Prana Air

Digital Gas Sensor – Carbon Monoxide

BENEFITS

- **Low Power – 1 mW @ 1 minute sampling**
- **Fast Response – 15 seconds typical**
- **Calibrated & Temp. Compensated Output**
- **Simple Digital UART Interface**
- **Integrated T & RH Sensors**
- **Robust 10-year Estimated Lifetime**
- **ROHS Compliant**
- **Small form Factor**
- **UART to USB adapter provided**
- **Lightweight (< 2 oz.)**
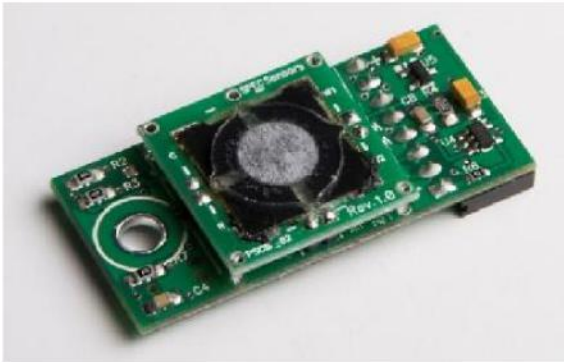
CO MONITORING APPLICATIONS

- **Life Safety Levels**
- **Air Quality Levels**

DESCRIPTION

SPEC Sensors now offers an easy way to add gas sensing to the Internet of Things. Combining our Screen Printed ElectroChemical sensor technology (SPEC Sensor™) with state-of-the-art electronics and algorithms, enables easy integration of small, lightweight, high performance, ultra-low power consumption gas sensing into wireless, portable, and networked solutions.

MEASUREMENT PERFORMANCE CHARACTERISTICS

Based on Standard Conditions 25 °C, 50% RH and 1 atm	
Measurement Range	0 to 1000 ppm
Resolution	0.1 ppm (1)
Zero Accuracy	± 1 ppm (2)
Measurement Accuracy	15% of reading
Measurement Repeatability (2)	< ± 3% of reading or 2 ppm, whichever is greater
T90 Response Time (100 ppm step)	< 30 seconds (15 seconds typical)
Power Consumption	1 mW for 1 minute triggered samples 12 mW for continuous sampling 5, 10 30, 60 second intervals
Expected Operating Life	> 5 years (10 years @ 25± 10C; 60 ± 30% RH)
Operating Temperature Range	-20 to 40 °C (-30 to 55 °C intermittent)
Operating Humidity Range	15 to 95% (0 to 100% non-condensing intermittent)
Mechanical Dimensions	1.75 x 0.82 x 0.35 in. (44.5 x 20.8 x 8.9 mm)
Weight	< 2 Ounces

NOTES:

1) Based on Standard Deviation of noise at zero, 1 Hz measurement 60 second averaging.
2) When zeroed after 60 minutes of power-on stabilization
3) Based on consecutive measurements of 100 ppm
4) Contact factory for custom calibration for improved measurement performance

Prana Air

Digital Gas Sensor – Ethanol

BENEFITS

- Low Power – 1 mW @ 1 minute sampling
- Calibrated & Temp. Compensated Output
- Simple Digital UART Interface
- Integrated T & RH Sensors
- Robust 10-year Estimated Lifetime
- ROHS Compliant
- Small form Factor
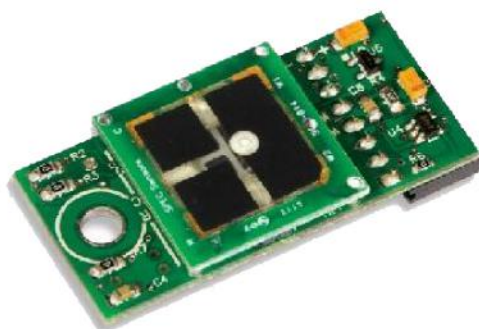- UART to USB adapter provided
- Lightweight (< 2 oz.)
-

ETHANOL APPLICATIONS

- Breathalyzer
- Breath Alcohol Detector

DESCRIPTION

SPEC Sensors now offers an easy way to add gas sensing to the Internet of Things. Combining our Screen Printed ElectroChemical sensor technology (SPEC Sensor™) with state-of-the-art electronics and algorithms, enables easy integration of small, lightweight, high performance, ultra-low power consumption gas sensing into wireless, portable, and networked solutions.

