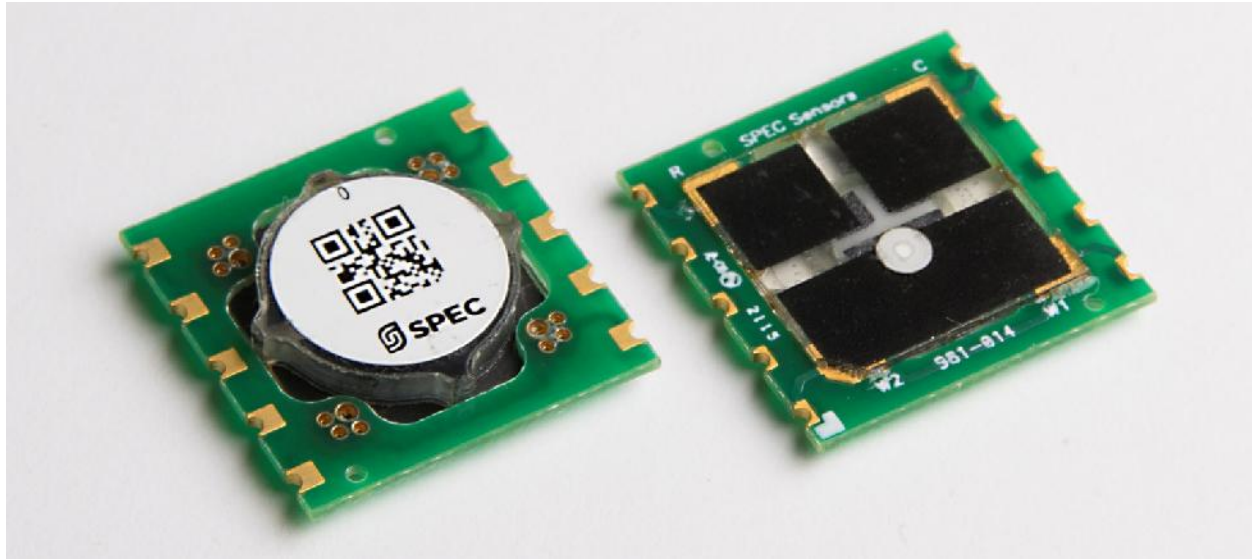


**15x15 Indoor Air Quality Sensor 100 ppm Package 110-802**

**DESCRIPTION**

SPEC Sensors' IAQ\_100 is a Screen Printed ElectroChemical sensor component specifically designed for the broad detection of gases associated with poor air quality: sulfides, alcohols, ammonia, odorous gases, and Carbon Monoxide. 1硫化物2酒精3氨4难闻气体5一氧化碳

**BENEFITS**

- Zero Power Sensor
  - Sensor Circuit - < 10 uW max
- Cold operation - No Heating required
- Rugged Design- Not poisoned by sulfides, chlorides, NH<sub>3</sub>
- Stable Response– Not affected by humidity, CO<sub>2</sub>, N<sub>2</sub>, Ar, most saturated hydrocarbons, hexane
- Small Size& Low Profile - 20x20x3 mm
- Sensitive - In the ppm range
- Easy to Use - Linear Response
- Long Life - 10 years expected life
- Fast Response - < 20 seconds
- ROHS Compliant

**APPLICATIONS**

- Bad Air Quality Detection
- Indoor Air Monitor
- **Air Purifier Controls**
- Weather Stations
- Internet of Things
- Smart Homes
- Early Fire Detection
- Leak Detection
- HVAC Ventilation Control

4-稳定响应:湿度,碳氢化合物乙烷

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 座机0755-82565851

氯气['klɔ:rɑ:d]

<b>Measurement Range</b>	0 to 100 ppm (calibrated as CO equivalents)
<b>Response Time to 90%</b>	< 20 seconds typical
<b>Sensitivity</b>	12 +/- 3 nA/ppm (CO equivalents)
<b>Expected Operating Life</b>	> 5 years (10 years @ 23+/-3C; 40+/-10% RH)
<b>Operating Temperature Range</b>	-10 to 40 C (0 to 40 C continuous)
<b>Operating Humidity – non-condensing</b>	0 to 100% RH (15 to 95% continuous)
<b>Power Consumption</b>	< 10 uW circuit & ambient gas dependent
<b>Zero Drift (Over Temperature Range)</b>	+/- 2 ppm (CO equivalents)
<b>Lower Detection Limit</b>	0.1 ppm CO (depends on the gas & electronics)

