



BETTAIR[®] SOUND+ FEATURES

- Custom electronics design
- Dust tight and water resistant
- Ultra-linear condenser microphone
- Exceptionally flat frequency response and ultra-high sound resolution
- Evenly weighted, true omnidirectional pattern
- Low-power consumption electronics
- Wired communication with MK2 Series
- Open API
- Platform analytics

BETTAIR[®] AIR QUALITY MONITOR MK2 SERIES MEASURES THE LEVEL OF POLLUTION ON AMBIENT AIR

ADDING VALUE TO AIR QUALITY MEASUREMENTS

The *bettair*[®] static nodes are a novel device that permits, for the first time, the mapping of air pollution with high accuracy and in high resolution at a previously unimaginable scale. The *bettair*[®] network provides invaluable insights about how to mitigate air pollution.

The *bettair*[®] static nodes can measure up to 12 air quality indicators as well as ambient noise level and other environmental parameters.

With default configuration, the *bettair*[®] static node can measure the most common gaseous pollutants: nitrogen dioxide (NO₂), nitrogen monoxide (NO), ozone (O₃) and carbon monoxide (CO). In addition, the nodes also measures particulate matter (PM₁, PM_{2.5} and PM₁₀) in the ambient air.

The accuracy of the measurements provided by the *bettair*[®] static node is based on advanced proprietary algorithms that enable parts per billion (ppb) measurements with similar accuracy than traditional air quality monitoring stations but at a fraction of the price. The algorithms compensate for the impact of the different ambient conditions as well as sensor degradation due to aging. This removes the need for costly gas sampling and maintenance equipment.

SOUND+ ACCESSORY

The SOUND+ accessory is a device that enhances the measures of the built-in noise sensor of the MK2 series. The SOUND+ adds higher accuracy to the noise measurement.

The SOUND+ includes a windscreen that is size optimized and their special, open-cell foam structure and number of pores per inch²(ppi), are designed to resist a humid environment and at the same time does not influence the sound pressure measurement result significantly.

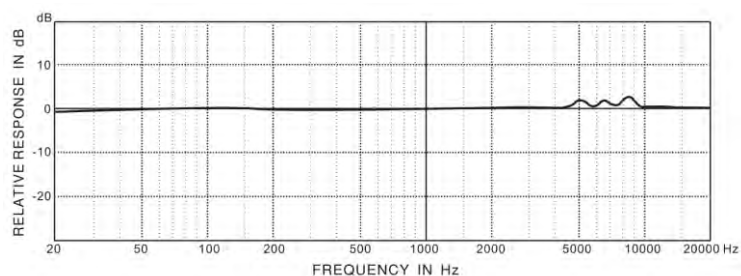
THE PLATFORM

The *bettair*[®] platform shows data of each device and heat maps of the zone covered and it can be connected with other platforms in an easy manner. Our RESTful API allows to connect our platform with any proprietary or open-source platforms.

SOUND PRESSURE LEVEL MEASUREMENTS

Environmental	Range	Resolution	Accuracy
---------------	-------	------------	----------

Noise (dBA) 35 ... 120 0.1 ±1



OTHER CHARACTERISTICS

Characteristic	
Weighting Filters	IEC 61672-1 A and B, IEC 61672-1 B
Time Weighting	Fast (F) - 0.125s Slow (S) - 1.00s
Available functions in platform	LAFast, LAFastMax, LAFastMin LASlow, LASlowMax, LASlowMin LAeq (default), LAmx, Lamin LA1, LA10, LA50, LA90, LA99
Threshold detection	Available in platform with alarms

OPERATING CONDITIONS

Environmental	Full Accuracy	Reduced Accuracy
Temperature (°C)	-10...+40*	-40...+85**
Humidity (%RH)	15...85***	0...100
Pressure (hPa)	600-1100	300-1500

* Ambient Temperature

** Temperature inside the Node

*** At a temperature range of 0...+65°C

POWER CONSUMPTION

Power consumption	0.2W
-------------------	------

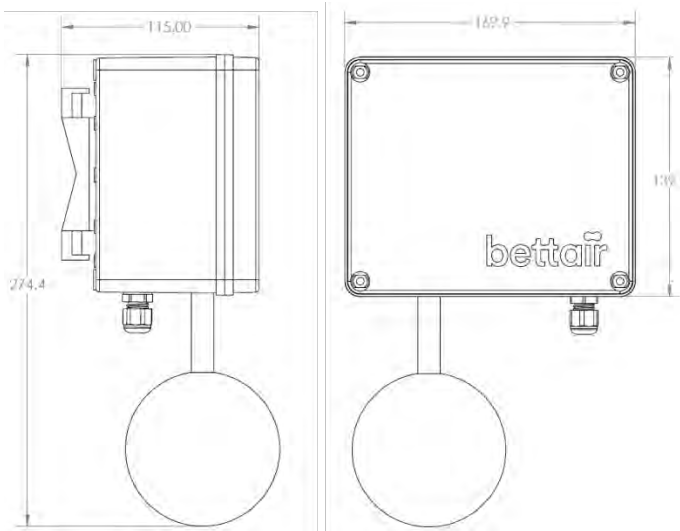
*Depends on measurement configuration parameters.

SYSTEM SPECIFICATIONS

Communications	
Wired	RS485

PHYSICAL

Mechanical	
Weight (gr)	700
Material	Polycarbonate
Colour	RAL 7035 -light grey
Mounting	Pole or Wall
Main Body IP rating	IP65



CERTIFICATIONS

Regulations	
EMC compliance	Directive 2014/30/EU
Emissions	EN55032 Class B
Immunity	EN55024 Class B
LVD compliance	Directive 2014/35/EU
Electrical Safety	EN62368-1
RED compliance	Directive 2014/53/EU
FCC compliance	FCC Part 15 Subpart B
Acoustic compliance	IEC 61672-1:2013

All rights reserved. Any logos and/or product names are trademarks of Bettair. Any reproduction, transfer, distribution or storage of information contained in this document is strictly prohibited. All specifications – technical included – are subject to change without notice.

bettair®