MEASUREMENT PERFORMANCE CHARACTERISTICS

Based on Standard Conditions 25 °C, 50% RH and 1 atm	
Measurement Range	0 to 800 ppm
Resolution	0.3 ppm (1)
Measurement Accuracy	15% of reading
Measurement Repeatability (2)	< ± 3% of reading
T90 Response Time (100 ppm step)	< 60 seconds
Power Consumption	1 mW for 1 minute triggered samples 12 mW for continuous sampling 5, 10 30, 60 second intervals
Expected Operating Life	> 5 years (10 years @ 25± 10C; 60 ± 30% RH)
Operating Temperature Range	-20 to 40 °C (-30 to 55 °C intermittent)
Operating Humidity Range	15 to 95% (0 to 100% non-condensing intermittent)
Mechanical Dimensions	1.75 x 0.82 x 0.35 in. (44.5 x 20.8 x 8.9 mm)
Weight	< 2 Ounces

NOTES:

1) Based on Standard Deviation of noise at zero, 1 Hz measurement 60 second averaging.
2) When zeroed after 60 minutes of power-on stabilization
3) Based on consecutive measurements of 100 ppm
4) Contact factory for custom calibration for improved measurement performance

Prana Air

Digital Gas Sensor – Hydrogen Sulfide

BENEFITS

- **Low Power – 1 mW @ 1 minute sampling**
- **Calibrated & Temp. Compensated Output**
- **Fast Response < 30 seconds**
- **Simple Digital UART Interface**
- **Integrated T & RH Sensors**
- **Robust 10-year Estimated Lifetime**
- **ROHS Compliant**
- **Small form Factor**
- **UART to USB adapter provided**
- **Lightweight (< 2 oz.)**

HYDROGEN SULFIDE APPLICATIONS

- **Bad Breath/Halitosis Sensing**
- **Air Quality Monitoring**
- **Industrial Safety Sensing**

DESCRIPTION

SPEC Sensors now offers an easy way to add gas sensing to the Internet of Things. Combining our Screen Printed ElectroChemical sensor technology (SPEC Sensor™) with state-of-the-art electronics and algorithms, enables easy integration of small, lightweight, high performance, ultra-low power consumption gas sensing into wireless, portable, and networked solutions.
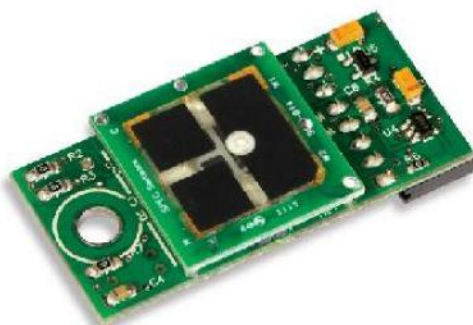
MEASUREMENT PERFORMANCE CHARACTERISTICS

Based on Standard Conditions 25 °C, 50% RH and 1 atm	
Measurement Range	0 to 10 ppm
Resolution	10 ppb (1)
Measurement Accuracy	15% of reading
Measurement Repeatability (2)	< ±3% of reading
T90 Response Time (100 ppm step)	< 30 seconds
Power Consumption	1 mW for 1 minute triggered samples 12 mW for continuous sampling 5, 10 30, 60 second intervals
Expected Operating Life	> 5 years (10 years @ 25± 10C; 60 ± 30% RH)
Operating Temperature Range	-20 to 40 °C (-30 to 55 °C intermittent)
Operating Humidity Range	15 to 95% (0 to 100% non-condensing intermittent)
Mechanical Dimensions	1.75 x 0.82 x 0.35 in. (44.5 x 20.8 x 8.9 mm)
Weight	< 2 Ounces

NOTES:

1) Based on Standard Deviation of noise at zero, 1 Hz measurement 60 second averaging.
2) When zeroed after 60 minutes of power-on stabilization
3) Based on consecutive measurements of 100 ppm
4) Contact factory for custom calibration for improved measurement performance

Digital Gas Sensor – Indoor Air Quality

BENEFITS

- **Low Power – 1 mW @ 1 minute sampling**
- **Calibrated & Temp. Compensated Output**
- **Fast Response < 30 seconds**
- **Simple Digital UART Interface**
- **Integrated T & RH Sensors**
- **Robust 10-year Estimated Lifetime**
- **ROHS Compliant**
- **Small form Factor**
- **UART to USB adapter provided**
- **Lightweight (< 2 oz.)**

APPLICATIONS

- **Air Purification Control**
- **Bad Air Quality Monitoring**
- **Smart Homes**

DESCRIPTION

SPEC Sensors now offers an easy way to add gas sensing to the Internet of Things. Combining our Screen Printed ElectroChemical sensor technology (SPEC Sensor™) with state-of-the-art electronics and algorithms, enables easy integration of small, lightweight, high performance, ultra-low power consumption gas sensing into wireless, portable, and networked solutions.

