

# Carbon Monoxide Specification

## 4CO Carbon Monoxide

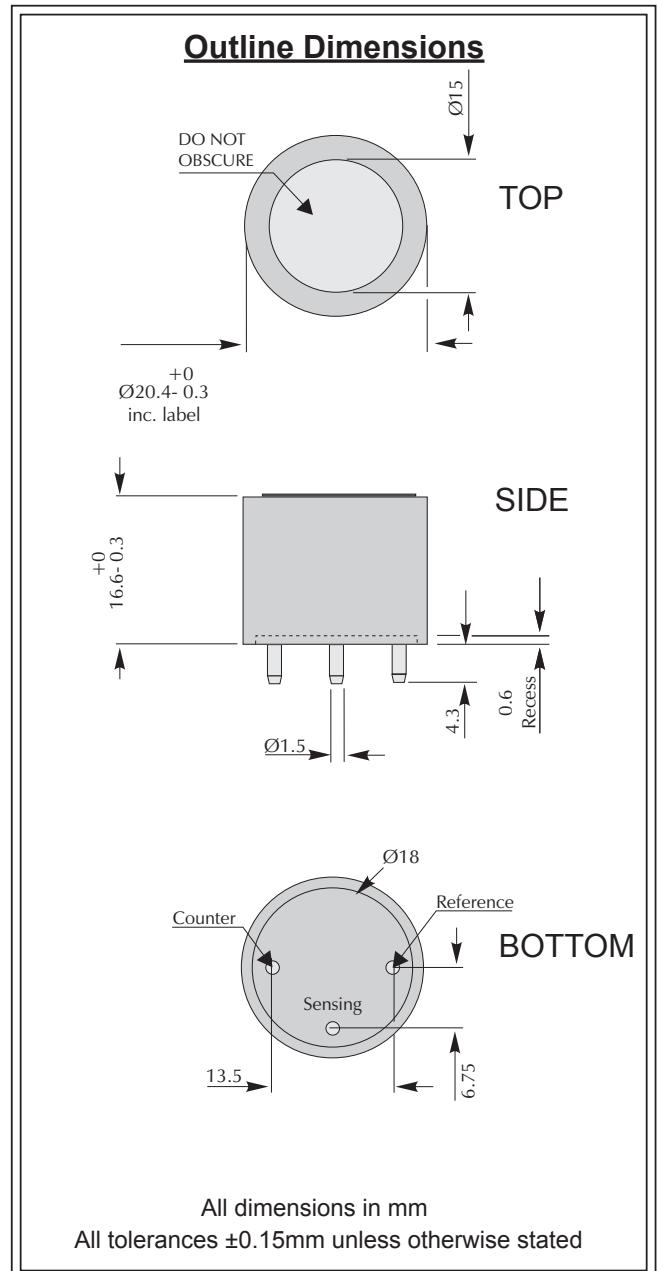
(unfiltered version)

Performance Characteristics	
<b>Nominal Range</b>	0-500 ppm
<b>Maximum Overload</b>	1500 ppm
<b>Expected Operating Life</b>	Two years in air
<b>Output Signal</b>	0.07 ± 0.015 µA/ppm
<b>Resolution</b>	1 ppm
<b>Temperature Range</b>	-20°C to +50°C
<b>Pressure Range</b>	Atmospheric ± 10%
<b>T<sub>90</sub> Response Time</b>	<25 seconds (Typically 14-16 seconds)
<b>T<sub>50</sub> Response Time</b>	Typically 6-7 seconds
<b>Relative Humidity Range</b>	15 to 90% non-condensing
<b>Typical Baseline Range (pure air)</b>	-2 to +3 ppm equivalent
<b>Maximum Zero Shift (+20°C to +40°C)</b>	9 ppm equivalent
<b>Long Term Output Drift</b>	<5% signal loss/year
<b>Recommended Load Resistor</b>	10 Ω
<b>Bias Voltage</b>	Not required
<b>Repeatability</b>	<2% of signal
<b>Output Linearity</b>	Linear

