

Classic Line 4-CO-500 Sensor

Carbon Monoxide Sensor 0-500 ppm

Performance Characteristics

| | |
|----------------------------------|-----------------------------------|
| Part Number | CLE-0052-400 |
| Nominal Range | 0 to 500 ppm |
| Maximum Overload | 2000 ppm |
| Sensitivity | $0.070 \pm 0.015 \mu\text{A/ppm}$ |
| Baseline (20 °C) | $< \pm 0.2 \mu\text{A}$ |
| Baseline Drift (-20 to 40 °C) | 0 to 3 ppm equivalent |
| Resolution | 1 ppm |
| Response Time (T ₉₀) | ≤ 30 seconds |
| Linearity | Linear |
| Long Term Output Drift | < 2% signal/month |

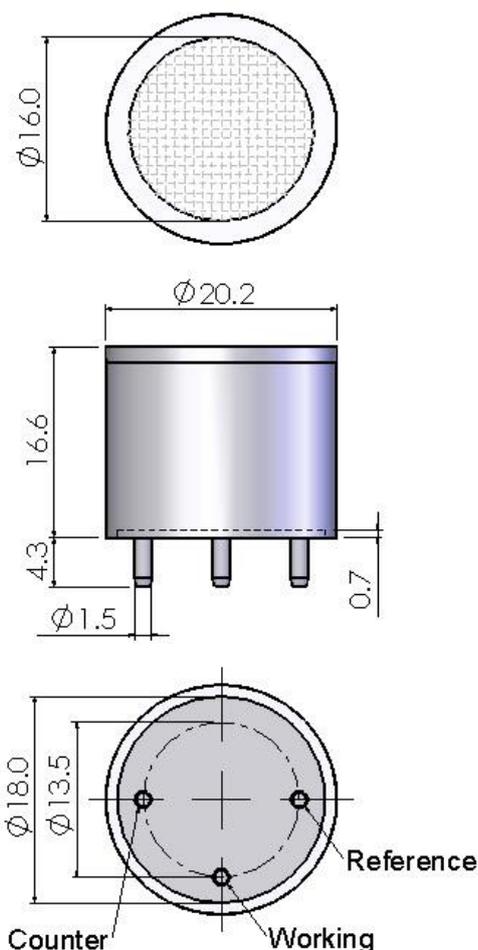
Operation Conditions

| | |
|-------------------------|------------------------------------|
| Temperature Range | -20 °C to 50 °C |
| Operating Humidity | 15 to 90 %RH non-condensing |
| Pressure Range | 90 to 110 kPa |
| Bias Potential | 0 mV |
| Storage Life | 6 months in sealed container |
| Storage Temperature | 0 °C to 20 °C |
| Expected Operating Life | 3 years in air |
| Warranty | 18 months from date of despatch |

Physical Characteristics

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

Outline Dimensions



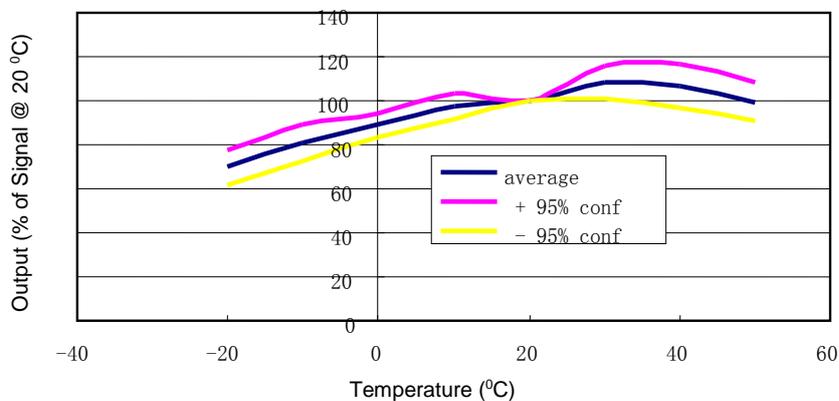
All dimensions are in millimeters.
All tolerances are $\pm 0.2\text{mm}$.

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

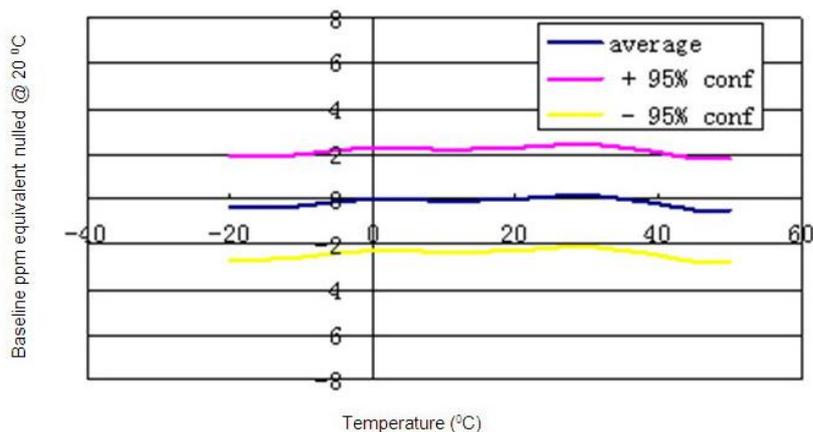
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Temperature Dependence

Output vs Temperature



Baseline vs Temperature



Cross-sensitivity Data

| Gas | Concentration (ppm) | Output Signal (ppm CO equivalent) |
|------------------|---------------------|-----------------------------------|
| Hydrogen Sulfide | 24 | 0 |
| Sulfur Dioxide | 5 | 0 |
| Chlorine | 10 | 0 ~ 1 |
| Nitric Oxide | 25 | 0 |
| Nitrogen Dioxide | 5 | 0 |
| Hydrogen | 100 | 40 |
| Ethylene | 100 | 16 |

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.