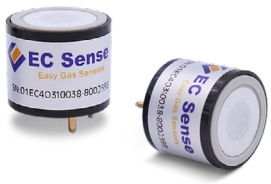
EC Sense
Easy Gas Sensors

Electrochemical 3 Eletrode Sensor

EC4-O_3-100-01 Ozone Gas Sensor
Datasheet

Easy Gas Sensor

EC4-O_3-100 Ozone Gas



Part Number

01-EC4-O_3-100-01

Futures

- Zero bias
- High sensitivity
- High selectivity
- Excellent sensitivity at low temperatures
- Stable zeropoint
- Water based electrolyte
- Double sealed housing for advanced leakage protection

Typical Applications

- Leakage Detection
- TLV-monitoring
- General Industry
- Semiconductor Industry
- Emissions
- Industrial Safety
- Environmental Monitoring
- Portable and Fixed Point Applications
- TLV Monitoring
- Water Treatment, Plants, Swimming, Pools, Chemical Industry

Technical Specifications

Performance	
Sensitivity	-600 nA/ppm ± 200 nA/ppm
Zero Current	± 20nA
Range	0-100ppm
Maximum Overload	200ppm
Resolution (16Bit ADC)	< 0.1ppm
Response Time	T_{50} < 20s, T_{90} < 60s
Repeatability	2%
Lower Detectable Limit (LDL)	≤ 0.05ppm
Linear Range	100 ppm

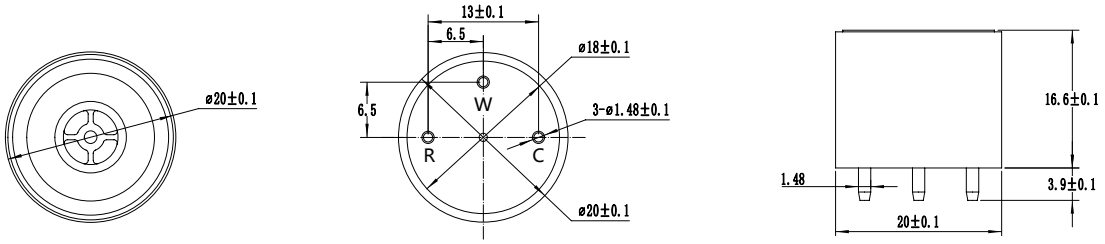
Environment	
Operating Temperature Range	-20 to +40℃
Operating Humidity Range	15-95 %RH. Non-condensing
Operating Pressure Range	800 to 1200 hPa
Storage Temperature	0 to 20℃

Operation	
Operating Principle	Amperometric
Bias Voltage	0 mV
Recommended Load Resistor	220 Ω
Warm Up Time	< 60 s

Lifetime	
Long-Term Drift	< 1 %/month
Expected Lifetime	24 months
Zero Drift in Clean Air	< 1 ppm
Storage Life	6 months
Warranty	12 months

Housing	
Housing Material	PPO
Weight	< 6 g

Dimensions

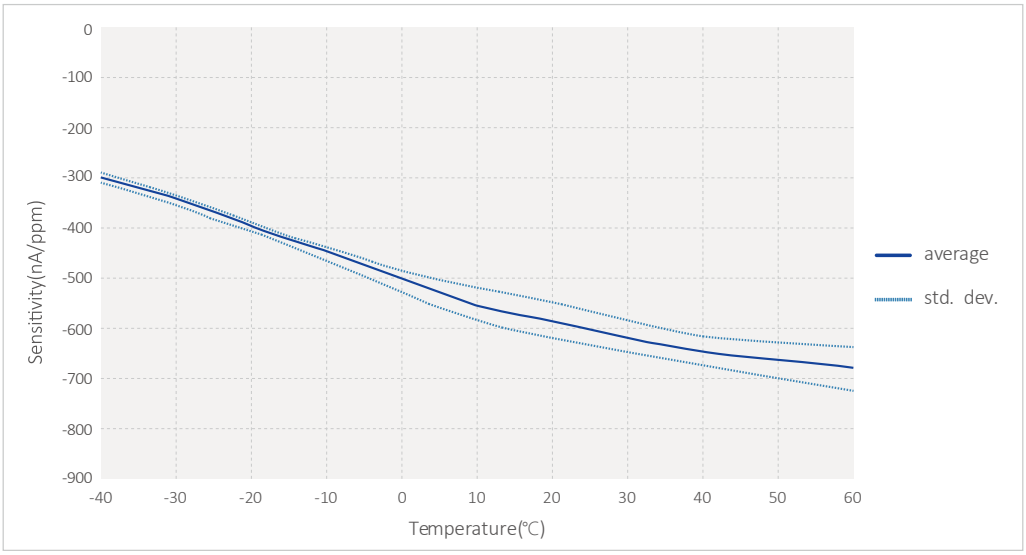


Cross Sensitivity

Gas	Formula	Test Concentration	Sensor Reading
Hydrogen Fluoride	HF	5ppm	0ppm
Carbon Monoxide	CO	300ppm	0ppm
Hydrogen	H_2	1000ppm	0ppm
Hydrogen Sulphide	H_2S	1ppm	0ppm
Diborane	B_2H_6	0.5ppm	0ppm
Hydrogen Cyanide	HCN	10ppm	0ppm
Ammonia	NH_3	10ppm	0ppm
Nitrogen Oxide	NO_2	1ppm	0.7ppm
Fluorine	F_2	0.1ppm	0.07ppm
Germane	GeH_4	1.1ppm	0ppm
Sulphur Dioxide	SO_2	30ppm	0ppm

Note:
1) The above interference factors may vary due to different sensors and service life, please refer to the actual test results.
2) This table is not complete for all cross gases, other gas please contact with us.

Temperature Curve



Note: The above parameters are the test results at a temperature of 25°C, a relative humidity of 50%RH and a normal pressure environment. The performance of the sensor is different under different environmental conditions. If you have any questions, please contact us.

Disclaimer

The EC Sense performance data stated above is based on data obtained under test conditions using the EC Sense gas distribution system and AQS test software. In the interest of continuous product improvement, EC Sense reserves the right to change design features and specifications without notice. We are not responsible for any loss, injury or damage caused by this. EC Sense assumes no responsibility for any indirect loss, injury or damage resulting from the use of this document, the information contained therein or any omissions or errors herein. This document does not constitute an offer to sell. The data it contains are for informational purposes only and cannot be considered a guarantee. Any use of the given data must be evaluated and determined by the user to comply with federal, state and local laws and regulations. All specifications outlined are subject to change without notice.

⚠ Warning

EC Sense sensors are designed for use in a variety of environmental conditions. However, due to the principles and characteristics of electrochemical sensors and to ensure normal use, users must strictly follow this article during storage, assembly and operation of the module. General-purpose PCB circuit board application methods and illegal applications / violation of the application will not be covered by the warranty. Although our products are highly reliable, we recommend checking the module's response to the target gas prior to utilization to ensure on-site use. At the end of the products service life, please do not discard any electronics in the domestic waste, instead follow the local governments electronic waste recycling regulations for disposal.

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