FC-H2-20000 Hydrogen (H2) Gas Sensor

Brief Introduction

The FC-H2-20000 hydrogen sensor from Prosense leverages proven fuel cell technology to directly measure H2 concentration. It detects H2 through an electrochemical reaction on the working electrode of the micro fuel cell, there the generated current is proportional to the H2 concentration. By combining a solid electrolyte and a selective catalyst, the FC-H2-20000 achieves exceptional accuracy. Its low power consumption makes it ideal for battery-powered applications, as the fuel cell technology enables gas detection without requiring additional energy.



Features

- Zero power consumption
- High precision & sensitivity
- Ultra Long life
- High stability & Fast response
- Excellent repeatability and selectivity
- Meets UL2075, GB15322, RoHS and Reach requirements

Applications

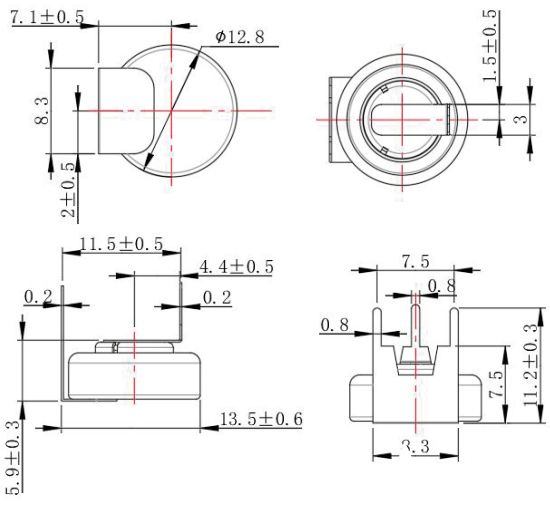
- Commercial and Industrial H2 Detection, Including But Not Limited to Battery-powered H2 alarm, Portable H2 Detection Device, Wearable H2 detection Device
- H2 Detection for ESS Thermal run-away Mitigation
- Industrial H2 Detection
- Fire Detection(Multisensor fire detectors. Point detectors)

Precautions

- The sensor shall be protected from exposure to organic solvents or corrosive gases.
- The sensor shall not be stored in dusty, dirty areas and anaerobic environments.
- The sensor must not be subjected to prolonged exposure to excessively high concentration of the target gas.
- Excessive shock or vibration shall be avoided to prevent potential internal internal damage.

Technical Specification

Item	Technical Specification
Principle	Micro Fuel Cell
Range	0~ 20,000ppm
Max Overload	40,000ppm
Sensitivity	0.2±0.1(nA/ppm)
Response Time(t90)	< 60Sec
Detection accuracy	±300ppm or ±10%, whichever is greater
Repeatability	3%
Linearity	Linear
Temperature	-40℃ ~105℃
Pressure	1atm±10%
Humidity	10%~ 90%
Life-time	10 years in air
Warranty Period	12 months
Weight	3g
Output at 1,000ppm alcohol	<10ppm



Notes: All dimensions are in mm.

FC-H2-20000 is a cULus recognized component in accordance with the requirements of UL2075 and CAN/ULC 588. Please note that component recognition testing has confirmed long term stability in 300ppm and monthly sensitivity test at 0, 300, 4000 and 10000 ppm of H2; other characteristics shown in this sheet have not been confirmed by UL as part of component recognition.

IMPORTANT NOTE: Comprehensive effort has been made to ensure the accuracy of this document at the time of printing. The information provided is for guidance only and does not constitute a specification or an offer for sale.

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