

Model 705 Sensor

Honeywell



**Sensor for
combustible gases**

Model 705 Sensor for Combustible Gases



Features

- Fast response.
- High resistance to catalytic poisoning.
- Low cost, high performance design.
- Low power consumption.
- Accurate, trouble free gas detection.
- Corrosion resistant aluminum construction.

The model 705 gas sensor is a low cost, explosion proof assembly fitted with ‘Sieger’ poison-resistant combustible gas detection elements. Fully encapsulated, it is designed for use in hazardous locations.

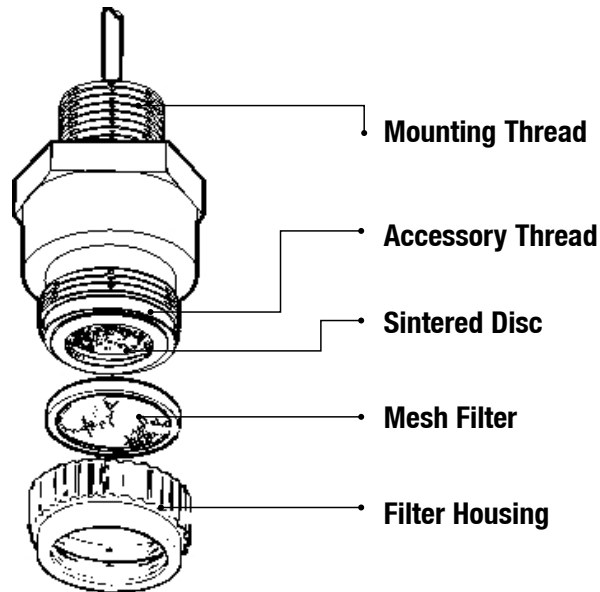
The sensor is electrocatalytic, and consists of two beads of refractory oxide formed on a fine platinum wire coil. The active bead is coated with a catalyst material whilst the reference bead is glass coated. In the presence of gas the catalyst coated bead promotes the oxidation of the gas, causing it to heat up and so increase in electrical resistance. This change of resistance relative to the reference bead can be measured, and is in direct proportion to the concentration of combustible gas. The signal is converted to an analogue output for direct display on a companion control card as percent LEL (Lower Explosive Limit).



General Specification



| General Specifications | |
|------------------------|---|
| Gas and Range | combustible gases; 0 to 100% LEL. |
| Operating Temperature | -40°F to +167°F (-40°C to +75°C). |
| Operating Humidity | 0 to 99%RH (non-condensing). |
| Response Time – T90 | typically 9 seconds for methane. |
| Signal Output | bridge output (mV). |
| Linearity | better than $\pm 3\%$ LEL. |
| Accuracy | better than $\pm 3\%$ FSD. |
| Sensitivity | typically 66mV/100%LEL methane. |
| Zero Drift | less than 4% per year. |
| Mounting Thread | 3/4-inch NPT. |
| Construction Materials | aluminum. |
| Approvals | CSA & UL approved; Class 1, Division 1, Groups B,C & D. |



Honeywell Analytics Gas Detection Offerings

Honeywell Analytics gas detectors protect people, assets and environment from toxic and combustible gas hazards, helping to create safer, more comfortable, secure and productive environments. Our strength derives from Honeywell's leadership in sensor technology; in fact Honeywell operates four sensor manufacturing plants, supplying an entire industry with its core detective element.



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

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

High Tech/Government

Reliable gas and chemical detection 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, aerospace propulsion, specialty chemicals industry, research laboratories, emergency response

Find out more:

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