



Carbon monoxide CiTiceL[®] Specification

A7E CiTiceL

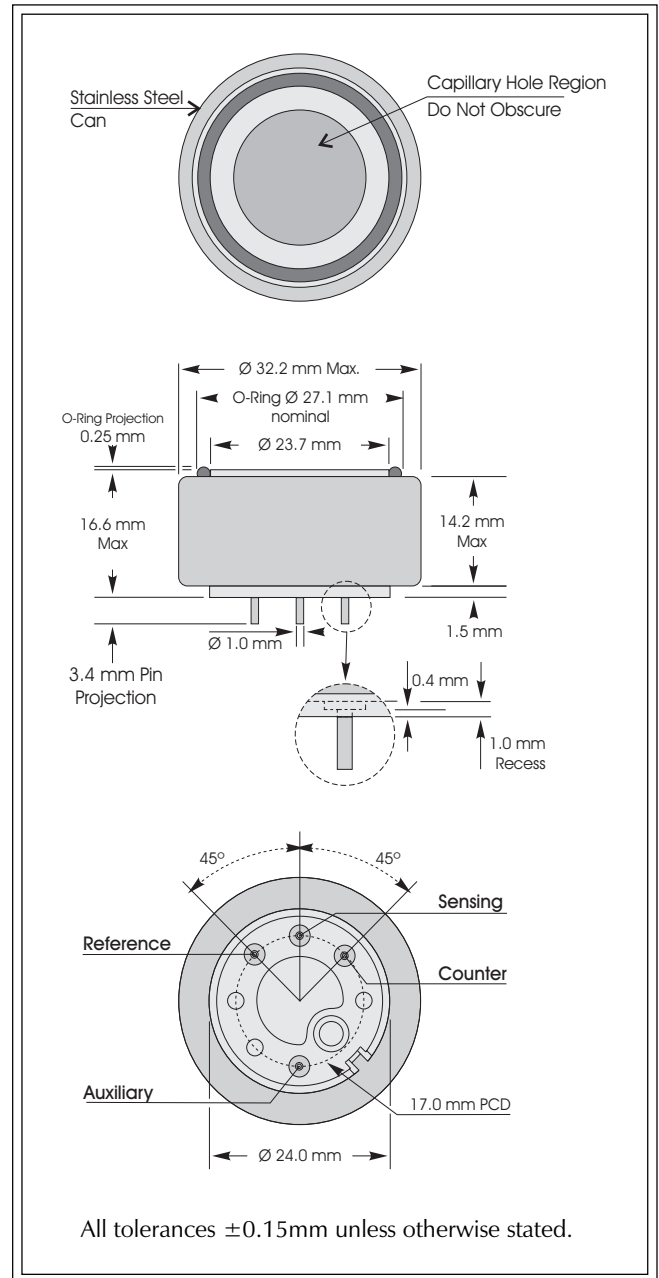
Performance Characteristics

Nominal Range	0-1000ppm
Maximum Overload	2000ppm
Auxiliary Electrode	To compensate for H ₂ cross-interference
Expected Operating Life	Three years in air
Output Signal	0.1 ± 0.02 μA/ppm
Resolution	0.5ppm
Temperature Range	-20°C to +50°C
Pressure Range	Atmospheric ± 10%
Pressure Coefficient	0.02% signal/mBar
T₉₀ Response Time	≤35 seconds
Relative Humidity Range	15 to 90% non-condensing
Typical Baseline Range (pure air)	-2 to +15ppm equivalent
Maximum Zero Shift (+20°C to +40°C)	No data
Long Term Output Drift	<5% signal loss/year
Recommended Load Resistor	10 Ω
Bias Voltage	0 or +250mV
Repeatability	<1% of signal
Output Linearity	Linear

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

Physical Characteristics

Weight	25g
Position Sensitivity	None
Storage Life	Six months in CTL container
Recommended Storage Temperature	0-20°C
Warranty Period	12 months from date of despatch

