



31 000 010 - 2

Temperature controller for heating and cooling PL-SAMTEMP

Only skilled electricians may install this electrical equipment otherwise there is the risk of fire or electric shock!

Temperature at mounting location:
-20°C up to +50°C.
Storage temperature: -25°C up to +70°C.
Relative humidity:
annual average value <75%.

valid for devices from production week 49/20 (see bottom side of housing)

! Note: Select english language!*

Powerline temperature controller with display, white, 55x55 mm, for mounting in switch systems. In addition a floating control contact 3A/250V AC for direct connection of heaters and coolers. Illuminated display. Standby loss only 0.4 watt.

The scope of supply comprises a frame R1E and an intermediate frame ZR65/55 for the E-Design, the temperature controller upper part and a bottom part for attachment in 55 mm flush-mounted boxes.

The complete display can be removed from the frame for screw mounting.

In normal mode the current room temperature is indicated in the display as well as icons for 'present' or 'absent' and for 'heating on' or 'cooling active'.

Control heating or cooling with Powerline actuators PL-SAM1L or PL-SAM2L.

1. Button programming

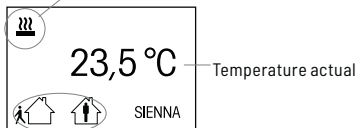
Press buttons ▲ and ▼ to display setpoint and actual temperatures and change the setpoint.

Press buttons (absent) and (present) to set the saved setpoint.

2. LC display

In normal mode the current room temperature is displayed according to the figure below:

Heating active
 Cooling active



Setpoint for present/absent

3. Set the setpoint

Press any button to display the setpoint and actual value of the temperature. Press 'absent' or 'present' in normal mode to immediately set the saved setpoint.

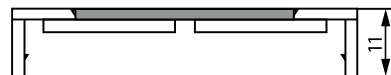
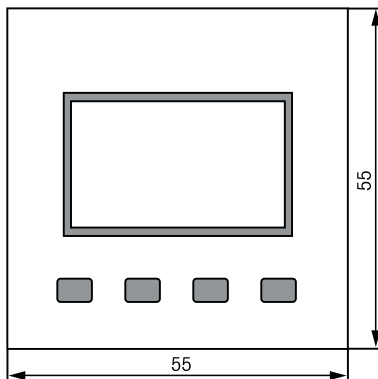
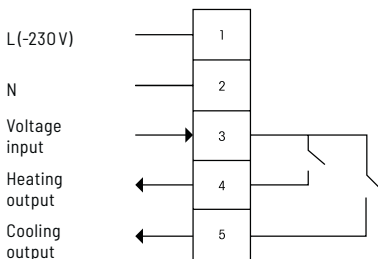
Press buttons ▲ and ▼ to change the setpoint in steps of 0.5°C. When you press the 'absent' or 'present' button during this display, the displayed setpoint is saved to this button. If you do not press a button for 5 seconds, the display reverts to normal mode.

Wiring diagram

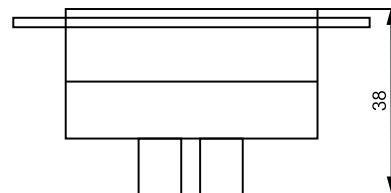
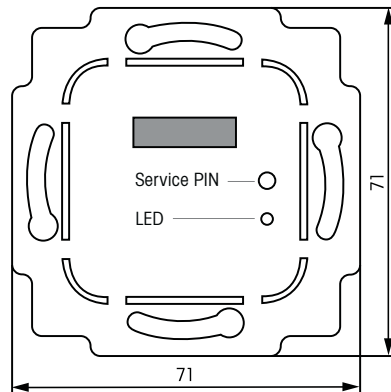
Power supply (230V AC) according to connection diagram.

2 floating switch outputs at Terminals 3/4 (Heating) and 3/5 (Cooling).

