

**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

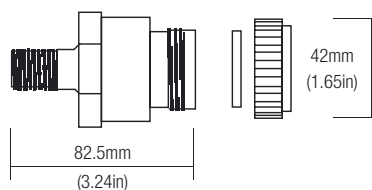


## General Specification<sup>1</sup>

<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.



As World leaders in gas detection solutions, Honeywell Analytics' Sieger systems provide the most efficient, practical and cost-effective fixed-point equipment. Wherever protection is required from flammable or toxic gases, you can rely on our equipment to provide practical solutions and to help keep your business running safely and profitably.

## The Sieger range of premium fixed gas detection



**Apex**

Typically used in the oil and gas distribution, petroleum extraction and chemical manufacturing industries, the Apex gas detector and transmitter functions across a wide range of detectable flammable and toxic gases. With its rugged 316 stainless steel enclosure, it is especially suited for extreme conditions, and provides a cost-effective gas detection solution for a wide range of applications.



**Searchline Excel**

Searchline Excel Cross Duct™ is an open path infrared gas detector for the detection of Hydrocarbons within HVAC air intakes and ventilation ducting systems up to 5 meters in width.

It is based on the proven Searchline Excel, which covers ranges up to 200m.

ClearShield™ glass coating, infrared beam and heated optical surfaces all combine to reduce downtime and increase system availability.



**Searchpoint Optima Plus**

Designed for use in potentially explosive atmospheres in harsh environmental conditions, SearchPoint Optima Plus is ideal where speed of response, reduced maintenance and failsafe operation is essential. Common applications include offshore platforms, production storage and offloading vessels, and oil and gas terminals.



**Signalpoint**

Signalpoint is a self-contained gas sensor system for either combustible or toxic gases, designed to make installation simple and maintenance minimal. Constructed in strong plastic, it is particularly suited for indoor applications in light industrial environments.



**System 57**

The System 57 controller provides display and alarm facilities for the full range of gas detectors. It comprises a rack unit with mounting options for channel control cards and interface cards.

### Find out more

[www.honeywellanalytics.com](http://www.honeywellanalytics.com)

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**Searchflame 16**

Searchflame 16 is a range of optical flame detectors for detection of Hydrocarbon and non-Hydrocarbon flaming fires in designated hazardous areas. Operating on UV or UV/IR principles, they have a 120-degree field of view, providing the widest coverage available by any product.



**705 HT Sensor**

The 705 High Temperature Sensor is a hazardous area certified sensor for the detection of combustible gases.

# Honeywell