

***Ammonia Sensor 0 bias 0-100 ppm***

**Performance Characteristics**

<b>Part Number</b>	CLE-1012-401
<b>Range</b>	0 to 100 ppm
<b>Sensitivity</b>	0.135 ± 0.035 µA/ppm
<b>Baseline (20 °C)</b>	< ± 0.4 µA
<b>Baseline Drift (-20 to 40 °C)</b>	0 to 2 ppm equivalent
<b>Resolution</b>	0.5 ppm
<b>Response Time (T90)</b>	≤ 90s
<b>Linearity</b>	linear
<b>Long Term Output Drift</b>	< 2% signal/month

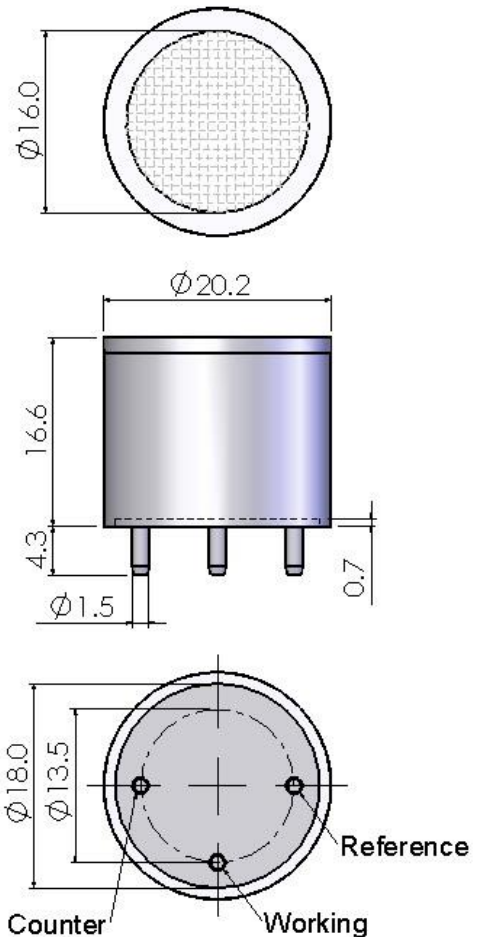
**Operation Conditions:**

<b>Temperature Range</b>	-20 oC to 40 oC
<b>Operating Humidity</b>	15 to 90 %RH non-condensing
<b>Pressure Range</b>	90 to 110 kPa
<b>Bias</b>	0 mV
<b>Storage Life</b>	6 months in sealed container
<b>Storage Temperature</b>	0 oC to 20 oC
<b>Expected Operating Life</b>	≥ 1 year in air
<b>Warranty</b>	12 months from date of dispatch

**Physical Characteristics**

<b>Weight</b>	5 g (approx)
<b>Orientation Sensitivity</b>	None

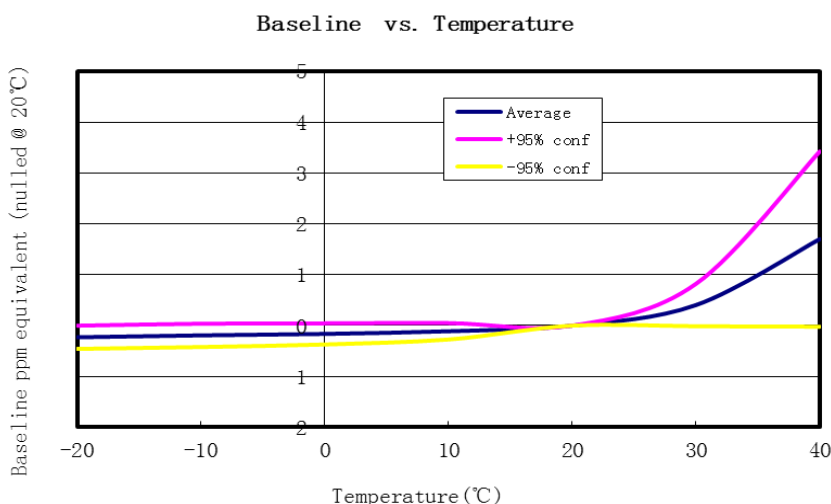
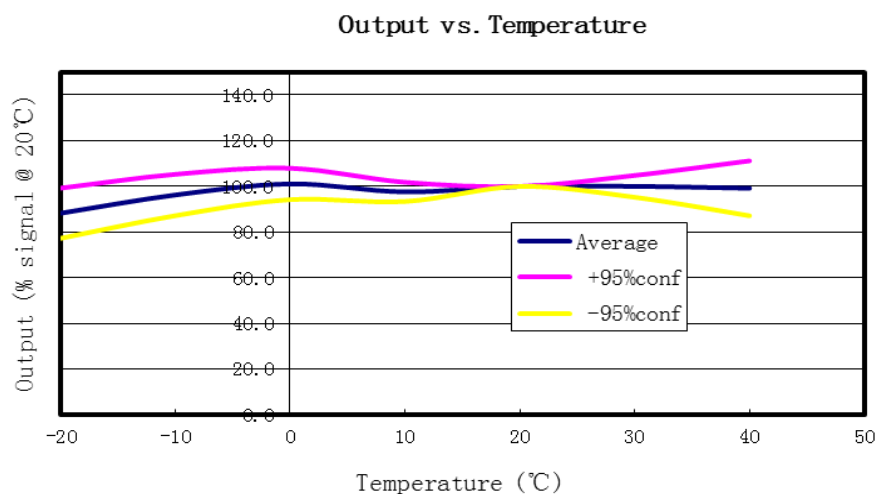
**Outline Dimensions**



All dimensions are in millimeters.  
All tolerances are ±0.2mm.

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

**Temperature Dependence**



**Cross-sensitivity Data**

Gas	Concentration (ppm)	Output Signal (ppm NH <sub>3</sub> equivalent)
Carbon Monoxide	50	0
Hydrogen sulfide	25	65
Carbon Dioxide	5000	-1
Hydrogen	1000	-1
Isobutylene	100	0
Ethanol	1000	0

**Notes:**

- All performance specifications are based upon the following environment conditions: 20 °C, 50% relative humidity and 1 atmospheric pressure (100 kPa or ambient pressure).
- Recommend calibration with target gas. If calibration with a cross sensitivity gas, we cannot ensure the accuracy of calibration and measurement.
- The cross sensitivity may fluctuate between +/- 30% and may differ from batch to batch or from sensor's life time.
- The cross sensitivities are including but not limited to the above gases. It may also respond to other gases.
- T90 spec.: it is tested with with the flow rate 500ml/min per each sensor, the T90 is 90 s.
- At low temperature -20 °C, sensor's T90 will increase up to about 150 s.