



3SF CiTiceL

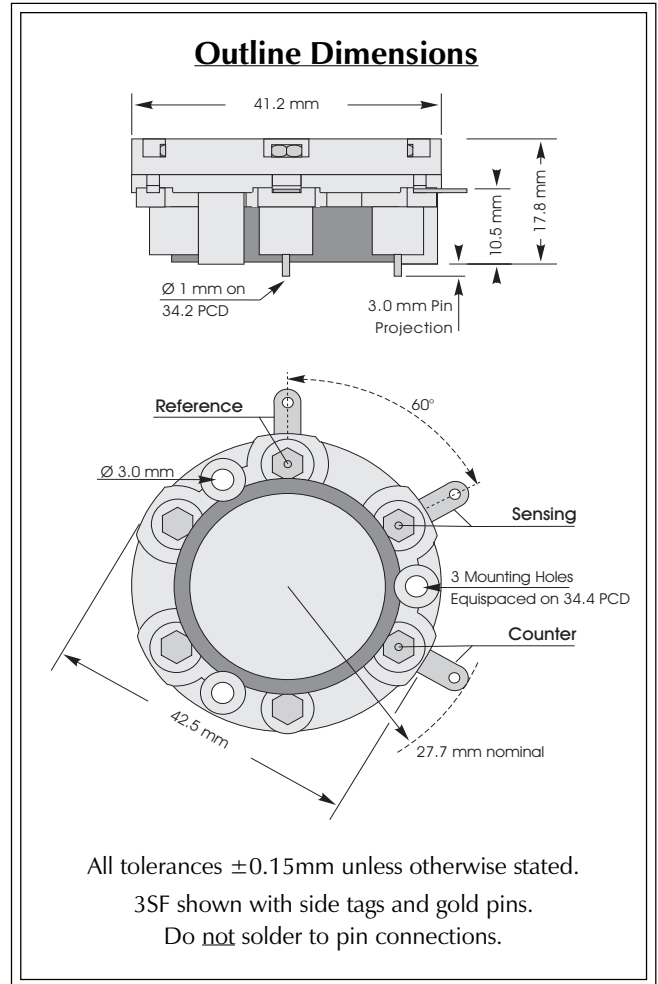
Performance Characteristics

Nominal Range	0-2000ppm
Maximum Overload	5000ppm
Expected Operating Life	Two years in air
Output Signal	0.10 ± 0.02µA/ppm
Resolution	1ppm
Temperature Range	-20°C to +50°C
Pressure Range	Atmospheric ± 10%
Pressure Coefficient	0.004 % signal/mBar
T₉₀ Response Time	<30 seconds
Relative Humidity Range	15 to 90% non-condensing
Typical Baseline Range (pure air)	0 ± 2ppm equivalent
Maximum Zero Shift (+20°C to +40°C)	5ppm equivalent
Long Term Output Drift	<2% signal loss/month
Recommended Load Resistor	10 Ω
Bias Voltage	Not required
Repeatability	1% of signal
Output Linearity	Linear

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

Physical Characteristics

Weight	22g
Position Sensitivity	None
Storage Life	Six months in CTL container
Recommended Storage Temperature	0-20°C
Warranty Period	12 months from date of despatch



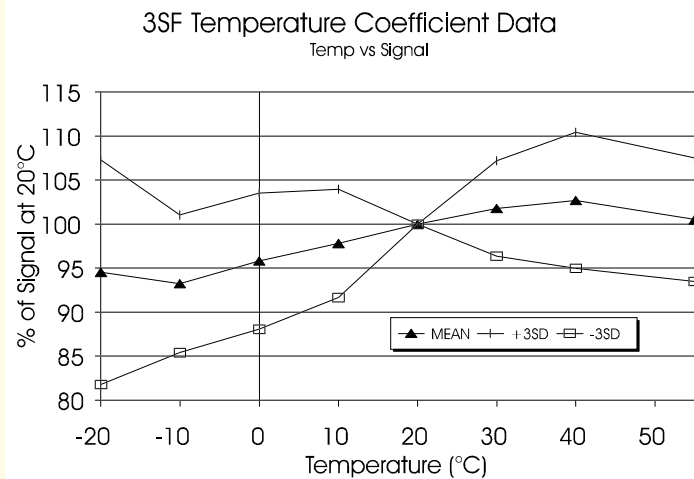
Distributed by:
Shawcity Ltd
91-92 Shrivenham Hundred Business Park
Watchfield, Oxfordshire, SN6 8TY
Tel: 01793 780622
Email: sensororders@shawcity.co.uk
www.shawcity.co.uk



Temperature Dependence

The output of a CiTiceL can vary with temperature. The graph here shows the variation in output with temperature for 3SF CiTiceLs based on a sample of about 16 sensors. The results are shown in the graph as a mean for the batch, and expressed as a percentage of the signal at 20°C.

From a statistical viewpoint, for a sample of this size, the range in values observed for all sensors of this type will fall within a range three times the standard deviation above or below the mean. Assuming therefore this sample is typical, then the temperature behaviour of all 3SF CiTiceLs will fall in the band +3SD to -3SD.



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 3SF sensors to a number of common cross-interfering gases. The figures are expressed as a percentage of the primary sensitivity (i.e. sulphur dioxide = 100%).

Gas	Response	Gas	Response
Carbon monoxide:	<3.5	Hydrogen:	<3
Hydrogen sulphide:	≈200	Hydrogen chloride:	≈15
Nitric oxide:	0	Ethylene:	<50
Nitrogen dioxide:	≈-125	** For details of other possible cross-interfering gases contact City Technology.**	

Ordering Information

The 3SF Sulphur Dioxide CiTiceL is available with side tags, gold-plated PCB pins, or both PCB pins and side tags. To ensure the appropriate option is supplied care must be taken to provide the correct code when ordering.

Type 3SF:-	With side tag and PCB pin connections - 3SF With side tag connection - 3SF(S) With gold-plated PCB pin connection - 3SF(G)
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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.