



**7E & 7E/F CiTiceLs**

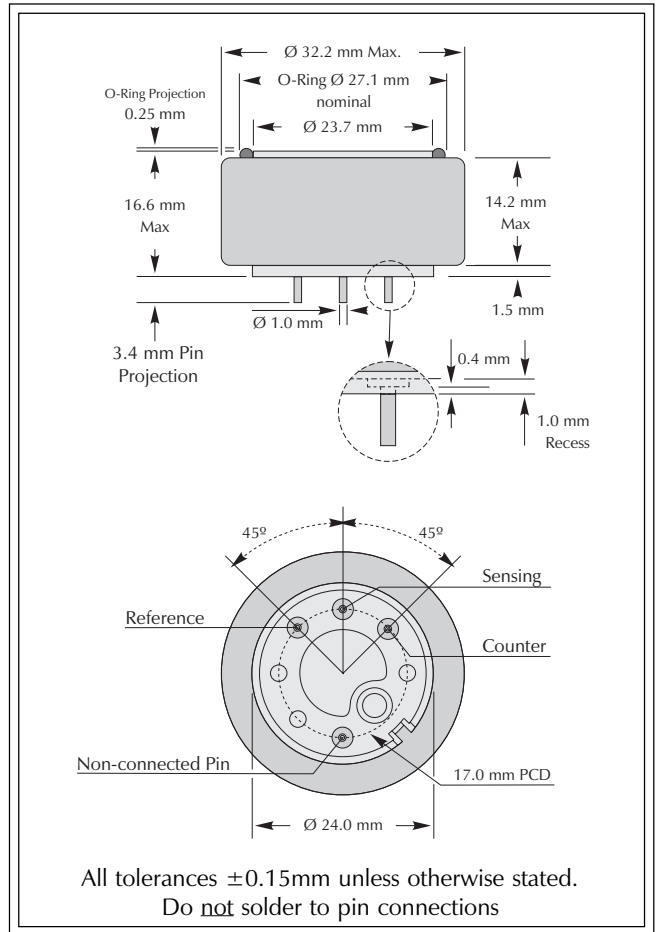
**Performance Characteristics**

<b>Nominal Range</b>	0-1000ppm
<b>Maximum Overload</b>	2000ppm
<b>Inboard Filter (7E/F only)</b>	To remove SO <sub>x</sub> /NO <sub>x</sub> & H <sub>2</sub> S
<b>Expected Operating Life</b>	Three years in air
<b>Output Signal</b>	0.10 ± 0.02 µA/ppm
<b>Resolution</b>	0.5ppm
<b>Temperature Range</b>	-20°C to +50°C
<b>Pressure Range</b>	Atmospheric ± 10%
<b>Pressure Coefficient</b>	0.020 ± 0.008 %signal/mBar
<b>T<sub>90</sub> Response Time</b>	7E: ≤25 seconds 7E/F: ≤30 seconds
<b>Relative Humidity Range</b>	15 to 90% non-condensing
<b>Typical Baseline Range (pure air)</b>	-1 to +3ppm equivalent
<b>Maximum Zero Shift (+20°C to +40°C)</b>	9ppm equivalent
<b>Long Term Output Drift</b>	<5% signal loss/year
<b>Recommended Load Resistor</b>	10Ω
<b>Bias Voltage</b>	Not required
<b>Repeatability</b>	1% of signal
<b>Output Linearity</b>	Linear

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

**Physical Characteristics**

<b>Weight</b>	17g
<b>Position Sensitivity</b>	None
<b>Storage Life</b>	Six months in CTL container
<b>Recommended Storage Temperature</b>	0-20°C
<b>Warranty Period</b>	24 months from date of despatch (This amounts to a variation of condition 6 of our standard terms and conditions which otherwise apply)

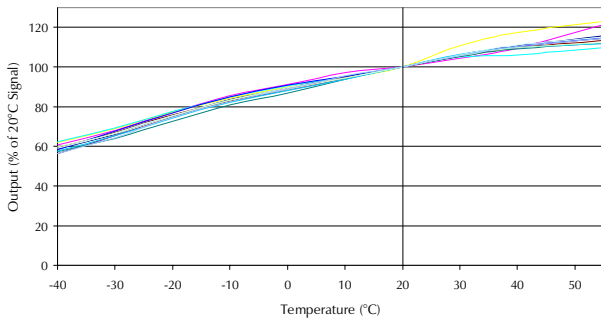


**IMPORTANT NOTE:** Connection should be made via PCB sockets only. Soldering to the pins will render your warranty void.