MEASUREMENT PERFORMANCE CHARACTERISTICS
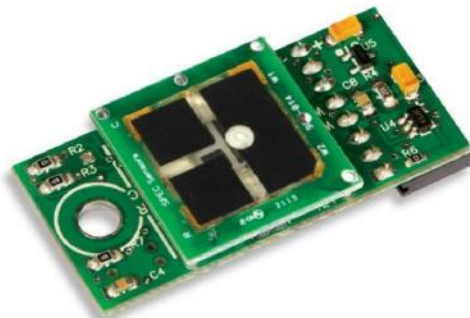
Based on Standard Conditions 25 °C, 50% RH and 1 atm	
Measurement Range	0 to 400 ppm (CO equivalent)
Resolution	100 ppb (1)
Measurement Accuracy	15% of reading
Measurement Repeatability (2)	< ±3% of reading
T90 Response Time (100 ppm step)	< 30 seconds
Power Consumption	1 mW for 1 minute triggered samples 12 mW for continuous sampling 5, 10 30, 60 second intervals
Expected Operating Life	> 5 years (10 years @ 25± 10C; 60 ± 30% RH)
Operating Temperature Range	-20 to 40 °C (-30 to 55 °C intermittent)
Operating Humidity Range	15 to 95% (0 to 100% non-condensing intermittent)
Mechanical Dimensions	1.75 x 0.82 x 0.35 in. (44.5 x 20.8 x 8.9 mm)
Weight	< 2 Ounces

NOTES:

1) Based on Standard Deviation of noise at zero, 1 Hz measurement 60 second averaging.
2) When zeroed after 60 minutes of power-on stabilization
3) Based on consecutive measurements of 100 ppm
4) Contact factory for custom calibration for improved measurement performance

Digital Gas Sensor – Nitrogen Dioxide

BENEFITS

- Low Power – 100 µW in standby mode
- Calibrated & Temp. Compensated Output
- Fast Response < 30 seconds
- Simple Digital UART Interface
- Integrated T & RH Sensors
- Robust 10-year Estimated Lifetime
- ROHS Compliant
- Small form Factor
- UART to USB adapter provided
- Lightweight (< 2 oz.)

NITROGEN DIOXIDE APPLICATIONS

- Air Purification Control
- Air Quality Monitoring
- Industrial Safety Sensing

NEW!! Using SPEC's 110-508 NO_2 sensor with O_3 filter and improved low ppb performance!

DESCRIPTION

SPEC Sensors now offers an easy way to add gas sensing to the Internet of Things. Combining our Screen Printed ElectroChemical sensor technology (SPEC Sensor™) with state-of-the-art electronics and algorithms, enables easy integration of small, lightweight, high performance, ultra-low power consumption gas sensing into wireless, portable, and networked solutions.
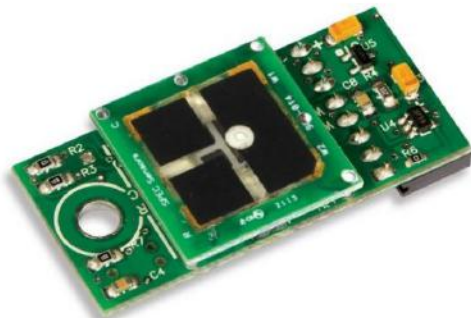
MEASUREMENT PERFORMANCE CHARACTERISTICS

Based on Standard Conditions 25 °C, 50% RH and 1 atm	
Measurement Range	0 to 5 ppm
Resolution	20 ppb (1)
Measurement Accuracy	15% of reading
Measurement Repeatability (2)	< ± 3% of reading
T90 Response Time (100 ppm step)	< 30 seconds
Power Consumption	100 µW in standby mode 14 mW in measurement mode
Expected Operating Life	> 5 years (10 years @ 25± 10C; 60 ± 30% RH)
Operating Temperature Range	-20 to 40 °C (-30 to 55 °C intermittent)
Operating Humidity Range	15 to 95% (0 to 100% non-condensing intermittent)
Mechanical Dimensions	1.75 x 0.82 x 0.35 in. (44.5 x 20.8 x 8.9 mm)
Weight	< 2 Ounces

NOTES:
1) Based on Standard Deviation of noise at zero, 1 Hz measurement 60 second averaging.
2) When zeroed after 60 minutes of power-on stabilization
3) Based on consecutive measurements of 100 ppm
4) Contact factory for custom calibration for improved measurement performance

Digital Gas Sensor – Ozone

OZONE APPLICATIONS

- Air Purification Control
- Air Quality Monitoring
- Industrial Safety Sensing

BENEFITS

- Low Power – 100 µW in standby mode
- Calibrated & Temp. Compensated Output
- Fast Response < 30 seconds
- Simple Digital UART Interface
- Integrated T & RH Sensors
- Robust 10-year Estimated Lifetime
- ROHS Compliant
- Small form Factor
- UART to USB adapter provided
- Lightweight (< 2 oz.)

