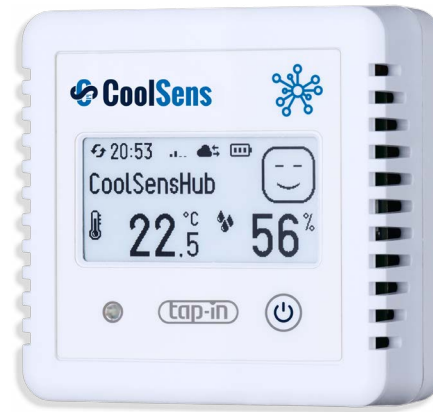


## CoolSens CloudHub IS-LB01 – temperature and humidity sensor

- Dedicated temperature, humidity, atmospheric pressure *(optional)* sensor
- Provides data via the CoolSens platform Integrated NB-IoT/LTE Cat. M1 modem
- Packet data transmission
- Temperature measuring range: -20 to +60 °C
- Relative humidity measuring range: 0 – 100 %RH
- Atmospheric pressure measuring range: 300 – 1000 hPa *(optional)*
- Integrated display: E-paper (E-ink), 122x250 p, 2.13"
- Data logger
- Built-in Bluetooth Low Energy interface for communication with external sensors (max. up to 16 linked sensors)
- Remote configuration, firmware update (FOTA) and diagnostics
- High measurement accuracy and stability
- Low power consumption, intelligent power management
- Power supply from internal lithium AA battery (1 or 2 x 3.6 V)
- IP20 protection class
- Wall mounting (Velcro) or free-standing
- Built-in LED to indicate the status of the device
- ABS housing, dimensions 76 x 76 x 31 [mm]
- 2-year warranty



LTE-M

DATA PORTAL



The CoolSens CloudHub is an integral part of the automatic, wireless remote system for measuring and recording temperature and humidity. Its main task is to collect measurements from the distributed, wireless CoolSens Nodes at user-defined intervals from distributed, wireless CoolSens Nodes and transmit them to the system. For higher energy efficiency, transmission can be carried out less frequently than measurements – the hub aggregates the measurements and sends them together. If the user-defined alarm or warning threshold is exceeded, it sends the measurements immediately.

The CloudHub is also equipped with its own set of sensors – it performs precise measurements of humidity and air temperature. The measuring elements used are characterised by high accuracy and negligible time drift the sensor retains its accuracy over a long period of time and does not require calibration. In addition, it determines atmospheric pressure and tests air quality.

With its help, together with CoolSens Node sensors, it is possible to build a solution that is ideal for monitoring

the environmental conditions necessary for the implementation of the provisions of the Regulation of the Minister of Health of 27.10.2022 on the basic conditions for running a pharmacy, as well as monitoring refrigerated counters, industrial refrigerators, warehouses, server rooms and other facilities where there is a need for continuous temperature monitoring and significant temperature fluctuations beyond defined alarm thresholds can be critical for the safety, comfort and economic considerations of the measured facility.

Thanks to the built-in display in e-ink technology, the device offers a local view of the measured values, including those from distributed sensors. In order to ensure correct temperature measurement, the sensor should be mounted on an interior wall at a height of approx. 1.5 m, in an unobstructed place, away from windows, doors and heat sources. The sensor does not require any user maintenance.

Before using it for the first time, remove the protective cover that disconnects the battery in storage mode.

## CoolSens CloudHub IS-LB01 – temperature and humidity sensor

### General

Dimensions (H x W x D)	76x 76 x 31 mm
Weight	120
Degree of protection	IP20
Mounting method	Velcro on tape
Working environment	inside buildings

### Modem

Type	Nordic nRF916	
Modem bands		
LTE Cat-M1	B1, B2, B3, B4, B5, B8, B12, B13, B14, B18, B19, B20, B25, B26, B28, B66	
Cat-NB1/NB2	B1, B2, B3, B4, B5, B8, B12, B13, B17, B19, B20, B25, B26, B28, B66	
Built-in antenna	50 Ω	

### Power supply

Power supply type	lithium battery (Li-SOCl <sub>2</sub> ) 3,6 V, typ ER14505M	
Battery size	AA (R6)	
Number of batteries	1 or 2 pcs.	
Battery capacity	2100 mAh or 4200 mAh	
Operating time	2 years	

### Temperature measurement

Measuring range	+5 to +50 °C
Measuring accuracy	typical ± 0,2 °C
Measuring resolution	0,1 °C

### Humidity measurement

Measuring range	0 – 100 %
Measuring accuracy	± 3 %
Measuring resolution	1 %

### Pressure measurement (optional)

Measuring range	300 – 1100 hPa
Measuring accuracy	+/- 0,6 hPa
Measuring resolution	1 hPa

### Bluetooth Low Energy parameters

Range	to 10 m
Transmitter power	max. 8 dBm
Number of linked sensors	up to 16 pcs.

### Additional functions

Display	E-ink, 2.13", 122x250p
Interfejs	LED RGB, button

### Drawings and dimensions (all dimensions in millimetres)

