

# COMFORT CO2

## Optimising comfort and ensuring the health of occupants

Functions: **C02, temperature, humidity, alarm button, dry contact input**



### MEASURE

- Periodically monitor :
  - temperature
  - humidity level
  - C02 concentration
- Count the number of events on the alarm button or dry contact input



### ALERT

- And/or trigger an alarm if:
  - high or low threshold(s) are exceeded
  - press the alert button
  - event on the dry contact input

### Additional features:

- **User information:** indicator light on the unit
- **C02 calibration:** automatic or manual via button or downlink
- **Data sending mode:** periodic and/or on events
- **Optimisation of autonomy:** historisation
- **Data accessibility:** redundancy
- **Alarm repetition** in case of persistent event
- **Error / fault management:** configuration error, low battery
- **Data time-stamping** (LoRaWAN)
- **Network quality test at start-up** (LoRaWAN)



### Working environment

Ensuring air quality in the workplace for the comfort and health of users.



### Schools, Colleges and High Schools

In response to legislation: monitoring and improving indoor air quality.

# TECHNICAL SPECIFICATIONS



## LoRaWAN ARF8373AB | Sigfox ARF8373CB

### Mechanical specifications

Weight	146 g (battery included)
Dimensions	111 x 61 x 40 mm
Enclosure	IP20, Bayblend® FR3010 (PC/ABS) plastique, blanc
Mounting	Wall or laid flat

### Operating conditions

Temperature	0°C / +50°C
Humidity	0 to 85% RH (non-condensing)

### Device Power Supply

Battery Type	1 connectorized battery pack
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### Device configuration

Local device configuration	IoT Configurator
Remote device configuration	Downlink via the network or via the KARE platform or through the KARE platform
Configuration and firmware update over-the-air	KARE+ compatible
Security	PIN/PUK Code protection

### Radio/Wireless

Supported regions	LoRaWAN EU863-870 / Sigfox RC1
Wireless Security	AES-128 data encryption (LoRaWAN only)
Class	LoRaWAN: Class A   Sigfox: Class 0
Supported LoRaWAN features	OTAA, ABP, ADR, adaptive channel setup
RF transmit power	14 dBm
Sensitivity	-136 dBm LoRaWAN @SF12 / <-120 dBm Sigfox

### Regulations and certifications

Standard	Directive 2014/53/UE (RED)
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Humidity SENSOR		Temperature SENSOR		CO2 concentration SENSOR	
Technology	CMOSens®	Technology	CMOSens®	Technology	NDIR
Resolution type	0.01 %HR	Resolution type	+/- 0.015°C	Measurement range	400 - 5000 ppm
Range	0 à 100 HR%	Range	-40°C / +125°C	Resolution	1 ppm
Typical tolerance of RH over T°	Figure 1	Accuracy	Figure 3	Precision	+/- 30 ppm + 3% de la mesure
Accuracy at 25°C	Figure 2				

Figure 1 Typical tolerance of relative humidity over Temperature

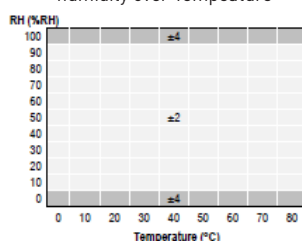


Figure 2 Tolerance of RH at 25°C

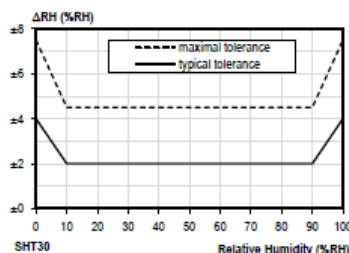


Figure 3 Temperature accuracy

