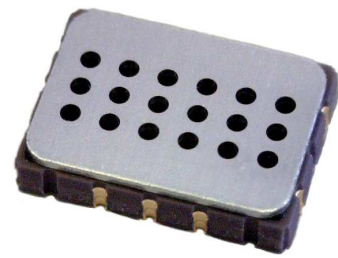




The MiCS-5524 is a compact MOS sensor.

The MiCS-5524 is a robust MEMS sensor for indoor carbon monoxide and natural gas leakage detection; suitable also for indoor air quality monitoring; breath checker and early fire detection.

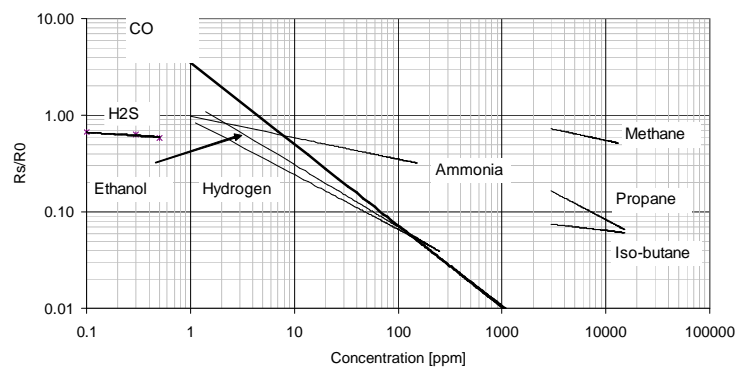


Features

- Smallest footprint for compact designs (5 x 7 x 1.55 mm)
- Robust MEMS sensor for harsh environments
- High-volume manufacturing for low-cost applications
- Short lead-times

Detectable gases

- | | | |
|-------------------|----------------------------------|-------------|
| • Carbon monoxide | CO | 1 – 1000ppm |
| • Ethanol | C ₂ H ₅ OH | 10 – 500ppm |
| • Hydrogen | H ₂ | 1 – 1000ppm |
| • Ammonia | NH ₃ | 1 – 500ppm |
| • Methane | CH ₄ | >1000ppm |



Continuous power ON, 25°C, 50% RH

For more information please contact:

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Performance sensor

| Characteristic RED sensor | Symbol | Typ | Min | Max | Unit |
|--|----------|-----|-----|------|-----------|
| Sensing resistance in air (see note 1) | R_0 | - | 100 | 1500 | $k\Omega$ |
| Typical CO detection range | FS | | 1 | 1000 | ppm |
| Sensitivity factor (see note 2) | S_{60} | - | 1.2 | 50 | - |

Notes:

1. Sensing resistance in air R_0 is measured under controlled ambient conditions, i.e. synthetic air at $23 \pm 5^\circ\text{C}$ and $50 \pm 10\%$ RH. Sampling test.
2. Sensitivity factor is defined as R_s in air divided by R_s at 60 ppm CO. Test conditions are $23 \pm 5^\circ\text{C}$ and $50 \pm 10\%$ RH. Indicative values only. Sampling test.

IMPORTANT PRECAUTIONS:

Read the following instructions carefully before using the MiCS-5524 described here to avoid erroneous readings and to prevent the device from permanent damage.

- The sensor must be reflow soldered in a neutral atmosphere, without soldering flux vapours.
- The sensor must not be exposed to high concentrations of organic solvents, silicone vapours or cigarette-smoke in order to avoid poisoning the sensitive layer.
- Heater voltage above the specified maximum rating will destroy the sensor due to overheating.
- This sensor is to be placed in a filtered package that protects it against water and dust projections.
- SGX sensortech strongly recommends using ESD protection equipment to handle the sensor.