

Ethylene Oxide Sensor 0-100 ppm

Performance Characteristics

Part Number	CLE-1222-400
Nominal Range	0 to 100 ppm
Sensitivity	$0.25 \pm 0.125 \mu\text{A/ppm}$
Baseline (20 °C)	-0.2 to 2.5 μA
Baseline Drift (-20 to 40 °C)	0 to 10 ppm equivalent
Resolution	1 ppm
Response Time (T90)	≤ 120 seconds
Linearity	Linear
Long Term Output Drift	< 2% signal/month

Operation Conditions

Temperature Range	-20 °C to 50 °C
Operating Humidity	15 to 90%RH non-condensing
Pressure Range	90 to 110 kPa
Bias Potential	+ 300 mV
Storage Life	6 months in sealed container
Storage Temperature	0 °C to 20 °C
Expected Operating Life	2 years in air
Warranty	12 months from date of shipment

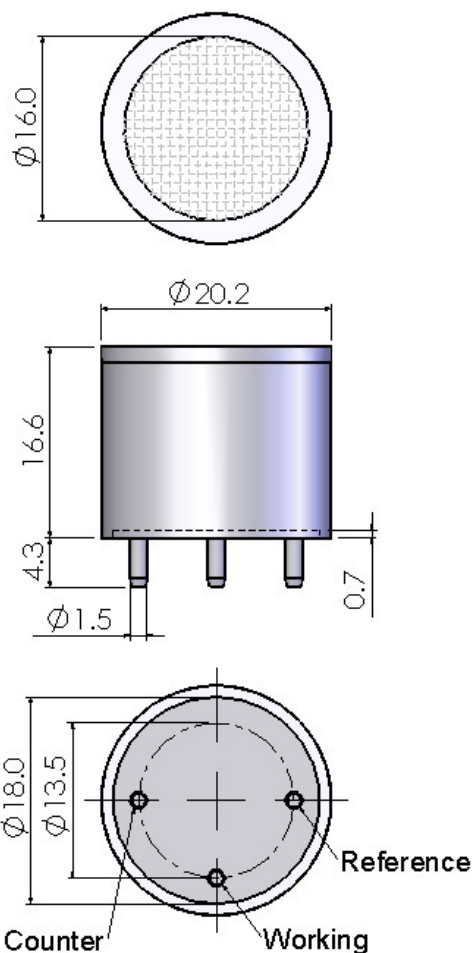
Physical Characteristics

Weight	5 g (approx)
Orientation Sensitivity:	None

Note:

All performance specifications are based upon the following environment conditions: 20°C, 50% relative humidity and 1 atm (1013 mBar or ambient pressure).

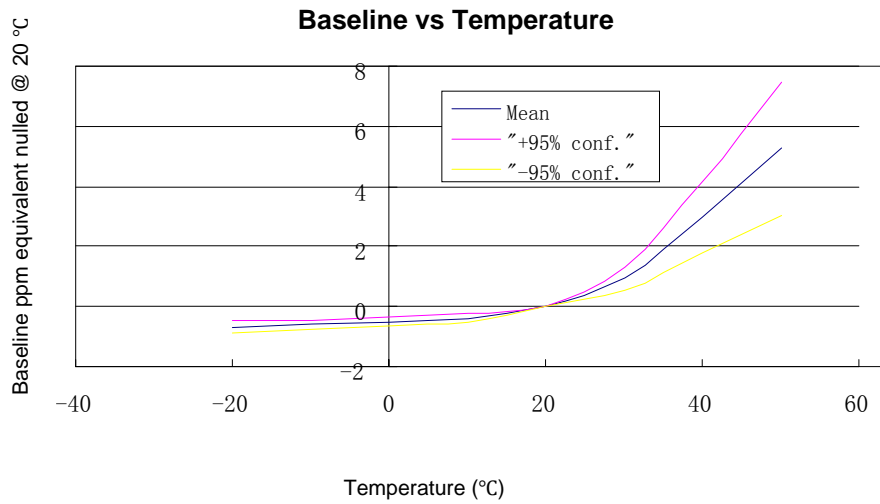
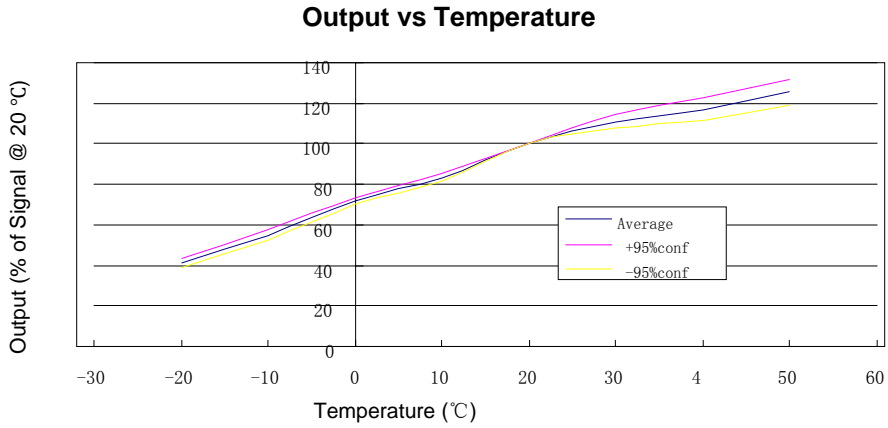
Outline Dimensions



All dimensions are in millimeters.
All tolerances are $\pm 0.2\text{mm}$.

Note: PCB sockets are recommended for the sensor pin connection. Soldering to the sensor should be avoided.

Temperature Dependence



Cross-sensitivity Data

Gas	Correction Factor to ETO
Ethylene Oxide	1.0
Carbon Monoxide	2.5
Ethanol	2.0
Methanol	0.5
Isopropanol	5.0
i-Butylene	2.5
Butadiene	0.9
Ethylene	0.8
Propene	1.7
Vinyl Chloride	1.3
Vinyl Acetate	2.0
Formic Acid	3.3
Ethyl ether	2.5
Formaldehyde	1.0

* Correction Factor of ETO= Sensitivity of ETO/Sensitivity of test gas.

Notes:

1. Calibration with cross sensitivity gas is not recommended.
2. The cross sensitivity may fluctuate between +/- 30% and may differ from batch to batch or from sensor's life time.
3. The cross sensitivities are including but not limited to the above gases. It may also respond to other gases.