

Datasheet

Subject to technical alteration
Issue date: 27.01.2017



Application

The room operating unit is used to control ventilation groups, record and display the current room temperature and humidity and provides the digitalSTROM heating control with the measured values automatically. Thus, the sensor is part of the digitalSTROM system. In combination with the respective system and smartphone apps, comfortable room temperature control takes place, which can be operated conveniently at home or while on the move.

To support the full range of functions, the device must be operated on a digitalSTROM meter dSM12.

Functions

- Central operation of the functions ventilation and set point adjustment
- Simultaneous display of set and actual value
- buttons for setpoint adjustment and control of the ventilation stages
- For various switch ranges
- dS Ready
- Flush mounting in standard EU box (Ø=55 mm)
- Power supply 230 V
- No additional control, bus line or radio connection required

Security Advice – Caution



The installation and assembly of electrical equipment should only be performed by authorized personnel.

The product should only be used for the intended application. Unauthorised modifications are prohibited! The product must not be used in relation with any equipment that in case of a failure may threaten, directly or indirectly, human health or life or result in danger to human beings, animals or assets. Ensure all power is disconnected before installing. Do not connect to live/operating equipment.



CAUTION! Risk of electric shock due to live components within the enclosure, especially devices with mains voltage supply (usually between 90..265 V).

Please comply with

- Local laws, health & safety regulations, technical standards and regulations
- Condition of the device at the time of installation, to ensure safe installation
- This data sheet and installation manual

Follow the planning and installation instructions in the digitalSTROM installation manual for the installation and initial operation.

Notes on Disposal



As a component of a large-scale fixed installation, Thermokon products are intended to be used permanently as part of a building or a structure at a pre-defined and dedicated location, hence the Waste Electrical and Electronic Act (WEEE) is not applicable. However, most of the products may contain valuable materials that should be recycled and not disposed of as domestic waste. Please note the relevant regulations for local disposal.

Remarks to Room Sensors

Location and Accuracy of Room Sensors

The room sensor should be mounted in a suitable location for measuring accurate room temperature. The accuracy of the temperature measurement also depends directly on the temperature dynamics of the wall. It is important, that the back plate is completely flush to the wall so that the circulation of air occurs through the vents in the cover. Otherwise, deviations in temperature measurement will occur due to uncontrolled air circulation. Also the temperature sensor should not be covered by furniture or similar devices. Mounting next to doors (due to draught) or windows (due to colder outside wall) should be avoided.

The temperature dynamics of the wall will influence the temperature measurement. Various wall types (brick, concrete, dividing and hollow brickwork) all have different behaviours with regards to thermal variations.

Surface and Flush Mounting

The temperature dynamics of the wall influence the measurement result of the sensor. Various wall types (brick, concrete, dividing and hollow brickwork) have different behaviours with regard to thermal variations. A solid concrete wall responds to thermal fluctuations within a room in a much slower way than a light-weight structure wall. Room temperature sensors installed in flush boxes have a longer response time to thermal variations. In extreme cases they detect the radiant heat of the wall even if the air temperature in the room is lower for example. The quicker the dynamics of the wall (temperature acceptance of the wall) or the longer the selected inquiry interval of the temperature sensor is the smaller the deviations limited in time are.

Application Notice for Humidity Sensors

Refrain from touching the sensitive humidity sensor/element. Touching the sensitive surface will void warranty.

For standard environmental conditions re-calibration is recommended once a year to maintain the specified accuracy.

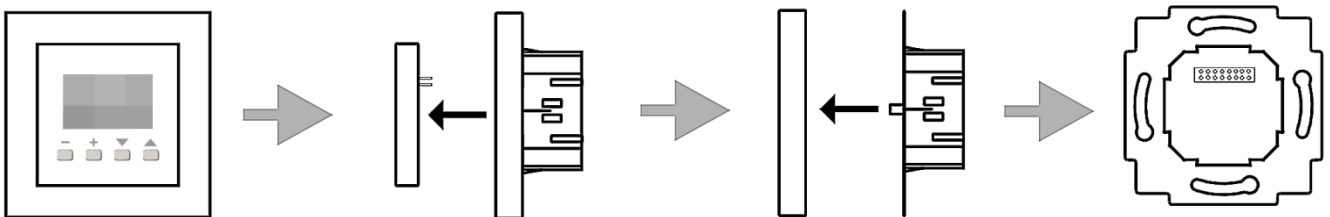
When exposed to high ambient temperature and/or high levels of humidity or presence of aggressive gases (i.e. chlorine, ozone, ammonia) the sensor element may be affected and re-calibration may be required sooner than specified. Re-calibration and deterioration of the humidity sensor due to environmental conditions are not subject of the general warranty.

