

Carbon monoxide CiTiceL[®] Specification



A7E/F CiTiceL[®]

N.B. For emissions monitoring applications use the A3E/F CiTiceL

Performance Characteristics

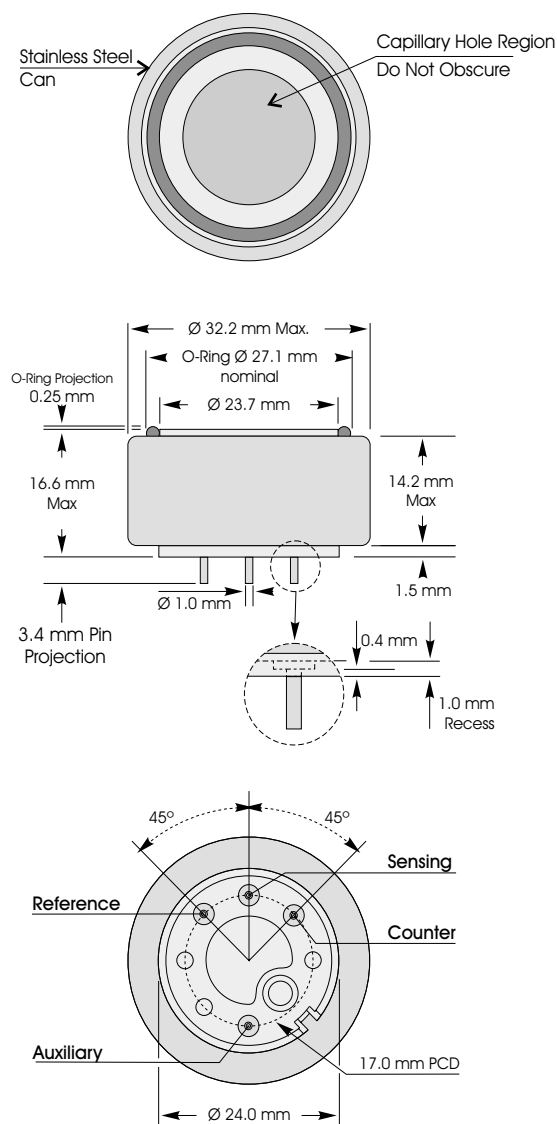
Nominal Range	0-1000ppm
Maximum Overload	2000ppm
Inboard Filter	To remove H ₂ S
Auxiliary Electrode	To compensate for H ₂ cross-interference
Expected Operating Life	Three years in air
Output Signal	0.1 ± 0.02 µA/ppm
Resolution	0.5ppm
Temperature Range	-20°C to +50°C
Pressure Range	Atmospheric ± 10%
Pressure 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

Outline Dimensions



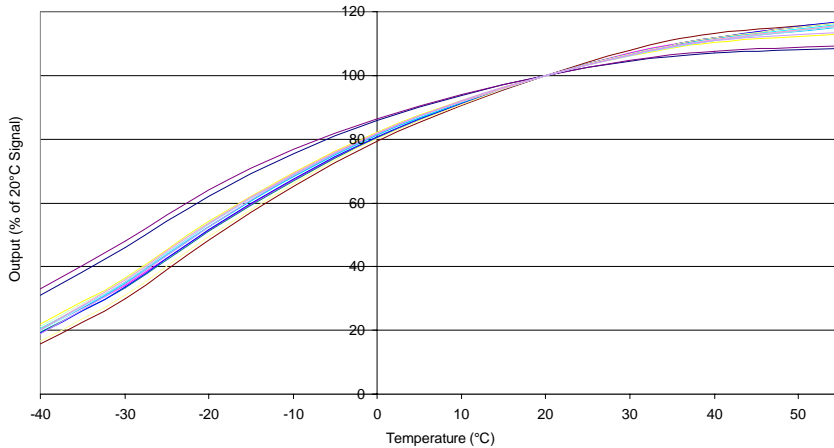
All tolerances ±0.15mm unless otherwise stated.

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

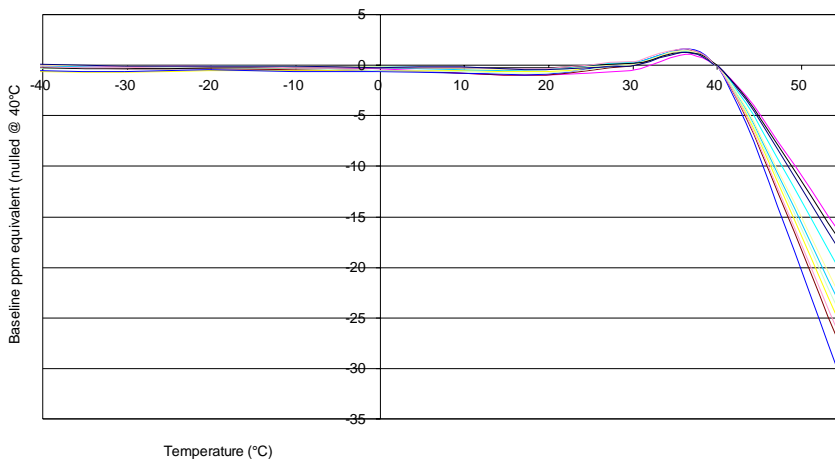
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A7E/F Carbon monoxide CiTiceL - Output vs Temperature



A7E/F Carbon Monoxide 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. A7E/F 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.	A7E/F	Gas	Conc.	A7E/F
Hydrogen sulphide:	15ppm	~1ppm	Hydrogen:	100ppm	0ppm
Sulphur dioxide:	5ppm	0ppm	Hydrogen cyanide:	10ppm	<2ppm
Nitric oxide:	35ppm	≤7ppm	Hydrogen chloride:	5ppm	0ppm
Nitrogen dioxide:	50ppm	-0.5<x\$<+1.0ppm	Ethylene:	100ppm	≤75ppm
Chlorine:	1ppm	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.