

**Ammonia Sensor 0-100 ppm**

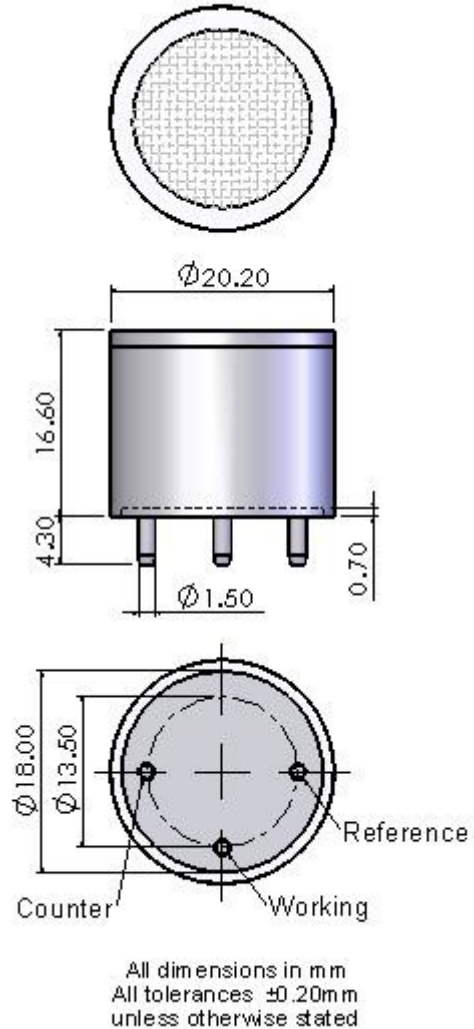
**Performance Characteristics**

|                                       |                                       |
|---------------------------------------|---------------------------------------|
| <b>Part Number</b>                    | CLE-1012-400                          |
| <b>Nominal Range</b>                  | 0-100ppm                              |
| <b>Max overload</b>                   | 200ppm                                |
| <b>Sensitivity</b>                    | 0.15 ± 0.07 µA/ppm                    |
| <b>Zero signal @ 20 °C</b>            | < ±1.2 µA                             |
| <b>Baseline drift(-20 ~ 40 °C)</b>    | <15 ppm<br>equivalent NH <sub>3</sub> |
| <b>Resolution</b>                     | < 0.5 ppm                             |
| <b>Response Time (T<sub>90</sub>)</b> | < 150 Sec                             |
| <b>Linearity</b>                      | Linear                                |
| <b>Long term output Drift</b>         | < 2% signal/month                     |

**Operation Conditions**

|                               |                                    |
|-------------------------------|------------------------------------|
| <b>Temperature Range</b>      | -20 °C to 40°C                     |
| <b>Operating Humidity</b>     | 15 ~ 90%RH<br>non-condensing       |
| <b>Pressure Range</b>         | 91 ~ 111 kPa                       |
| <b>Bias Potential</b>         | +300 mV                            |
| <b>Storage Life</b>           | 6 months<br>in sealed container    |
| <b>Storage Temperature</b>    | 0 °C to 20°C                       |
| <b>Sensor Life Expectancy</b> | 2 years                            |
| <b>Warranty</b>               | 12 months from<br>date of despatch |

