

OSENSOR



ADVANCED AIR QUALITY SENSOR

- TEMPERATURE (T)
- HUMIDITY (H)
- ATMOSPHERIC PRESSURE (P)
- CARBON DIOXIDE (CO₂)
- TOTAL VOLATILE ORGANIC COMPOUNDS (TVOC)
- CARBON MONOXIDE (CO)
- FORMALDEHYDE (CH₂O)
- PARTICULATE MATTER (PM₁, PM_{2.5}, PM₁₀)

RoHS



The OSensor is an advanced indoor air quality monitoring device that measures 10 parameters simultaneously in real-time to ensure environmental comfort and occupant health. The OSensor readings include temperature, humidity, atmospheric pressure, carbon dioxide, volatile organic compounds, carbon monoxide, formaldehyde and particulate matter (PM 1, 2.5 and 10). The OSensor can interact with third-party devices with 4 programmable interfaces: 2 digital lines (customizable as Digital IN, Digital OUT, mixed), 1 analog IN and 1 analog OUT). The device is also equipped with a button and a programmable LED ring which allows interaction with users. Available also for installation in outdoor environments.

DATA SHEET

MODEL	OSENSOR
PRODUCT CODE	OSN
CERTIFICATIONS	RoHS, CE UAE RoHS, ECAS
SIZE	95x35mm
WEIGHT	140g
POWER SUPPLY	12÷15 Vdc
BUS COMMUNICATION	EDS
CURRENT DRAW	max 50mA
PROGRAMMABLE ANALOG INPUT	0-10Vdc o 4-20mA
PROGRAMMABLE ANALOG OUTPUT	0-10Vdc
OTHER INTERFACES	2 programmable digital interfaces: <ul style="list-style-type: none"> Digital inputs, Digital outputs (open collector, maximum voltage 48Vdc, maximum current 250mA)
OPERATING TEMPERATURE	min -20°C max +60°C
WAREHOUSING TEMPERATURE	min -40°C max +125°C

SENSORS

	RANGE	RESOLUTION	ACCURACY
TEMPERATURE (T)	-20 ÷ +65 °C	0.1°C	± 0,3 °C
HUMIDITY (H)	20 ÷ 80 % RH	1%	± 3 % RH
ATMOSPHERIC PRESSURE (P)	300 ÷ 1100 hPa	1 hPa	± 1 hPa
CARBON DIOXIDE (CO ₂)	400 ÷ 5000 ppm	2 ppm	±50 ppm + 3%
TOTAL VOLATILE ORGANIC COMPOUNDS (TVOC)	0 ÷ 5500 ppb	2 ppb	± 20%
CARBON MONOXIDE (CO)	1 ÷ 500 ppm	1ppm	± 10%
FORMALDEHYDE (CH ₂ O)	0 ÷ 5000 ppb	10 ppb	± 20%
PARTICULATE MATTER (PM ₁ , PM _{2,5} , PM ₁₀)	1 ÷ 999 µg/m ³	1 µg/m ³	1-100 µg/m ³ : ± 5µg/m ³ + 15% 101-999 µg/m ³ : ±15%