4COSH CiTiceL®

(Four electrode dual gas sensor)

Performance Characteristics

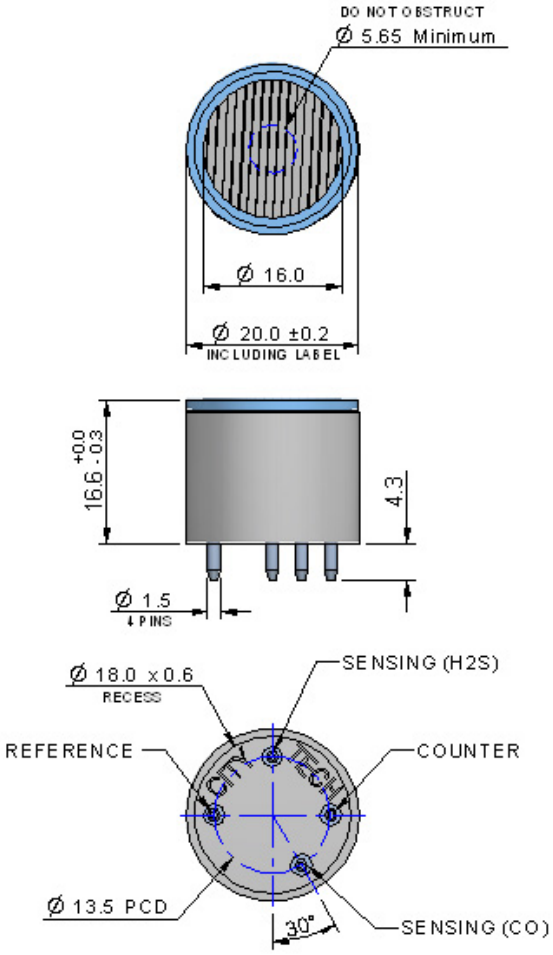
Nominal Range	For CO: 0-500 ppm For H_2S: 0-200 ppm
Maximum Overload	For CO: 1500 ppm For H_2S: 500 ppm
Expected Operating Life	Three years in air
Output Signal	For CO: 80 ± 30 nA / ppm For H_2S: 775 ± 275 nA / ppm
Resolution	For CO: ±1.0 ppm For H_2S: ±0.5 ppm
Temperature Range	-20°C to +50°C
Pressure Range	Atmospheric ± 10%
T_{90} Response Time	For CO: ≤35 seconds For H_2S: ≤35 seconds
Relative Humidity Range	15 to 90% non-condensing
Typical Baseline Range (ppm equiv.)	For CO: -2 to +3 ppm For H_2S: -0.4 to +0.4 ppm
Long Term Output Drift	<5% signal loss/year
Recommended Load Resistor	10 Ω
Bias Voltage	Not required
Repeatability	For CO: ≤3% of signal For H_2S: ≤2% of signal
Output Linearity	Linear

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

Physical Characteristics

Weight	5g approx.
Position Sensitivity	None
Storage Life	Six months in CTL container
Recommended Storage Temperature	0-20°C
Warranty Period	12 months from date of despatch

Product Dimensions



All dimensions in mm
All tolerances ±0.15 mm unless otherwise stated.

Dimensions are for indication purposes only. For further details, contact City Technology Ltd.

