3HYT CiTiceL®

Performance Characteristics

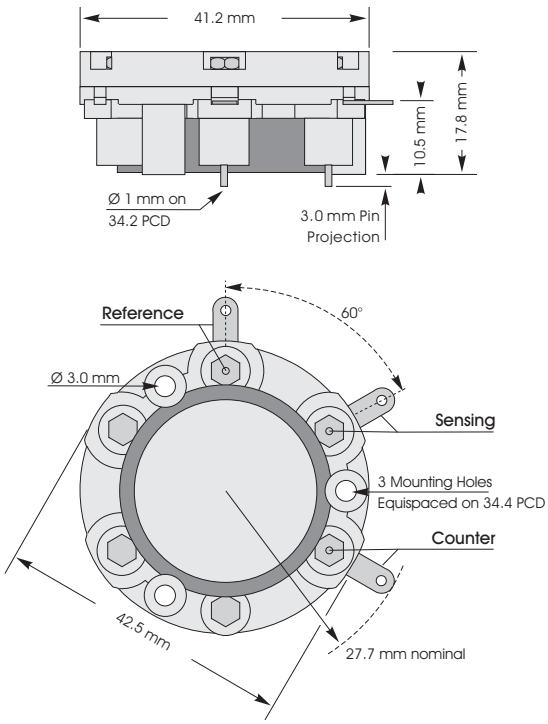
Nominal Range	0-1000ppm
Maximum Overload	2000ppm
Expected Operating Life	Two years in air
Output Signal	0.03 ± 0.01 µA/ppm
Resolution	2ppm
Temperature Range	-20°C to +50°C
Pressure Range	Atmospheric ± 10%
Pressure Coefficient	0.009 ± 0.003 % signal/mBar
T_{90} Response Time	≤50 seconds
Relative Humidity Range	15 to 90% non-condensing
Typical Baseline Range (pure air)	0 to -15ppm equivalent
Maximum Zero Shift (+20°C to +40°C)	-35ppm equivalent
Long Term Output Drift	<2% signal loss/month
Recommended Load Resistor	10 Ω
Bias Voltage	Not required
Repeatability	2% of signal
Output Linearity	Linear

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

Physical Characteristics

Colour of Ring	Yellow
Weight	22g
Position Sensitivity	None
Storage Life	Six months in CTL container
Recommended Storage Temperature	0-20°C
Warranty Period	12 months from date of despatch

Outline Dimensions



All tolerances ±0.15mm unless otherwise stated.

Sensor shown with side tags and gold pins.

Do not solder to pin connections

Ordering Information

The 3HYT Hydrogen 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 - **3HYT**
With side tag connection - **3HYT(S)**
With gold-plated PCB pin connection - **3HYT(G)**

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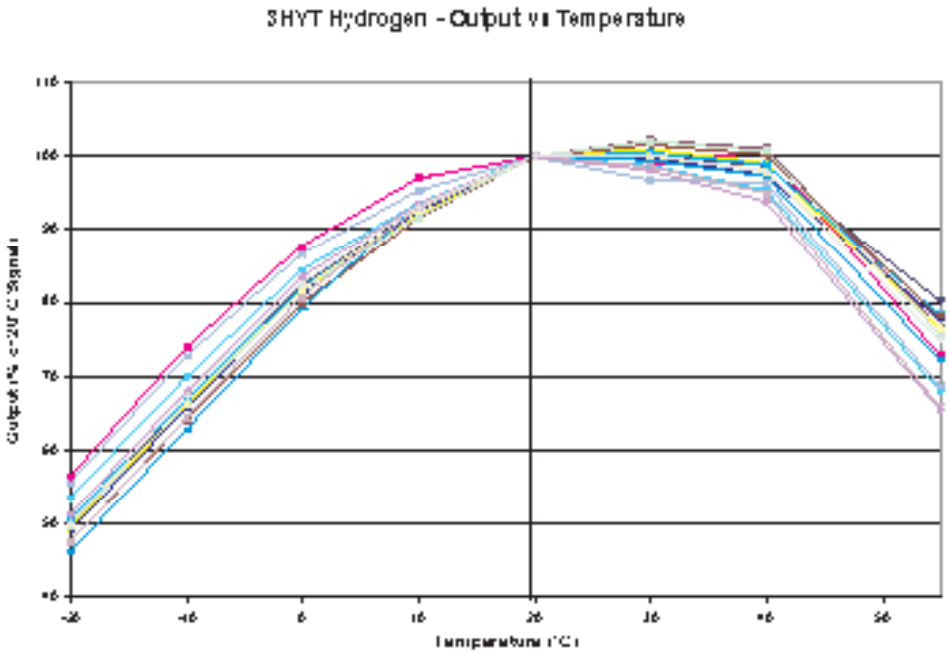

Cross-sensitivity Data

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

Gas	Conc.	3HYT	Gas	Conc.	3HYT
Carbon monoxide:	300ppm	≤60ppm	**Chlorine:**	1ppm	0ppm
Hydrogen sulphide:	15ppm	<3ppm	**Hydrogen cyanide:**	10ppm	≈3ppm
Sulphur dioxide:	5ppm	0ppm	**Hydrogen chloride:**	5ppm	0ppm
Nitric oxide:	35ppm	≈10ppm	**Ethylene:**	100ppm	≈80ppm
Nitrogen dioxide:	5ppm	0ppm			

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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