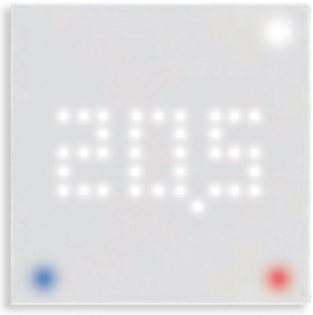
Symondo Sensor

Digital room thermostats for surface heating and cooling systems with built-in multi-sensor and digital communication via 1-Wire bus in conjunction with a current version of the Symondo Box - see "Symondo Sensor with Symondo Box" on page 2. Intuitive operation via integrated touch areas and LEDs. Monitoring of air quality possible via coloured status LED.

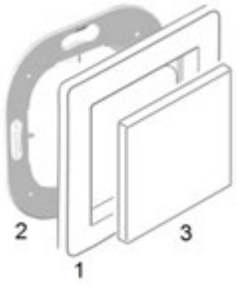


Technical Data

Power Supply	5V DC (+/- 10 %)	**Protection Class**	IP20
power consumption	0,6 W	**Dimension**	80 mm x 80 mm
Measurement Range		**Housing**	Plastic Pure white
Temperature:	0 °C ... 60 °C	**Mounting**	Surface / flush-mounted
- Accuracy / resolution:	+/- 1°C / 0,1 °C		
Humidity:	0% ... 100%		
- Accuracy / resolution:	(+/- 6 % / 0,1 %)		
CO2 equivalent*:	400 ppm - 2001 ppm		
Air quality IAQ*:	0 - 300		

* indicative value

Wall mounting and electrical connection



Mount the sensor in a suitable location.

> ⚠ Caution!
> Device and function may be damaged. Select a suitable environmental condition. Direct sunlight, sources of heat and cold, e.g. radiators and windows must be avoided.

Mounting on plastic wall socket

Attach the mounting frame (2) to the switch box. Make the electrical connection as described below.

Electrical connection

Connect the sensor to 5V DC power supply. GND = Grey DQ= Orange, VCC= Red

Insert the Element

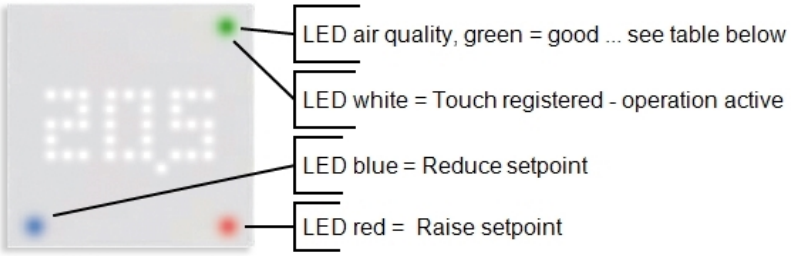
Hold the cover frame (1 - not included in the scope of delivery) against the mounting frame (2). Symondo Sensor (3) with the mounting frame and press it in until it engages in the frame.

1-Wire ID

1-Wire ID:
E0-D5-5E-0E-69-F1

Each sensor has a unique 1-Wire ID.
This ID is required for sensor room assignment in the Symondo Box. You will find the ID on the small sticker supplied.

LED



Measured values IAQ and CO2 equivalent

In the first few days after installation, the Symondo Sensor goes through a calibration phase during which fluctuating measurements and major deviations may occur.

CO2	Air quality
400 - 600 ppm	Excellent
601 - 1000 ppm	Good
1001 - 1500 ppm	Satisfactory
1501 - 2000 ppm	Medium (ventilation recommended)
2001 ppm +	Bad (ventilation required)

IAQ	Air quality
0 - 50	Good
51 -100	Moderate
101 - 150	Unhealthy for sensitive groups of people
151 - 200	Unhealthy
201 - 300	Very unhealthy
300 +	Hazardous to health

Operation

Standby Screen
IAQ ok
Touching the touch areas activates "Display".

Measuring unit and measured value display
The first touch of the touch area shows the temperature. Repeated touching changes to other measured values and first shows the unit and after a short time the measured value.

Setpoint adjustment
The set temperature can be reduced or increased by touching the blue and red touch areas.

Symondo Sensor room assignment

There are two ways to assign the Symondo Sensor to a room.

1. Using the 1-Wire ID via the Symondo Controller menu 'Expert -> Settings -> Room'.

2. By Touch-To-Assign function (T2A) via the Symondo Controller menu and on the Symondo Sensor

Expert > Settings > Rooms

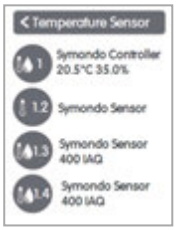
Select or add room

Select sensor type Temp. / Humidity

1.

Assign sensor

2.

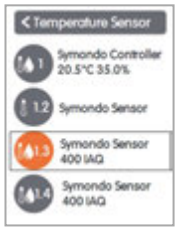


When opening the sensor list, the Symondo Sensor automatically switches to Touch-To-Assign mode

Touch Symondo Sensor on one of the three touch areas to assign it to the selected room.

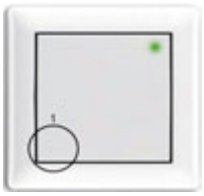
LED lights up blue while the connection is being established.

LED lights up green if the assignment was successful.



Assignment successful

Set room setpoint

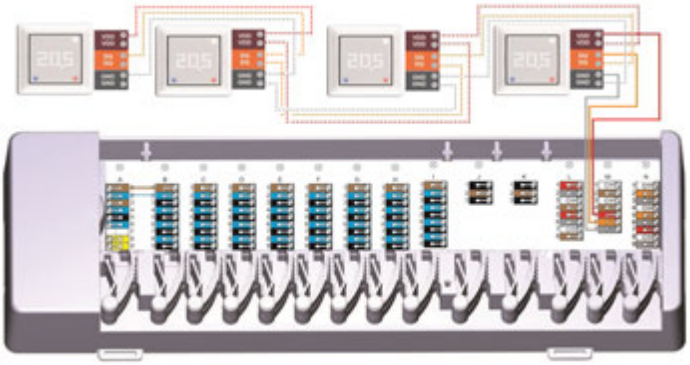


1. Activate the room setpoint menu (1) by touching the touch area (1).
Reduce (2) or raise (3) the room setpoint by touching the touch areas.

After 20 seconds, the display returns to the standby screen.

The set room setpoint is valid until the next change via Symondo Controller timer or manually.

Symondo Sensor with Symondo Box



The 1-Wire system must be realised with 3 wires (5VDC, DQ, GND). The total cable length can be up to 100m. Use a suitable twisted pair cable and ensure sufficient wire cross-section, e.g. with LIYCY 2 x 2 x 0.75mm², to avoid impermissible voltage drop at the Symondo Sensor below U_{min} = 4.5VDC.