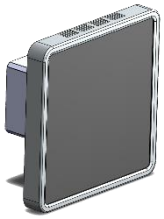
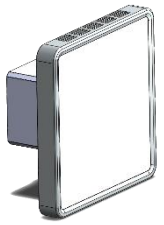
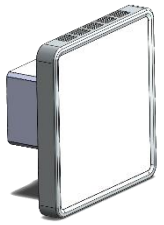
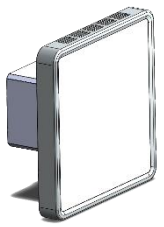
123 rue de Bellevue, 92100 Boulogne Billancourt
France
Tél : 33-(0) 1 41 41 00 02 - www.nano-sense.com

EP5000 IAQ Range

Indoor Air Quality probes

	Ref	Power	Measure	Setting	Communication	Dispo
	E5000AZ-N E5000AE-N E5000AL-N	Indoor light	CO2 VOC T° Humidity	NFC	enocean, BT 5, ZigBee, LoRa, sigfox	2021
	EP5000Z-N EP5000E-N EP5000L-N EP5000T-N EP5000S-N EP5000B-N EP5000EB-N	24V DC	CO2 VOC PM10 PM2.5 PM1 T° Humidity Noise At. P Lux, color T° & flickering	BT 5, NFC	enocean, BT 5, ZigBee, LoRa, sigfox	2020 2021
	EP5000K-N	Bus KNX	CO2 VOC PM10 PM2.5 PM1 T° Humidity Noise At. P Lux, color T° & flickering	BT 5, NFC, ETS	KNX, BT 5	2021
	EP5000M-N	24V DC	CO2 VOC PM10 PM2.5 PM1 T° Humidity Noise At. P	Modbus, BT 5, NFC	Modbus	2020

			Lux, color T° & flickering			
	E5000VP	24V DC	CO2 VOC PM2.5 PM1 T° Humidity Noise Lux, color T°	nfc	1-10V	**2020**
	E5000VM-C	24V DC	CO2		1-10V	**2020**
	P5000VM-2	24V DC	PM2.5		1-10V	**2020**
	EP5000VM-B	24V DC	CO2 PM2.5		1-10V 1-10V	**2020**

EP5000 Line **XX5000 XX-YY**

E = CO2, COVt, T°, RH
P = PM1, PM2.5, PM10

M	Modbus		No Option	F	AP, Noise, lux, Color T°, flickering		Single band CO2
Z	ZigBee	E*	EnOcean	N	Atm. Press., Noise, lux, Color T°	D	Dual band CO2
E*	EnOcean	L*	LoRaWAN	T	Atm. Press., lux, Color T°		
L*	LoRaWAN	S*	Sigfox	P	Atmospheric. Pressure (AP)		
S*	Sigfox	B	BLE & iBeacon		No Option		
V	0-10V	0	No LED	C	CO2 only		
T	Thread	M	0-10V Measurement Value	2	PM2.5 only		
K	KNX	P	0-10V PI	B	CO2 and PM2.5 only		
A	Autonomous						

Code *	Region	Frequency [MHz]	Power
	EU	868	+14 dBm
1	US & CA	915	+20 dBm
2	CN	779	+10 dBm
3	AS	923	+16 dBm
4	IN	865	+20 dBm
5	KR	920	+10 dBm
6	RU	868	+16 dBm

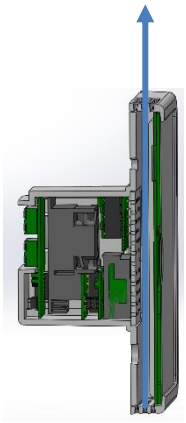
To comply with in force regulations on buildings energy efficiency, ventilation must be automatically on demand controlled.

Measuring indoor Air quality for HVAC (heating, ventilating, and air conditioning) control

Energy losses by air renewal in a conventional building are estimated to 30% of the heating and air conditioning cost. Losses become predominant for very isolated buildings even with double flow ventilation. The increasing airproofing of buildings also imposes an on demand air renewal based on IAQ to ensure comfort and health.
By controlling the ventilation on human occupancy materialized by the expiration of CO2 (meeting rooms, offices, bedroom) and air quality (VOC, toxic compounds and odours), significant energy savings can be achieved.

Multi sensors probe flush mount line.

Those probes are the most comprehensive on the market and can combine the following measurements:



IAQ:

- CO2
- Total VOC
- Humidity
- Temperature
- PM10
- PM2.5
- PM1

Ambience:

- Noise
- Atmospheric pressure
- Luminosity, light colour temperature (and flickering for OEM customers only)

Those probes can be easily integrated into most of wired and wireless ecosystems

KNX, Modbus, EnOcean, ZigBee, Thread, simple or dual 0-10V…

Easy commissioning

NFC allows setting with a smartphone and a free App even with unpowered devices.

Direct user interface without complex and risky Cloud

Bluetooth low energy communication as well as iBeacon allow direct communication and data logging transfer of the 15 lasts days to a smartphone for IAQ monitoring. Historic graphs with physiological effects (**Smart QAI ®** algorithm) provide obvious indicators (Productivity, irritation of the respiratory tract, skin, eyes, health, quality of sleep). The smartphone App also allows all settings and rights managements. Physiological effects Indicators can be use as setting points.

Long range IOT compatibility for IAQ monitoring and recording

LoRa & Sigfox LPWA (Low Power Wide Area) network.

Maintenance free

Sensors has been selected and are managed in order to achieve at least 10 years' life span without any maintenance or recalibration.
Each sensor reaching his end of life is plug and play replaceable thanks to the Built In Test Equipment information.

OAQ Range

Outdoor Air quality probes

	Ref	Power	Measure	Setting	Communication	Dispo
	QAA-E QAA-L QAA-Z	24V DC	NO2 PM10 PM2.5 PM1 T° Humidity Noise	No	LoRa enocean ZigBee	**2019** **2020**
	QAA_M	24V DC	NO2 PM10 PM2.5 PM1 T° Humidity Noise	No	Modbus	**2019**
	QAA_AX	Sun light	NO2 PM10 PM2.5 PM1 T° Humidity	No	LoRa enocean ZigBee	**2020**

Usage

Used on a street and yard or backyard facade, a OAQ probe integrated into a building's ecosystem can adjust the remediation strategies of IAQ probes and provide information on the appropriateness of windows opening.