



Carbon monoxide CiTiceL[®] Specification

7E & 7E/F CiTiceLs

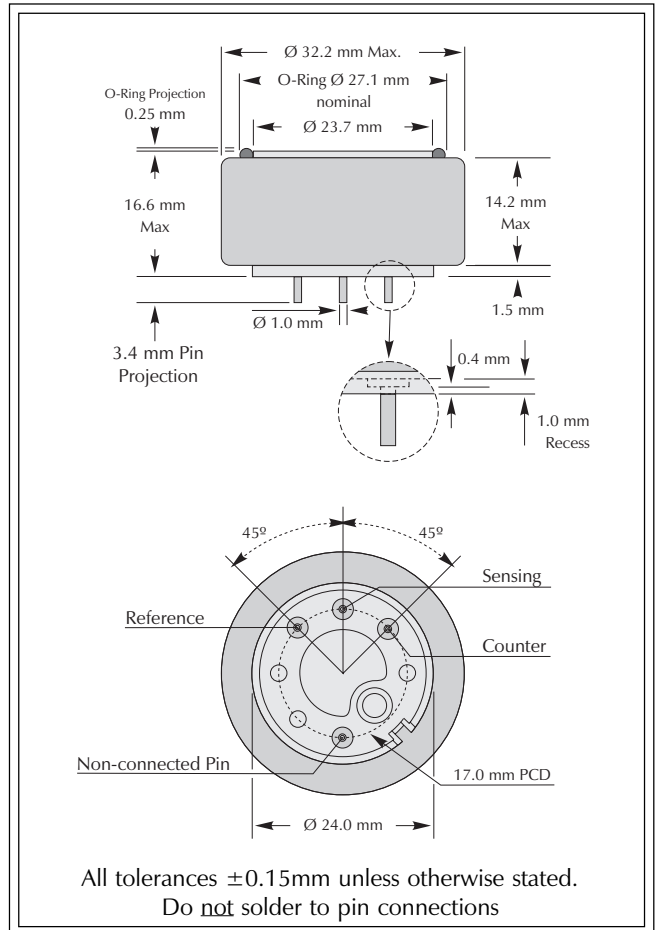
Performance Characteristics

Nominal Range	0-1000ppm
Maximum Overload	2000ppm
Inboard Filter (7E/F only)	To remove SO _x /NO _x & H ₂ S
Expected Operating Life	Three years in air
Output Signal	0.10 ± 0.02 μA/ppm
Resolution	0.5ppm
Temperature Range	-20°C to +50°C
Pressure Range	Atmospheric ± 10%
Pressure Coefficient	0.020 ± 0.008 %signal/mBar
T₉₀ Response Time	7E: ≤25 seconds 7E/F: ≤30 seconds
Relative Humidity Range	15 to 90% non-condensing
Typical Baseline Range (pure air)	-1 to +3ppm equivalent
Maximum Zero Shift (+20°C to +40°C)	9ppm equivalent
Long Term Output Drift	<5% signal loss/year
Recommended Load Resistor	10Ω
Bias Voltage	Not required
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	17g
Position Sensitivity	None
Storage Life	Six months in CTL container
Recommended Storage Temperature	0-20°C
Warranty Period	24 months from date of despatch (This amounts to a variation of condition 6 of our standard terms and conditions which otherwise apply)

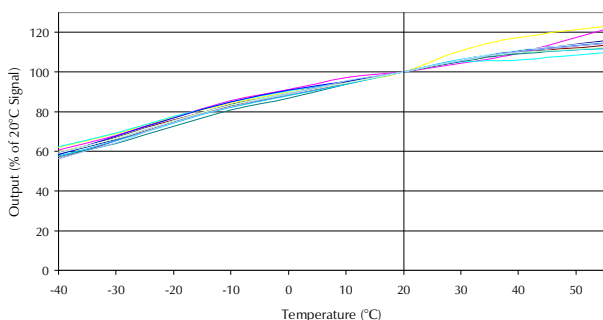


IMPORTANT NOTE: Connection should be made via PCB sockets only. Soldering to the pins will render your warranty void.

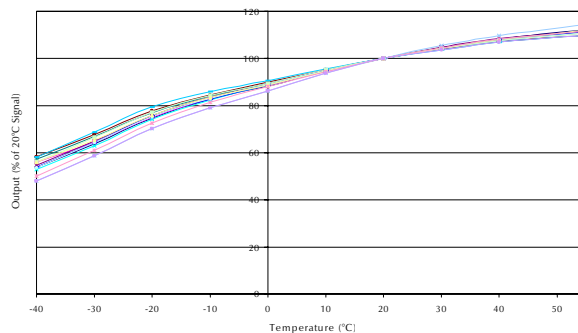
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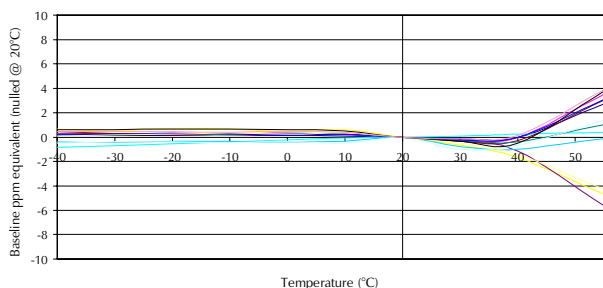
7E Carbon monoxide CiTiceL - Output vs Temperature



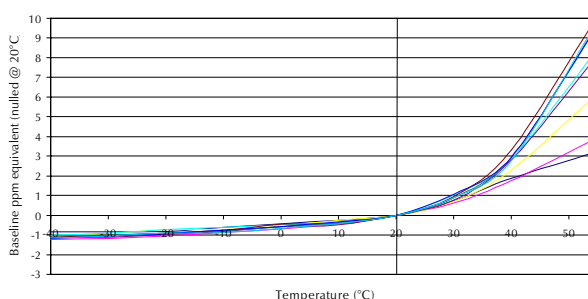
7E/F Carbon monoxide CiTiceL -Output vs Temperature



7E Carbon Monoxide CiTiceL - Baseline vs Temperature



7E/F Carbon Monoxide CiTiceL - Baseline vs Temperature



Cross-sensitivity Data

CiTiceLs may exhibit a response to certain gases in a sample other than the target gas. 7E and 7E/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.	7E	Gas	Conc.	7E/F
Hydrogen sulphide:	15ppm	≈38ppm	Hydrogen sulphide:	15ppm	<0.3ppm
Sulphur dioxide:	5ppm	≈3ppm	Sulphur dioxide:	5ppm	0ppm
Nitric oxide:	35ppm	≈10ppm	Nitric oxide:	35ppm	≤7ppm
Nitrogen dioxide:	5ppm	≈-3ppm	Nitrogen dioxide:	5ppm	-1ppm ≤x≤ 0ppm
Chlorine:	1ppm	≈-0.5ppm	Chlorine:	1ppm	0ppm
Hydrogen:	100ppm	<60ppm	Hydrogen:	100ppm	<60ppm
Hydrogen cyanide:	10ppm	≈5ppm	Hydrogen cyanide:	10ppm	<2ppm
Hydrogen chloride:	5ppm	0ppm	Hydrogen chloride:	5ppm	0ppm
Ethylene:	100ppm	<100ppm	Ethylene:	100ppm	≤100ppm
			Ethanol:	200ppm	0ppm

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.