



STACKR
THE INSIGHT MAKER

ESG-Sensorial®

Your indoor environment logger

Developed in collaboration with StackR, ESG-Sensorial® is the ambient measurement device that you need. Thanks to its embedded sensors, it measures ambient temperature, light and noise. Moreover, it can send alerts when configured thresholds are reached, and locally compute data to send only the relevant information as the minimum, maximum and average of the 3 sensors by time slots. Capable of communicating in Clover-Net, this device is limit free since it can be connected to LoRaWAN network as well.



Fix-and-Play

Automated network discovery and "Presence" messages allow ESG-Sensorial® to be easily installed wherever environment monitoring is required. Natively capable of communicating in private Clover-Net® RF and public LoRaWAN networks, there is no limit to its working area.

Smart commissioning process allows advanced management functionalities without requiring specific tools.

Low-power Expert

Special attention is paid to energy saving when sensors are read, data is processed or even is sent. For minimizing data size in messages, clever data conversion is processed to keep the required range and precision in a minimum of bytes. Nevertheless, data logged in internal memory is full range in order to let the system consult it afterwards.

Basic sensors, customizable processes

ESG-Sensorial® embeds temperature, ambient light and ambient noise sensors. Basically, these sensors are read at fixed period and data can be sent, either immediately or buffered and timestamped to group data into a single message. Sensor sampling can be retrieved by a single or multiple readings with digital filtration in order to get the most reliable information before logging it.

Moreover, this device can process minimum, average and maximum values over time slots to reduce data volume and send only a condensed information.

Monitors but not only

An attached sensor advise from any device displacement or tamper tentative which could affect data reliability.

Whenever this device monitors the 3 environment measurements, its data can be used as inputs to help regulate the building energy consumption and space usage.

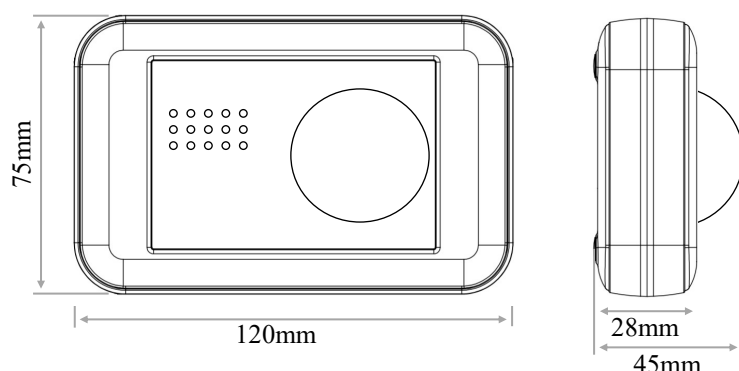
Main features

- Detachment detection
- 1 button for commissioning
- 1 Replaceable battery
- 1 bicolor LED
- IP44 protection for indoor use
- Both Clover-Net and LoRaWAN communications
- Datalogging mode 15,000 to 60,000 timestamped measurements
- Threshold alarm transmission
- Scheduled sensor reading
- Scheduled spontaneous transmission time and period
- Network connection self-healing

Multi sensors

- Temperature: -20 to +60°C
- Ambient light: 10 to 10,000 Lux
- Ambient noise: 0 to 96dBA

Dimensions



Order references

Order #	Description
ESG-SEN-ST-X8X-001	868MHz IP44 Standard version

Clover-Net generic features

- Transmission range up to 5,000m line of sight, up 500m indoor.
- Real-time 2-way communications: Scheduled transmission, automatic alarms and on-demand reading.
- Robust against physical and electronic interferences.
- Fast event reactivity, huge coexistence ability.
- Low cost for mass deployment
- Auto RTC propagation
- Native triband compatibility (433, 868 and 915Mhz)
- CE & EN 300-220 & FCC 15-247 compliant
- LoRaWAN compatible
- Uses Multi-channel frequencies to avoid collision.
- Dedicated alarm frequency channel.
- Data Encryption by AES 128 with dynamic key mixt
- Includes Full networks services (Broadcast, Repeater, Mesh, ...)

Ineo-sense

125 Rue de L'hostellerie,
Immeuble ELLIPSIS, Niv 4 Porte 12
30 900 Nîmes — France

Phone : +33 466 276 495
Web : www.ineo-sense.com
contact@ineo-sense.com

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