

Carbon Monoxide Sensor Specification

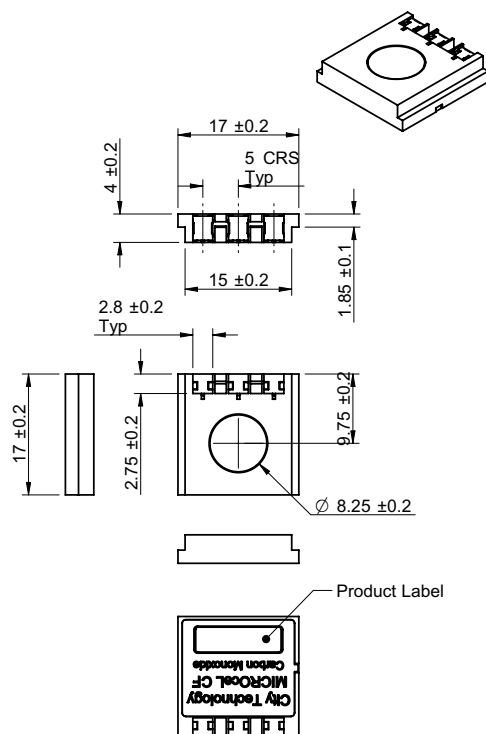
**MICROcel™ CF Miniature
Carbon Monoxide Sensor****Performance Characteristics**

Nominal Range	0-500ppm
Maximum Overload	1500ppm
Expected Operating Life	Two years in Air
Output Signal	0.045 ± 0.01 µA/ppm
Inboard Filter	To remove TLV levels of interfering gases
Resolution	1ppm
Temperature Range	-40°C to +50°C
Pressure Range	Atmospheric ± 10%
T50 Response Time	<10 seconds
T90 Response Time	15 to 20 seconds typically
Relative Humidity Range	15 to 90% non-condensing
Typical Baseline Range (pure air)	-4 to +2ppm equivalent
Maximum Zero Shift (+20°C to +40°C)	2ppm equivalent
Long Term Output Drift	<5% signal loss/year
Recommended Load Resistor	10Ω
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 unless otherwise noted.

Physical Characteristics

Weight	1.2g (approx.)
Position Sensitivity	None
Storage Life	Six months in CTL container
Recommended Storage Temperature	0°C to 20°C
Warranty Period	12 months from date of despatch

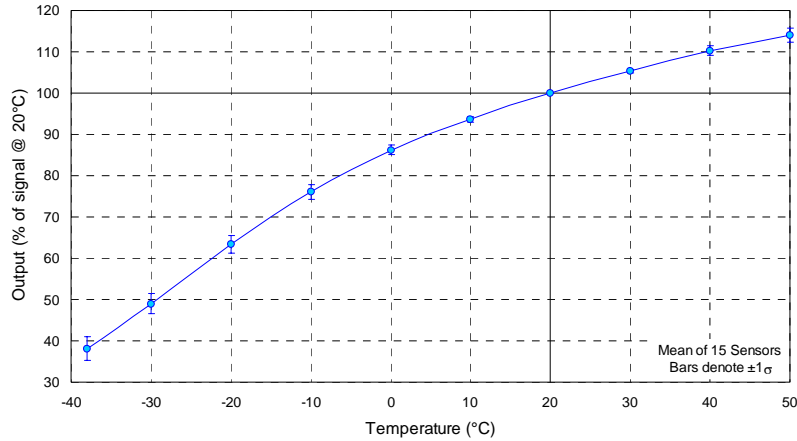
Outline Dimensions

All dimensions in mm

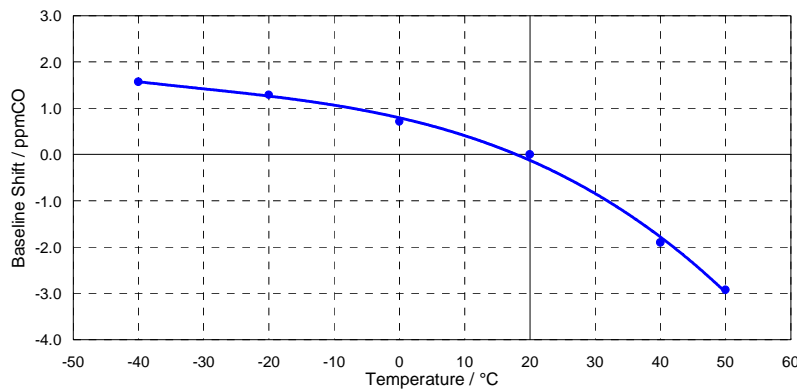
All tolerances ±0.15mm unless otherwise stated

Carbon Monoxide Sensor Specification

MICROcel™ CF Sensor - Output vs Temperature



Effect of Temperature on the Shift in Mean Air Baseline Signals of Microcel CF Sensors



Cross-sensitivity Data

CiTiceLs may exhibit a response to certain gases in a sample other than the target gas. MICROcel™CFs 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>MICROcel™CF</u>	<u>Gas</u>	<u>Conc.</u>	<u>MICROcel™CF</u>
Hydrogen sulphide:	15ppm	<0.5ppm	Chlorine:	1ppm	No data
Sulphur dioxide:	5ppm	±0.1ppm	Hydrogen :	100ppm	<40ppm
Nitric oxide:	35ppm	<6ppm	Ethylene:	100ppm	No data
Nitrogen dioxide:	20ppm	±1ppm	Ethanol:	200ppm	±1.0ppm

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

Every effort has been made to ensure the accuracy of this document at the time of printing. In accordance with the company's policy of continued product improvement City Technology Limited reserves the right to make product changes without notice. No liability is accepted for any consequential losses, injury or damage resulting from the use of this document or from any omissions or errors herein. The data is given for guidance only. It does not constitute a specification or an offer for sale. The products are always subject to a programme of improvement and testing which may result in some changes in the characteristics quoted. As the products may be used by the client in circumstances beyond the knowledge and control of City Technology Limited, we cannot give any warranty as to the relevance of these particulars to an application. It is the clients' responsibility to carry out the necessary tests to determine the usefulness of the products and to ensure their safety of operation in a particular application. Performance characteristics on this data sheet outline the performance of newly supplied sensors. Output signal can drift below the lower limit over time.

