

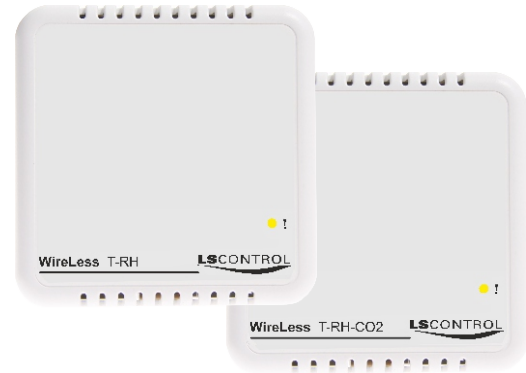
Description

Wireless Sensor / ES 1060 is a wireless sensor which can be connected to a network of up to 16 sensors per receiver / repeater. The range from sensor to receiver / repeater is under normal circumstances 75-100m. In concrete constructions and particular difficult circumstances the range is shortened and it may require use of repeaters.

For the sake of the lifetime of the battery measurements are performed in intervals of 2 min. The measured value is transmitted wirelessly to the receiver where it can be read via ModBus or 0-10V signal. Please note, if signal is to be read as 0-10V signal only 1 sensor per receiver can be connected.

The number of the sensor in the network is easily chosen by use of dip-switches under the lid.

Wireless sensor can be supplied in a model measuring temperature and humidity (RH) (item number 44120 Wireless Sensor T-H / ES 1060), and in a model measuring temperature, humidity (RH) and CO₂ (item number 44121 Wireless Sensor -H-CO₂ / ES 1060). Refer to label for model.



Warning

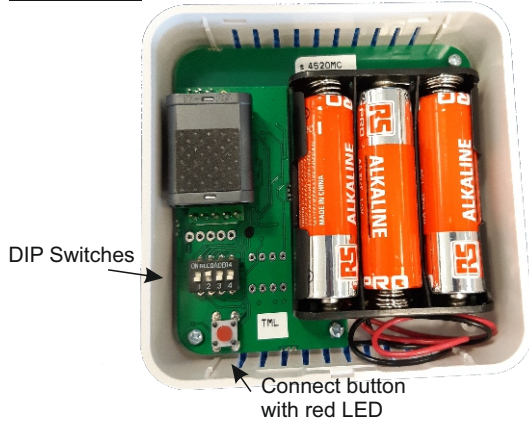


ESD-Sensitive when lid is removed. Be certain to be ESD-discharged before setting jumper and pressing connect-button, so product isn't harmed.

Mounting

Must be wall mounted on a level, stable non-moving nor vibrating surface in a non-condensating environment. Avoid direct sunlight and thermal stress.

Connection



Setting of DIP-switches determines which number the sensor has within a network of sensors.

Pressing the connect button will get the sensor to try to connect to a receiver. If connection is successful the red LED will blink fast twice. If connection is unsuccessful the red LED will blink only once. Pressing the connect button will also erase a possible previous connection.

Technical Specifications

Supply: 3x1,5V Alkaline battery AA
 Enclosure: IP 22
 Dimension (HxWxD): 85x85x30mm

Humidity: 0-80%RH non-condensing
 Operating Temperature: 0-40°C non-condensing

Communication Protocol: MiWi 868MHz
 Communication Interface: Wireless

Measurement Areas and Accuracy

Temperature: 0-50°C ±2%°C
 Humidity (RH): 0-80% RH ±4%RH
 CO₂: 0-2000ppm ±50ppm
 2000-10000ppm ±10%ppm (only readable via ModBus)

Calculated Average Battery Lifetime

T-RH: 3 years
 T-RH-CO₂: 2 years



DIP settings when used in common configuration without emulation

Sensor Number	SW1_1	SW1_2	SW1_3	SW1_4
0	OFF	OFF	OFF	OFF
1	ON	OFF	OFF	OFF
2	OFF	ON	OFF	OFF
3	ON	ON	OFF	OFF
4	OFF	OFF	ON	OFF
5	ON	OFF	ON	OFF
6	OFF	ON	ON	OFF
7	ON	ON	ON	OFF
8	OFF	OFF	OFF	ON
9	ON	OFF	OFF	ON
10	OFF	ON	OFF	ON
11	ON	ON	OFF	ON
12	OFF	OFF	ON	ON
13	ON	OFF	ON	ON
14	OFF	ON	ON	ON
15	ON	ON	ON	ON

DIP settings when used in configuration with emulation of wired ModBus sensors

Sensor Number	SW1_1	SW1_2	SW1_3	SW1_4
1	OFF	ON	OFF	OFF
2	OFF	OFF	ON	OFF
3	OFF	ON	ON	OFF
4	OFF	OFF	OFF	ON
5	OFF	ON	OFF	ON

Calibration of CO₂ sensor

The CO₂ sensor uses the widely used ABC algorithm, which ensures long life without calibration. Only the room cannot be used constantly, but must regularly get sufficient airflow to lower the CO₂ to fresh air level.

Date: 26/04-2023
 Drawn by: BJ/DF
 Document No.: 950-207484 WirelessSensor_TH_THCO2_ES1060
 Rev.: 2.2
 Manufactured by: **LS Control A/S**, Industrivej 12, DK-4160 Herlufmagle



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