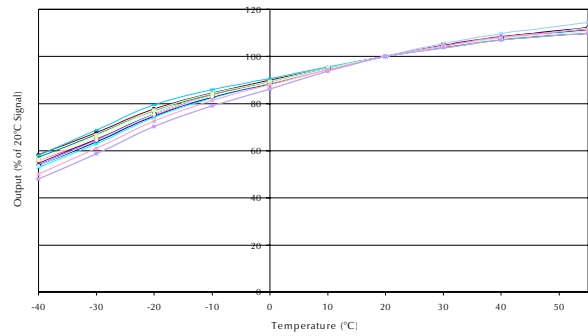
Doc. Ref.: 7E\_7EF.p65  
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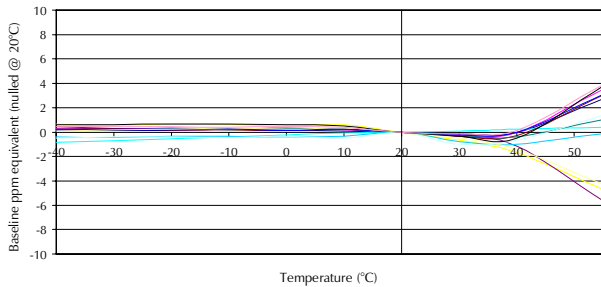
7E Carbon monoxide CiTiceL - Output vs Temperature



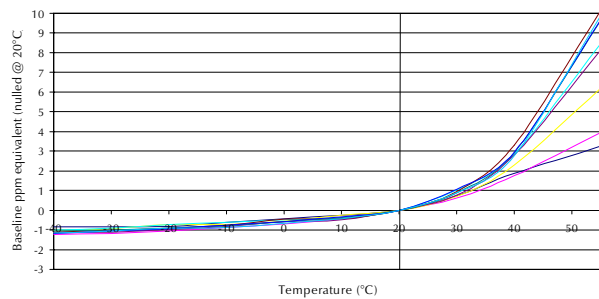
7E/F Carbon monoxide CiTiceL -Output vs Temperature



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
<b>Hydrogen sulphide:</b>	15ppm	≈38ppm	<b>Hydrogen sulphide:</b>	15ppm	<0.3ppm
<b>Sulphur dioxide:</b>	5ppm	≈3ppm	<b>Sulphur dioxide:</b>	5ppm	0ppm
<b>Nitric oxide:</b>	35ppm	≈10ppm	<b>Nitric oxide:</b>	35ppm	≤7ppm
<b>Nitrogen dioxide:</b>	5ppm	≈-3ppm	<b>Nitrogen dioxide:</b>	5ppm	-1ppm ≤x\$ ≤ 0ppm
<b>Chlorine:</b>	1ppm	≈-0.5ppm	<b>Chlorine:</b>	1ppm	0ppm
<b>Hydrogen:</b>	100ppm	<60ppm	<b>Hydrogen:</b>	100ppm	<60ppm
<b>Hydrogen cyanide:</b>	10ppm	≈5ppm	<b>Hydrogen cyanide:</b>	10ppm	<2ppm
<b>Hydrogen chloride:</b>	5ppm	0ppm	<b>Hydrogen chloride:</b>	5ppm	0ppm
<b>Ethylene:</b>	100ppm	<100ppm	<b>Ethylene:</b>	100ppm	≤100ppm
			<b>Ethanol:</b>	200ppm	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.