Brief Introduction

FC-CO-5000 Carbon Monoxide Sensor from ProSense works on the proven fuel cell technology and responds directly to the volume concentration of CO. FC-CO-5000 realizes the detection of CO by the reaction occurred on the working electrode of the micro fuel cell, during which the current generated is proportional to the concentration of CO. FC-CO-5000 is perfect for application powered by battery because fuel cell realizes gas detection without power consumption.

Feature

*0 power consumption

*High precision

*Wide temperature range

*Long service life

*Wide linear range

*Fast response

*Excellent repeatability and stability

Application

Lithium battery safety monitoring

Smart water heater

Smart kitchen air exhauster

Smart gas stove

Carbon monoxide alarm

Fire safety

Industry safety

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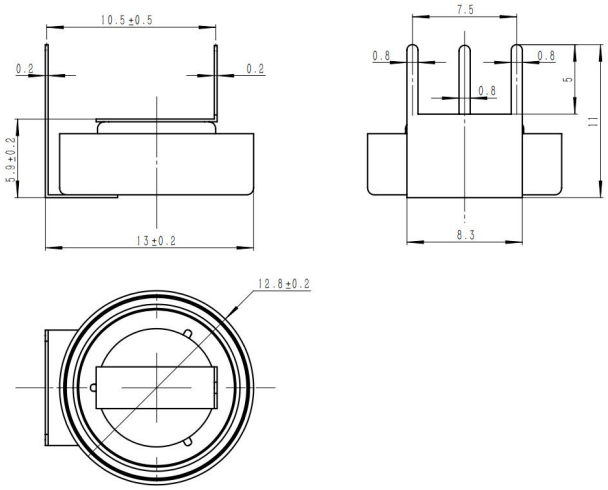
Technical Specification

Item	Technical Specification
Principle	Micro Fuel Cell
Range	0-5000ppm
Max Overload	10000ppm
Sensitivity	1±0.5(nA/ppm)
Response Time(T90)	＜60Sec
Detection Limit （20℃）	5ppm
Repeatability	3%
Linearity	linear
Temperature	-40℃～70℃
Pressure	1atm±10％
Humidity	10％－90％(non condensing)
Lifetime	10 years in air
Warranty Period	24 months
Output in 1000ppm C2H5OH	≤10ppm
Weight	3g

Dimensions



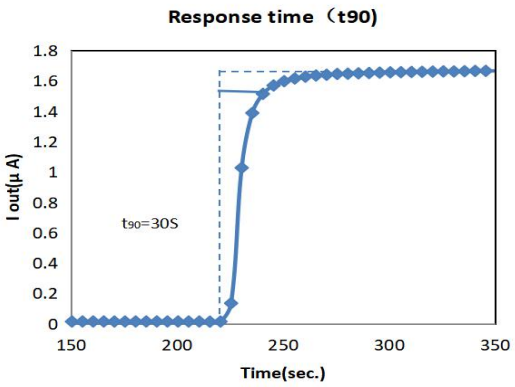
Notes：1 All dimensions in mm
2 All tolerances ±0.15mm unless otherwise stated

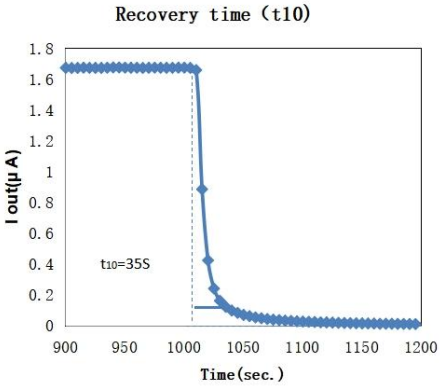
Cross-Sensitivity Data

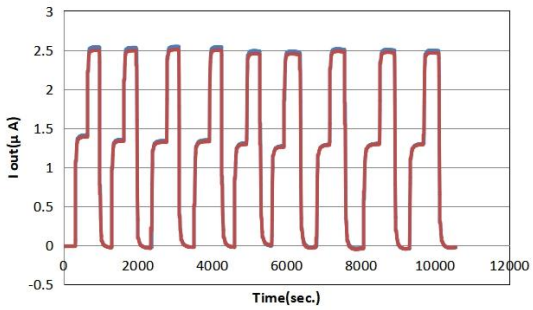
Notes: All performance data is based on condition at 20℃, 50%RH & 1013mbar.For sensor performance data under other conditions, please contact us.

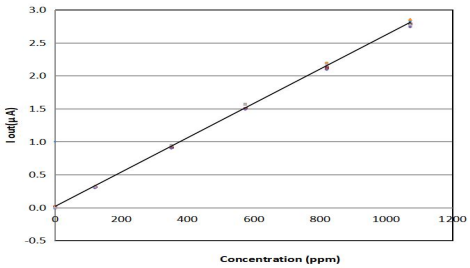
Gas	Concentration Used（ppm）	FC-CO-5000（ppm CO）
hydrogen	1000	800
alkane		0
ethanol		< 10
HMDS		< 2
Benzene derivatives		0
carbon dioxide		0
ammonia		0
Isopropanol		< 5
Freon R22		< 25
acetone		0
Trichloromethane		0
Nitrogen dioxide	200	0
ethylene		< 60
acetic acid		0
ethyl acetate		0
acetylene		< 300
formaldehyde		< 5

Key Performance









Note: In is the output current during the storage and I0 is the output current before the the storage.

Precautions

1 .The sensor should be prevented from organic solvents or corrosive gases
2 .The sensor should not be stored in dusty, dirty areas and anaerobic environment
3 .The sensor must not be exposed to very high concentration of the analyte permanently
4 .Excessive shock or vibration should be prevented to avoid internal damage