Technical Data

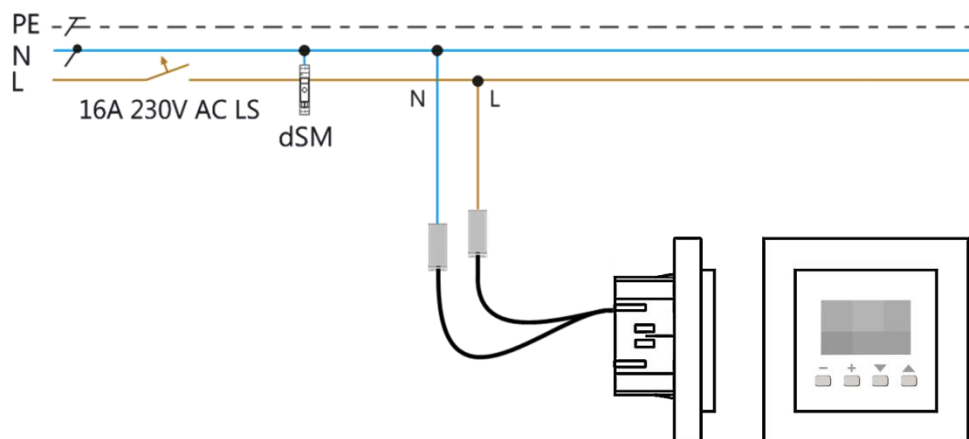
Measuring values	temperature, humidity
Network technology	digitalSTROM (dS)
Power supply	230 V ~ ($\pm 10\%$)
Power consumption	typ. 1,1 W max. 0,04 A (230 V ~)
Measuring range temperature	0..+40 °C
Measuring range humidity	0..95% rH non-condensing
Accuracy temperature	$\pm 0,5$ °K (typ. at 21 °C)
Accuracy humidity	$\pm 3\%$ between 20..80% rH (typ. at 21 °C)
Functions	control of ventilation groups, temperature control in the dS system
No. of buttons	4
Display	LCD 34x21 mm, monochrome
Enclosure	PC V0, pure white
Protection	IP30 according to EN 60529
Connection electrical	plug-in terminal max. 2,5 mm ²
Ambient condition	0..+40 °C, max. 85% rH non-condensing
Weight	approx. 100 g

Mounting Advices

The device is designed for mounting on a flush box. The bus cable is connected to the device by a plug-in terminal. For pre-wiring, the plug-in terminal can be drawn from the device cable. Due to the extended retaining capacity for the cabling, the use of deep installation boxes is recommended. The end of the installation tube in the flush box must be sealed to avoid any draught in the tube falsifying the measuring result.



Connection Plan



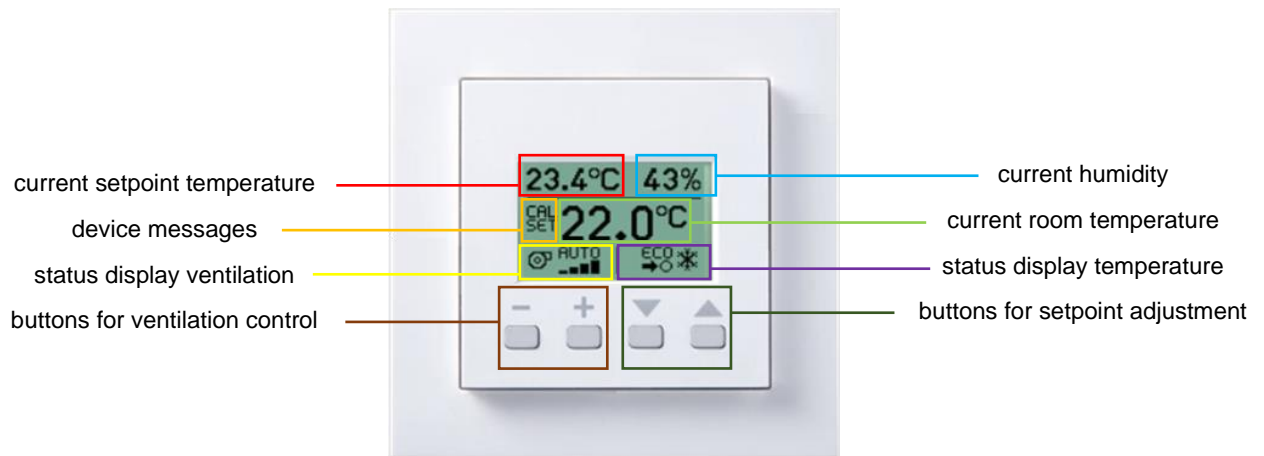
After the electrical connection has been established and the power switched on, the device is automatically registered at the digitalSTROM meter in the electric circuit distributor. The device is then immediately ready for operation, begins with the recording of the room temperature and humidity and registers these in the digitalSTROM system.



To use the full range of functions of the product, a system update must be carried out. See digitalSTROM installation manual.

After switching on the supply voltage, the device is first initialized. This initialization takes about two hours until the correct values will be displayed. The initialization status can be queried via the message "CAL" on the display.

Function Description



Dimensions (mm)

