



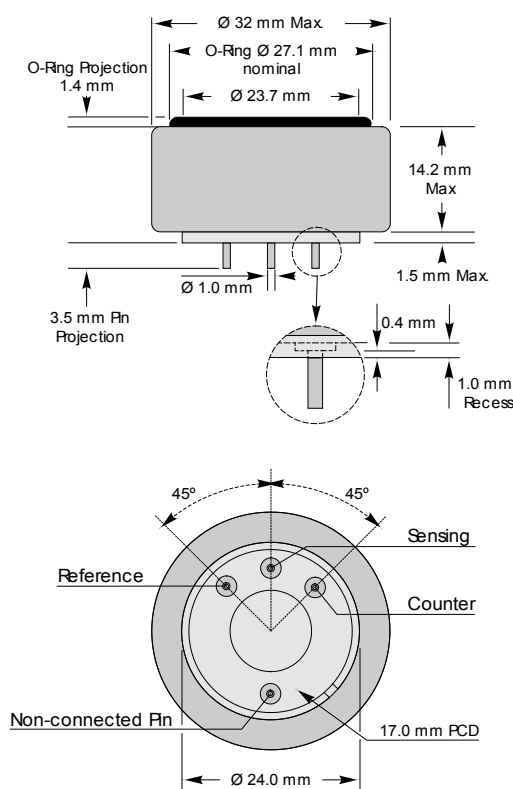
7HYE CiTiceL[®]

Performance Characteristics

Nominal Range	0-10 000 ppm
Maximum Overload	20 000 ppm
Expected Operating Life	Two years in air
Output Signal	0.003 ± 0.001 µA/ppm
Resolution	10 ppm
Temperature Range	-20°C to +50°C
Pressure Range	Atmospheric ± 10%
Pressure Coefficient	0.006 % signal/mBar
T₉₀ Response Time	<110 seconds
Relative Humidity Range	15 to 90% non-condensing
Typical Baseline Range (pure air)	+25 to -150 ppm equivalent
Maximum Zero Shift (+20°C to +40°C)	-150 ppm 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 1013 mBar

Outline Dimensions



All tolerances ±0.15 mm unless otherwise stated.
Do not solder to pin connections

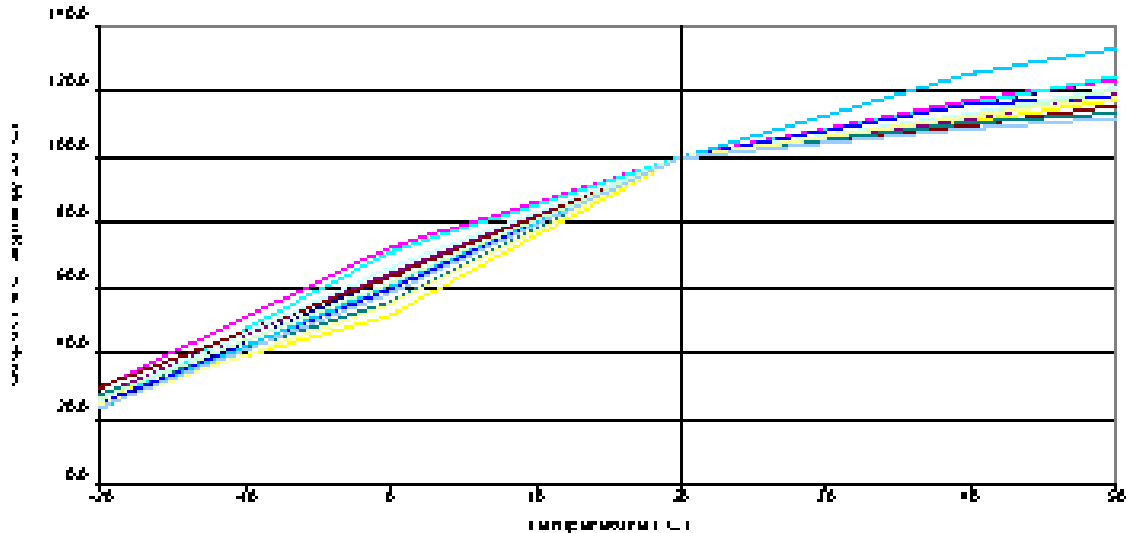
Physical Characteristics

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

IMPORTANT NOTE: Connection should be made via PCB sockets only. Soldering to the pins will render your warranty void.



The data below has been measured via changing the temperature of the sensor and gas in an environmental chamber. When the sensor is held at room temperature and only the gas temperature changed the effect may be



Cross-sensitivity Data

CiTiceLs may exhibit a response to certain gases in a sample other than the target gas. 7HYE 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.	7HYE	Gas	Conc.	7HYE
Carbon monoxide:	300ppm	<120ppm	Chlorine:	1ppm	0ppm
Hydrogen sulphide:	15ppm	≈10ppm	Hydrogen cyanide:	10ppm	≈10ppm
Sulphur dioxide:	5ppm	0ppm	Hydrogen chloride:	5ppm	0ppm
Nitric oxide:	35ppm	<10ppm	Ethylene:	100ppm	≈40ppm
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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Performance characteristics on this data sheet outline the performance of newly supplied sensors. Output signal can drift below the lower limit over time.