











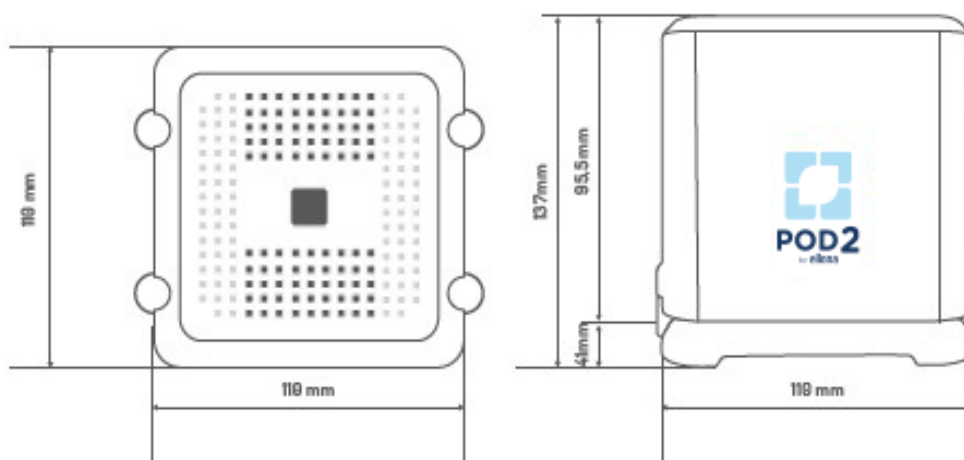
POD2 Technical Datasheet



									
Air Quality	Gases	Odors	Particles	Noise	Light	Vibration	Temperature	Humidity	Pressure

General features

- Multisensors device for continuous physical, chemical and perception data collection.
- 3G and 4G connection.
- 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.

Measured Parameters

Type of sensor	Measuring range	Accuracy	Resolution
Temperature	-40°C to +85°C	0.5°C to 2°C	0.1
Atmospheric pressure	300 to 1100 hPa	0.25%	1 hPa
Humidity	0 to 100% Rh	3%	1%
CO ₂ concentration equivalent	400 ppm to 5000 ppm	pending	1 ppm
Total VOC concentration equivalent	0 to 1000 ppm	pending	0.1 ppm
Illumination level	0 to 10 000 Lux	pending	1 Lux
Color temperature	0 and 12000°K	pending	1°K
Equivalent noise level	30 dBA to 120 dBA	pending	0.1 dBA
Vibration level	0 to 40m/s ²	0.01m/s ²	pending
Mass concentration of particles (PM1, PM2.5, PM4, PM10)	0 to 1000 µg/m ³	10 µg/m ³	0.1 µg/m ³
PM count (PM0.5, PM1, PM2.5, PM4, PM10)	0 to 1 000 1/cm ³	10% (25% for PM4, PM10)	pending
CO ₂ concentration	400 to 10 000 ppm	20 ppm +3%	1 ppm
Odor card with Mox sensors	pending	pending	pending
Electrochemical sensor board	Gas table page 4	Gas table page 4	Gas table page 4

Other gas sensors on demand.

Gas table

This list is not exhaustive. Other gas sensors are available on demand.

Gas type	Measuring range	Resolution *	LOD*	Interferences	REF
NH ₃	0 to 100 ppm	0.03 ppm	0.09 ppm	-20% SO ₂	620-0034
H ₂ S	0 to 200 ppm	0.002 ppm	0.006 ppm	-10% SO ₂ ; -35% NO ₂	620-0044
H ₂ S	0 to 50 ppm	0.003 ppm	0.008 ppm	-30% NO ₂ ; -25% Cl ₂ ; +10% SO ₂	620-0045
H ₂ S	0 to 10000 ppm	2 ppm	6 ppm	-20% NO ₂ , -15% Cl ₂ , +20% SO ₂	620-0046
NO ₂	0 to 20 ppm	0.01 ppm	0.03 ppm	+10% H ₂ S; +2% NO ₂ , +3% SO ₂	620-0036
NO ₂ + O ₃	0 to 10 ppm	0.003 ppm	0.009 ppm	+100% Cl ₂	620-0040
SO ₂	0 to 50 ppm	0.008 ppm	0.023 ppm	-130% NO ₂ ; -60% Cl ₂ ; +40% C ₂ H ₄	620-0057
NO	0 to 250 ppm	0.008 ppm	0.023 ppm	+10% H ₂ S; +2% NO ₂ , +3% SO ₂	620-0038
CO	0 to 1000 ppm	0.057 ppm	0.171 ppm	+10% H ₂ ; -2% NO ₂	620-0053
CO ₂	0 to 400 ppm	30ppm	50 ppm	none	620-0020
O ₂	0 to 30%	0.1%	0.1%	none	620-0030
Cl ₂	0 to 20 ppm	0.006 ppm	0.018 ppm	+100% NO ₂ ; -80% H ₂ S	620-0059
HCl (HBr)	0 to 100 ppm	0.03 ppm	0.09 ppm	+250% H ₂ S; -150% NO ₂ ; -20% Cl ₂	620-0055
CH ₂ O Formaldehyde	0 to 10 ppm	0.001 ppm	0.002 ppm	+3% H ₂ ; +15% CO; +50% Ethanol, organic solvents	620-0032
EtO	0 to 10 ppm	0.002 ppm	0.005 ppm	+30% H ₂ ; +50% CO; +60% EtOH	620-0047
Alcohols	0 to 200 ppm	0.003 ppm	0.009 ppm	+1% CO, hydrocarbons	620-0051
PH ₃	0 to 20 ppm	0.003 ppm	0.009 ppm	+20% H ₂ S; -30% NO ₂ ; +25% SO ₂ ; +50% SiH ₄	620-0049
HCN	0 to 100 ppm	0.043 ppm	0.129 ppm	+300% H ₂ ; -180% NO ₂ ; -12% Cl ₂ ; +10% SO ₂	620-0042
H ₂	0 to 2000 ppm	2 ppm	6 ppm	CO <40% NO ₂ <25%	620-0061
H ₂	0 to 4000 ppm	2 ppm	6 ppm	+70% CO	620-0062
H ₂	0 to 40 000 ppm	5 ppm	15 ppm	+60% CO	620-0063

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

**To be determined.

