

The CLIM'O is a compact LoRaWAN® Temperature and Humidity sensor for indoor air monitoring use case.

APPLICATIONS

- Energy Efficiency and BMS projects
- HVAC (Heating, Ventilation and Air Conditioning)
- Building management
- Logistics / storage
- Data centre / IT server room

BENEFITS & KEY FEATURES

- LoRaWAN®, Class A
- Easy to use and deploy
- Up to 10 years autonomy
- Temperature and Humidity measurements
 - Range : 0°C / +55°C; 0%rH / 100%rH
 - Accuracy: +/-0.2°C; +/-2%rH
 - Resolution: 0.1°C; 0.5%rH
- Data compression with batch report

CERTIFICATION

- RED, UKCA
- RoHS
- LoRaWAN Certified



The sensor measures the temperature and relative humidity indoors. Data transmission over a public or private LoRaWAN® network is done periodically or immediately in case of alert:

- Minimum and maximum temperature thresholds exceeded,
- Minimum and maximum humidity thresholds exceeded,

Installation and commissioning are quick and easy. The sensor is equipped with:

- a magnetic switch for activation and deactivation,
- LEDs to monitor the configuration and pairing to the network.

Each sensor is identified by a QR code on the label.

The measurement data is transmitted individually or aggregated and compressed (batch mode) before being transmitted over the LoRaWAN® network.

Batch mode significantly reduces the amount of data transmitted while preserving the sensor's autonomy.

Powered by a 3.6V/2600mAh battery, the sensor's autonomy is over 8 years with a configuration of 1 measurement every 10 minutes and 1 transmission per hour.




The battery voltage level can be regularly monitored remotely.

THE LARGEST IOT PRODUCTS RANGE FOR YOUR PROJECT

WATTECO is a European leader in the design and manufacture of smart IoT devices to suit all remote reading and data collection solutions.

WATTECO is a LoRa Alliance® member.

TECHNICAL DATA

RADIOFREQUENCY		Frequency (MHz)	Transmit Power (dBm)	Receiver Sensitivity (dBm)			
		EU: 863 - 870	+14	-140			
FIRMWARE							
Protocol		LoRaWAN® 1.0.2 Class A					
Measurement periodicity		From 10 minutes to 24 hours (configurable)					
Transmission interval		Immediate following measurement or batch at 30min to 48hrs (configurable)					
Data compression		By differential coding (configurable)					
Activation method		Activation by Personalization (ABP) ou Over-The-Air Activation (OTAA)					
Data encryption		AES128					
MEASUREMENTS		Temperature		Hygrometry			
Range		0 °C to +55 °C		0% to 100% rH			
Accuracy		0.2 °C between +5 °C and +55 °C; otherwise ± 0.3 °C		± 2% between [20% - 80%] rH and [+15 - +55] °C Otherwise ± 3%			
Resolution (in nominal range)		0.1 °C		1%			
ALARMS							
Temperature		Minimum and maximum thresholds configurable from 0 °C to 55 °C in steps of 0.1 °C					
Hygrometry		Minimum and maximum thresholds configurable from 0% rH to 100% rH in 1% rH steps					
POWER SUPPLY							
Voltage		3.6 V / 2600 mAh lithium battery (can be replaced after removing the cover) Transmitted battery voltage level (configurable in 0.1 V steps)					
Autonomy (in a range of +10°C to +25°C)		> 10 years: 2 measurements and 2 transmissions per day > 8 years: 1 measurement per 10 minutes - 1 transmission (batch) per hour					
USER INTERFACE							
magnetic switch + LEDs		Network pairing; signalling of sensor states;					
ENCLOSURE		Size (mm)	Weight (g)	Fastenings	IP rating	Material	Fire resistance
		73 x 73 x 26	75	Wall mounting thanks to screws or adhesive tape (not supplied)	IP20	ABS	UL94-V0
ENVIRONMENT							
Operation		0°C / +55 °C ; +0% rH / +95% rH (non-condensing)					
Storage		10°C / +30 °C ; +0% rH / +60% rH					
STANDARDS & REGULATIONS							
Radio Equipment Directive 2014/53/EU, RoHS				  			

PRODUCT NUMBER

REFERENCE	HS Code	MODEL DESCRIPTION
50-70-247	85 17 62	CLIM'O - LoRaWAN® EU868

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