

EnviCam-30

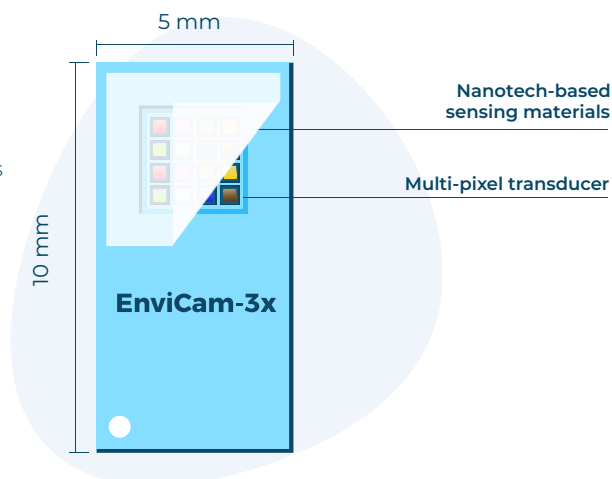
MULTI-GAS MICROSENSOR

General description

EnviCam-30 is a multi-gas microsensor supplying actionable data for IoT & Industry 4.0 solutions. The sensor microchip is based on our patented CMOSEnvi™ technology, integrating several nanotech-based sensing materials within a CMOS-compatible process.

We tackle the sensor chain as a whole, from the sensing element to the data processing, creating a new generation of smart gas sensor, featuring:

- **high selectivity** with respect to the chemical compounds of interest
- **ultra-low-power** with **self-calibration**, allowing applications up to 10 years
- **and ease of integration**



Multi-pixel, multi-gas measurement on a single chip

Ammonia	NH ₃	0.2 – 200 ppm
Carbon monoxide	CO	1 – 2000 ppm
Nitrogen dioxide	NO ₂	0.025 – 200 ppm
Formaldehyde	HCHO	0.1 – 20 ppm
Acetaldehyde	CH ₃ CHO	0.1 – 20 ppm
Methane	CH ₄	Available soon
Carbon dioxide	CO ₂	Available soon
Hydrogen sulfide	H ₂ S	Available soon

Extended measurement range is available upon request.

Under development: BTEX, ethylene oxide (EtO), ethylene, sulfur dioxide (SO₂), hydrogen (H₂) and acetone.



(Petro)chemical

Recycling

Agri-Food

Applications

Smart city

Smart building

Healthcare

Pharmaceutical

Security

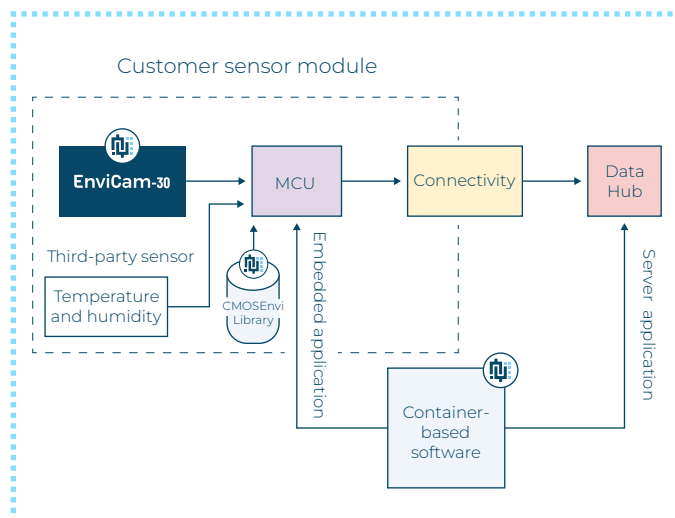


System view

VOCSens provides the necessary system support for integrating the EnviCam-30 device within your hardware module and application:

- Firmware libraries to control the multi-gas microsensor and to integrate in your embedded software application
- Container-based application with AI algorithms that are used to self-calibrate the gas measurements against the drifts caused by temperature, humidity, gas cross-sensitivity and aging

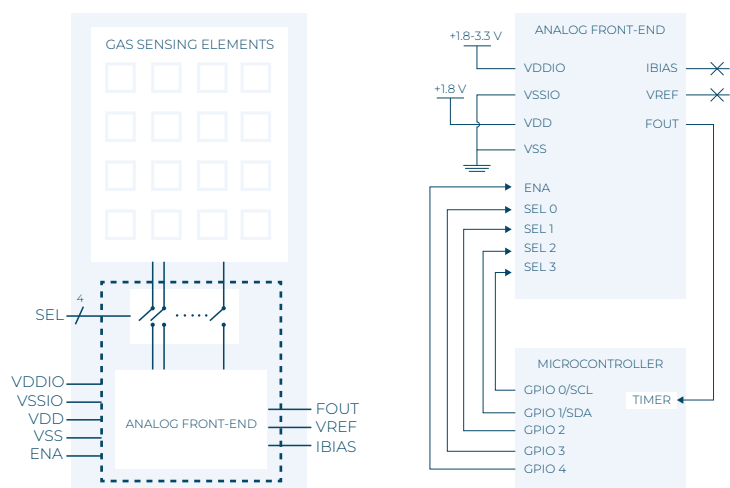
Depending the processing capabilities, the container can either be installed locally on a server or directly embedded on your MCU, with recurrent updates. Finally, the system will need a temperature and humidity sensor to provide the necessary data for compensations by the self-calibration algorithms.



Top specifications

Power consumption	< 50 μ W @ 1 Hz	Current ON	< 300 μ A
Power supply	VDD: 1.8 V VDDIO: 1.8-3.3 V	Current OFF	< 10 μ A
Output	0.1 - 1000 kHz	Package	LGA 10 x 5 x 0.9 mm ³
Input	GPIO	Firmware	C library

Block and Application diagram



Package content

The product is delivered in a LGA package (10 x 5 x 0.9 mm³).

