EURsense

AG-4-O2-MKE25(D)

Features

- ✓ Long life 5 years
- ✓ Virtually no influence from CO2, H2S, SO2
- ✓ UART RS232 digital output
- ✓ pre-calibrated before leaving the factory

Product Description

The AG-4-O2-MKE25(D) is an embedded type module equipped with the Figaro's Oxygen Sensor KE25, for accurately detecting Oxygen (O_2) gas concentrations in various environments. The module has been pre-calibrated before leaving the factory and has good stability and selectivity. It uses digital communication (UART bus output) for gas concentration, which allows users to easily and quickly integrate the module into various systems, making it suitable for both indoor and outdoor air quality detection, as well as industrial gas detection.

Technical Specification

Item	Specification
Model Number	AG-4-O2-MKE25(D)
Target Gases	O_2
Sensing Principle	Electrochemical
Detection Range	0-100% vol (KE-25)
	0~30% vol (KE-25F3LF)
Resolution	0.1%
Measurement Error	< ±1% FS
Response time (90%)	approx. 15 sec.
Operating Voltage	3.2 - 5.5V DC
Operating Current	≤ 500uA@5V
Output Signal	UART (+3.0V TTL)
Temperature Range	10 - 40°C
Humidity Range	0% -90%RH
Pressure Range	900.0 to 1120 mbar
Storage Temperature	10 - 40°C
Size	L*W*H=41mm*27mm*52mm
Expected Life	≥ 5 years

Typical Application

- Oxygen detectors
- Combustion gas monitoring
- Refrigeration (food industry)
- greenhouses

Product Appearance and Dimensions
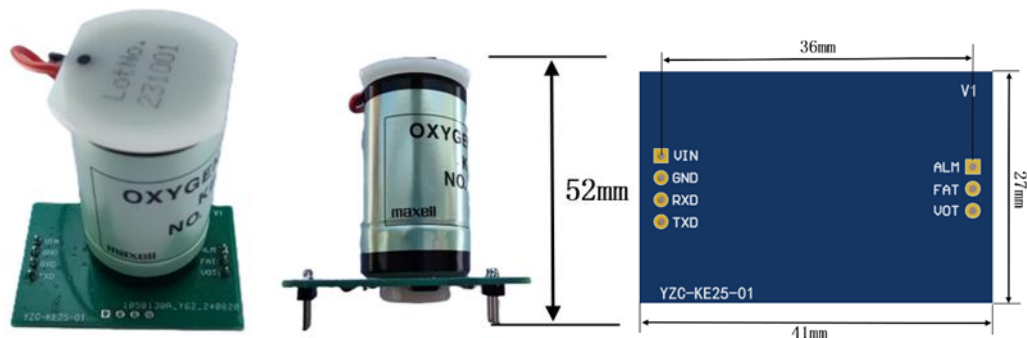
Pin Configuration

The module reserves a 3P + 4P pin header with a pitch of 2.54 mm as the electrical interface. Pin descriptions are as follows:

Pin Number	Name	Functional Description
1	VIN	Power supply, 3.2 - 5V DC
2	GND	Signal ground
3	RXD	Serial port input, Connected to the host TXD
4	TXD	Serial port output, Connected to the host RXD
5	VOT	Module onboard 3.0V reference power output (maximum output capacity 50mA)
6	FAT	Fault signal output pin (reserved)
7	ALM	Alarm signal output pin (reserved)

Note:

1) After being powered-on, the module needs approximate 30s to warm up. Once the process is complete, the module enters into normal monitoring state.
2) After being powered-on, the module's serial port outputs a frame of data containing status and concentration values every 1 second.