CoolSens Node IS-B01 – temperature and humidity sensor

- Dedicated sensor for temperature, humidity
- Makes data available via the CoolSens platform
- Temperature measuring range: -30 to +60 °C
- Relative humidity measuring range 0 – 100 %RH
- Built-in radio interface for communication with CloudHub
- Remote configuration, firmware update (FOTA) and diagnostics
- High accuracy and measurement stability
- Low power consumption, intelligent power management
- Power supply from internal lithium battery type CR2477 (1 x 3.0 V)
- Protection class IP30
- Wall-mounted (Velcro) or free-standing installation
- ABS housing with 60 x 60 x 21 [mm] dimensions
- 3-years warranty

The Node sensor is an integral part of the CoolSens automatic wireless remote temperature and humidity measurement and acquisition system. Its primary task is to take measurements and make them available to the system via the CloudHub, with an interval set by the User.

The measurement elements used are characterised by high accuracy and negligible time drift, which means that the sensor maintains its accuracy over a long period of time and does not require calibration.

By working in conjunction with the CoolSens CloudHub, a solution can be built that is ideal for monitoring the environmental conditions necessary to comply with the local Regulations on the conditions for running a pharmacy, as well as for monitoring refrigerated counters, industrial fridges, warehouses, server rooms and other facilities where continuous temperature monitoring is required. Significant temperature fluctuations beyond defined alarm thresholds can be critical to the safety, comfort and economic considerations of the monitored facility.

In order to ensure correct temperature measurement, the sensor must be mounted inside the medium to be surveyed, as close as possible to its centre (in the case of rooms on an internal wall at a height of approximately 1.5 m, and in the case of a refrigeration unit on its centre shelf). The sensor requires no maintenance by the user.

Before first use, remove the safety device that disconnects the battery in storage mode.

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General

Dimensions (H x W x D)	60 x 60 x 21 mm
Weight	40 g
Degree of protection	IP30
Mounting method	Velcro on tape
Working environment	-30 do +60 °C, 0-100 % humidity non-condensing

Power supply

Type	lithium battery 3,0 V
Battery size	CR2477
Number of batteries	1 pc
Battery capacity	1000 mAh
Operation time	2 years

Temperature measurement

Range of measurement	-30 do +60 °C
Measurement accuracy	typ. ± 0,2 °C @ 0–60 °C typ.± 0,4 °C @ -30–60 °C
Measurement resolution	0,1 °C
Measurement drift	< 0,03 °C/year

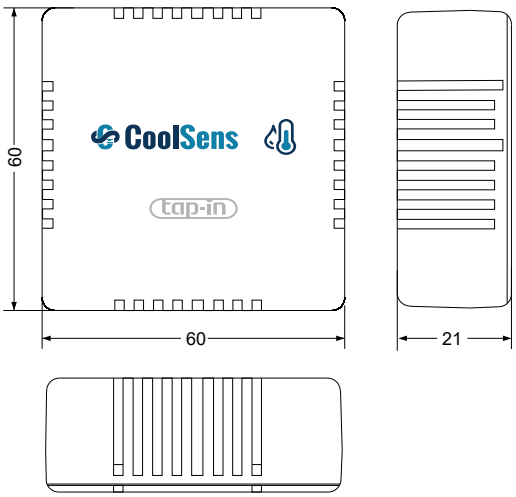
Humidity measurement

Measurement range	0 – 100 %
Measurement accuracy	± 3 %
Measurement resolution	1 %
Measurement drift	< 0,2 % RH/year

Radio communication parameters

Transmission power	max. 8 dBm

Drawings and dimensions (all dimensions in millimetres)



CoolSens Node IS-B01

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