**Outline Dimensions**

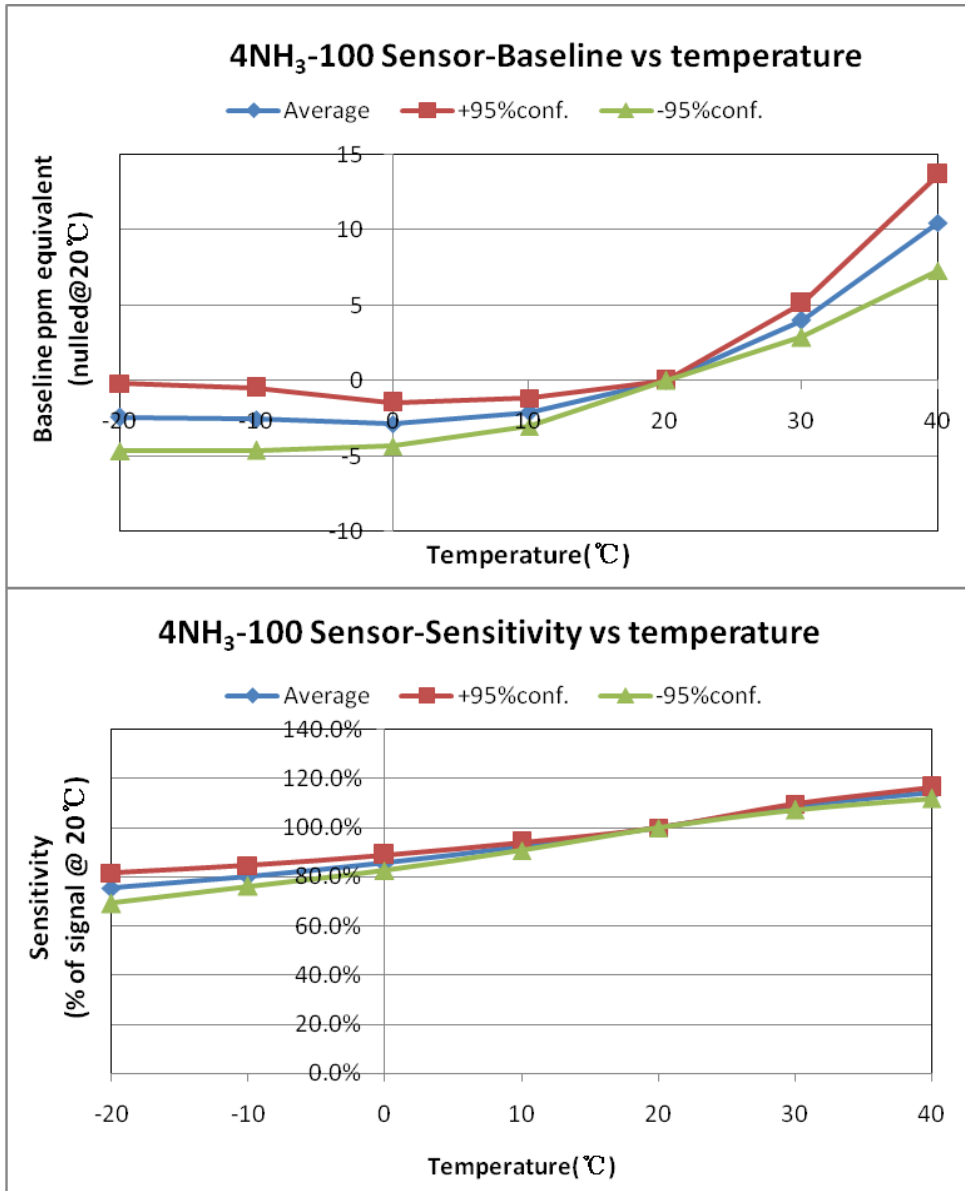


**Note:** PCB sockets are recommended for the sensor pin connection. Soldering to the sensor should be avoided.

**Physical Characteristics**

|                                |              |
|--------------------------------|--------------|
| <b>Weight</b>                  | 5 g (approx) |
| <b>Orientation sensitivity</b> | None         |

Temperature Dependence



Cross-sensitivity Data

| Gas              | Concentration (ppm) | Output signal (ppm NH <sub>3</sub> equivalent) |
|------------------|---------------------|--|
| CO               | 100                 | <3   |
| H <sub>2</sub> S | 20                  | <50  |
| SO <sub>2</sub>  | 10                  | <3   |
| H <sub>2</sub>   | 1000                | <8   |
| NO <sub>2</sub>  | 10                  | <3   |

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.