

## Atmospheric Air Quality probe

### Pre-serial Version



### Usage

This probe is intended to measure the **Atmospheric Air Quality (AAQ)** on building facades.

Indoor air quality remediation strategies can be greatly optimized by considering AAQ.

In addition, manual ventilation operations by opening windows can also be optimized by informing the occupants of the AAQ on each facade and each floor.

The increasing air proofing of buildings, requires controlled air renewal to guarantee productivity, comfort and health and taking into account the air quality, known as "fresh", optimizes the remediation for a better energy efficiency and sobriety.

Local authorities can also use these probes to assess the impact of their policy (district heating, traffic.).

The AAQ probe uses sensor modules with a lifespan of 10 years (except 5 years for an electrochemical gas sensor).

This probe integrates easily and discreetly on a facade, a pylon ...

The modular architecture allows the probe to be interfaced with different home automation or industrial systems (RS485 Modbus, EnOcean, LoRaWAN)

### Sensors fitted as standard:

- PM2.5 and PM10
- Humidity (absolute and relative),
- Temperature,

### Optional sensors (3 max):

- NOx
- NO2
- O3
- H2S
- SO2
- Ammonia
- Noise (medium and peak)

### Technical characteristics

Protocol	Modbus or EnOcean or LoRa
Power supply	12 to 30V DC
PM Sensor	Laser Diffraction
PM range	0.3-10µm - 0 ~ 1000 µg/m <sup>3</sup>
PM Classification	(PM1), PM2.5, PM10
Temperature Range	-20 / +51.5°C
Humidity Range	0-99%
PM2.5 accuracy	< 50µg/m <sup>3</sup> : ± 10µg/m <sup>3</sup> 50~100µg/m <sup>3</sup> : ± 15µg/m <sup>3</sup> > 100µg/m <sup>3</sup> : ± 15% lecture
Temperature accuracy	0,3°C
Humidity accuracy	2% on range 10% to 90% RH
Sensors Lifespan	≥ 10 years



### Optional sensors

NOx resolution	TBD
NO2 resolution	0.2µg/m <sup>2</sup>
NO2 range	1 000 µg/m <sup>3</sup>
O3 resolution	TBD
H2S resolution	TBD
SO2 resolution	TBD
Ammoniac resolution	TBD
Noise resolution	1dBA
Noise range	100 à 10KHz, 18 to 120dBA