

**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

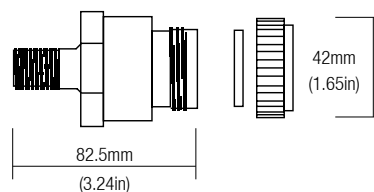


## General Specification<sup>1</sup>

<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.



# Our Product Range



## Fixed Gas Monitoring

Honeywell Analytics offers a wide range of fixed gas detection solutions for a diverse array of industries and applications including: Commercial properties, industrial applications, semiconductor manufacturers, energy plants and petrochemical sites.

- » Detection of flammable, oxygen and toxic gases (including exotics)
- » Innovative use of 4 core sensing technologies – paper tape, electrochemical cell, catalytic bead and infrared
- » Capability to detect down to Parts Per Billion (ppb) or Percent by Volume (%v/v)
- » Cost effective regulatory compliance solutions

## Portable Gas Monitoring

When it comes to personal protection from gas hazards, Honeywell Analytics has a wide range of reliable solutions ideally suited for use in confined or enclosed spaces.

These include:

- » Detection of flammable, oxygen and toxic gases
- » Single gas personal monitors – worn by the individual
- » Multi-gas portable gas monitors – used for confined space entry and regulatory compliance
- » Multi-gas transportable monitors – used for temporary protection of area during site construction and maintenance activities

## Technical Services

At Honeywell Analytics, we believe in the value of great service and customer care. Our key commitment is providing complete and total customer satisfaction. Here are just a few of the services we can offer:

- » Full technical support
- » Expert team on hand to answer questions and queries
- » Fully equipped workshops to ensure quick turnaround on repairs
- » Comprehensive service engineer network
- » Training on product use and maintenance
- » Mobile calibration service
- » Customised programmes of preventative/corrective maintenance
- » Extended warranties on products

### Find out more

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H\_Model 705 High Temperature Sensor\_DS0301\_V3\_EMEA

09/07

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