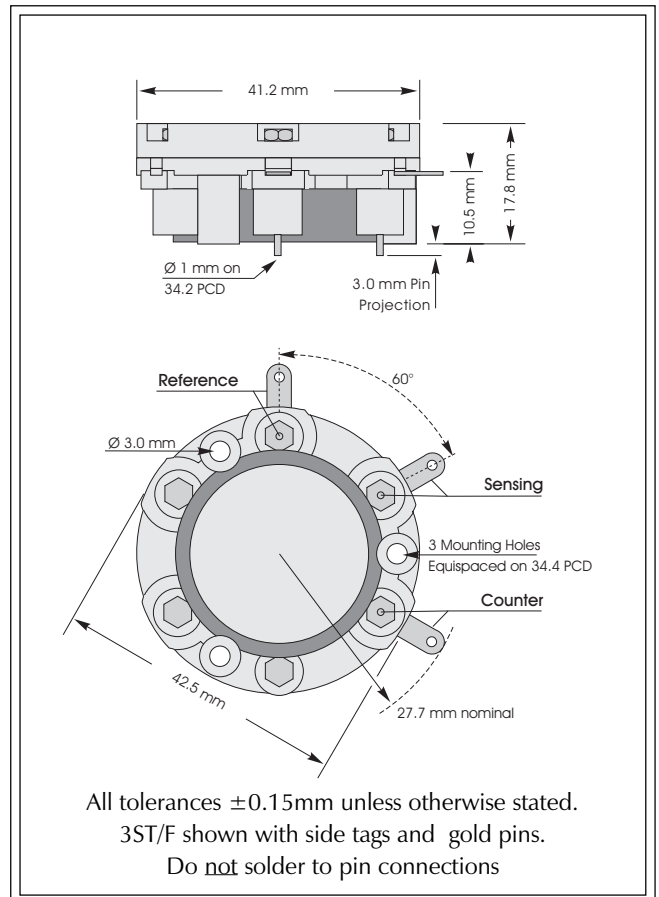




3ST/F CiTiceL[®]

Performance Characteristics

| | |
|--|----------------------------|
| Nominal Range | 0-100ppm |
| Maximum Overload | 500ppm |
| Inboard Filter | To remove H ₂ S |
| Expected Operating Life | Two years in air |
| Output Signal | 0.37 ± 0.07 μA/ppm |
| Resolution | 0.5ppm |
| Temperature Range | -20° to +50°C |
| Pressure Range | Atmospheric ± 10% |
| Pressure Coefficient | 0.015 % signal/mBar |
| T₉₀ Response Time | ≤20 seconds |
| Relative Humidity Range | 15 to 90% non-condensing |
| Typical Baseline Range (pure air) | -0.25 to +0.5ppm equiv. |
| Maximum Zero Shift (+20°C to +40°C) | 1ppm equivalent |
| Long Term Output Drift | <2% signal loss/month |
| Recommended Load Resistor | 10Ω |
| 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 |

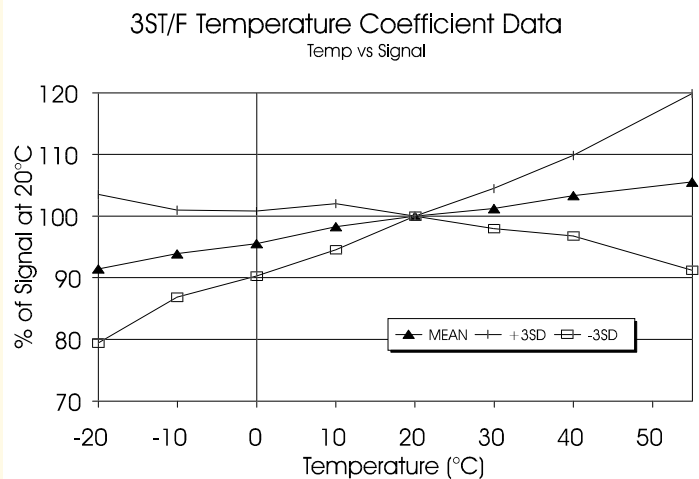
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Temperature Dependence

The output of a CiTiceL can vary with temperature. The graph here shows the variation in output with temperature for 3ST/F 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 3ST/F 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. 3ST/F 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. | 3ST/F | Gas | Conc. | 3ST/F |
|---------------------------|--------|----------|--|--------|-------|
| Carbon monoxide: | 300ppm | <5ppm | Hydrogen: | 100ppm | 0ppm |
| Hydrogen sulphide: | 15ppm | 0ppm | Hydrogen cyanide: | 10ppm | <5ppm |
| Nitric oxide: | 35ppm | 0ppm | Hydrogen chloride: | 5ppm | 0ppm |
| Nitrogen dioxide: | 5ppm | ≈-5ppm | Ethylene: | 100ppm | 0ppm |
| Chlorine: | 1ppm | <-0.5ppm | **For details of other possible cross-interfering gases contact City Technology.** | | |

Ordering Information

The 3ST/F 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 3ST/F:- With side tag and PCB pin connections - **3ST/F**
 With side tag connection - **3ST/F(S)**
 With gold-plated PCB pin connection - **3ST/F(G)**

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