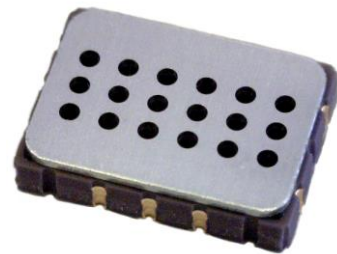




## The MiCS-5914 is a compact MOS sensor.

The MiCS-5914 is a robust MEMS sensor for ammonia detection; suitable also for gas leak detection and indoor and outdoor air quality monitoring.

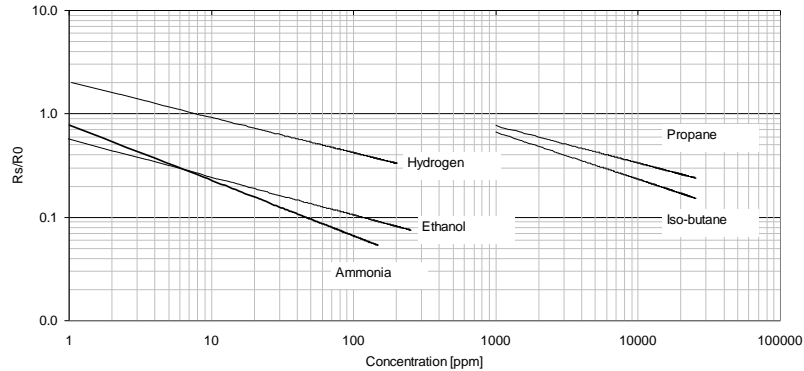


### Features

- 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

- |              |                                 |             |
|--------------|---------------------------------|-------------|
| • Ammonia    | $\text{NH}_3$                   | 1 – 500ppm  |
| • Ethanol    | $\text{C}_2\text{H}_5\text{OH}$ | 10 – 500ppm |
| • Hydrogen   | $\text{H}_2$                    | 1 – 1000ppm |
| • Propane    | $\text{C}_3\text{H}_8$          | >1000ppm    |
| • Iso-butane | $\text{C}_4\text{H}_{10}$       | >1000ppm    |



Continuous power ON, 25°C, 50% RH

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## Performance sensor

Characteristic RED sensor	Symbol	Typ	Min	Max	Unit
Sensing resistance in air (see note 1)	$R_0$	-	10	1500	$k\Omega$
Typical NH <sub>3</sub> detection range	FS		1	300	ppm
Sensitivity factor (see note 2)	$S_R$	-	1.5	15	-

### Notes:

1. Sensing resistance in air  $R_0$  is measured under controlled ambient conditions, i.e. synthetic air at 23  $\pm$  5°C and 50  $\pm$  10% RH. Sampling test.
2. Sensitivity factor is defined as  $R_s$  in air divided by  $R_s$  at 1 ppm of NH<sub>3</sub>. Test conditions are 23  $\pm$  5°C and 50  $\pm$  10% RH. Indicative values only. Sampling test.

### IMPORTANT PRECAUTIONS:

Read the following instructions carefully before using the MiCS-5914 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.