



3M CiTiceL[®]

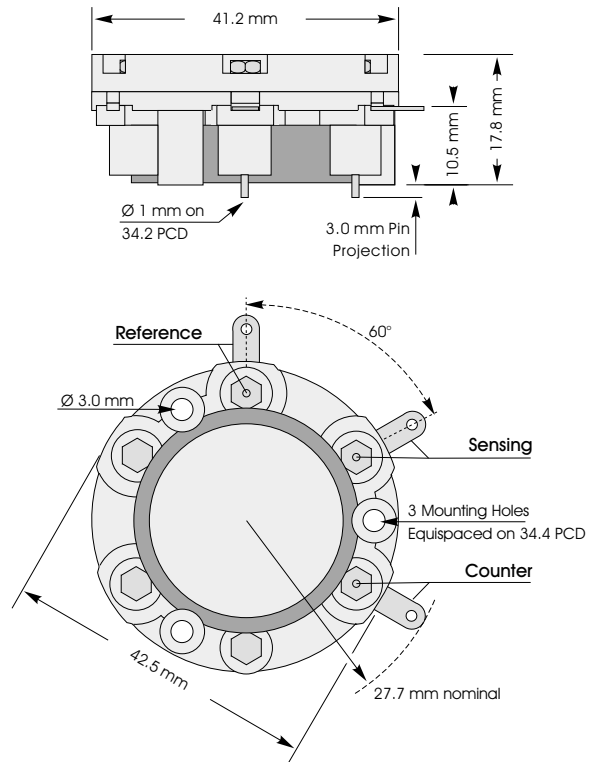


Performance Characteristics

Nominal Range	0-40 000ppm
Maximum Overload	100 000ppm
Expected Operating Life	Three years in air
Output Signal	0.007 ± 0.002 µA/ppm
Resolution	10ppm
Temperature Range	-20°C to +50°C
Pressure Range	Atmospheric ± 10%
Pressure Coefficient	No data
T₉₀ Response Time	<30 seconds
Relative Humidity Range	15 to 90% non-condensing
Typical Baseline Range (pure air)	-20 to +30ppm equivalent
Maximum Zero Shift (+20°C to +40°C)	200ppm equivalent
Long Term Output Drift	<2% signal loss/month
Recommended Load Resistor	10 Ω
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

Outline Dimensions



All tolerances ±0.15mm unless otherwise stated.
3M/F shown with side tags and gold pins.
Do not solder to pin connections.

Physical Characteristics

Colour of Ring	Red
Weight	22g
Position Sensitivity	None
Storage Life	Six months in CTL container
Recommended Storage Temperature	0-20°C
Warranty Period	12 months from date of despatch



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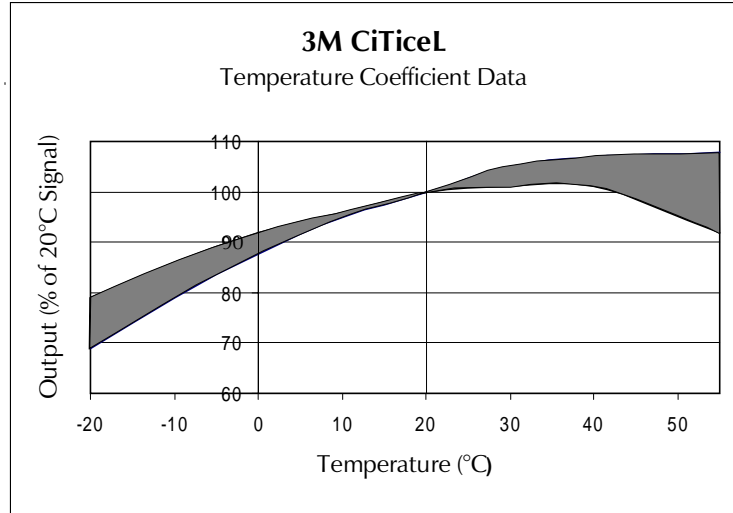
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Temperature Behaviour

The output of a 3M CiTiceL will vary slightly with gradual changes in temperature. The graph shows the behaviour of a batch of 20 sensors. Output was measured at a range of temperatures and expressed as a percentage of the signal at 20°C.

The shaded area indicates the range within which the signal of a particular 3M CiTiceL will fall at a given temperature.



Ordering Information

The 3M Carbon Monoxide CiTiceL is available with side tags, gold-plated PCB pins, or both PCB pins and side tags. To ensure the appropriate option is supplied care must be taken to provide the correct code when ordering.

Type 3M:- With side tag and PCB pin connections - **3M**
 With side tag connection - **3M(S)**
 With gold-plated PCB pin connection - **3M(G)**

Cross-sensitivity Data

CiTiceLs may exhibit a response to certain gases in a sample other than the target gas. (For applications where cross-interfering gases are present, the 3M/F CiTiceL is recommended). 3M CiTiceLs have been tested with some common cross-interfering gases at concentrations relevant to emissions applications. The table below details the concentrations used and the typical response observed. N.B. For applications where a hydrogen compensated output is required the A3E/D CiTiceL is recommended.

<u>Gas</u>	<u>Conc.</u>	<u>Response</u>	<u>Gas</u>	<u>Conc.</u>	<u>Response</u>
Hydrogen sulphide:	1000ppm	≈3500ppm	Hydrogen:	1000ppm	<1000ppm
Sulphur dioxide:	1000ppm	650ppm	Nitric oxide:	1000ppm	≈250ppm

** 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.