

Room Sensor 1-Wire

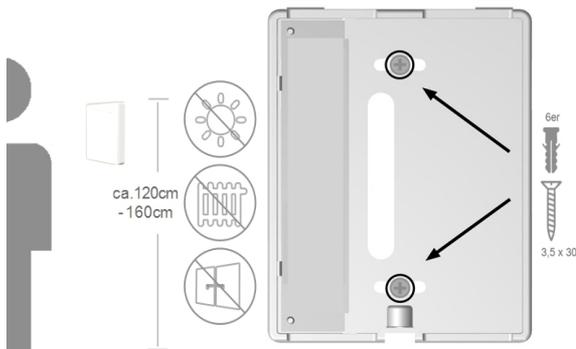
Digital room temperature sensor with communication via 1-wire bus in combination with °CALEONbox.



Technical Data

Power Supply	3,3 VDC ... 5 VDC SELV or PELV
Measurement Range	0 °C ... 60 °C
	Accuracy: +/- 1 °C
	Resolution: 0,1 °C
Protection Class	IP20
Max. Cable Length	up to 100 m powered (three-wire connection recommended), up to 50 m parasitic (two-wire connection), using twisted pair cables
Dimension	95 mm x 75 mm x 19 mm
Housing Design	white plastic housing RAL 9003
Installation Methods	wall Installation

Wall Installation



Mount the sensor in a suitable location.



Pay attention to suitable environmental conditions. Direct sunlight, sources of heat and cold, e.g. radiators and windows must be avoided.

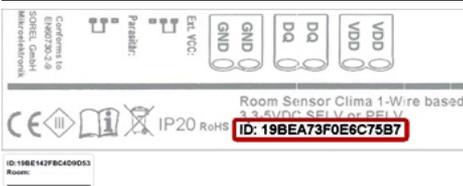
Direct Wall Mounting

Hold the base and mark the 2 fixing holes required. Ensure that the wall surface is as flat as possible. Drill holes in the wall and press in the dowels (6 bit). Insert screws (3,5 x 30) and lightly tighten. Align the base and tighten the screws.

Mounting on Plastic Wall Socket

Fix the base with the screws (3,0 x 16) to the mounting box.

Type Plate and Sticker with 1-Wire ID



Each sensor has a unique 16-digit 1-Wire ID. This ID is required for sensor-room assignment in the °CALEON Room Controller. The ID can be found inside the sensor on the type plate and on the supplied sticker. To simplify the later configuration of the system, we recommend to place the sticker in the table of the °CALEONbox operating instructions or on the °CALEONbox terminal diagram sticker.

Electrical Connection

VDD 3,3 ... 5 VDC+
VDD 3,3 ... 5 VDC+

DQ 1-Wire Data
DQ 1-Wire Data

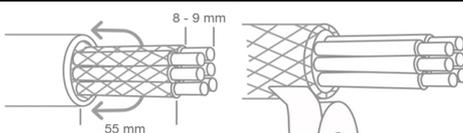
GND GND -
GND GND -

One of the terminal points VDD/DQ/GND is required for the connection of a sensor. The additional three clamping points are for the easy connection of further sensors.



Only to be used with SELV or PELV protective extra-low voltage.

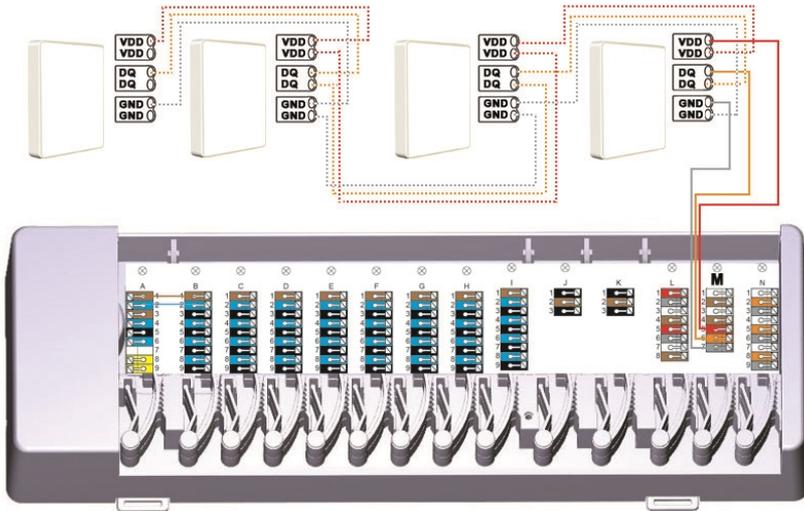
Open the terminals with the accompanying tool (°CALEON) and make the electrical connection as described below.



