

# 4H2-L Hydrogen Electrochemical Sensor

(P/N: SEC-4H2-L)

## Technical Specifications

### MEASUREMENT

Operating	3-electrode
Principle	electrochemical
Detection Range	0~40000 ppm
Sensitivity	$7 \pm 2$ nA/ppm
Response Time (T90)	$\leq 60$ s (typical 35s)
Repeatability	$< \pm 2\%$ signal
Linearity	Linear
Long term output Drift	$< 2\%$ signal/month

### ELECTRICAL

Resolution	70 ppm
Recommended Load	5~35 $\Omega$
Bias Voltage	0 mV

### ENVIRONMENTAL

Operating Temp. Range	$-30^{\circ}\text{C} \sim 50^{\circ}\text{C}$
Operating Humidity Range	15% RH ~ 90% RH non-condensing
Operating Pressure Range	800 ~ 1200 mbar

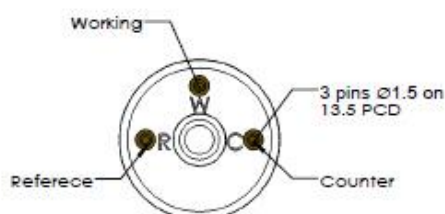
### LIFETIME

Recommended Storage Temp.	$0^{\circ}\text{C}$ to $+20^{\circ}\text{C}$ in sealed container
Expected Operating Life	24 months in air
Storage Life	6 months in original

Standard  
Warranty

packaging  
18 months from date of  
despatch

## Product Dimensions



All dimensions in millimeters ( $\pm 0.1\text{mm}$ )

# AERI

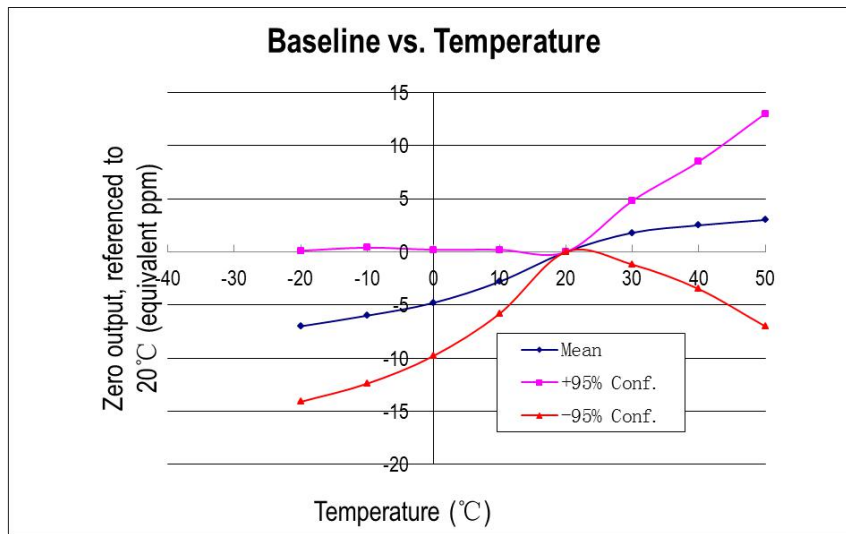
JingZhou Aeritech Co.,Ltd.

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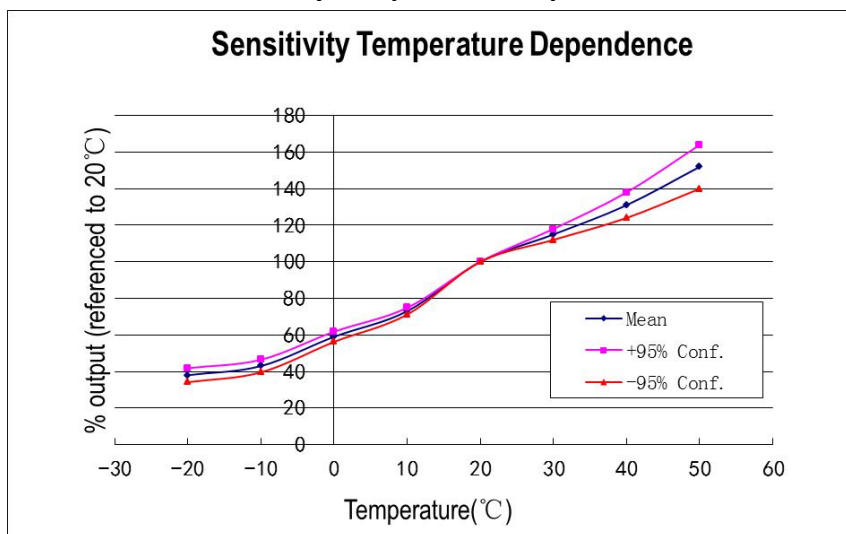
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## Temperature Data

### Baseline drift



### Sensitivity Temperature Dependence

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### **Cross-sensitivity Data**

<b>Gas</b>	<b>Concentration (ppm)</b>	<b>Output signal (ppm H2 equivalent)</b>
Hydrogen Sulfide	25	0
Sulfur Dioxide	10	0
Chlorine	8	0
Nitric Oxide	20	0
Nitrogen Dioxide	10	0
Carbon Monoxide	50	170

Whilst the Gas Sensor are designed to be highly specific to the gas they are intended to measure, they will still respond to some degree to various gases. The table below is not exclusive and other gases not included in the table may still cause a sensor to react. The cross-sensitivity values quoted are based on tests conducted on a small number of sensors. They are intended to indicate sensor response to gases other than the target gas. Sensors may behave differently with changes in ambient conditions and any batch may show significant variation from the values quoted.

### **SAFETY NOTE:**

Connection should be made via a PCB mounting socket. Soldering to pins will void the sensor's warranty.

It is important that exposure to high concentrations of solvent vapours is avoided, both during storage, fitting into instruments, and operation;

If the Gas Sensor is removed from application circuit, a jumper should be added on 'R' and 'S' pin.

As applications of use are outside our control, the information provided is given without legal responsibility. Customers should test under their own conditions, to ensure that the sensors are suitable for their own. The data is given for guidance only. It does not constitute a specification or an offer for sale.

# **AERI**

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