



3ME/F CiTiceL[®]

Standard mV Output CiTiceL[®]

Performance Characteristics

Sensor Type Used	3E/F
Expected Operating Life	Three years in air
Output Signal	1mV/ppm ($\pm 5\%$)
Maximum Range	0-2000ppm
Resolution	0.5ppm
Maximum Zero Output	0 \pm 1mV
Maximum Zero Shift (+20°C to +40°C)	3ppm equivalent
Temperature Range	-20°C to +50°C
Pressure Range	Atmospheric \pm 10%
Pressure Coefficient	0.02 %signal/mBar
T₉₀ Response Time	\leq 30 seconds
Relative Humidity Range	15 to 90% non-condensing
Long Term Output Drift	<5% of full signal/year
Repeatability	1% of signal
Output Linearity	Linear

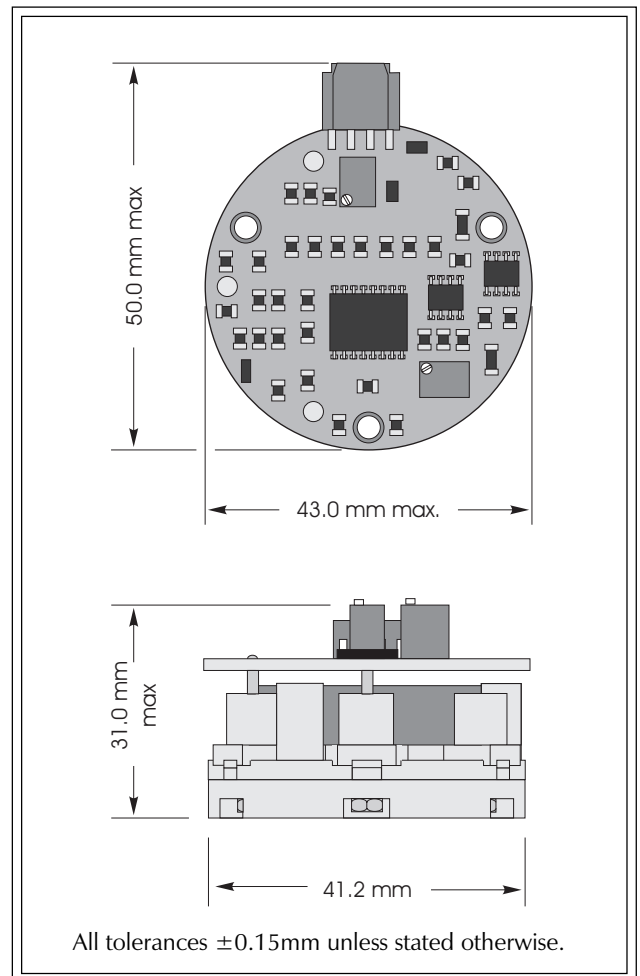
N.B. All performance data is based on conditions at 20°C, 50%RH, and 1013mBar

Physical Characteristics

Weight	38g (with connector)
Position Sensitivity	None
Storage Life	Six months in CTL container
Recommended Storage Temperature	0-20°C
Warranty Period	12 months from date of despatch

Electrical Properties

Power Supply Required	7 to 18V d.c. single ended or ± 3.5 to ± 9 V d.c. dual
Power Consumption	250 μ A @ 9V d.c.
Calibration	Via built-in span and zero potentiometers

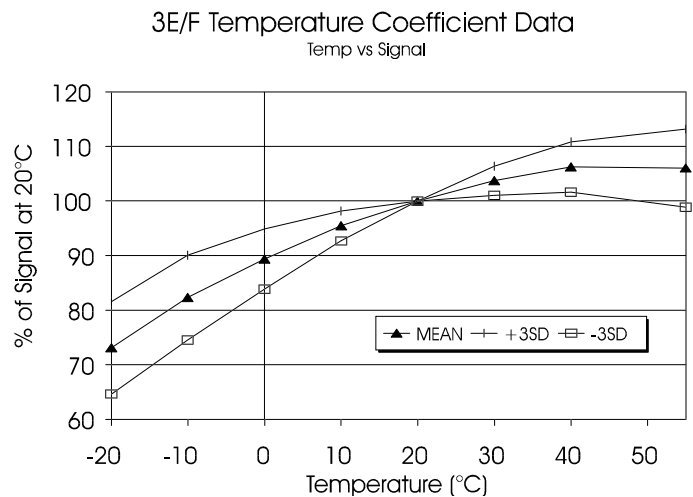




Temperature Dependence

The output of a CiTiceL can vary with temperature. The graph here shows the variation in output with temperature for 3E/F CiTiceLs based on a sample of about 16 sensors. The results are shown in the graph as a mean for the batch, and expressed as a percentage of the signal at 20°C.

From a statistical viewpoint, for a sample of this size, the range in values observed for all sensors of this type will fall within a range three times the standard deviation above or below the mean. Assuming therefore this sample is typical, then the temperature behaviour of all 3E/F CiTiceLs will fall in the band +3SD to -3SD.



Cross-sensitivity Data

CiTiceLs may exhibit a response to certain gases in a sample other than the target gas. 3E/F CiTiceLs have been tested with a number of common cross-interfering gases at concentrations relevant to safety applications (e.g. TLV levels). The concentrations used and typical response observed are given below.

Gas	Conc.	3E/F	Gas	Conc.	3E/F
Hydrogen sulphide:	15ppm	≈1ppm	Hydrogen:	100ppm	<60ppm
Sulphur dioxide:	5ppm	0ppm	Hydrogen cyanide:	10ppm	0ppm
Nitric oxide:	35ppm	<3.5ppm	Hydrogen chloride:	5ppm	0ppm
Nitrogen dioxide:	5ppm	0ppm	Ethylene:	100ppm	≤75ppm
Chlorine:	1ppm	0ppm	**For details of other possible cross-interfering gases contact City Technology.**		

Ordering Information

Standard mV CO CiTiceL MBE60-014

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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.