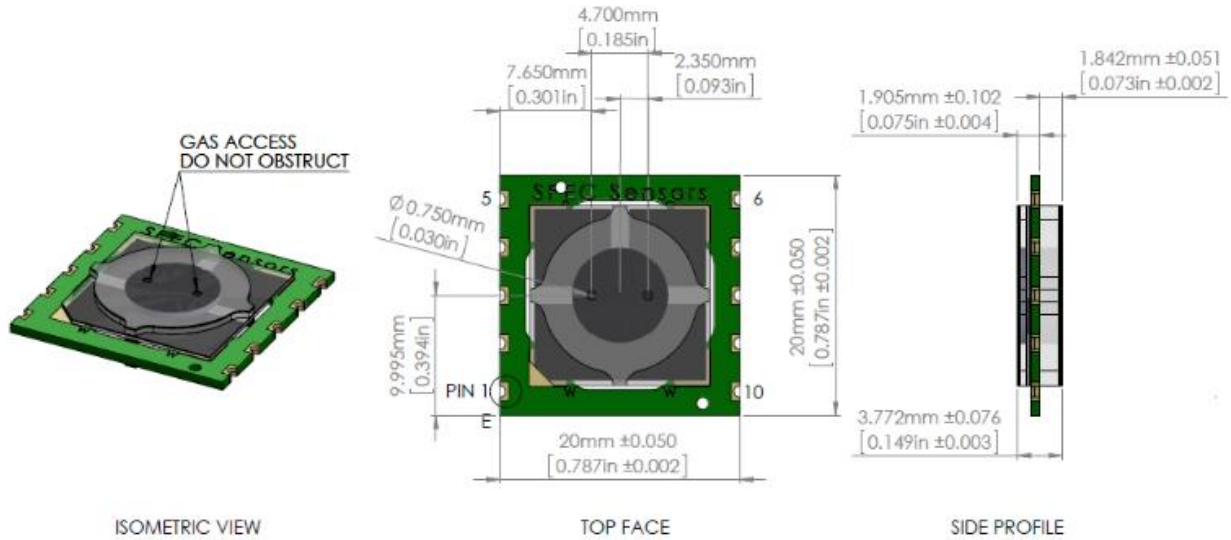
## CROSS SENSITIVITY

This sensor exhibits sensitivity to a wide range of gases. The following table lists the relative response of common gases.

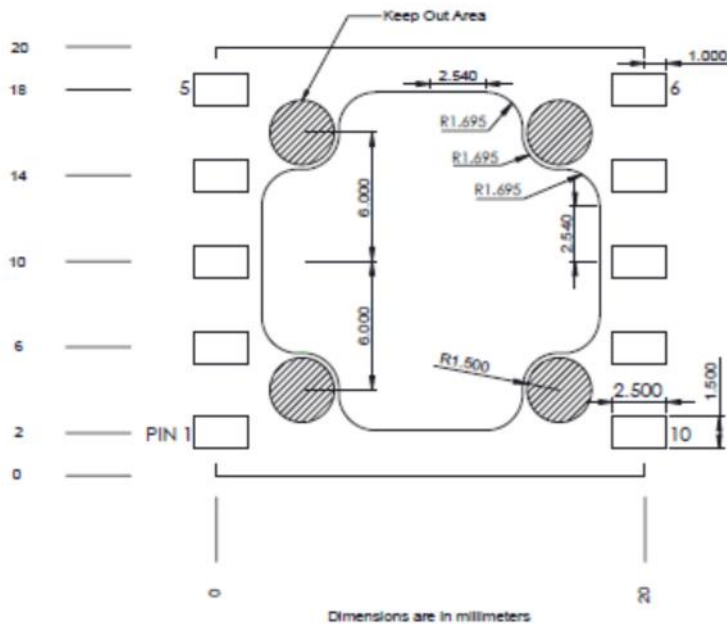
Gas	ppm	Typical Response (as ppm CO)
<b>Carbon Monoxide</b>	<b>100</b>	<b>100</b>
<b>Hydrogen Sulfide</b>	100	370
<b>Ozone</b>	100	-70
<b>Nitrogen Dioxide</b>	100	-50
<b>Sulfur Dioxide</b>	100	70
<b>Ethanol</b>	100	140
<b>Nitric Oxide (NO)</b>	100	80
<b>Chlorine</b>	100	-50
<b>n-Heptane</b>	100	0
<b>Ammonia</b>	100	1
<b>Methane</b>	100	0
<b>Saturated Hydrocarbons</b>	100	0

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## DIMENSIONS



## PCB LAYOUT GUIDELINES



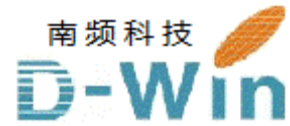
PIN	CONNECTION
1	WORKING
2	NC
3	NC
4	NC
5	REFERENCE
6	COUNTER
7	NC
8	NC
9	NC
10	WORKING

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## IMPORTANT PRECAUTIONS

All sensor designs are made for air monitoring @ 1 atm +/- 0.2 atm. As applications of use are outside our control, all information is given without legal responsibility. Customers should test under their own conditions to ensure the sensors are suitable for their requirements. Contact the factory to discuss any application beyond human breathable air to discuss specific concerns.

- Condensation and Water (1)
- Salt Water Contamination (1)
- High Temperature Operation (> 70C) for more than 1 month
- Low Humidity Operation (< 15% RH) for more than 3 months
- High levels of particles or soot (proper filtering is required)
- Extreme levels of pollutants may swamp sensor and/or circuits
- Do not place restrictions in front of sensor to block gas access
- (1) Use of clean porous PTFE membrane or filter cap will address this concern)



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