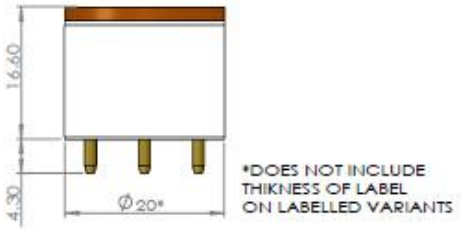
4ETO-M Ethylene Oxide Electrochemical Sensor

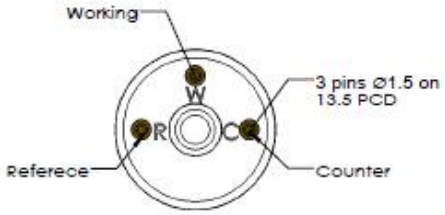
(P/N: SEC-4ETO-M)

Technical Specifications

MEASUREMENT	
Operating Principle	3-electrode electrochemical
Detection Range	0~100 ppm
Sensitivity	0.25 ± 0.12 μA /ppm
Response Time (T90)	≤120 s
Repeatability	<±2% signal
Linearity	Linear
Long term output Drift	<2% signal/month
ELECTRICAL	
Resolution	1 ppm
Recommended Load	5~30 Ω
Bias Voltage	+300mV
ENVIRONMENTAL	
Operating Temp. Range	-20°C ~ 50°C
Operating Humidity Range	15 ~ 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





All dimensions in millimeters (± 0.1mm)

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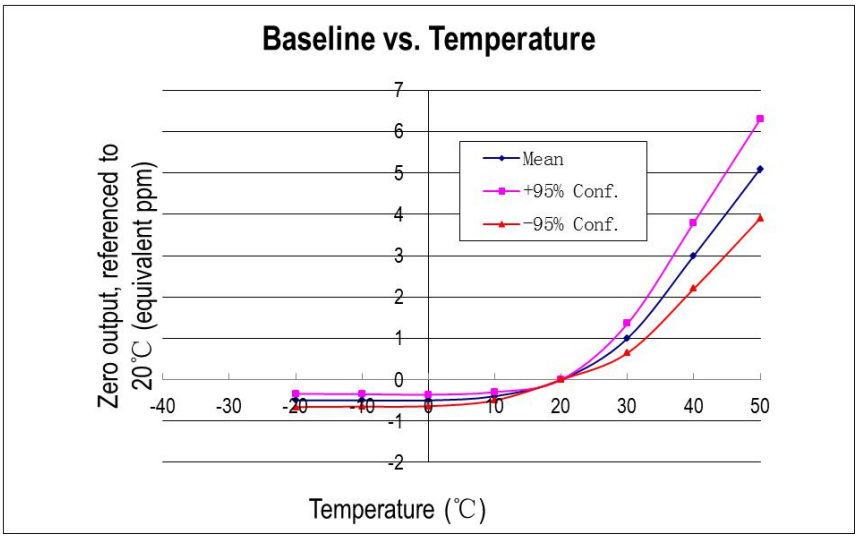
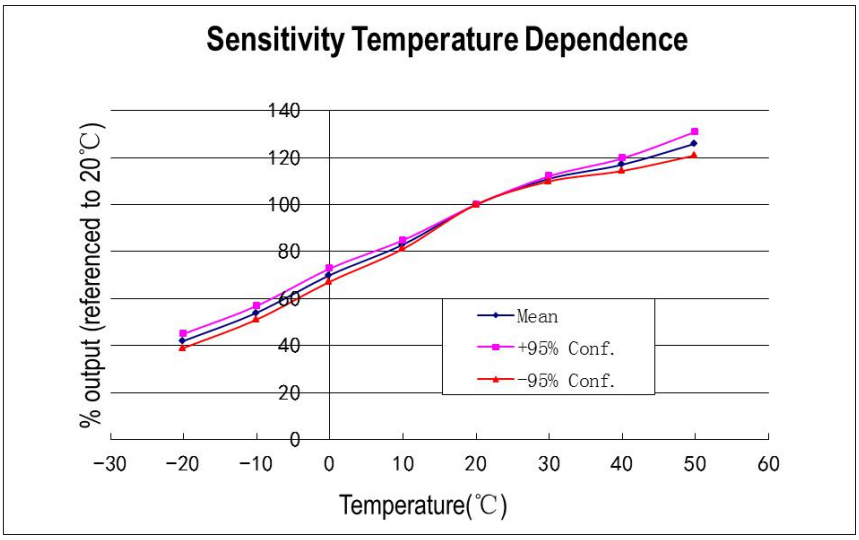
Temperature Data

Baseline drift



Sensitivity Temperature Dependence



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Cross-sensitivity Data

Gas	Formula	Concentration （ppm）	Relative sensitivity to ETO
Ethylene Oxide	CH2CH2O	0~100	1.0
Carbon Monoxide	CO	0~200	0.4
Formic Acid	HCOOH	0~200	0.3
Vinyl Chloride	CH2=CHCl	0~100	0.8
Ethylene	CH2=CH2	0~100	1.2
Propene	CH3-CH=CH2	0~100	0.6
Butadiene	CH2=CH-CH=CH2	0~100	1.1
i-Butylene	(CH3)2C=CH2	0~200	0.4
Ethanol	C2H5OH	0~200	0.5
Methanol	CH3OH	0~100	2.0
i-Propanol	(CH3)2CHOH	0~500	0.2
Formaldehyde	HCHO	0~ 50	1.0
aether	CH3CH2OCH2CH3	0~ 200	0.4

(Note: relative sensitivity= Sensitivity of test gas/Sensitivity of ETO)

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;

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.