

Multisensor Board

Multigas measurement platform

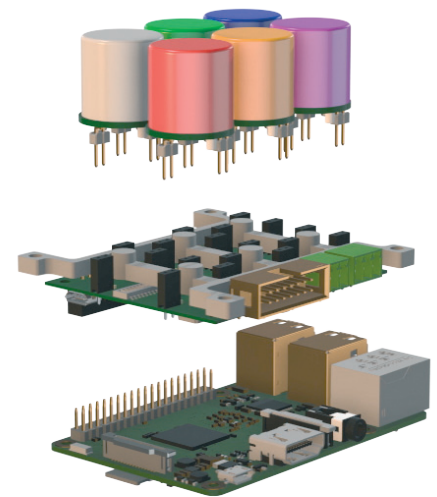
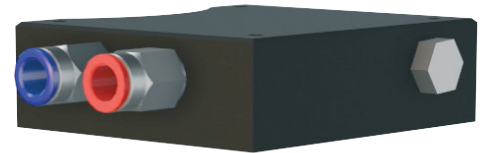


The Multisensor Board is the new product of Tecnosens Spa for the increasing need of multigas detection.

The Multisensor board is able to control up to 6 interchangeable sensor modules.

14 different modules are available for 14 different gases.

The Multisensor integrates as default a humidity/temperature sensor and a pressure sensor, useful parameters to be measured in all possible applications.



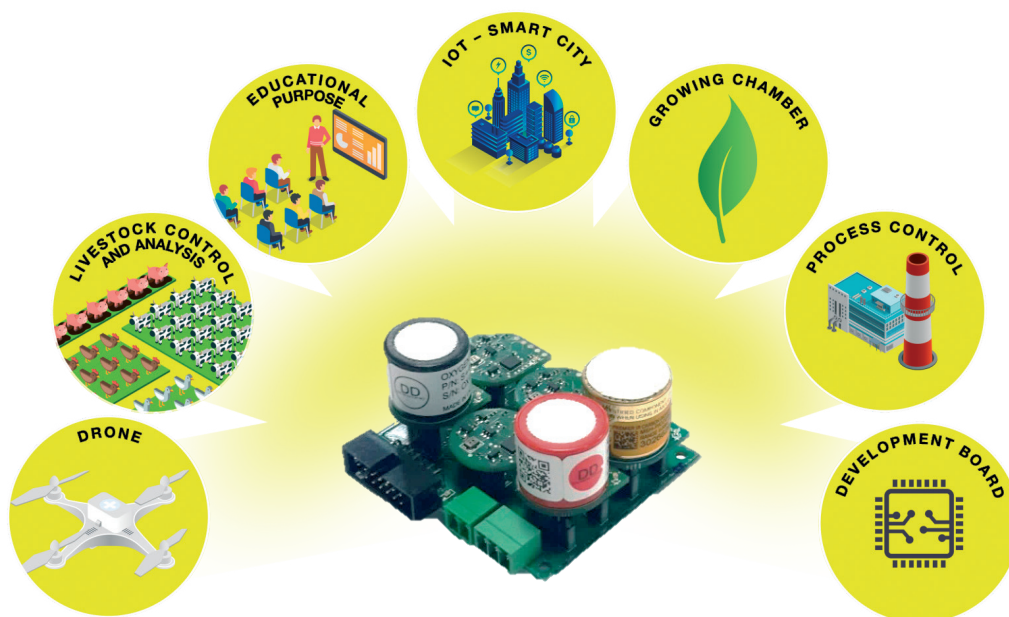
Features

- › ARM Cortex M0+ Processor
- › T/RH, humidity and barometric pressure sensors mounted on board
- › RASPBERRY Pi 3 model compatible
- › USB Interface;
- › Power supply via USB, Raspberry, Dedicated connector (12Vdc)
- › Simultaneous management of 6 Interchangeable gas sensors using AFE
- › Interfacing with electrochemical, semiconductors and infrared technology
- › Easy interchangeable AFEs
- › Sensors provided already calibrated. Possible zero and span recalibration by end user.
- › Gas flow cap for sampling method use.

Measured gas	Technology	Range of measurement
Carbon monoxide (CO)	Electrochemical	0-2000 ppm
Oxygen (O ₂)	Electrochemical	0-25%
Nitric oxide (NO)	Electrochemical	0-250 ppm
Nitric dioxide (NO ₂)	Electrochemical	0-30 ppm
Sulfur dioxide (SO ₂)	Electrochemical	0-20 ppm
Ammonia (NH ₃)	Electrochemical	0-100, 0-300, 0-1000 ppm
Hydrogen Sulfide (H ₂ S)	Electrochemical	0-100 ppm
Ethylene oxide (ETO)	Electrochemical	0-20 ppm
Chlorine (Cl ₂)	Electrochemical	0-10 ppm
Ozone (O ₃)	Electrochemical	0-1 ppm
VOC Air quality	Semiconductor	Various
TGS26xx series	Semiconductor	Various
Carbon dioxide (CO ₂)	Infrared	0-5000 ppm, 0-2%
Methane (CH ₄)	Infrared	0-5%

Application

The capability of the Multisensor Board to work with multiple gas sensors, also with different technologies, make it suitable in many field of use, such as:



Interfaces

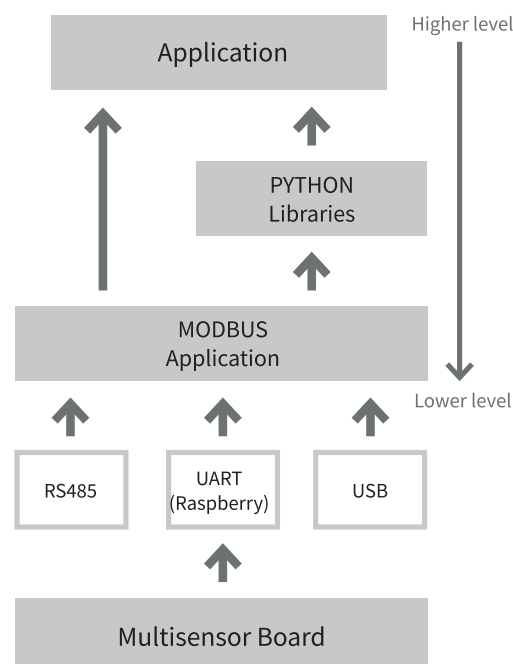
The Multisensor Board communicates via three physical buses (RS485 – Raspberry UART – USB) based on the Modbus protocol.

Thanks to Libraries developed by Tecnosens or developing a custom software, the customer can create different applications to use the Multisensor, starting from a simple datalogger to much sophisticated applications.

The Multisensor Board has been designed to communicate via 3 different physical buses:

- > RS485
- > RASPBERRY (UART)
- > USB

All the physical buses are based on the same communication protocol designed by Tecnosens starting from the standard Modbus, from which we slightly differ.



Your global partner for sensing innovation

The wide portfolio of specialized sensors and OEM solutions allows Tecnosens to give wide support to all the companies from start up to market leaders which want to realize innovative products with high technological content.

Thanks to the know-how acquired in more than 25 years of activity, our team of engineers is ready to support the customer in the rapid and efficient sensors integration, in order to satisfy the always more rapid road map and offer to the market innovative products.

Direct link to your solution:



Gas



Pressure



Humidity



Temperature



Vision Systems



Optoelectronics



Tecnosens