NEW!! Using SPEC's 110-406 Ozone sensor with improved stability and low ppb performance!

DESCRIPTION

SPEC Sensors now offers an easy way to add gas sensing to the Internet of Things. Combining our Screen Printed ElectroChemical sensor technology (SPEC Sensor™) with state-of-the-art electronics and algorithms, enables easy integration of small, lightweight, high performance, ultra-low power consumption gas sensing into wireless, portable, and networked solutions.

MEASUREMENT PERFORMANCE CHARACTERISTICS

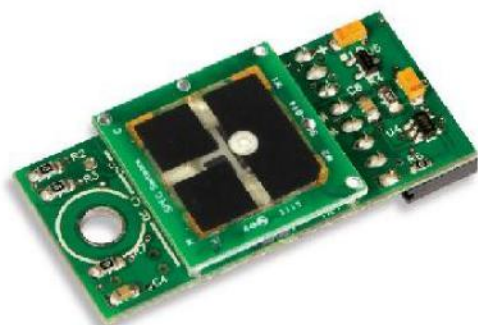| Based on Standard Conditions 25 °C, 50% RH and 1 atm	
Measurement Range	0 to 5 ppm
Resolution	20 ppb (1)
Measurement Accuracy	15% of reading
Measurement Repeatability (2)	< ± 3% of reading
T90 Response Time (100 ppm step)	< 30 seconds
Power Consumption	100 µW in standby mode 14 mW in measurement mode
Expected Operating Life	> 5 years (10 years @ 25± 10C; 60 ± 30% RH)
Operating Temperature Range	-20 to 40 °C (-30 to 55 °C intermittent)
Operating Humidity Range	15 to 95% (0 to 100% non-condensing intermittent)
Mechanical Dimensions	1.75 x 0.82 x 0.35 in. (44.5 x 20.8 x 8.9 mm)
Weight	< 2 Ounces

NOTES:
1) Based on Standard Deviation of noise at zero, 1 Hz measurement 60 second averaging.
2) When zeroed after 60 minutes of power-on stabilization
3) Based on consecutive measurements of 100 ppm
4) Contact factory for custom calibration for improved measurement performance

Digital Gas Sensor – Sulfur Dioxide

BENEFITS

- **Low Power – 1 mW @ 1 minute sampling**
- **Calibrated & Temp. Compensated Output**
- **Fast Response < 30 seconds**
- **Simple Digital UART Interface**
- **Integrated T & RH Sensors**
- **Robust 10-year Estimated Lifetime**
- **ROHS Compliant**
- **Small form Factor**
- **UART to USB adapter provided**
- **Lightweight (< 2 oz.)**

SULFUR DIOXIDE APPLICATIONS

- **Air Purification Control**
- **Air Quality Monitoring**
- **Industrial Safety Sensing**

DESCRIPTION

SPEC Sensors now offers an easy way to add gas sensing to the Internet of Things. Combining our Screen Printed ElectroChemical sensor technology (SPEC Sensor™) with state-of-the-art electronics and algorithms, enables easy integration of small, lightweight, high performance, ultra-low power consumption gas sensing into wireless, portable, and networked solutions.

MEASUREMENT PERFORMANCE CHARACTERISTICS

Based on Standard Conditions 25 °C, 50% RH and 1 atm	
Measurement Range	0 to 20 ppm
Resolution	50 ppb (1)
Measurement Accuracy	15% of reading
Measurement Repeatability (2)	< ±3% of reading
T90 Response Time (100 ppm step)	< 30 seconds
Power Consumption	1 mW for 1 minute triggered samples 12 mW for continuous sampling 5, 10 30, 60 second intervals
Expected Operating Life	> 5 years (10 years @ 25± 10C; 60 ± 30% RH)
Operating Temperature Range	-20 to 40 °C (-30 to 55 °C intermittent)
Operating Humidity Range	15 to 95% (0 to 100% non-condensing intermittent)
Mechanical Dimensions	1.75 x 0.82 x 0.35 in. (44.5 x 20.8 x 8.9 mm)
Weight	< 2 Ounces

NOTES:

1) Based on Standard Deviation of noise at zero, 1 Hz measurement 60 second averaging.
2) When zeroed after 60 minutes of power-on stabilization
3) Based on consecutive measurements of 100 ppm
4) Contact factory for custom calibration for improved measurement performance

TB Enterprise
Add:- M-402 S.G Business Hub Opp Agrawal Mall, Sarkhej - Gandhinagar Hwy, Gota, Ahmedabad, Gujarat 380060
Phone No:- 9067176874
Email Id:- info@tbenterprise.in
Website:- www.tbenterprise.in

PURELOGIC LABS

Prana Air