

**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

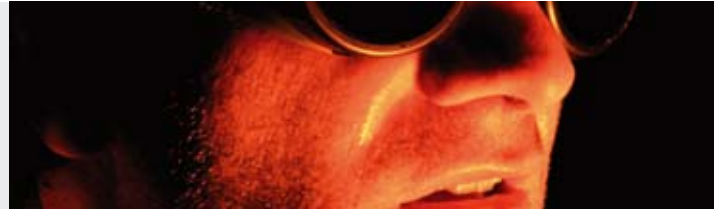
**The Model 705 high temperature sensor has been specifically designed for the detection of combustible gases in high temperature hazardous area locations. Typical applications include turbine enclosures and drying ovens used in solvent based printing and coating machines.**

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.



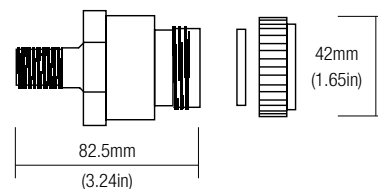
# General Specification



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.



# Honeywell Analytics Lines of Business



## Commercial

Gas detection from standalone units to fully engineered, multi-point systems, all offering cost-effective regulatory compliance

- » Applications: parking structures, chillers, mechanical rooms, office towers, commercial buildings, shopping centers, swimming pools, golf courses, schools and universities, laboratories

## Industrial

Renowned Sieger and Manning gas detection systems with advanced electrochemical, infrared and open path sensing technologies

- » Applications: oil and gas, cold storage, water/wastewater treatment, chemicals, engine rooms, plastics and fibers, agriculture, printing and light industrial

## Portables

Single or multi-gas Lumidor and other premium detectors with compact, lightweight designs ranging from simple alarm only units to advanced, fully configurable and serviceable instruments

- » Applications: underground utility and electricity ducts, boiler rooms, post-fire sites, sewers, industrial plants, industrial hygiene, first responder teams, remote fleets



## Find out more

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## High Tech/Government

A complete portfolio of gas and chemical detection instrumentation including infrared spectroscopy (MST) with no cross interference, to Chemcassette paper-based solutions (MDA Scientific) offering detection down to parts per billion

- » Applications: semiconductor manufacturing and nanotechnology, aerospace propulsion and safety, specialty chemicals industry, research laboratories, emergency response

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## Technical Services

24/7 global network includes post-sales service and Systems Integration teams

- » Emergency call out, service contracts, on/off-site repair, training and commissioning
- » Complete range of spares, consumables and accessories

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