

Tetrahydrothiophene Sensor

Performance Characteristics

| | |
|---------------------------------------|-----------------------------------|
| PN: | CLE-3501-400 |
| Nominal Range | 0– 50 mg/m ³ |
| Maximum Overload | 100 mg/m ³ |
| Sensitivity | 0.15±0.05 uA/(mg/m ³) |
| Baseline (20 °C) | < ±0.4 μA |
| Resolution | 0.3 mg/m ³ |
| Response Time (T₉₀) | ≤ 60 seconds |
| Linearity | Linear |
| Long Term Output Drift | <2% signal/month |

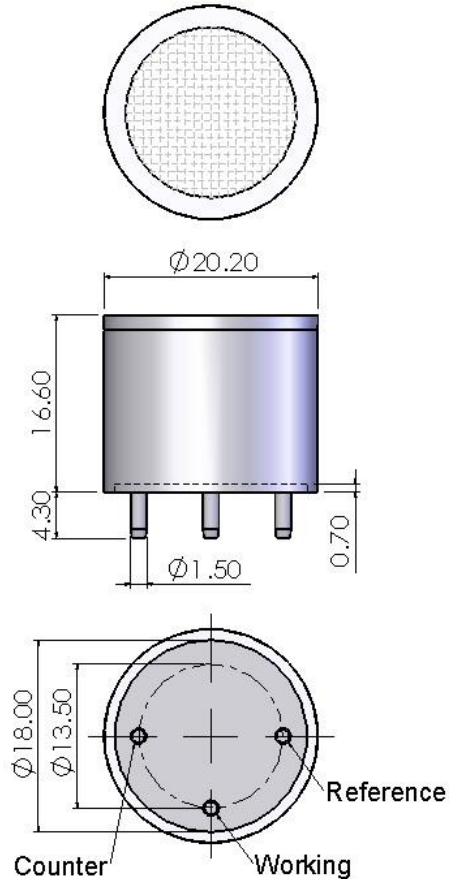
Operation Conditions

| | |
|--------------------------------|---------------------------|
| Temperature Range | -20°C to 50°C |
| Operating Humidity | 15 ~ 90%RH non-condensing |
| Pressure Range | Atmospheric ±10% |
| Bias Potential | 300 mV |
| Load Resistor | 10 Ω (recommended) |
| Storage Life | 6 months in container |
| Storage Temperature | 0 °C to 20°C |
| Expected Operating Life | 2 years in air |
| Warranty | 12 months from dispatch |

Physical Characteristics

| | |
|--------------------------------|--------------|
| Weight | 5 g (approx) |
| Orientation Sensitivity | None |

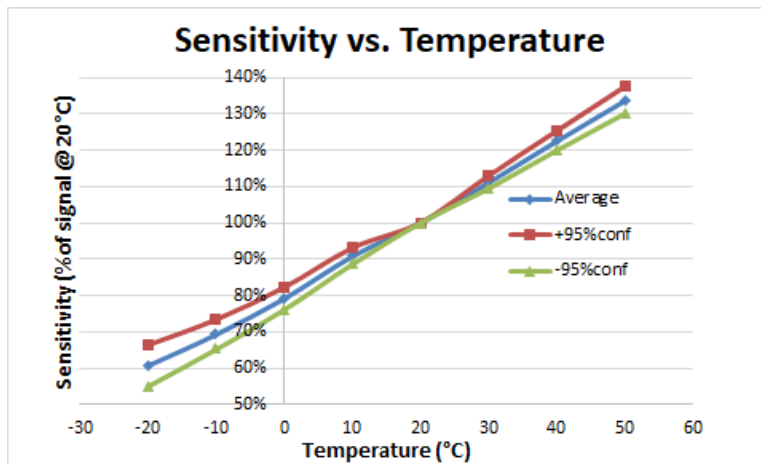
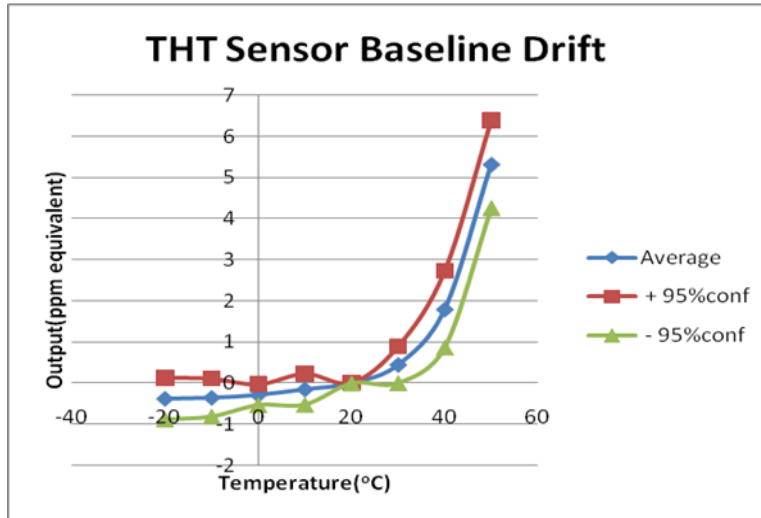
Outline Dimensions



All dimensions in mm
 All tolerances ±0.20mm
 unless otherwise stated

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

Temperature Dependence



Cross-sensitivity Data

| Gas | Cross Sensitivity |
|-------------------------|--------------------------|
| 10ppm Nitrogen Dioxide | 15mg/m ³ THT |
| 5ppm Sulphur Dioxide | 0mg/m ³ THT |
| 35ppm Nitric Oxide | 120mg/m ³ THT |
| 50ppm Carbon Monoxide | 0.1mg/m ³ THT |
| 25ppm Hydrogen Sulphide | 8mg/m ³ THT |

Notes:

1. All performance specifications are based upon the following environment conditions: 20 °C, 50% relative humidity and 1 atmospheric pressure (100 kPa or ambient pressure).
2. Recommend calibration with target gas. If calibration with a cross sensitivity gas, we cannot ensure the accuracy of calibration and measurement.
3. The cross sensitivity may fluctuate between +/- 30% and may differ from batch to batch or from sensor's life time.
4. The cross sensitivities are including but not limited to the above gases. It may also respond to other gases.