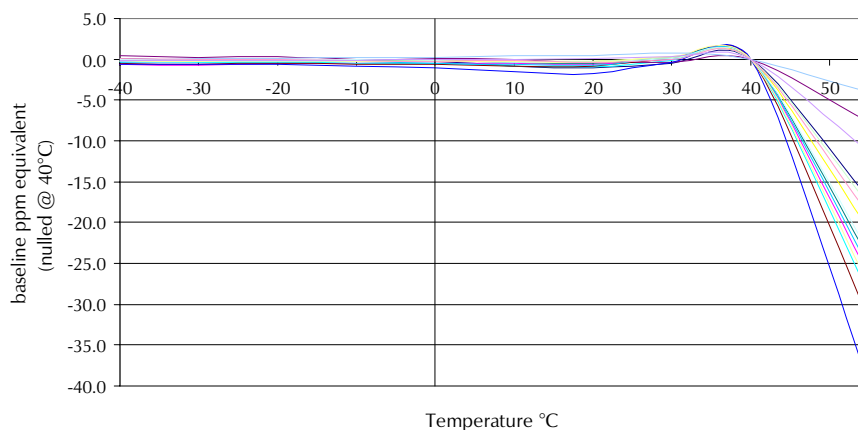


IMPORTANT NOTE: Connection should be made via PCB sockets only. Soldering to the pins will render your warranty void.

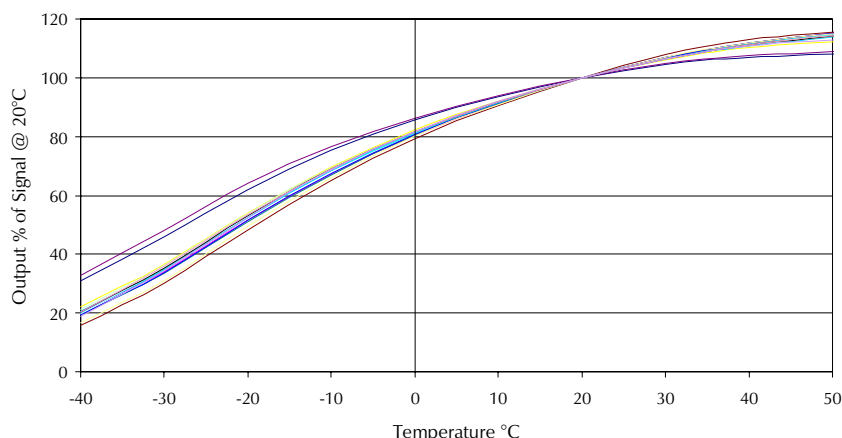


The A7E will have a similar temperature response to the A7E/F.

**A7E/F Carbon Monoxide CiTiceL Baseline Vs Temperature
assuming baseline nulled at 40°C**



A7E/F Carbon Monoxide CiTiceL - Output Vs Temperature



Cross-sensitivity Data

CiTiceLs may exhibit a response to certain gases in a sample other than the target gas. 7E 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).

The response of the A7E is expected to be similar to the 7E CiTiceL although some of the partially responding gases, e.g. NO, HCN, C₂H₄, may give lower cross-sensitivity.

Gas	Conc.	7E	Gas	Conc.	7E
Hydrogen sulphide:	15ppm	≈38ppm	Sulphur dioxide:	5ppm	≈3ppm
Nitric oxide:	35ppm	≈10ppm	Nitrogen dioxide:	5ppm	≈3ppm
Chlorine:	1ppm	≈-0.5ppm	Hydrogen cyanide:	10ppm	≈5ppm
Hydrogen chloride:	5ppm	0ppm	Ethylene:	100ppm	<100ppm

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

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Performance characteristics on this datasheet outline the performance of newly supplied sensors. Output signal can drift below the lower limit over time.