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

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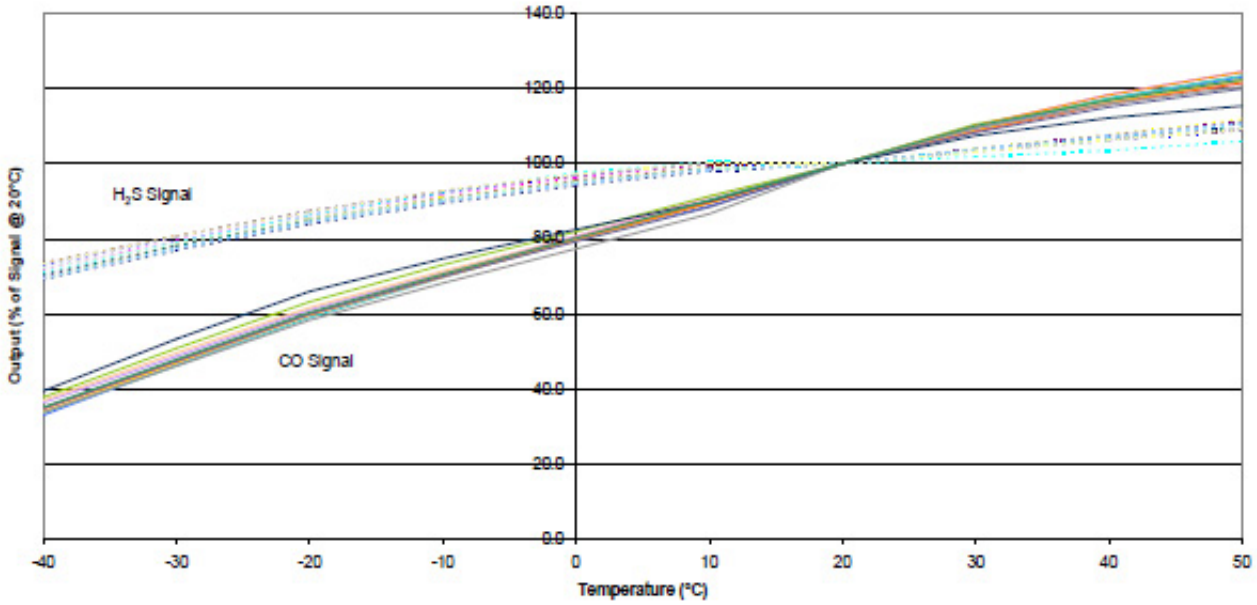
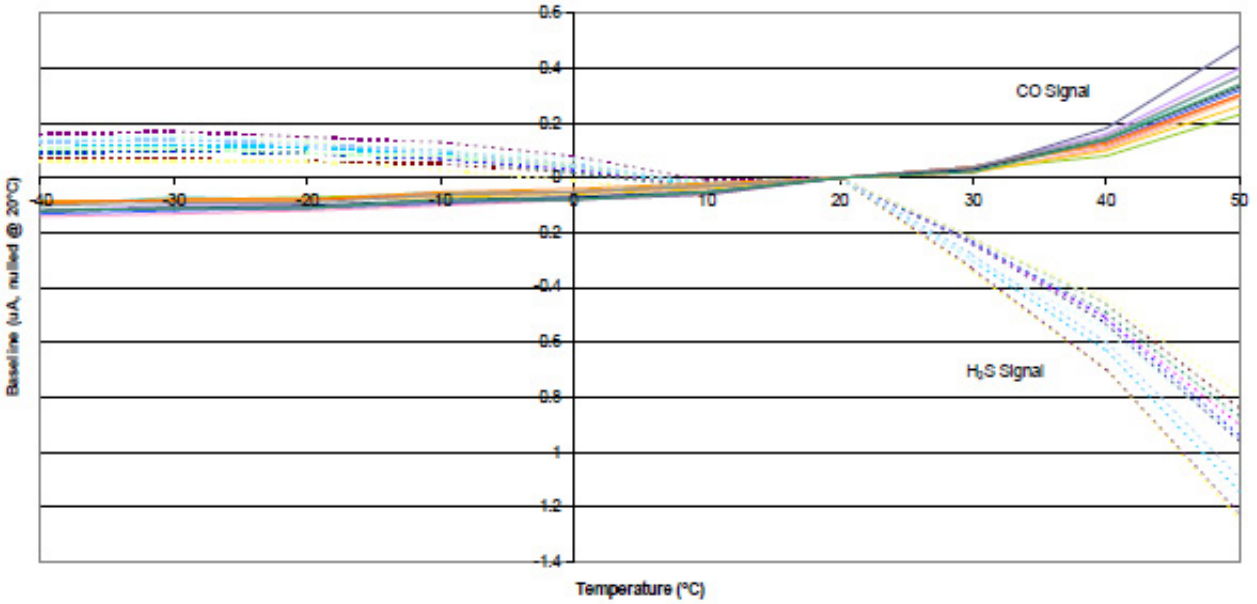
4COSH Hydrogen Sulphide/Carbon Monoxide CiTiceL
Output vs Temperature



4COSH Hydrogen Sulphide/Carbon Monoxide CiTiceL
Baseline vs Temperature



Cross-sensitivity Data

CiTiceLs may exhibit a response to certain gases in a sample other than the target gas. 4COSH CiTiceLs 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):

Test gas	Test gas conc. (ppm)	ppm on H_2S channel	ppm on CO channel
Carbon Monoxide, CO	300	<6	300
Hydrogen Sulfide, H_2S	15	16	0 to 6
Hydrogen	100	0.03	~ 20
Nitric Oxide, NO	35	<1	<0.1
Nitrogen Dioxide, NO_2	5	~ -1	<0.1
Chlorine, Cl_2	1	0	0
Sulfur Dioxide, SO_2	5	<1	0

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.