

MICROceL™ CF Miniature Carbon Monoxide Sensor

Performance Characteristics

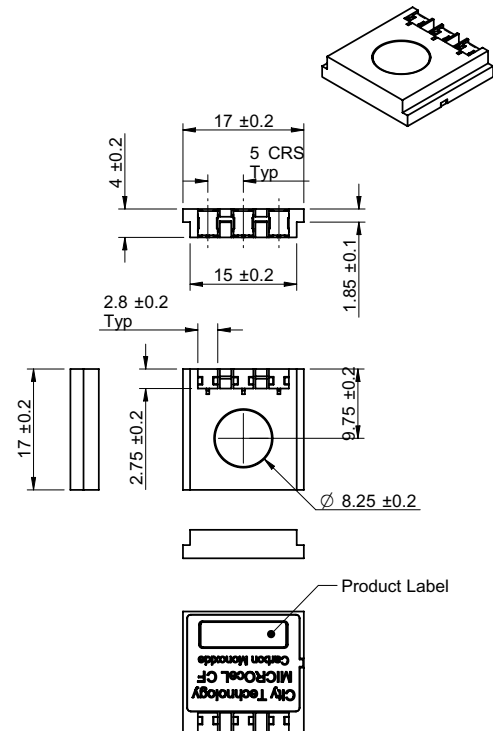
Nominal Range	0-500ppm
Maximum Overload	1500ppm
Expected Operating Life	Two years in Air
Output Signal	0.045 ± 0.01 µA/ppm
Inboard Filter	To remove TLV levels of interfering gases
Resolution	1ppm
Temperature Range	-40°C to +50°C
Pressure Range	Atmospheric ± 10%
T50 Response Time	<10 seconds
T90 Response 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



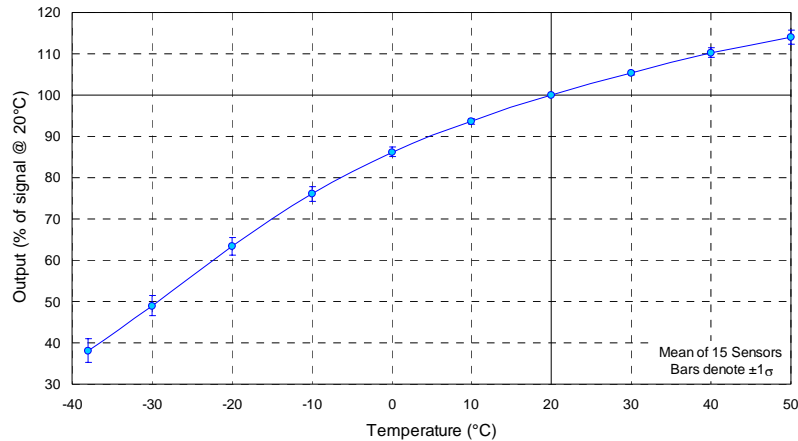
All dimensions in mm

All tolerances ±0.15mm unless otherwise stated

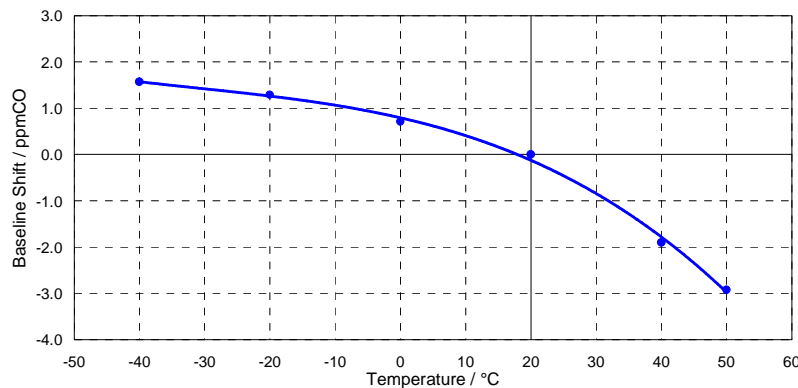
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MICROcel™ CF Sensor - Output vs Temperature



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).

Gas	Conc.	MICROcel™CF	Gas	Conc.	MICROcel™CF
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.

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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.