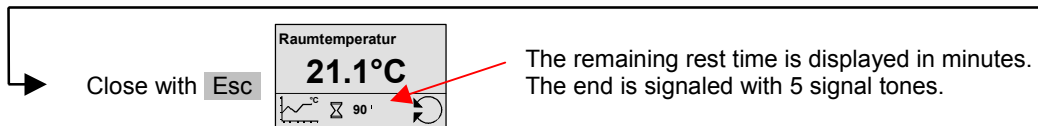
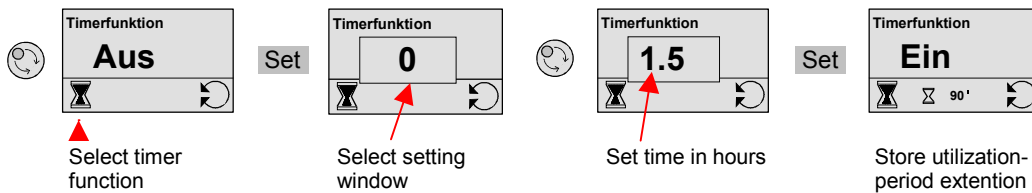
The respective display is shown to the right next to the service symbols,



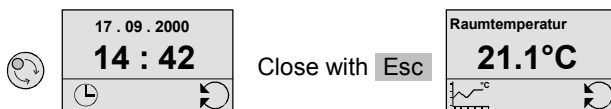
**Trend value display of the temperature, e.g. room temperature (other temperature displays are possible)**



**Timer function, e.g. utilization-period ON for 1,5 hours (other timer function are possible)**



**Display date/time-of-day**



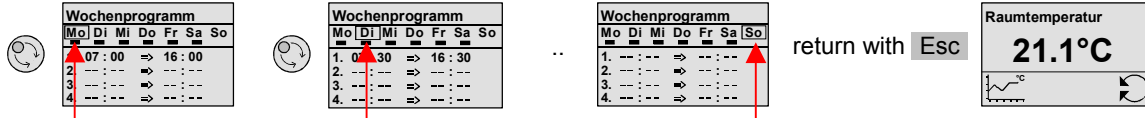


Other displays and settings are only possible after the parameterization of the connected DDC system. Setup programs can be canceled before storage with **Esc**

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

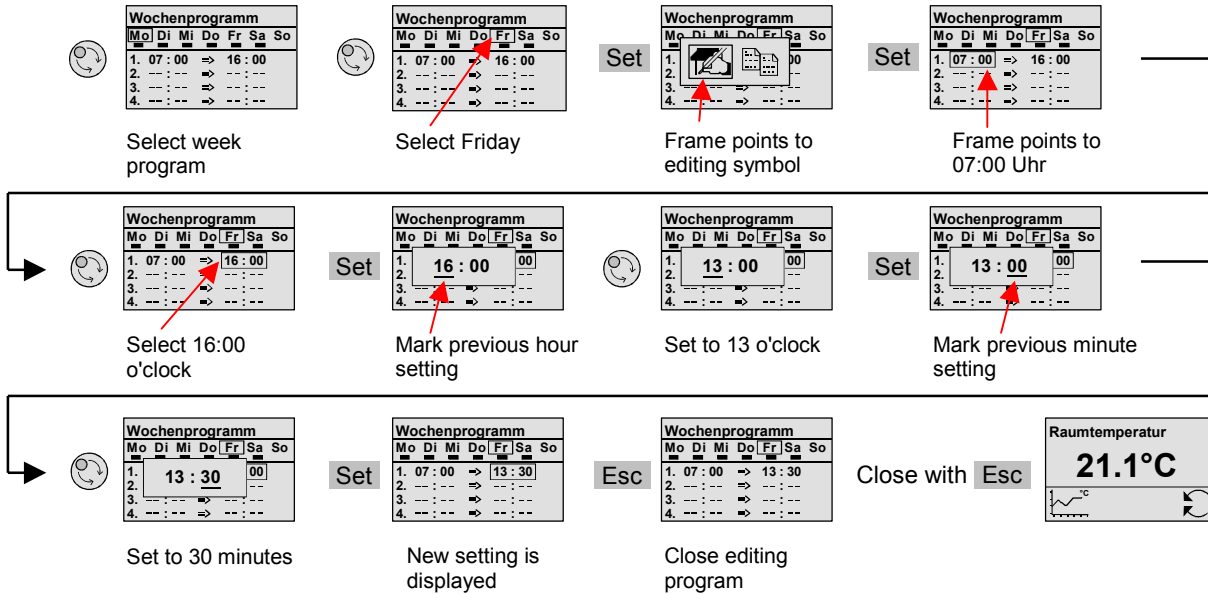
The daily operation of the room regulation for the entire week (Mon..Sun) is set in the utilization-period program. 4 utilization periods can be set for every day.

