



ELSYS EMS SENSOR

MULTIFUNCTIONAL SENSOR FOR SMART BUILDINGS

WITH THE ELSYS EMS SENSOR YOU CAN GET A QUICK OVERVIEW OF INDOOR CLIMATE, LEAKS OR RUNNING TOILETS IN YOUR BUILDINGS.

PROPERTY AND FUNCTION

The Elsys EMS is a small and discreet sensor that can be used to measure temperature, relative humidity (RH) and detect leaks in a building.

The sensor is the same size as an AA battery, making it ideal for mounting, even on small areas. In addition, the sensor is also equipped with built-in NFC, which means that it can be easily configured via an Android smartphone.

INDOOR CLIMATE MONITORING

Temperature: The sensor measures temperature and gives the user an overview of the highest and lowest temperatures in a room, as well as the total average temperature.

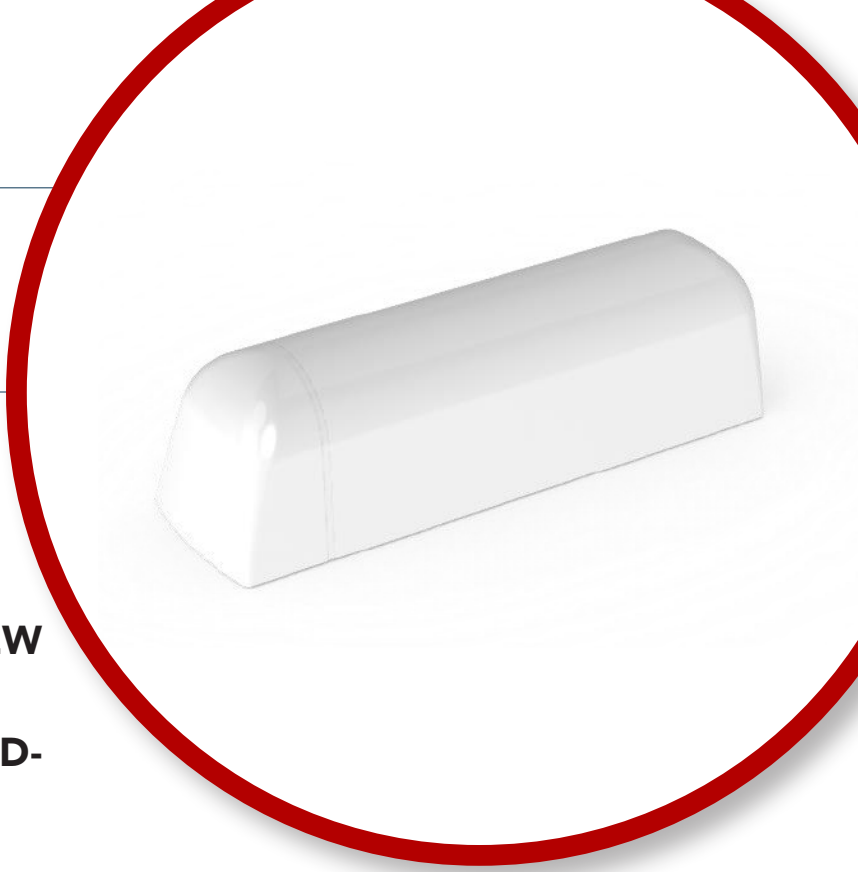
Humidity: The sensor continuously measures humidity and helps the user to detect poor indoor climate as well as cold bridges that can cause drafts, higher heating bills and mould.

LEAK MONITORING

The sensor detects problems such as increased humidity and direct water impact. The sensor can be used in high-risk areas for leakage, e.g. pipes and technical installations.

ONGOING TOILET MONITORING

The sensor can track the flow of water down to 8 liters per hour in toilets and help the user avoid the costs that can be associated with running toilets for shorter or longer periods.



NOTIFICATIONS AND MONITORING

The sensor can be purchased alone or as part of Brunata's Smart Building services. The Smart Building service enables you to follow data from the sensor in the online platform Brunata Online, and i.a. set up desired limit values for the sensor and alarm notifications that will notify you via e-mail if the values are exceeded.

Learn more about Brunata's Smart Building services at brunata.com/smart-building

WHY

- Follow the condition of your buildings online
- Get notified when a problem occurs
- Less administration time
- Get a more sustainable property

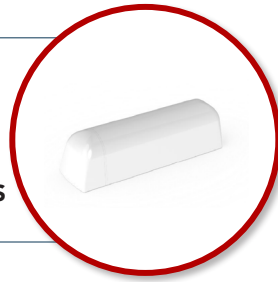
FAKTA

- Discrete sensor (equivalent to an AA battery)
- Configuration via NFC
- Comes with built-in LoRaWAN® radio modul
- Programmable transmit interval
- The sensor has a battery life of up to 10 years



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TECHNICAL INFORMATION

COMMUNICATION

Protocol:	LoRaWAN
Frequency:	868 MHz
Transmission frequency:	Programmable (standard: 1 time pr. hour)
Radiotelegram type:	LoRaWAN

TEMPERATURE AND HUMIDITY

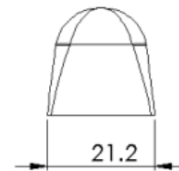
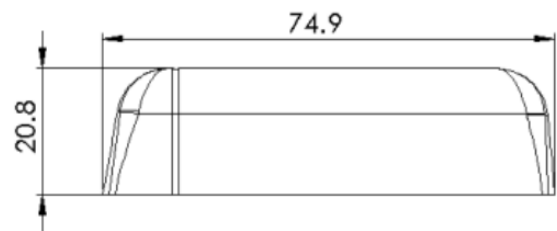
Temperature range:	0 °C to 40 °C
Humidity:	0-85 % RH
Relative humidity:	Non condensing

DESIGN

Sensor:	21,2 x 74,9 x 20,8 mm
Color:	White
Materials:	Plastic, PC/ABS
Weight:	10 g. / 30 g. (excl. / incl. batteries)

DIMENSIONS

Dimensions (sensor)



BATTERY

Battery type:	1 x 3.6 V AA lithium
Battery lifetime:	Up to 10 years (depending on configurations and environment)

DEVICE LOGGING FUNCTION

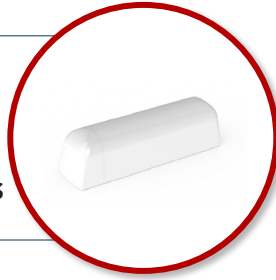
Sampling interval:	Configurable via NFC
Data upload interval:	Configurable via NFC

DATA TYPES

Value	Type	Data size	Comment
0 x 01	Temperature	2	- 3276.5 °C - 3276.5 °C
0 x 02	Humidity	1	0 - 100 %
0 x 03	Acceleration/Level	3	X, Y, X - 127 → + 127 (value of: 63 = 1G)
0 x 07	VDD (battery voltage)	2	0-65535mV
0 x 0A	Pulse count	2	0-65535 (between to send intervals)
0 x 0B	Pulse count ABS	4	Absolute value 0-4294967295
0 x 0D	Digital	1	1 / 0 (On / Off)



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SENSORS

TEMPERATURE

Resolution: 0.1 °C

Målenøjagtighed: ± 0.2 °C (see figure 1)

HUMIDITY

Resolution: 0.1 % RH

Accuracy at 25 °C: ± 0.2 % RH (see figure 2)

Accuracy at humidity over temperature: See figure 3

WATER LEAKAGE

The sensor can be used to detect a water leak and consists of bottom-mounted probes that are continuously monitored by the sensor. A detection level is sent regularly and, if water is detected, an alarm will be sent.

