



# 5MF CiTiceL<sup>®</sup>

## Performance Characteristics

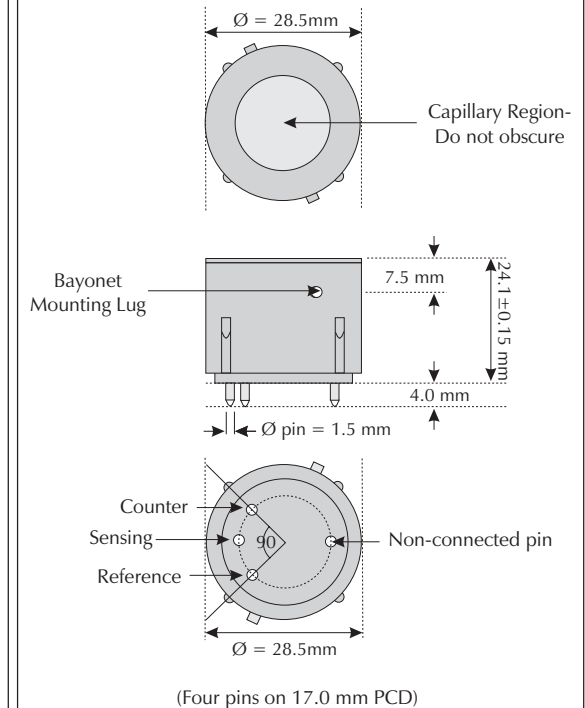
|  |   |
|--|---|
| <b>Nominal Range</b>                           | 0-40,000ppm                                     |
| <b>Maximum Overload</b>                        | 0-100,000ppm                                    |
| <b>Inboard Filter</b>                          | To remove acid gases                            |
| <b>Filter Life</b>                             | > 400,000 ppm hours<br>(1000ppm NO @ 200ml/min) |
| <b>Expected Operating Life</b>                 | Three years in air                              |
| <b>Output Signal</b>                           | 0.010 ± 0.004 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>                    | 0.007 ± 0.003 %signal/mBar                      |
| <b>T<sub>90</sub> Response Time</b>            | <40 seconds                                     |
| <b>Relative Humidity Range</b>                 | 15 to 90% non-condensing                        |
| <b>Typical Baseline Range<br/>(pure air)</b>   | -30 to +100ppm equivalent                       |
| <b>Maximum Zero Shift<br/>(+20°C to +40°C)</b> | -100ppm equivalent                              |
| <b>Long Term Output Drift</b>                  | <2% signal loss/month                           |
| <b>Recommended Load<br/>Resistor</b>           | 10Ω   |
| <b>Bias Voltage</b>                            | Not required                                    |
| <b>Repeatability</b>                           | 1% of signal                                    |
| <b>Output Linearity</b>                        | Linear  |
| <b>Colour Coding</b>                           | Red   |

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

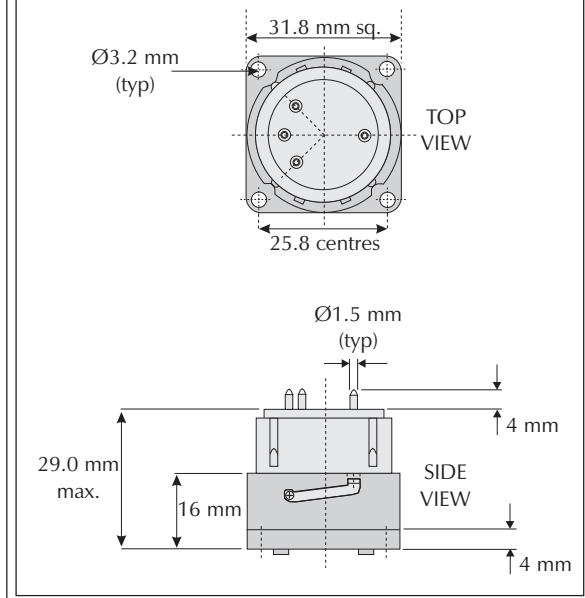
## Physical Characteristics

|  |                                    |
|--|------------------------------------|
| <b>Weight</b>                              | 12.5g                              |
| <b>Position Sensitivity</b>                | None                               |
| <b>Storage Life</b>                        | Six months in CTL<br>container     |
| <b>Recommended<br/>Storage Temperature</b> | 0-20°C                             |
| <b>Warranty Period</b>                     | 12 months from date of<br>despatch |

