



A3ME/D mV Output CiTiceL

The A3E/D Carbon Monoxide CiTiceL is available with a precalibrated mV/ppm output, known as the A3ME/D. This option combines a standard A3E/D CiTiceL with a low power surface mount design printed circuit board to convert the micro-amp level signal.

Performance Characteristics

Sensor Type Used	A3E/D
Expected Operating Life	Two years in air
Output Signal	1mV/ppm (±5%)
Maximum Range	0-4000ppm
Inboard Filter	To remove acid gases
Auxiliary Electrode	To compensate for H ₂ cross-interference
Maximum Zero Output	0 ± 1mV
Maximum Zero Shift (+20°C to +40°C)	3ppm equivalent
Temperature Range	-20°C to +50°C
Pressure Range	Atmospheric ± 10%
Pressure Coefficient	0.02% signal/mBar
T₉₀ Response Time	<38 seconds
Relative Humidity Range	15 to 90% non-condensing
Long Term Output Drift	<2% of full signal/month
Repeatability	<1% of signal
Output Linearity	Linear

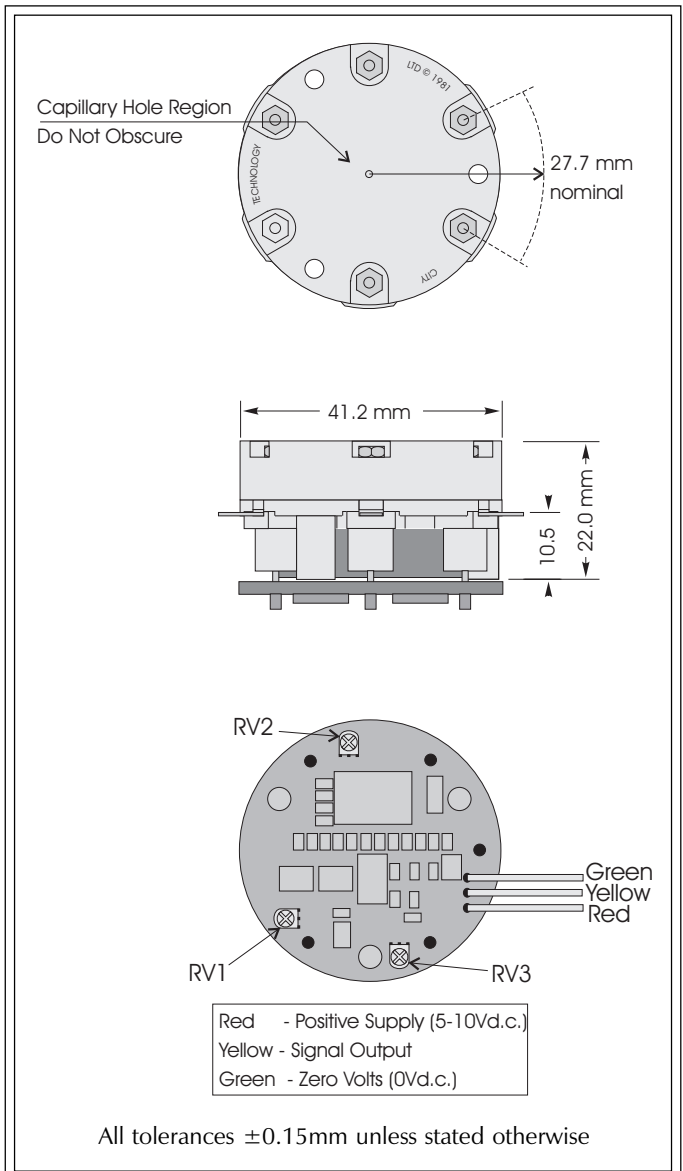
N.B. All performance data is based on conditions at 20°C, 50%RH, and 1013mBar

Physical Characteristics

Weight	34g (incl. leads)
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	Recommended 9V d.c. Limits 3-10V d.c.
Power Consumption	500 μA quiescent
Calibration	Via built-in span and zero potentiometers





Temperature Dependence

The output of a CiTiceL can vary with temperature. As the operation of the A3E/D CiTiceL is different to that of standard CiTiceLs, the temperature behaviour of these sensors is very different. It cannot therefore be represented in the standard graph format, but details can be obtained from City Technology.

Cross-sensitivity Data

CiTiceLs may exhibit a response to certain gases in a sample other than the target gas. The table below shows the typical response of A3E/D sensors to a number of common cross-interfering gases. The figures are expressed as a percentage of the primary sensitivity (i.e. carbon monoxide = 100%).

Gas	Response	Gas	Response
Hydrogen sulphide:	0	Hydrogen:	<1 (see note)
Sulphur dioxide:	0	Hydrogen chloride:	0
Nitric oxide:	0	Ethylene:	≈35
Nitrogen dioxide:	0	** For details of other possible cross-interfering gases contact City Technology.**	

Note: Cross-sensitivity to H₂ <1% after compensation

Ordering Information

mV Output A3E/D CiTiceL A3ME/D



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