

Hydrogen Chloride Sensor 0-50 ppm

Performance Characteristics

Part Number	CLE-1431-700
Nominal Range	0 to 50 ppm
Maximum Overload	100 ppm
Sensitivity Range	0.33 ± 0.13µA/ppm
Zero Signal	-0.2 to 1.0 µA
Baseline Drift(-20 to 40 °C)	0 to 5 ppm HCl equivalent
Resolution	1 ppm
Response Time(T₉₀)	≤ 70 seconds
Linearity	Linear
Long Term Output Drift	< 2% signal/month
Warm-Up Time	
When Using First	24 hours
Ready For Operation After Max	180 minutes
Ready For Calibration After Max	600 minutes

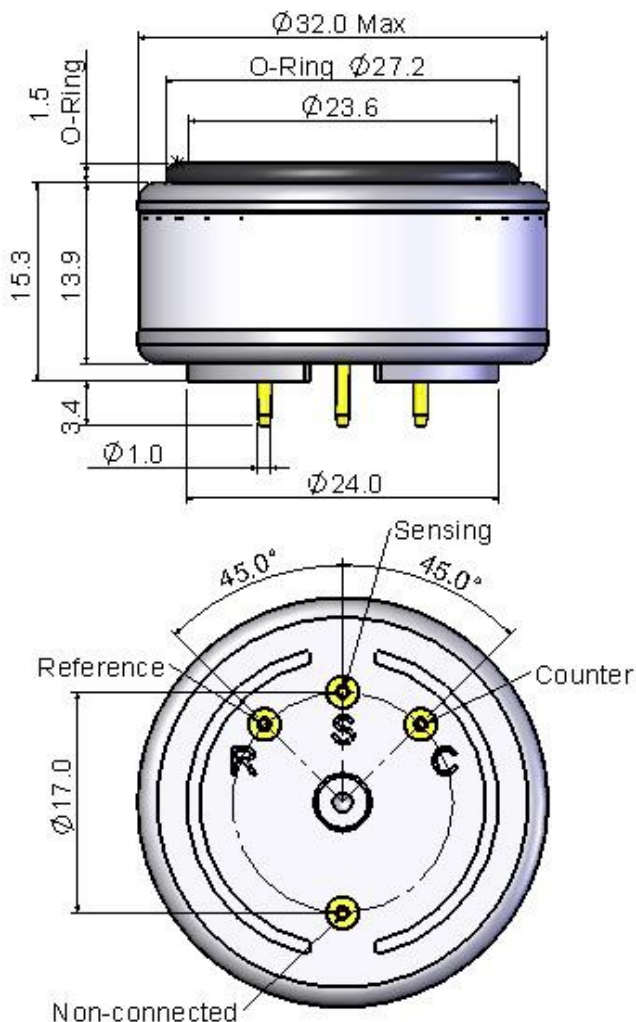
Operation Conditions

Temperature Range	-20 to 50°C
Operating Humidity	15 to 90%RH non- condensing
Pressure Range	91 to 111 KPa
Bias potential	+200 mV
Storage Life	6 months in RAE Container
Storage Temperature	0 to 20°C
Expected Operating Life	2 years in air
Warranty	12 months from date of despatch

Physical Characteristics

Weight	8 g (approx)
Orientation Sensitivity	None

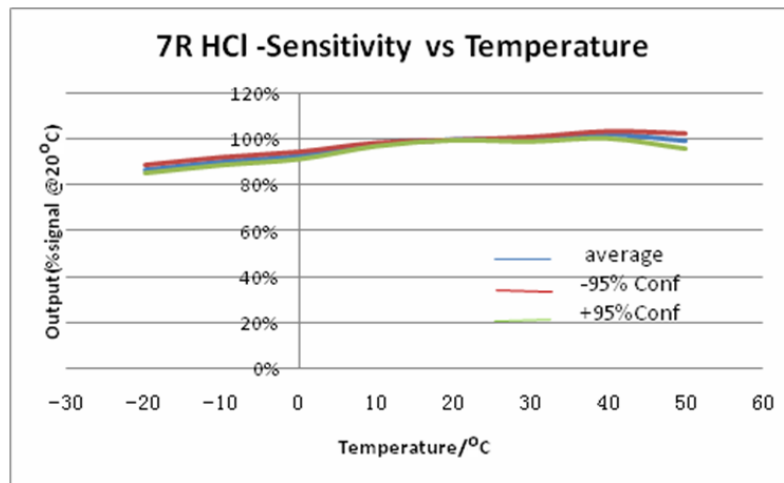
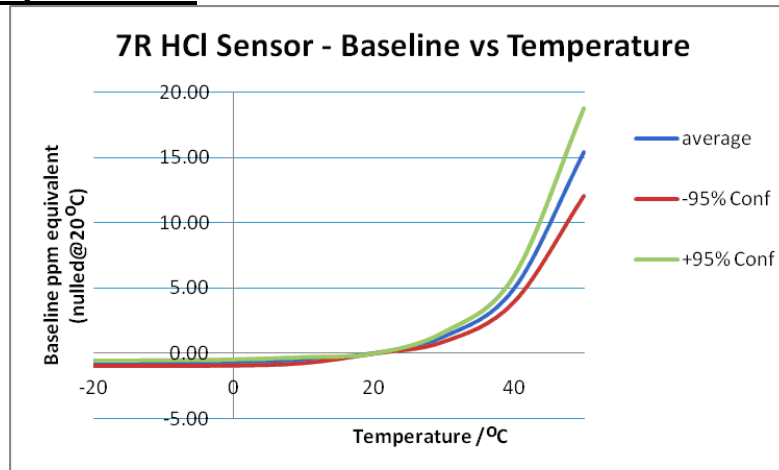
Outline Dimensions



All dimensions in mm
All tolerances ±0.2mm
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 (20 ° C)

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.