



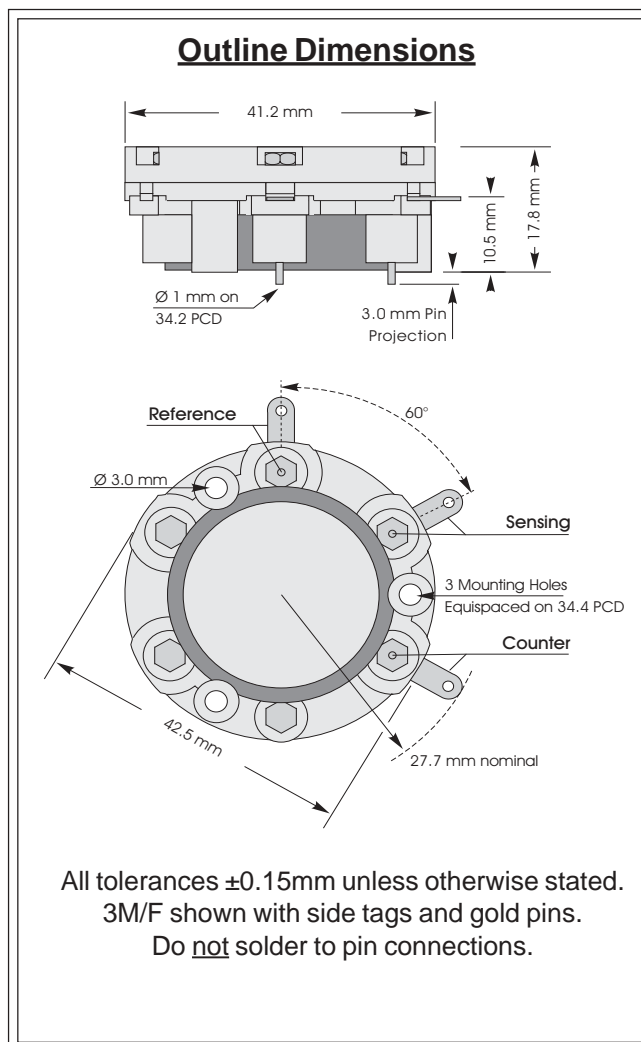
## 3M/F CiTiceL<sup>®</sup>

### Performance Characteristics

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

### Outline Dimensions



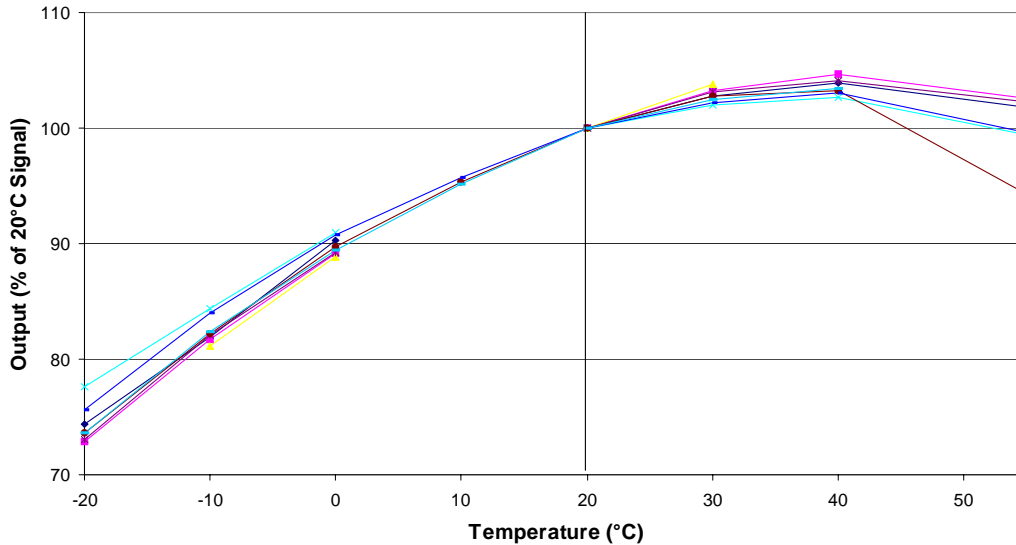
### Physical Characteristics

<b>Colour of Ring</b>	Red
<b>Weight</b>	22g
<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>	12 months from date of despatch

# Carbon Monoxide CiTiceL<sup>®</sup> Specification



## 3M/F Carbon Monoxide - Output vs Temperature



## Ordering Information

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

## Cross-sensitivity Data

CiTiceLs may exhibit a response to certain gases in a sample other than the target gas. 3M/F 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.

<u>Gas</u>	<u>Conc.</u>	<u>Response</u>	<u>Gas</u>	<u>Conc.</u>	<u>Response</u>
<b>Hydrogen sulphide:</b>	2000ppm	≈20ppm	<b>Hydrogen:</b>	2000ppm	1200<x\$<2800ppm <sup>1</sup>
<b>Sulphur dioxide:</b>	1000ppm	0ppm	<b>Hydrogen chloride:</b>	n/d	n/d
<b>Nitric oxide:</b>	1000ppm	0ppm	<b>Ethylene:</b>	n/d	n/d
<b>Nitrogen dioxide:</b>	n/d	n/d			

\*\* For details of other possible cross-interfering gases contact City Technology.\*\*

<sup>1</sup>For applications where a hydrogen compensated output is required the A3E/D CiTiceL should be used

n/d: No data, under investigation

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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.