# 4CO-S Carbon Monoxide Electrochemical Sensor

(P/N: SEC-4CO-S)

## Technical Specifications

**MEASUREMENT**

| | |
|---|---|
| **Operating Principle** | 3-electrode electrochemical |
| **Detection Range** | 0~500 ppm |
| **Maximum Overload** | 2000 ppm |
| **Filter** | To remove acid gases (such as SO2, NO, NO2, Cl2& H2S) |
| **Filter Capacity** | >30000 ppm hours |
| **Sensitivity** | 70 ± 15 nA/ppm |
| **Response Time (T90)** | ≤25 s (typical 18S) |
| **Repeatability** | <±2% signal |
| **Linearity** | Linear |
| **Long term output Drift** | <2% signal/month |

**ELECTRICAL**

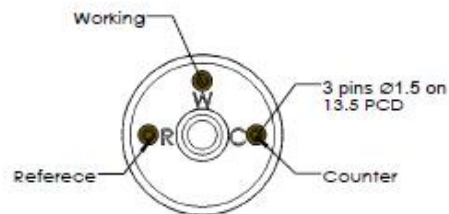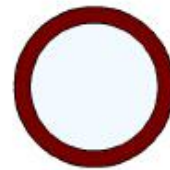| | |
|---|---|
| **Resolution** | 1 ppm |
| **Recommended Load** | 5~35 Ω |
| **Bias Voltage** | 0 mV |

**ENVIRONMENTAL**

| | |
|---|---|
| **Intended Use** | detectors for most Life Safety applications |
| **Operating Temp. Range** | -30°C ~ 50°C |
| **Operating Humidity Range** | 15% RH ~ 90% RH non-condensing |
| **Operating Pressure Range** | 800 ~ 1200 mbar |

**LIFETIME**

| | |
|---|---|
| **Recommended Storage Temp.** | 0°C to +20°C in sealed container |

| | |
|---|---|
| **Expected Operating Life** | 24 months in air |
| **Storage Life** | 6 months in original packaging |
| **Standard Warranty** | 18 months from date of despatch |

## Product Dimensions



*DOES NOT INCLUDE THIKNESS OF LABEL ON LABELLED VARIANTS

16.60
4.30
Ø 20*

Working
W
R
C
Referece
Counter
3 pins Ø1.5 on 13.5 PCD

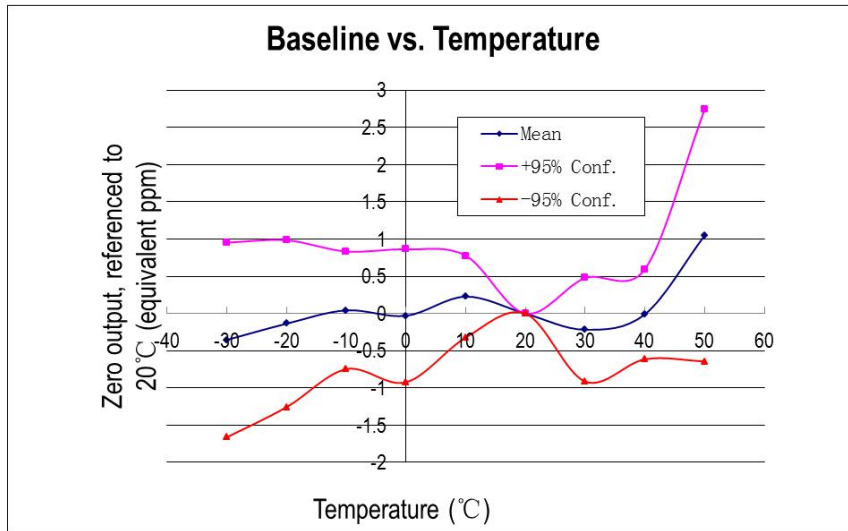All dimensions in millimeters (± 0.1mm)

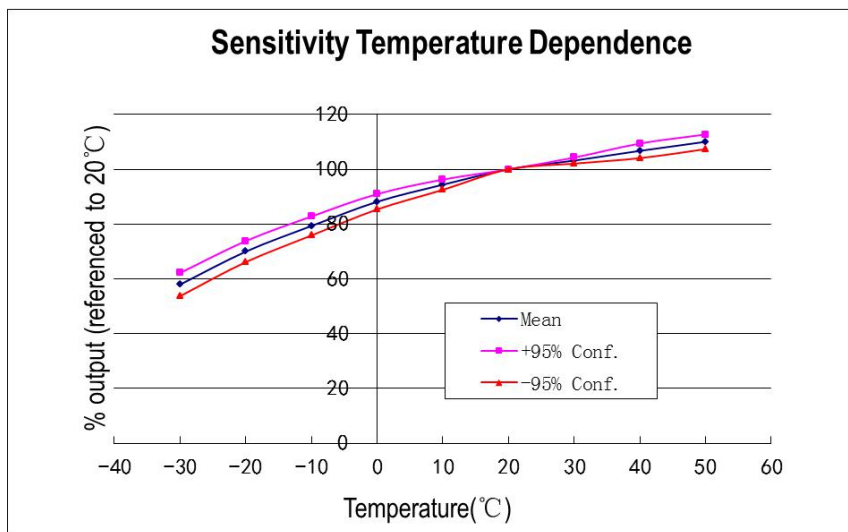**JingZhou Aeritech Co.,Ltd.**
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**AERI**

# Temperature Data

## Baseline drift



## Sensitivity Temperature Dependence



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# Cross-sensitivity Data

| Gas | Concentration （ppm） | Output signal (ppm CO equivalent) |
|---|---|---|
| Hydrogen Sulfide | 25 | 0 |
| Sulfur Dioxide | 10 | 0 |
| Chlorine | 8 | 0 |
| Nitric Oxide | 20 | 0 |
| Nitrogen Dioxide | 10 | 0 |
| Hydrogen | 100 | 42 |

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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