## Outline Sensor Dimensions



## With Bayonet Fitting

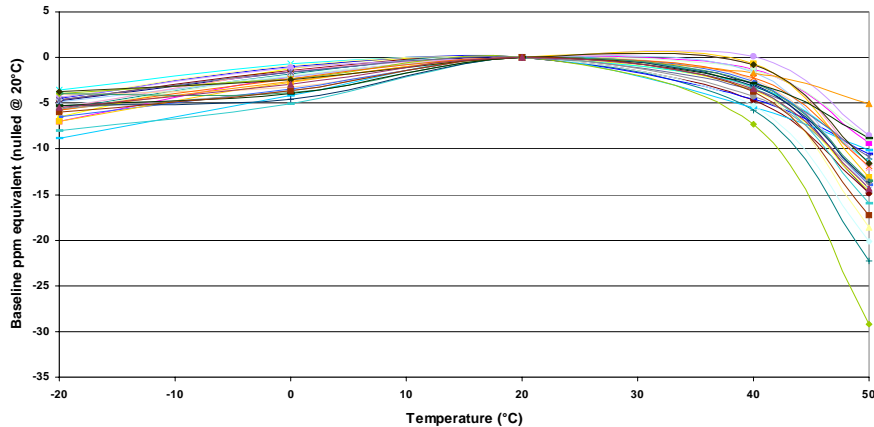


All tolerances ±0.15mm unless otherwise stated

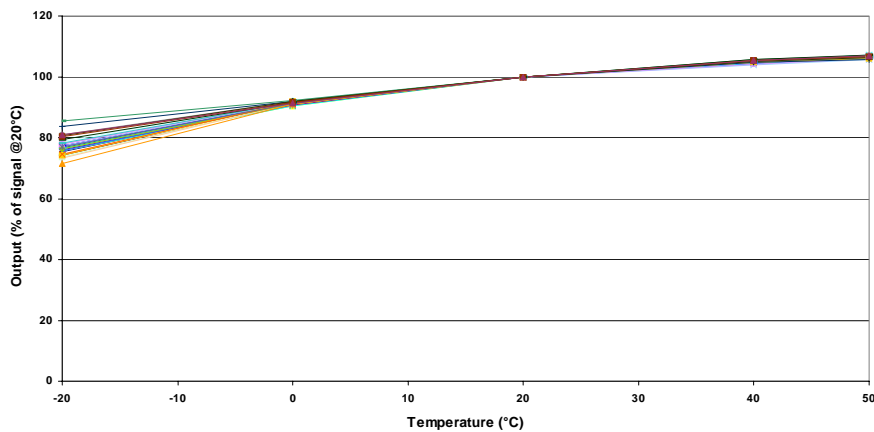
# Carbon Monoxide CiTiceL<sup>®</sup> Specification



5MF CiTiceL - Typical Baseline vs Temperature



5MF CiTiceL - Typical Output vs Temperature



## 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 5MF 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%).

| <u>Gas</u>         | <u>Response</u> | <u>Gas</u>         | <u>Response</u>  |
|--------------------|-----------------|--------------------|------------------|
| Hydrogen sulphide: | 0               | Hydrogen:          | <60 <sup>1</sup> |
| Sulphur dioxide:   | 0               | Hydrogen chloride: | 0                |
| Nitric oxide:      | 0               | Ethylene:          | <10              |
| Nitrogen dioxide:  | 0               |                    |                  |

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

<sup>1</sup>For applications where a hydrogen compensated output is required the A5F CiTiceL should be used

Every effort has been made to ensure the accuracy of this document at the time of printing. In accordance with the company's policy of continued product improvement City Technology Limited reserves the right to make product changes without notice. No liability is accepted for any consequential losses, injury or damage resulting from the use of this document or from any omissions or errors herein. The data is given for guidance only. It does not constitute a specification or an offer for sale. The products are always subject to a programme of improvement and testing which may result in some changes in the characteristics quoted. As the products may be used by the client in circumstances beyond the knowledge and control of City Technology Limited, we cannot give any warranty as to the relevance of these particulars to an application. It is the clients' responsibility to carry out the necessary tests to determine the usefulness of the products and to ensure their safety of operation in a particular application.

Performance characteristics on this data sheet outline the performance of newly supplied sensors. Output signal can drift below the lower limit over time.