

SUNSTAR传感与控制 <http://www.sensor-ic.com/> TEL:0755-83376549 FAX:0755-83376182 E-MAIL:szss20@163.com

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

# 2CF CiTiceL<sup>®</sup>

### Performance Characteristics

Nominal Range	0-500 ppm				
Maximum Overload	1000 ppm		DO NOT OBSCURE		Ø15
Expected Operating Life	Two years in air				
Output Signal	50 ± 20 nA/ppm				
Inboard Filter	To remove SO <sub>2</sub> and H <sub>2</sub> S				
Resolution	1 ppm		+0		
Temperature Range	-20°C to +50°C		Ø20.4-0.3 inc. label		
Pressure Range	Atmospheric ± 10%				
T <sub>90</sub> Response Time	≤17 seconds				
Relative Humidity Range	15 to 90% non-condensing				
Typical Baseline Range (pure air)	-1 to +3 ppm equivalent		+0		
Maximum Zero Shift (+20°C to +40°C)	9 ppm equivalent		16.6-0.3		
Long Term Output Drift	<10% signal loss/year				
Recommended Load Resistor	10 Ω			Ø1.5	4.3 0.6 Recess
Bias Voltage	Not required				
Repeatability	<3% of signal				Ø18
Output Linearity	Linear			Counter	Unconnected pin

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

Sensing

13.5

6.75

### Physical Characteristics

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

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

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

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### Cross-sensitivity Data

CiTiceLs may exhibit a response to certain gases in a sample other than the target gas. 2CF 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).

Gas	Conc	2CF
Hydrogen Sulphide	15ppm	-0.5ppm < x\$ < +0.5ppm
Sulphur Dioxide	5ppm	0ppm
Nitrogen Dioxide	5ppm	<0.5ppm
Hydrogen	100ppm	-5ppm < x\$ < +5ppm
Nitric Oxide	35ppm	12ppm
Ethylene	100ppm	60ppm

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

### 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.

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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.

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