

Hydrogen Chloride Sensor 0-50 ppm

Performance Characteristics

Part Number	CLE-1431-400
Nominal Range	0 to 30 ppm
Maximum Overload	100 ppm
Sensitivity	0.3 ± 0.1 μA/ppm
Baseline (20 °C)	-0.2 to 1.0 μA
Baseline Drift (-20 to 50 °C)	0 to 5 ppm equivalent
Resolution	1 ppm
Response Time (T90)	≤ 70 seconds
Linearity	Linear
Long Term Output Drift	< 2% signal/month

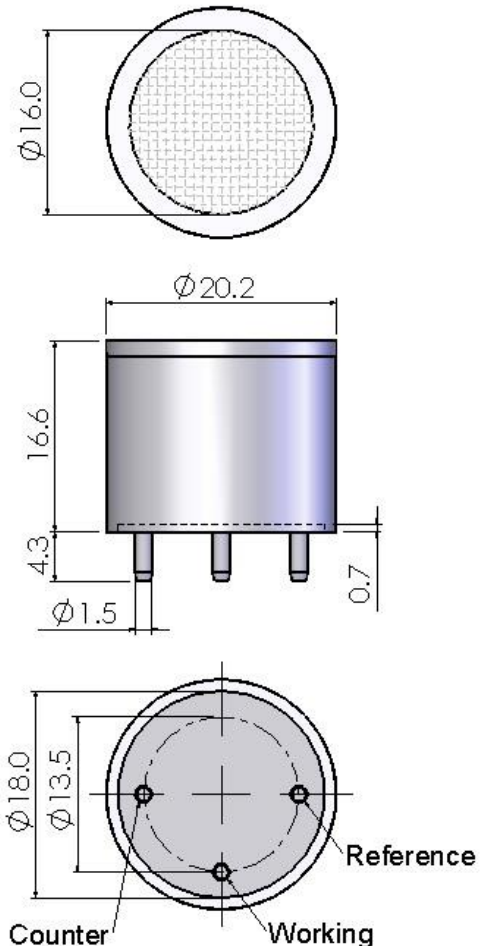
Operation Conditions

Temperature Range	-20 °C to 50 °C
Operating Humidity	15 to 90%RH non-condensing
Pressure Range	90 to 110 kPa
Bias Potential	+ 200 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 despatch

Physical Characteristics

Weight	5 g (approx)
Orientation Sensitivity	None

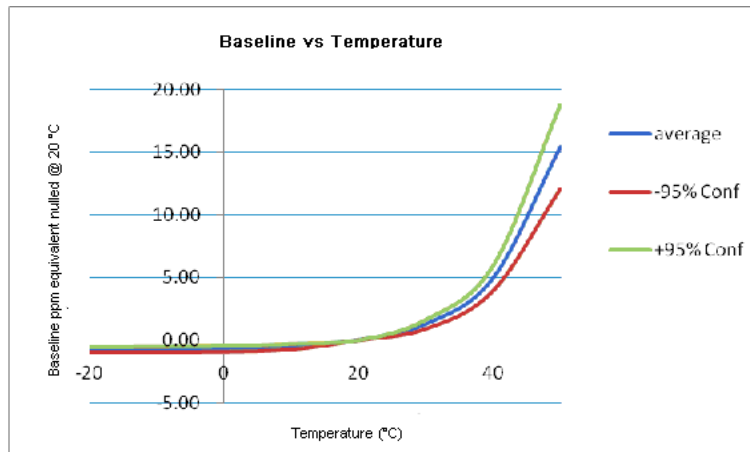
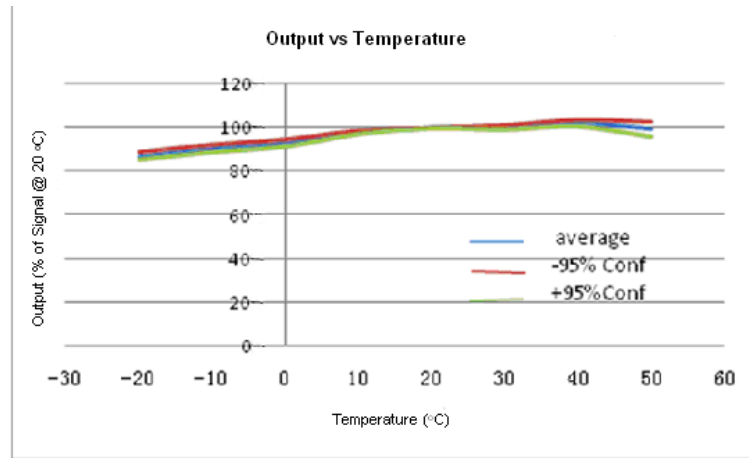
Outline Dimensions



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 HCl equivalent)
Hydrogen	2000	0
Carbon Monoxide	100	0
Nitric Oxide	20	50
Nitrogen Dioxide	10	1
Hydrogen Sulfide	25	130
Sulphur Dioxide	20	35
Nitrogen	100%	0

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.