• **View week program**



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

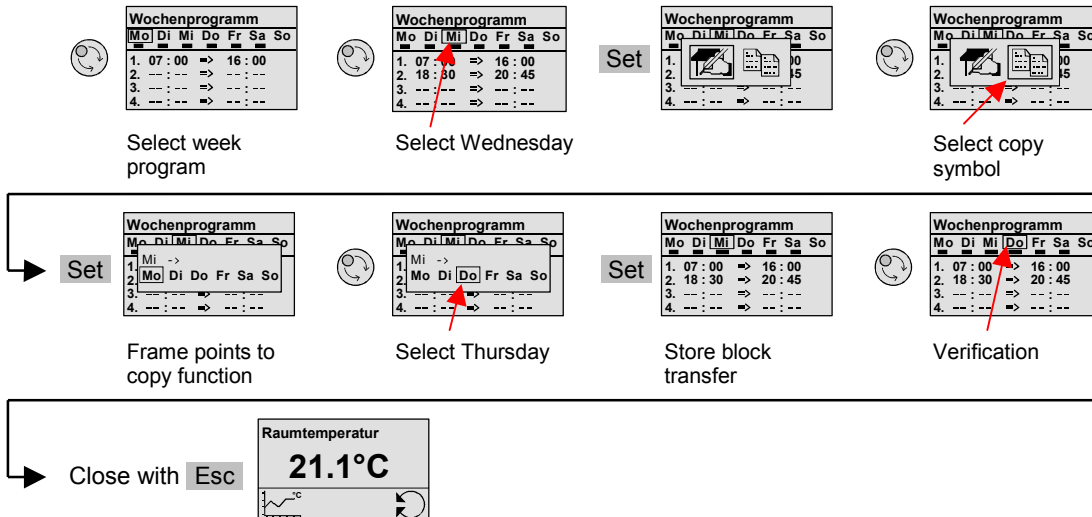
• **Change utilization-period** (Example: change Friday from 7:00 to 16:00, from 07:00 to 13:30)



• **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.



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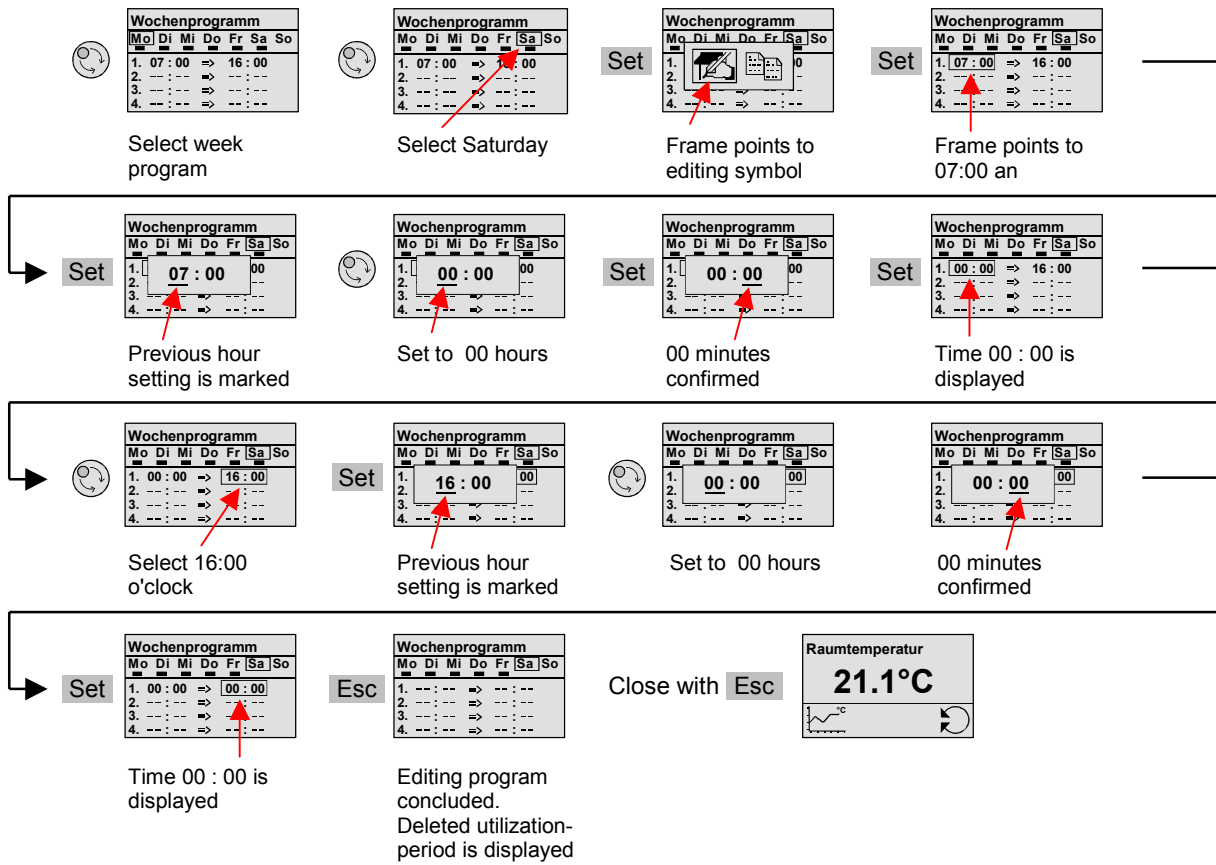
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- Delete utilization-period

