



Air Quality



Gases



Odors



Particles



Pressure



Noises



Light



Vibration



Temperature



Humidity



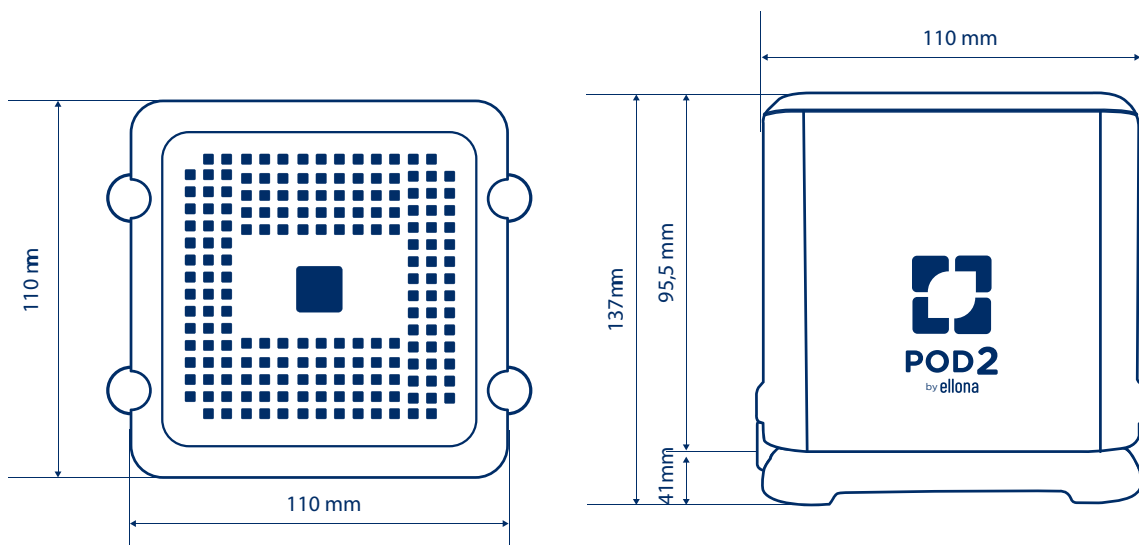
POD2

Technical Datasheet



General features

- **Multisensors device** for continuous physical, chemical and perception data collection.
- **3G** and **4G** connetion.
- **Alarm mode** on all measurement channels (triggering thresholds).
- Information via **LED color** changes.
- **On line and storage of data** for 48 hours via data logger.
- Software on **secured servers** and **on line update**.
- **Communication** via WIFI, LoRa (Long Range), LTE or Ethernet. Wifi is preferred for high level of data transfer.
- **Data frequency** : from 1 data set every 10 seconds.
- **Odor data banks** (Musty, solvents, cigarette, sewer...).
- **44 possibilities** of subjective perception reporting via QR Code attached to each module.



Gas sensors combination

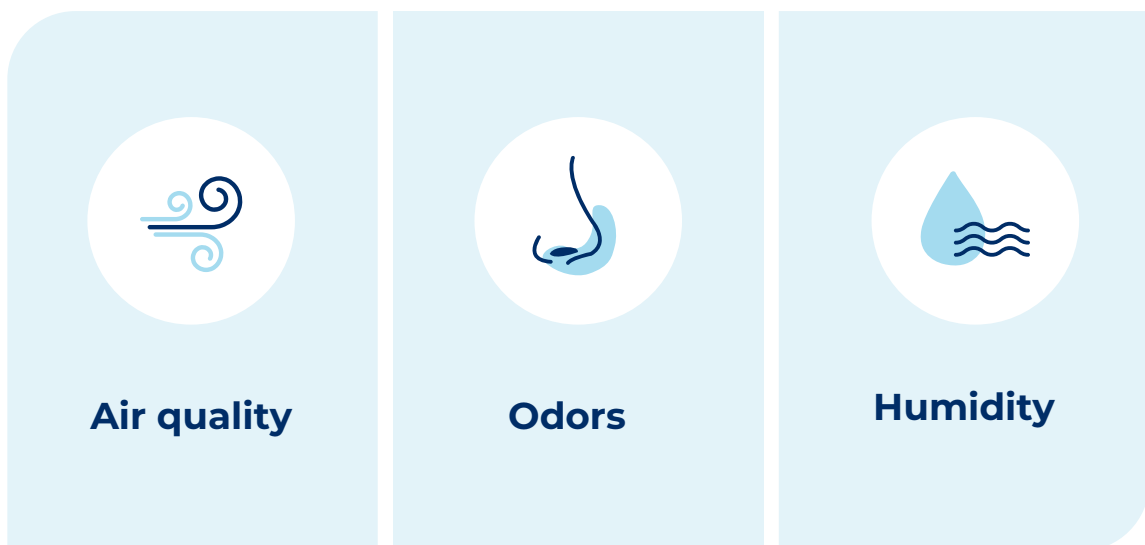


Sensor base :

