

COMFORT SERENITY

Optimize occupant comfort and energy performance in a building.



· Monitor regularly:

- temperature,
 - humidity level,
 - concentration of carbon dioxide (CO₂),
 - a relative change in the level of volatile organic compounds (VOCs),
 - the occupation of a space.
- Count the number of events on the alert button or the dry contact input.



ALERT

AND/OR Trigger an alarm if:

- high and/or low threshold(s) exceeded,
- press on alert button,
- number of events reached on the dry contact input.

Additional features:



- **6 in 1 product:** temperature, humidity, CO₂, VOCs, dry contact input, alarm button
- **Data transmission modes:** periodic and/or events-triggered
- **Preserved autonomy:** switch-off time for main functions , data logging
- **CO₂ level in real time:** configurable led indicator (can be disabled)
- **Measurement accuracy:** automatic or manual calibration of the CO₂ sensor
- **Air containment index (ICONE):** automatic, daily calculation
- **Local and remote product configuration**



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



COMFORT SERENITY

Current versions and associated part number

LoRaWAN	EU863-870	ARF8373ARA
	US902-928	ARF8373BRA
	AU915-928	ARF8373IRA
	AS923	ARF8373JRA
Sigfox	RC1	ARF8373CRA
	RC2	ARF8373DRA
	RC4	ARF8373KRA

General specifications

Weight	141g (battery included)
Dimensions	111 x 61 x 40 mm
Enclosure	IP20, Bayblend® FR3010 (PC/ABS) plastic, white (for indoor use)
Mounting	Wall
Battery Type	Dual replaceable battery pack (8000 mAh)
Recommended operating conditions	+5°C / +50°C ; 0 to 85% RH (non-condensing)

Device configuration

Local device configuration	IoT Configurator (Windows/Android)
Remote device configuration	Downlink via the network or via the KARE platform
Configuration and firmware update over-the-air	KARE+ compatible (only for LoRaWAN EU868 and Sigfox RC1)
Security	PIN/PUK code protection

Environmental parameters	TEMPERATURE	HUMIDITY
Sensor technology	CMOSens®	CMOSens®
Range	-40°C / +120°C	0 to 100 RH%
Resolution (typ.)	0.01°C	0.01% RH
Accuracy (typ.)	± 0.2°C	± 2% RH
Air quality parameters	CO2	VOC(s)
Sensor technology	NDIR	MOX
Range	Up to 5,000 ppm; Extended range up to 10,000 ppm	VOC index scale from 1 to 500 points
Resolution (typ.)	1 ppm	-
Accuracy (typ.)	± 30 ppm +3% of measurement over the 400 to 5000 ppm range	< ± 15 index points or < ± 15% of the measured value



TECHNICAL SPECIFICATIONS



LoRaWAN COMFORT SERENITY

Zone	EU863-870 Mhz	US902-928 Mhz	AS923-1 Mhz	AU915-928 Mhz
Part number	ARF8373ARA	ARF8373BRA	ARF8373JRA	ARF8373IRA
Autonomy				
Expected Battery Life 1 scan every 10 min. and 1 transmission per hour (24 frames per day). VOC sensor on, LEDs on	SF7: 10.8 years SF12: 8 years	SF7: 10.7 years SF12: 9.8 years	SF7: 10.8 years SF12: 8 years	SF7: 10.7 years SF12: 7.3 years
Radio/Wireless features				
LoRaWAN spec.	1.0.4			
Wireless Security	AES-128 data encryption			
Class	Class A			
Supported LoRaWAN features	OTAA, ABP, ADR, adaptive channel setup			
Data time-stamping	EPOCH 2013 format (can be activated)	-	-	-
Joining phase	Can be customised (number of attempts, time between attempts), remote join re-launch			
Network quality test	Performed automatically when the product starts up (via LEDs)			-
RF transmit power	+ 14 dBm	+ 20 dBm	+ 14 dBm	+ 20 dBm
Regulations and certifications				
Standard	Directive 2014/53/UE (RED)	US: FCC- Title 47 CFR Part 15 Canada: RSS-247 Issue 2	AS/NZS 4268	AS/NZS 4268

Sigfox COMFORT SERENITY

Zone	RC1	RC2	RC4
Part number	ARF8373CRA	ARF8373DRA	ARF8373KRA
Autonomy			
Expected Battery Life 1 scan every 10 min. and 1 transmission per hour (24 frames per day)	4.1 years	7.8 years	7.8 years
Radio/Wireless features			
Class	Class 0		
RF transmit power	+ 14 dBm	+ 20 dBm	+ 14 dBm
Regulations and certifications			
Standard	Directive 2014/53/UE (RED)	US: FCC- Title 47 CFR Part 15 Canada: RSS-247 Issue 2	AS/NZS 4268

