Sulphur Dioxide CiTiceL® Specification

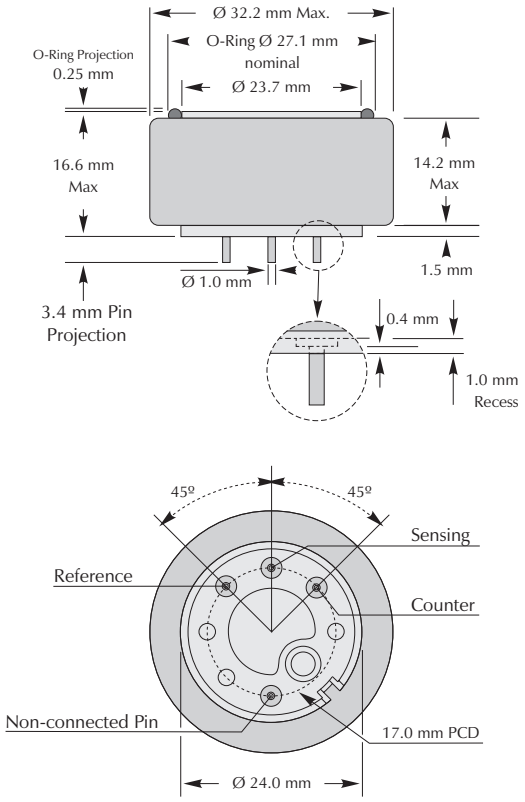
7SH Compact CiTiceL®

Performance Characteristics

Nominal Range	0-20 ppm
Maximum Overload	100 ppm
Expected Operating Life	Two years in air
Output Signal	1.25 ± 0.25 µA/ppm
Resolution	0.1 ppm
Temperature Range	-20°C to +50°C
Pressure Range	Atmospheric ± 10%
Pressure Coefficient	No data
T_{90} Response Time	≤15 seconds
Relative Humidity Range	15 to 90% non-condensing
Typical Baseline Range (pure air)	-0.1 to 0.2 ppm equivalent
Maximum Zero Shift (+20°C to +40°C)	0.1 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	17 g
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.

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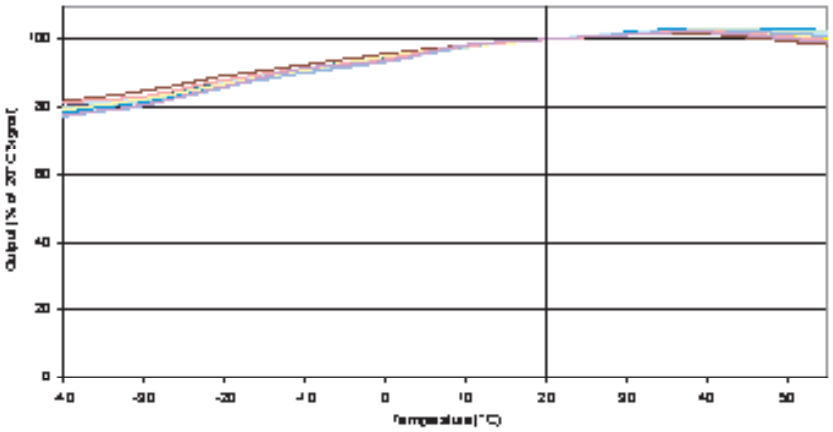
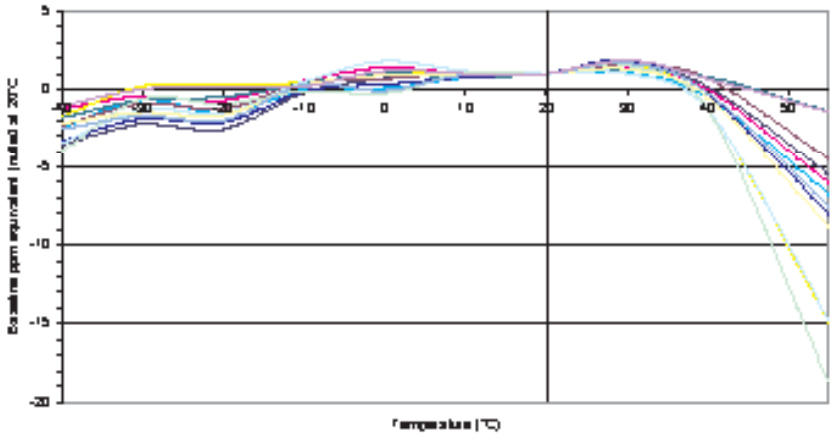
7SH Sulphur dioxide CiTiceL - Output vs Temperature



7SH Sulphur dioxide CiTiceL - Baseline vs Temperature



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Cross-sensitivity Data

CiTiceLs may exhibit a response to certain gases in a sample other than the target gas. 7SH 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.	7SH	Gas	Conc.	7SH
Carbon monoxide:	300ppm	≤3ppm	**Hydrogen:**	100ppm	0ppm
Hydrogen sulphide:	15ppm	≈20ppm	**Hydrogen cyanide:**	10ppm	≈5ppm
Nitric oxide:	35ppm	-1<x$<0ppm	**Hydrogen chloride:**	5ppm	≈1ppm
Nitrogen dioxide:	5ppm	≈-6ppm	**Ethylene:**	100ppm	0ppm
Chlorine:	1ppm	-0.5<x$<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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