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

### Physical Characteristics

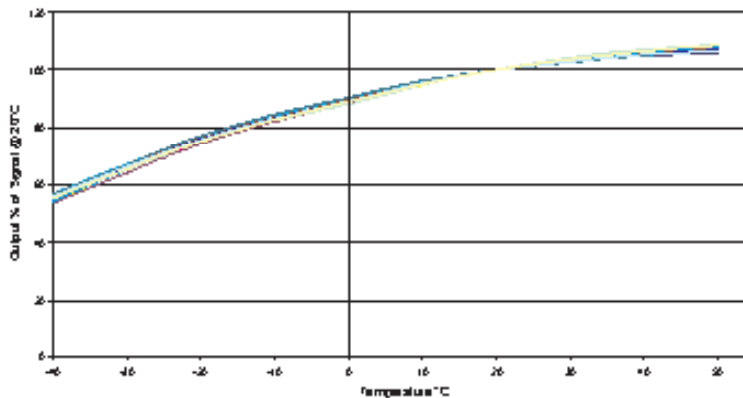
<b>Weight</b>	5 g (approx.)
<b>Position Sensitivity</b>	None
<b>Storage Life</b>	Six months in container
<b>Recommended Storage Temperature</b>	0-20°C
<b>Warranty Period</b>	24 months from date of despatch (This amounts to a variation of condition 6 of our standard terms and conditions which otherwise apply)



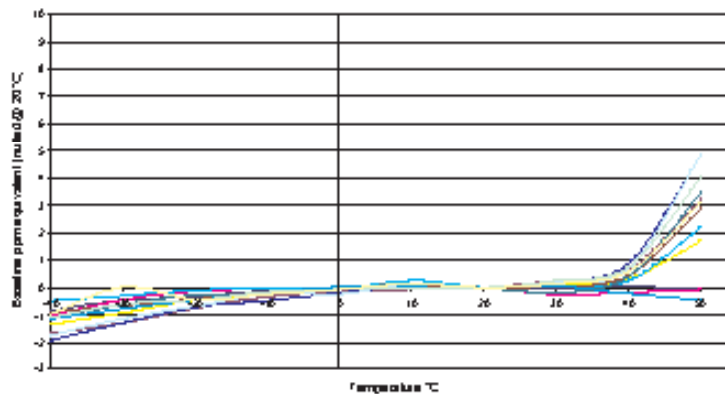
**IMPORTANT NOTE:** Connection should be made via PCB sockets only. Soldering to the pins will seriously damage your sensor.

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4CO Carbon Monoxide QITiceL - Output vs Temperature



4CO Carbon Monoxide QITiceL - Baseline vs Temperature



## Cross-sensitivity Data

Sensors may exhibit a response to certain gases in a sample other than the target gas. 4CO sensors have been tested with a number of commonly cross-interfering gases and the results are given below. The table shows the typical response to be expected from a sensor when exposed to a given test gas concentration (relevant to safety, e.g. TLV levels).

Gas	Conc.	4CO	Gas	Conc.	4CO
<b>Hydrogen sulphide:</b>	15ppm	≈45ppm	<b>Chlorine:</b>	1ppm	-1ppm ≤ x ≤ 0ppm
<b>Sulphur dioxide:</b>	5ppm	≈2.5ppm	<b>Hydrogen :</b>	100ppm	<40ppm
<b>Nitric oxide:</b>	35ppm	≈10ppm	<b>Nitrogen dioxide:</b>	5ppm	≈-3ppm

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

### SAFETY NOTE

This sensor is designed to be used in safety critical applications. To ensure that the sensor and/or instrument in which it is used, are operating properly, it is a requirement that the function of the device is confirmed by exposure to target gas (bump check) before each use of the sensor and/or instrument. Failure to carry out such tests may jeopardize the safety of people and property.

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, the manufacturer 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 the manufacturer, 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.