

MIX8417 Electrochemical Hydrogen Gas Sensor

Version No.:1.5

Features:

- *High selectivity & sensitivity to H₂
- *High accuracy
- *Linear output

Application:

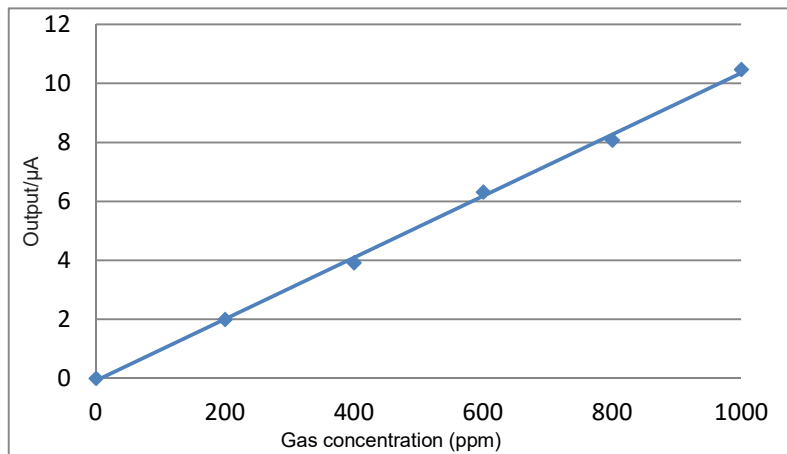
- * Industrial monitors leakage detection
- * Transformer hydrogen detection

MIX8417 is an electrochemical H₂ sensor developed by Mixsen. It uses the principle of electrochemistry. There is a reference electrode inside the sensor, which greatly improves the stability of the sensors. When the sensor senses the hydrogen, the working electrode and the counter electrode react with the redox reaction, through measure the current to get the concentration of hydrogen.



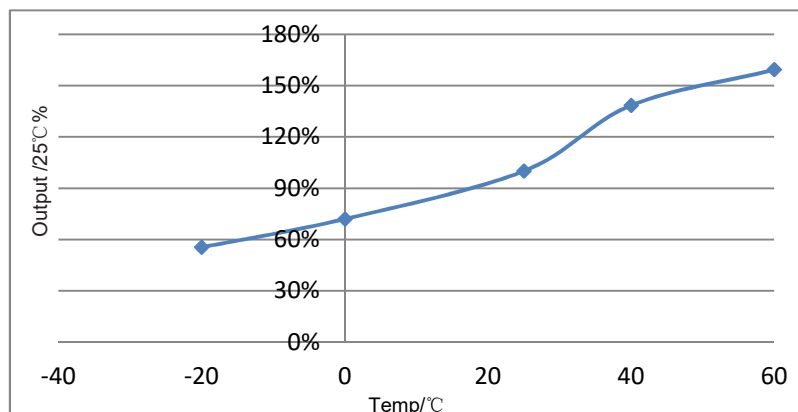
Sensitivity Characteristics:

MIX8417 (25° C) linear output



Temperature dependency:

MIX8417 temperature dependency



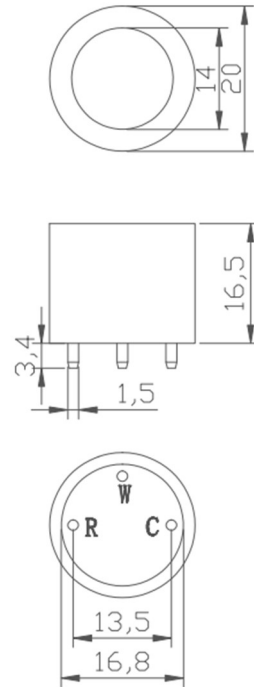
Notice: In different applications used by different customers, the operation condition is different. Mixsen strongly recommend customers contact with Mixsen's technician, especially when the detect gases are not in target gases list, Mixsen cannot responsible if customers has not asked for specifically tested by Mixsen.

Specifications:

Item	Specification
Target Gas	Hydrogen
Measurement Range	0 ~ 1000ppm
Maximum Overload	2000 ppm
Sensitivity	(10±5) μ A/ppm
Repeatability	±2%
Resolution	2 ppm
Response Time (T90)	< 90 seconds
Long Term Output Drift	< 2% /month
Life Expectancy(in air)	2 years
Operating Temp. & Hum.	-20 ~ 50°C / 15 ~ 90% RH
Operating Press	0.1MPa±10%
Bias Voltage	Not required

Note: All measurements were taken at 20°C and 50%RH at 1013hP

Structure and Dimensions:



All dimensions in mm
All tolerance ± 0.1 mm, unless otherwise stated

Cross Sensitivity:

The cross sensitivity data show below is MIX8417 respond under 25 °C.

Gas	Concentration(ppm)	Reading(ppm H ₂)
Sulfur dioxide	5	0
Carbon monoxide	200	30
Hydrogen sulfide	15	4
Ethylene	100	85
Nitric oxide	35	10

Operating Note:

- * The soldering tin was forbidden to contact with the sensor.
- * Aging the sensor no less than 30 mins before operation.
- * Keeping the sensor out of the volatile solvent.
- * Prohibit storage and operating the sensor in acidic or alkaline environment.

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