Concealed installation as per dimensional drawing:



Central disk



LON interface

Start-up

In its as-delivered state the temperature controller is unconfigured and has no apartment address. The LED flickers and the LC display indicates 'SIENNA unconfig'. Use the PL-SW-PROF software or the buttons on the display to enter a new apartment address.

Follow the instructions for the existing Powerline devices to integrate the temperature controller in an existing installation and transfer their apartment address to the temperature controller.

The section below lists the various steps and menu items required for the configuration:

1. New installation

To create a new apartment address, hold down the two left buttons of the display (absent and present) until the language selection (German/English) appears.

- Select the language with the buttons ▲ and ▼ and confirm with 'Y'. In the next step reject RESET? with 'N', the menu goes on

to the next step: confirm **'Domain create?'** with 'Y'.

It takes about 5s to create a new apartment address. The module is then configured (LED is off). The display moves to the next step: issue the group address g and device address e.

2. Assign address

■ Set the address g by pressing buttons ▲ and ▼ in section A, ..., 0. Press 'Y' to confirm and save or press 'N' to reject and move to the next step: assign address e.

■ Set the address e using buttons s and t in section 0, ..., 127. Press 'Y' to confirm and save or press 'N' to reject. Address e = 0 is a group address and a temperature controller with g, e = 0 switches all actuators with the same g, irrespective of the actuator e.

The menu moves to the next step: set heating or cooling.

3. Heating (On/off or PWM) and cooling modes

■ Press buttons ▲ and ▼ to switch between heating and cooling mode. Press 'Y' to confirm and save or press 'N' to reject and move to the next step: set an offset temperature value.

In heating mode, output 4 switches on when the temperature actual value is below the setpoint. Output 5 is switched off.

In PWM mode, it is switched on and off percentage-wise within a 30-minute interval by means of a PID control. This is particularly suitable for underfloor heating.

In cooling mode, output 5 switches on when the temperature actual value is above the setpoint. Output 4 is switched off.

4. Set temperature offset

If a temperature controller systematically indicates a temperature reading that is constantly too high or too low, this can be compensated by a temperature offset. Set the offset using buttons ▲ and ▼ to correct the displayed temperature. Press 'Y' to confirm and save or press 'N' to reject. The program then exits the configuration menu and reverts to normal mode (see step 6).

5. Configuration menu from normal mode

To return to the configuration menu with configured modules:

a Hold down the two left buttons on the display (absent and present) for at least 5 seconds until mode 'Heat/Cool' appears. Then set

the heat/cool mode and the temperature offset. The menu continues with Step 3.

b Hold down the 2 left keys of the display (absent and present) for at least 10 seconds, until the ***language** (Deutsch/English) appears.

■ Select the language with the buttons s and t and confirm with 'Y', the menu goes on to the next step: **RESET?** The apartment address of the temperature controller will be deleted with RESET and the delivery state will be restored.



■ Perform a RESET with 'Y', the module is now unconfigured.

■ Or reject with 'N', the menu goes on to the next step: 'Domain extend?'

The apartment address of the temperature controller is assigned to non-configured modules by 'Domain extend'. Thereby new powerline modules can be integrated into the apartment.

■ Confirm with 'Y' or reject with 'N', the menu continues with step 2.

6. Normal mode

The temperature controller indicates the actual room temperature. The heating and cooling modes are indicated by the symbols  and .

■ Press the buttons ▲ and ▼ to modify the setpoint. The setpoint is displayed and goes out after 5 seconds if no further changes are made.

■ Two preset setpoints can be saved. To save, set the setpoint required and press one of the buttons 'absent' or 'present' while the setpoint is still displayed. This saves the setpoint for this button and it can be recalled at the press of a button in normal mode.

After a power failure, the setpoint is set to the value saved at 'absent'.

In the as-delivered state the following temperature values are saved:

- Absent: 15°C

- Present: 20°C

Send node ID:

Use a small insulated screwdriver to briefly press Service PIN. The Powerline node ID is sent.


Must be kept for later use!

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5/1/2020 Subject to change without notice.