



# Aeromon

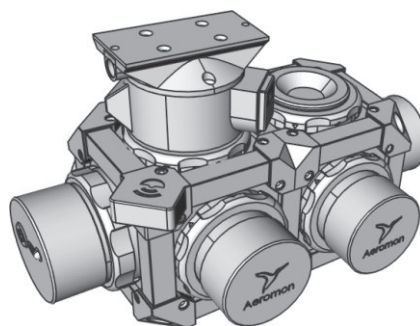
AIRBORNE EMISSION MONITORING

## BH-12 Emission measuring device

The BH-12 emission measuring device is a modular and portable piece of equipment intended for simultaneous detecting, measuring and mapping of multiple airborne gaseous compounds and particulate matter. The device communicates via mobile network its location and measured values in real time to Aeromon Cloud Service which is used to store, analyze and visualize the results.

The BH-12 is calibrated with certified calibration gases prior to each use to ensure accurate and reliable results. The sensor modules can be easily replaced in their receptacles without tools.

The BH-12 can be used handheld, mounted e.g. on a drone or as a fixed installation in an optional enclosure providing long term emission data.



## Dimensions

In order to facilitate different use cases the BH-12 is available in two different frame configurations enabling a certain number of sensor modules to be mounted on the device.

The frame is always equipped with CPU, modem, sample pump, RH%, T and p sensor modules. The physical dimensions in the following table are maximum values with

sensor modules mounted.

Following minimum weights are listed with a single battery cell, CPU, modem and pump modules attached, sensor receptacles covered with protective caps. Maximum weights are with four battery cells and all sensor receptacles occupied. Particle sensors are excluded.

Configuration	1 segment	2 segments
Free receptacles	3 (max. 6 gases <sup>1</sup> )	7 (max. 14 gases <sup>1</sup> )
Length	182 mm	264 mm
Height	200 mm	200 mm
Width	180 mm	180 mm
Minimum weight	710 g	1050 g
Maximum weight	960 g	1460 g



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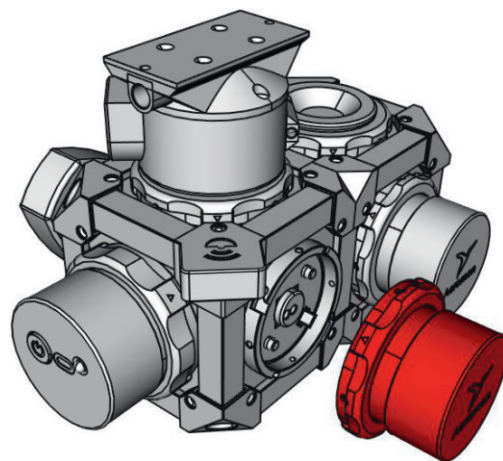
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## General characteristics

Operating conditions	-20 °C – +45 °C (IP65 except PM sensor module)
Rechargeable batteries (1-4 pcs)	3,6 V / 3400 - 13600 mAh, 2 - 8 h of operation <sup>2</sup>
External power supply	Micro-USB 5 V / 2.5 A
Internet connection	LTE mobile broadband (subscription by user)
Location services	GPS, Glonass, Galileo
Mechanical suspension	Arca-Swiss compatible quick release plate <sup>3</sup>
Compliances	CE, FCC, ISED, URSEC

## Common sensor modules

Ammonia NH <sub>3</sub>	0 – 100 ppm
Carbon dioxide CO <sub>2</sub>	0 – 15 000 ppm
Carbon monoxide CO	0 – 500 ppm
Dimethyl sulfide (CH <sub>3</sub> ) <sub>2</sub> S	0 – 10 ppm
Hydrogen sulfide H <sub>2</sub> S	0 – 50 ppm
Methane CH <sub>4</sub>	0 – 100 %
Methyl mercaptan CH <sub>4</sub> S	0 – 14 ppm
Nitrogen dioxide NO <sub>2</sub>	0 – 20 ppm
Nitric oxide NO	0 – 250 ppm
Oxygen O <sub>2</sub>	0 – 25 %
Ozone O <sub>3</sub>	0 – 2 ppm
Particulate matter micro	PM1, PM2.5 & PM10
Particulate matter nano	LDSA <sup>4</sup>
Sulfur dioxide SO <sub>2</sub>	0 – 50 ppm
Volatile organic compounds VOC	0 – 2 000 ppm Isobutylene C <sub>4</sub> H <sub>8</sub> equivalent



## Contact information

Aeromon Oy, Pasilanraito 5  
FI-00240 HELSINKI, FINLAND

website: [www.aeromon.io](http://www.aeromon.io)  
email: [info@aeromon.io](mailto:info@aeromon.io)

2) depending on operating conditions, sensor configuration and number of battery cells

3) damping required for vibrating environments

4) lung deposited surface area combined with particle mass and number values



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## Dimension illustrations

