



9CF CiTiceL[®]

Two-electrode miniature CO sensor

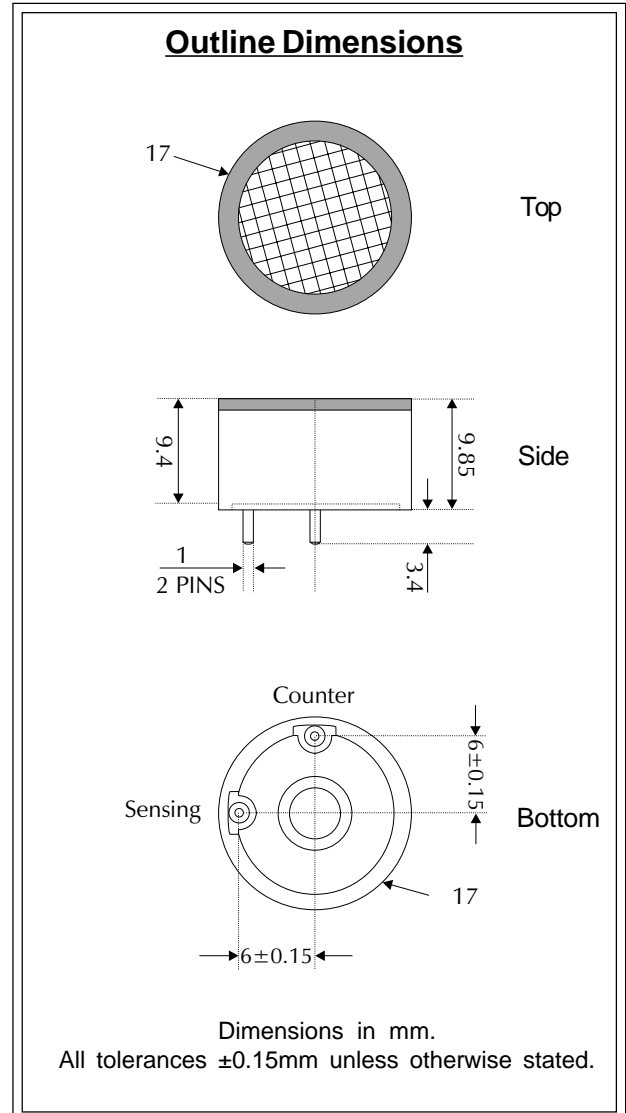
Performance Characteristics

Nominal Range	0-50ppm
Maximum Overload	200ppm
Expected Operating Life	Three months in air
Output Signal	50±15nA/ppm
Resolution	±2ppm
Temperature Range	-5°C to +40°C
Pressure Range	Atmospheric±10%
Pressure Coefficient	≤0.02%signal/mBar
T₉₀ Response Time	≤45 seconds
Relative Humidity Range	20% to 90% non-condensing
Typical Baseline Range (pure air)	-2 to +6ppm equivalent
Maximum Zero Shift (+20°C to +40°C)	9ppm equivalent
Long Term Output Drift	<20% signal loss/3 months
Recommended Load Resistor	10Ω
Bias Voltage	Not required
Repeatability	10% of signal
Output Linearity	Linear

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

Physical Characteristics

Weight	Approx 3g
Position Sensitivity	None
Storage Life	One month in CTL container
Recommended Storage Temperature	0-20°C
Warranty Period	4 months from date of despatch (This amounts to a variation of condition 6 of our standard terms and conditions of sale which otherwise apply)



IMPORTANT NOTE: Connection should be made via PCB sockets only. Soldering to the pins will render your warranty void.



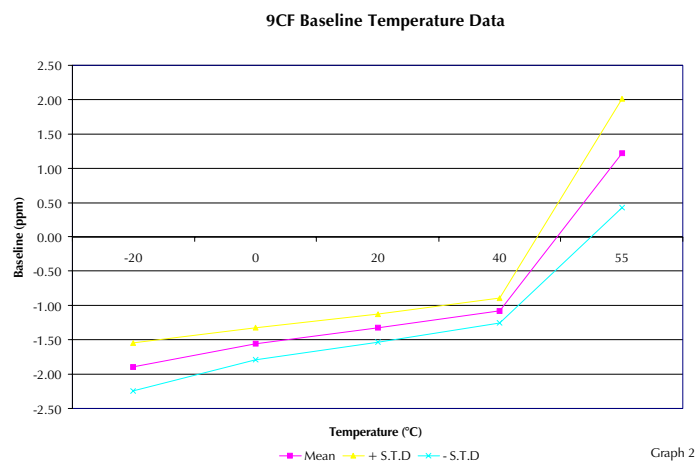
Temperature Dependence

Both the span signal and the baseline (zero gas current) are affected by temperature.

9CF Baseline

The baseline signal follows an exponential relationship with temperature change. As a general guide, the baseline approximately doubles for every 10°C increase in temperature.

The graph here shows how the baseline varies with temperature for 9CF CiTiceLs based on a sample of sensors.

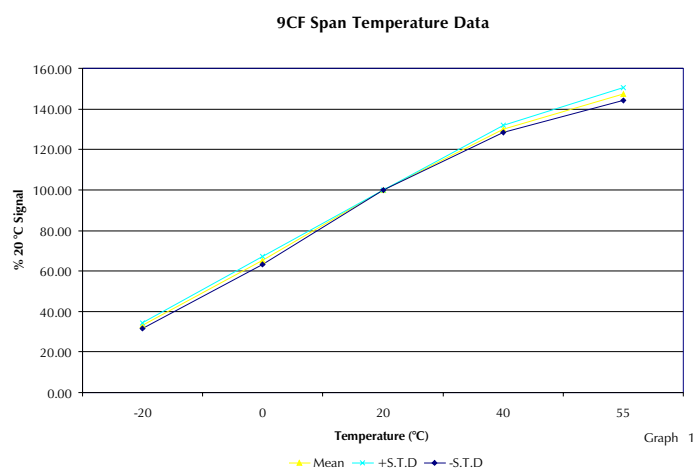


9CF Span

The output from a CiTiceL will vary only slightly with temperature.

The graph here shows the variation in output with temperature for 9CF CiTiceLs based on a sample of sensors.

The results are shown in the graph expressed as a percentage of the signal at 20°C.



Cross-sensitivity Data

CiTiceLs may exhibit a response to certain gases in a sample other than the target gas. 9CF 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.	9CF
Hydrogen sulphide:	100ppm	<2ppm
Sulphur dioxide:	10ppm	<2ppm

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

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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.