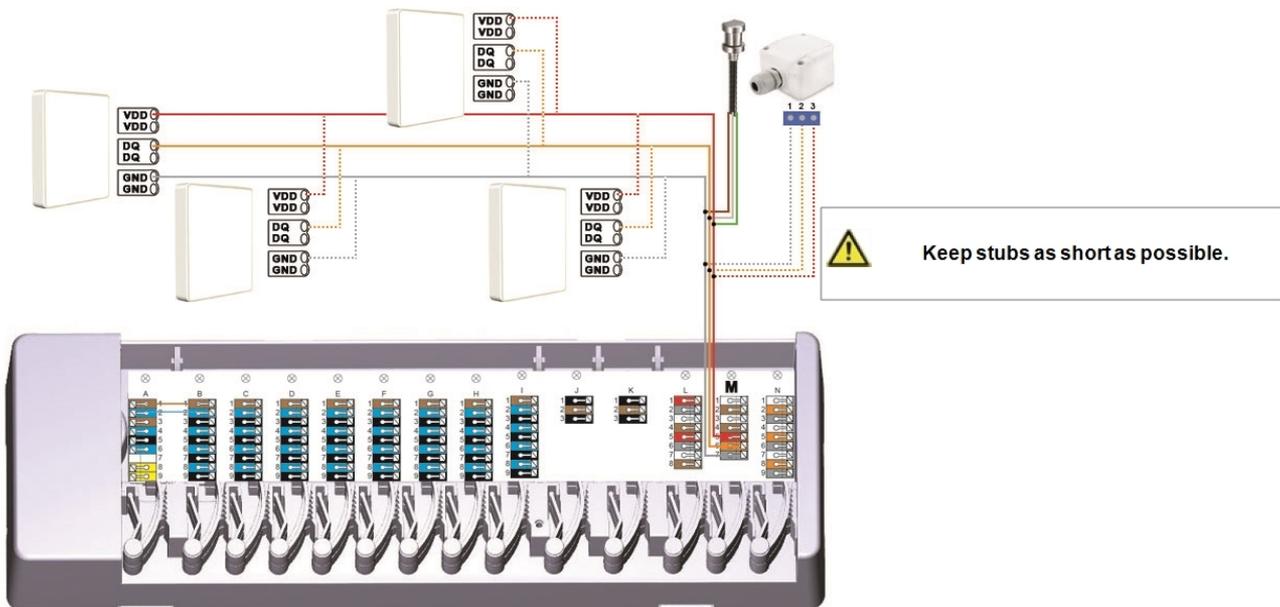
If shielded cables are used, contact between the shielding and the PCB can cause damage to the device and lead to malfunctions.

Connection Examples 1-Wire Sensors

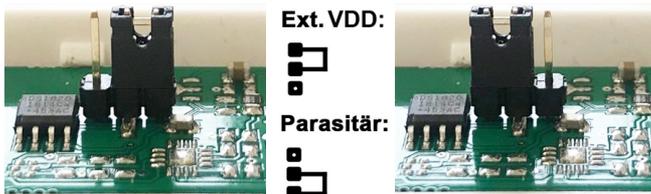
Example 1: Series connection. The installation leads from one sensor to the next.



Example 2: Tree structure. Several stub lines lead from one main line to the individual sensors.



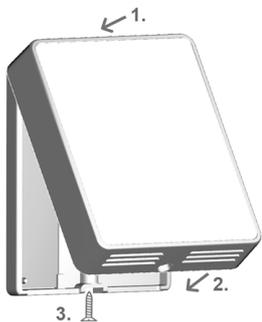
Parasitic Operation



Alternatively, the 1-Wire sensor can also be operated in parasitic mode. Only the two terminals DQ and GND are connected. For parasitic operation, the jumper (see images) must be repositioned one pin downwards.

By using parasitic mode, the possible cable length is reduced (from 100 to 50 m) and the communication is less robust against interference.

Install Cover



1. Hook in the cover from above
2. Press the cover down
3. Fix the cover with the screw