- Temperature
- Humidity
- Atmospheric pressure
- Lighting
- Indoor Air Quality
- CO₂ concentration equivalent and VOC concentration equivalent

Options :

- PM sensors
- CO₂ (NDIR*)
- 4 gas to choose between our 21 available (page 5)
- Odor card with 4 Mox sensors (see fragrance list separated document)



**Nondispersive infrared sensor.*



Standard sensors

Sensors	Type	Range	LOD	Accuracy R2	Résolution	lifespan
Temperature	Solide state	-40°C to 85°C	0,1°C	±1	0.1	/
Atmosphéric pressure	Solid state	300 to 1100 hPA	1 hPA	0,0025	1 hPA	/
Humidity	Solid state	0 to 100%	0.01	0.03	0.01	/
Noise	Omnidirectional mic	60 to 120 dB(A)	1 dBA	/	0.1 dBA	
Light intensity	Solid state	0 to 10 000 Lux	/	/	1 Lux	
Light color	Solid state	0 and 12 000°K	/	/	1°K	
Vibration	Solid state	0 to 40 m/s2	/	0.1 m/s	/	3 -5 years (12-month warranty)
Total VOC concentration	MOS	1 to 1000 ppm	/	/	0.01 ppm	/

Other gas sensors on demand.

Electrochemical sensors

Options:

- Up to 4 Electrochemical sensors: H₂S, NH₃, NO₂...⁽²⁾

Gas type	Range	LOD	Résolution	lifespan
NH ₃	0 to 100 ppm	0.090 ppm	0.030 ppm	
H ₂ S	0 to 50 ppm	0.015 ppm	0.005 ppm	
NO ₂	0 to 20 ppm	0.010 ppm	0.030 ppm	
NO ₂ + O ₃	0 to 10 ppm	0.003 ppm	0.009 ppm	
SO ₂	0 to 50 ppm	0.008 ppm	0.025 ppm	
NO	0 to 250 ppm	0.025 ppm	0.008 ppm	
CO	0 to 1000 ppm	0.171 ppm	0.057 ppm	
O ₂	0 to 30%	1000 ppm	100 ppm	
Cl ₂	0 to 20 ppm	0.018 ppm	0.006 ppm	
HCl (HBr)	0 to 20 ppm	0.090 ppm	0.030 ppm	
CH ₂ O	0 to 10 ppm	0.002 ppm	0.001 ppm	
EtO	0 to 100 ppm	0.005 ppm	0.002 ppm	
Alcohols (ETO at +50 mV)	0 to 100 ppm	0.009 ppm	0.003 ppm	
PH ₃	0 to 10 ppm	0.009 ppm	0.003ppm	
HCN	0 to 100 ppm	0.129 ppm	0.043 ppm	
H ₂	0 to 2000 ppm	6 ppm	2 ppm	
H ₂	0 to 4000 ppm	6 ppm	2 ppm	
H ₂	0 to 40 000 ppm	15 ppm	5ppm	
H ₂ O ₂	0 to 1000 ppm	0.1 ppm	0.03 ppm	

* Under laboratory conditions: RH: 50% T: 20°C.

**To be determined.

Additional sensors

Options:

- 1 double-band NDIR: NOO₂, CH₄ or CO₂
- 1 double-membrane PID or 1 optical sensor
- 1 optical particles sensor (PM 1-2.5-10)⁽³⁾
- Noise sensor
- Other gases or measuring ranges on request

Type of sensor	Type	Range	LOD	Accuracy R2	Résolution	lifespan	Ref
Mass concentration of particles (PM1-2.5-4-10)	Optical particle counter	0-1 000 µg/m ³	/	10 µg/m ³	1 µg/m ³	≥12 months	100-0024-FR
PM count (PM0.5, PM1, PM2.5, PM4, PM10)	Optical particle counter	0 to 1 000 1/cm ³	/	10% (25% for PM4, PM10)	/	≥12 months	
CO₂	NDIR	0 to 10 000 ppm	/	20 ppm +3%	1ppm	≥36 months	100-0004-FR