

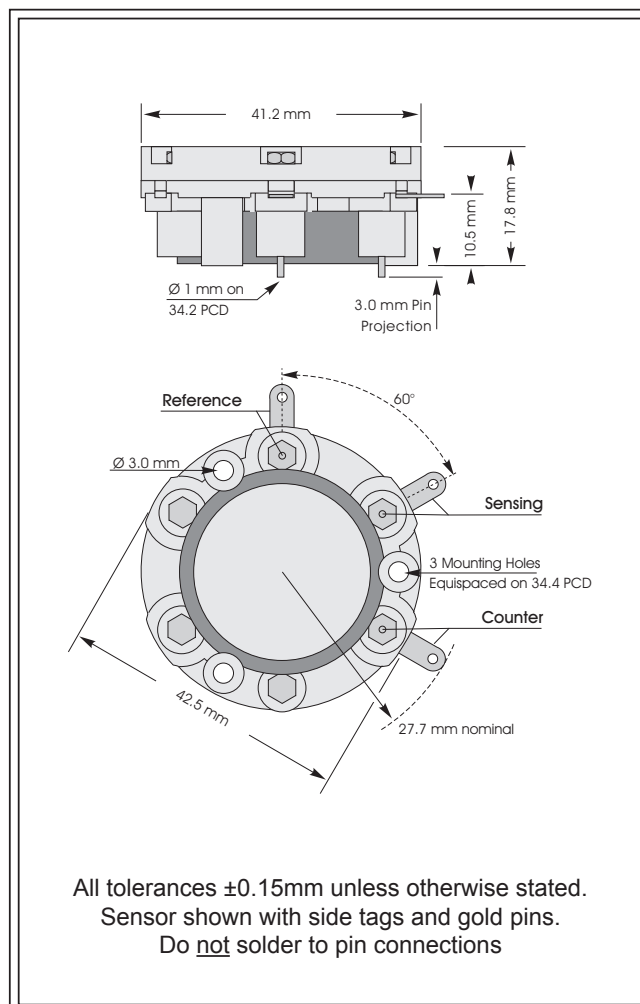


# 3HL CiTiceL<sup>®</sup>

## Performance Characteristics

<b>Nominal Range</b>	0-50ppm
<b>Maximum Overload</b>	100ppm
<b>Expected Operating Life</b>	Two years in air
<b>Output Signal</b>	0.75 ± 0.25 µA/ppm
<b>Resolution</b>	0.5ppm
<b>Temperature Range</b>	-20°C to +50°C
<b>Pressure Range</b>	Atmospheric ± 10%
<b>Pressure Coefficient</b>	No data
<b>T<sub>90</sub> Response Time</b>	≤120 seconds (typically 100)
<b>Relative Humidity Range</b>	15 to 90% non-condensing
<b>Typical Baseline Range (pure air)</b>	0 to +1ppm equivalent
<b>Maximum Zero Shift (+20°C to +40°C)</b>	1.5ppm equivalent
<b>Long Term Output Drift</b>	<2% signal loss/month
<b>Recommended Load Resistor</b>	33Ω
<b>Bias Voltage</b>	+300mV
<b>Repeatability</b>	2% of signal
<b>Output Linearity</b>	Linear

N.B. All performance data is based on conditions at 20°C, 50%RH, and 1013mBar



## Physical Characteristics

<b>Weight</b>	22g
<b>Position Sensitivity</b>	None
<b>Storage Life</b>	Six months in CTL container
<b>Recommended Storage Temperature</b>	0-20°C
<b>Warranty Period</b>	12 months from date of despatch

## Ordering Information

The 3HL Hydrogen Chloride CiTiceL is available with side tags, gold-plated PCB pins, or both PCB pins and side tags. To ensure the appropriate option is supplied care must be taken to provide the correct code when ordering.

- With side tag and PCB pin connections - **3HL**
- With side tag connection - **3HL(S)**
- With gold-plated PCB pin connection - **3HL(G)**



## Cross-sensitivity Data

CiTiceLs may exhibit a response to certain gases in a sample other than the target gas. 3HL CiTiceLs have been tested with a number of commonly cross-interfering gases and the results are given below. The table shows the typical response to be expected from a sensor when exposed to a given test gas concentration (relevant to safety, e.g. TLV levels).

<b>Gas</b>	<b>Conc.</b>	<b>3HL</b>	<b>Gas</b>	<b>Conc.</b>	<b>3HL</b>
<b>Carbon monoxide:</b>	300ppm	<3ppm	<b>Chlorine:</b>	1ppm	0ppm
<b>Hydrogen sulphide:</b>	15ppm	9ppm<x\$<30ppm	<b>Hydrogen:</b>	100ppm	<0.5ppm
<b>Sulphur dioxide:</b>	5ppm	2.5ppm<x\$<4ppm	<b>Hydrogen cyanide:</b>	10ppm	0ppm
<b>Nitric oxide:</b>	35ppm	0ppm	<b>Ethylene:</b>	100ppm	0ppm
<b>Nitrogen dioxide:</b>	5ppm	<1ppm			

\*\*For details of other possible cross-interfering gases contact City Technology.\*\*

### **SAFETY NOTE**

This sensor is designed to be used in safety critical applications. To ensure that the sensor and/or instrument in which it is used, are operating properly, it is a requirement that the function of the device is confirmed by exposure to target gas (bump check) before each use of the sensor and/or instrument. Failure to carry out such tests may jeopardize the safety of people and property.

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Performance characteristics on this data sheet outline the performance of newly supplied sensors. Output signal can drift below the lower limit over time.