User Manual

Senseair Aercast
Bluetooth Low Energy, battery powered
CO_2, temperature and relative humidity transmitter

General

Senseair Aercast with integrated BLE (Bluetooth Low Energy) interface is designed to measure carbon dioxide, temperature and humidity in indoor environments. This battery-powered product can be used as a mobile device or in stationary applications (using included wall mount accessory). It is optimised for reliable and secure measurements with 15 years lifespan, without need for manual calibration thanks to the ABC algorithm. Low-power LCD display technology is used to extend battery lifetime (battery lifespan >2 years, depending on settings). Four coloured LED light bars indicates the air quality. The device can be configured with additional applications for IOS and Android operating systems.

	Document	Rev	Page
	UMA10335	1	1 (5)

1. Installation

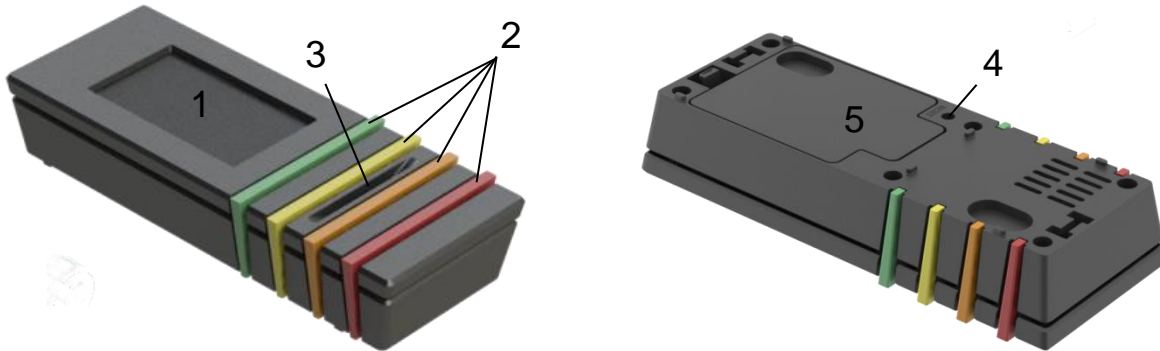For battery insertion and wall mounting, see Installation manual

2. Senseair Aercast

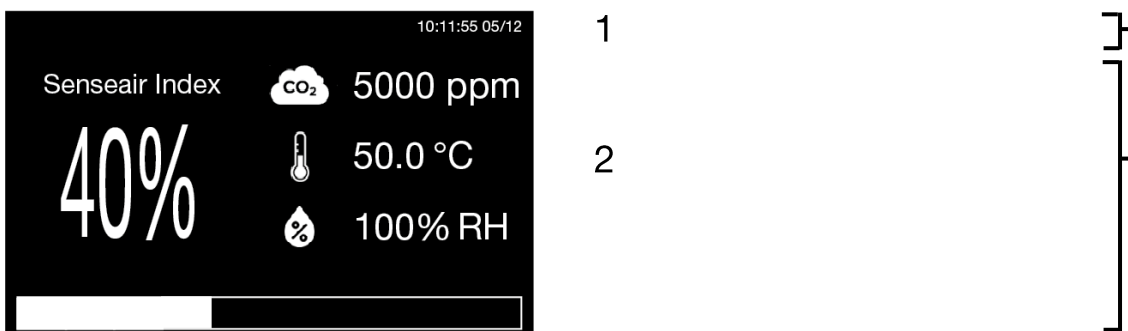Figure 1

1: Display
2: Led status of air quality (green, yellow, orange, red)
3: Light sensor
4: Button
     a)   Press shortly to show ´service screen´
     b)   Press for 15 seconds to reset device logging data and configuration
5: Battery case

3. Display

3.1 Main screen

For standalone configuration, the display is the main way to communicate with the device. The display has two main zones:
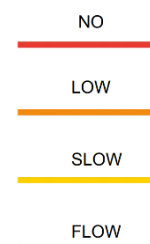   1.Status bar – shows device status: notification icons and time
    2. Main view – shows sensors data: Senseair Index, CO_2 value, temperature and humidity

3.2 Notification icons (in status bar zone)

Icon	Definition
	Warning: please check service screen for detailed information. Use application to decode exact error
	Radio module active and connected
	Error please check service screen for detailed information or use application to decode exact error
	Warm-up, device just start-up and do not make measurements. Sensor data will be updated during next measurement cycle

3.3 Senseair index

The Senseair index is an air quality scale which takes into account different environmental parameters to give an easy and quick overview of the indoor air quality. On the Aercast display it is presented as a value in the range 0-100%, and the current value of the Senseair index is also reflected by the lit LED light bar (green, yellow, orange, red).

NO
LOW
SLOW
FLOW

3.4 Service screen

This screen is used to get more service information regarding device: model name, device name, firmware revision, hardware revision, Bluetooth address, serial number, error states of components, misc. information.

– Model name
– Device name

– System error

3.5 System errors and flag descriptions

Name	Description															
System error	B 15	B 14	B 13	B 12	B 11	B 10	B 9	B 8	B 7	B 6	B 5	B 4	B 3	B 2	B 1	B 0
	B 0 - CO2 Sensor B 1 - Pressure & Humidity & Temperature B 2 - Light sensor B 3 - Display B 4 - EEPROM B 5 - Power failure B 6 - I2C bus B 7 - SPI bus B 8 - Config B 9 - Default configuration loaded B 10 - Logger B 11 - ABC B 12 - Reserved B 13 - Internal B 14 - Reserved B 15 - Fatal error															
System flags	B 15	B 14	B 13	B 12	B 11	B 10	B 9	B 8	B 7	B 6	B 5	B 4	B 3	B 2	B 1	B 0
	B 0 - Device enabled B 1 - External DC connected and enabled (reserved) B 2 - RTC time is not valid (the RTC was not set since last hard reset) B 3 - Battery warning B 4 - LEDs enabled (set to 0 if by the configuration for the LEDs is disabled) B 5 - Display enabled B 6 - BLE connected B 7 - ABC is processing B 8 - Reserved B 9 - Light sensor disabled B 10 - BLE disabled B 11 - Reserved B 12 - Reserved B 13 - Reserved B 14 - Reserved B 15 - Warm-up, device is starting from power-up/reset. Sensors data is not valid															

4. Display configuration

The device has a reset button (on the rear side, see figure 2, No.: 4) which is used to change preconfigured themes for the Senseair Aercast display. To change the themes, press the button shortly.

5. Connection to iOS or Android device

See Aercast connection manual

6. Calibration

No calibration needed, as internal self-adjusting calibration with Automatic Baseline Correction (ABC) function takes care of normal long-term drift. To secure highest accuracy, a time interval of five years is recommended between CO_2 calibrations, unless some special situations have occurred.

7. Restore factory setting

Press the reset button at least 15 seconds until the display of the Senseair Aercast shows "system will be reset". After this step, the device is reset and all stored data and settings are deleted.
NOTE: the connection to the mobile devices are deleted and must be configured again. In some cases, the Bluetooth connection on the mobile devices should also be deleted in the settings, otherwise it will not be possible to pair the device again with the same mobile device.

www.senseair.com

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