



**High temperature sensor  
for combustible gases**

# Model 705 High Temperature Sensor



## Excellent Performance

- Certified for hazardous location operation up to +150°C (+302°F)
- Alarm trip points as low as 5% LEL
- Fast speed of response
- Poison resistant detectors
- Low power consumption

## Cost Effective

- Low cost disposable sensor
- Greater than 5 year typical operating life

## Reliable Operation

- Specially matched 'Sieger' detectors provide highest stability
- Proven technology from the World leader in combustible gas detection

## Flexibility

- Measuring ranges from 0-20% LEL to 0-100% LEL
- Wide range of accessories

## Robust Construction

- UL approved explosion proof enclosure
- High grade Aluminum construction

**The Model 705 high temperature sensor has been specifically designed for the detection of combustible gases in high temperature hazardous area locations.**

**Typical applications include turbine enclosures and drying ovens used in solvent based printing and coating machines.**

These applications require a sensor that provides reliable and stable detection allowing low level alarm settings across a wide temperature range. Utilizing a specially matched pair of Sieger poison resistant combustible gas detection elements, the Model 705 High Temperature Sensor has a very stable baseline allowing alarm trip points to be set as low as 5% LEL across a temperature range of -25°C to +150°C (-3°F to +302°F). The gas measuring range can be configured from 0-20% LEL up to 0-100% LEL depending on the type of controller used.

The detector elements are housed in a UL hazardous area approved explosion proof assembly, and provide an industry standard 3 wire mV bridge output which can be connected to a suitable control device or converted to an analog output signal via a field transmitter.



# General Specification



## General Specification<sup>1</sup>

<b>Range</b>	0-20% LEL, 0-100% LEL (Control card dependent)	
<b>Speed of Response<sup>2</sup></b>	T60 Less than 6 seconds. T90 Less than 10 seconds.	
<b>Minimum Alarm Level<sup>3</sup></b>	5% LEL	
<b>Output Signal</b>	mV bridge	
<b>Operating Temperature</b>	-25°C to +150°C (-13°F to +302°F)	
<b>Operating Humidity</b>	Continuous:	20 to 90% RH
	Intermittent:	10 to 99% RH
<b>Operating Pressure</b>	75 to 110kPa (750 to 1100mbar)	
<b>Stability (zero)</b>	With time:	Less than ±5% LEL/year
	With temperature:	Less than ±3% LEL
	With humidity:	Less than ±3% LEL
	With pressure:	Less than ±3% LEL
<b>Stability (span)</b>	With time:	Less than ±5% LEL/year
	With temperature:	Less than ±4% LEL
	With humidity:	Less than ±3% LEL
	With pressure:	Less than ±3% LEL
<b>Linearity</b>	Better than ±5% fsd	
<b>Repeatability</b>	Better than ±2% LEL	
<b>Warm-up Time</b>	30 minutes	
<b>Detector Operating Life<sup>4</sup></b>	More than 5 years (typical)	
<b>Storage Life</b>	Typically, no degradation has been observed in clean, stable conditions for up to 5 years	
<b>Power Consumption</b>	0.7W at 200mA	
<b>Enclosure Material</b>	Aluminum	
<b>Mounting Thread</b>	3/4" NPT	
<b>Weight</b>	200g (7oz)	
<b>Certification</b>	UL Hazardous location approval Class1, Div1, groups B, C and D Tamb: -25°C to +150°C	

### Notes:

1. Typical performance figures for a sensor calibrated on 10% LEL methane and tested at 20°C and 50% RH.
2. T60/T90 defined as the time to achieve 60% and 90% of the signal obtained after 5 minutes exposure to 50% FSD gas concentration.
3. With recommended 3 month calibration period.
4. In clean atmosphere.