Example: Delete utilization-period for Saturday.

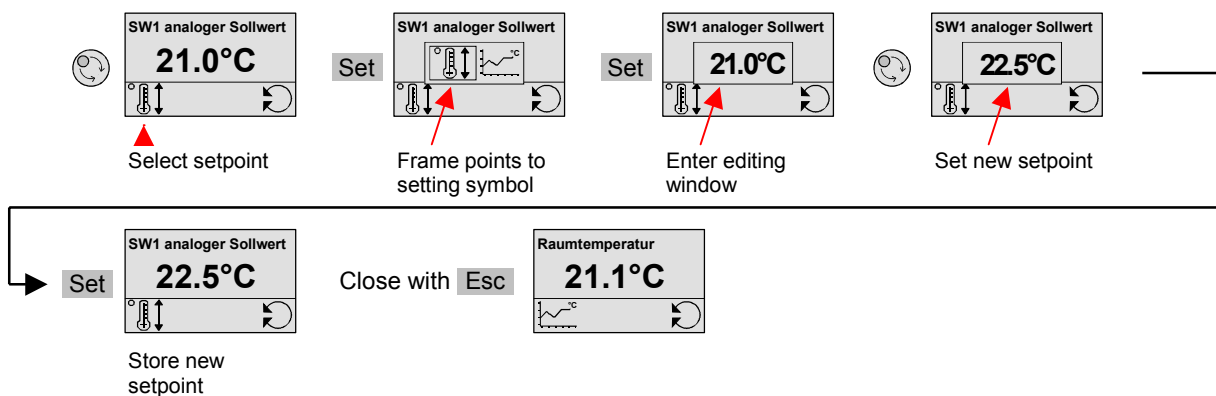


Utilization periods are deleted with the setting 00 : 00.

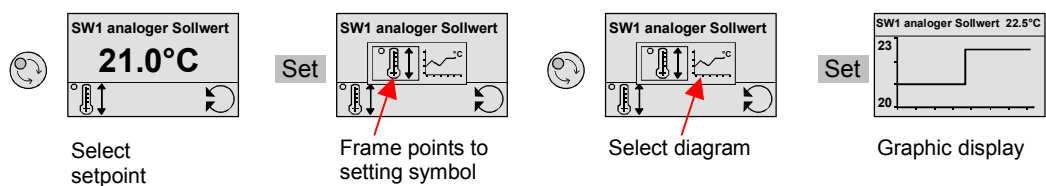


### Modify setpoint (Only for the parameterization of a connected DDC systems, Texts can vary)

Example: Adjust setpoint from 21.0°C to 22.5°C.



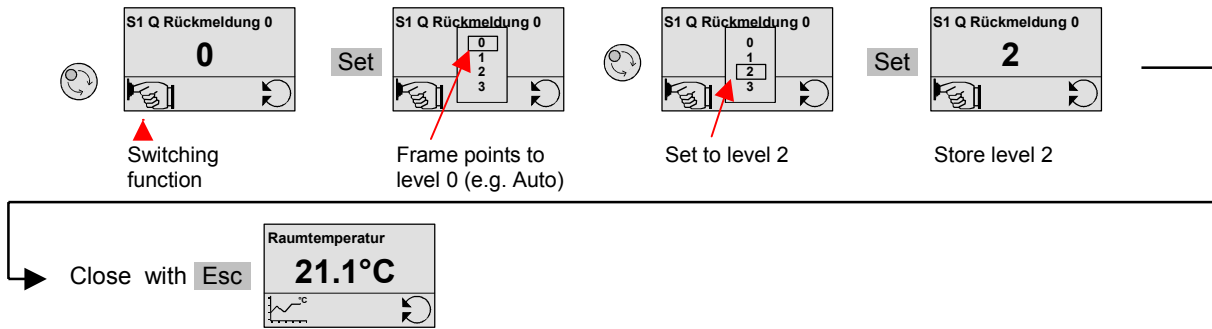
Example: Switch setpoint onto graphic display.





**Switching** (Only for the parameterization of connected DDC systems, Texts can vary)

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



**Messages** (Only for the parameterization of connected DDC systems, 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**.

