



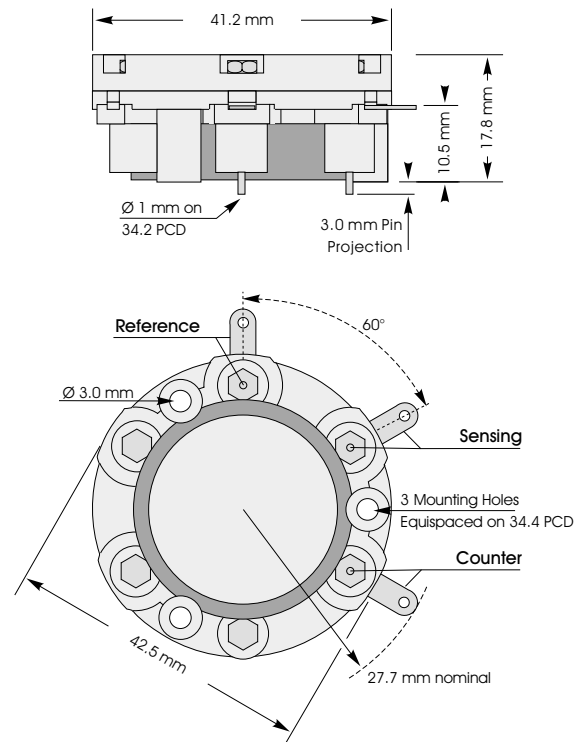
## 3H CiTiceL<sup>®</sup>

### Performance Characteristics

<b>Nominal Range</b>	0-200ppm
<b>Maximum Overload</b>	1000ppm
<b>Expected Operating Life</b>	Two years in air
<b>Output Signal</b>	$0.37 \pm 0.07 \mu\text{A/ppm}$
<b>Resolution</b>	0.25ppm
<b>Temperature Range</b>	-40°C to +50°C
<b>Pressure Range</b>	Atmospheric $\pm 10\%$
<b>Pressure Coefficient</b>	$0.008 \pm 0.002 \%$ signal/mBar
<b>T<sub>90</sub> Response Time</b>	$\leq 35$ seconds
<b>Relative Humidity Range</b>	15 to 90% non-condensing
<b>Typical Baseline Range (pure air)</b>	-0.6 to +1.9ppm equivalent
<b>Maximum Zero Shift (+20°C to +40°C)</b>	2ppm equivalent
<b>Long Term Output Drift</b>	<2% signal loss/month
<b>Recommended Load Resistor</b>	10 $\Omega$
<b>Bias Voltage</b>	Not required (See Application Note #7)
<b>Repeatability</b>	1% of signal
<b>Output Linearity</b>	Linear

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

### Outline Dimensions



All tolerances  $\pm 0.15\text{mm}$  unless otherwise stated.

Sensor shown with side tags and gold pins.

Do not solder to pin connections

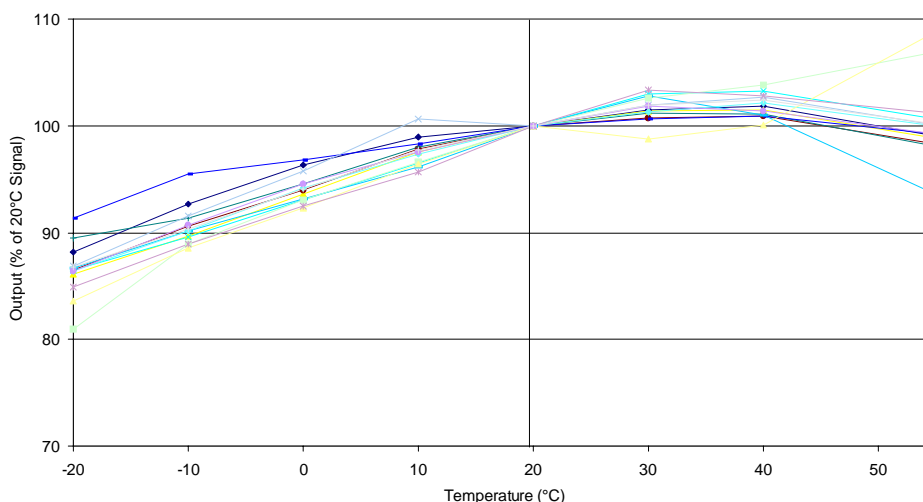
### Physical Characteristics

<b>Colour of Ring</b>	Dark Blue
<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 form date of despatch

# Hydrogen sulphide CiTiceL<sup>®</sup> Specification



## 3H Hydrogen Sulphide - Output vs Temperature



## Ordering Information

The 3H Hydrogen Sulphide 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.

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

## Cross-sensitivity Data

CiTiceLs may exhibit a response to certain gases in a sample other than the target gas. 3H 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).

<u>Gas</u>	<u>Conc.</u>	<u>3H</u>	<u>Gas</u>	<u>Conc.</u>	<u>3H</u>
<b>Carbon monoxide:</b>	300ppm	≤6ppm	<b>Hydrogen:</b>	10,000ppm	<15ppm
<b>Sulphur dioxide:</b>	5ppm	<1ppm	<b>Hydrogen cyanide:</b>	10ppm	-2<x\$<0ppm
<b>Nitric oxide:</b>	35ppm	0ppm	<b>Hydrogen chloride:</b>	5ppm	0ppm
<b>Nitrogen dioxide:</b>	5ppm	≈-1ppm	<b>Ethylene:</b>	100ppm	0ppm
<b>Chlorine:</b>	5ppm	-0.25<x\$<+0.25ppm			

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

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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.