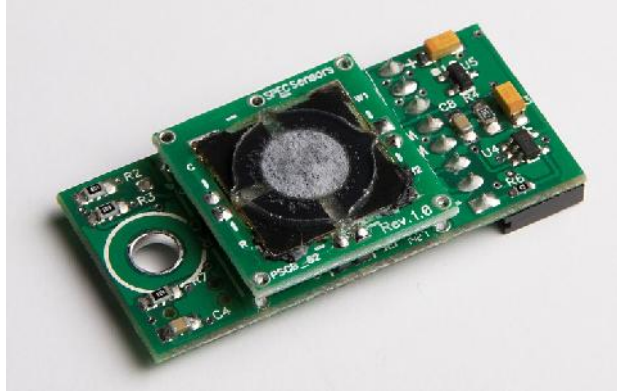


Calibrated Digital CO Sensor Module



CO MONITORING APPLICATIONS

- Life Safety Levels
- Air Quality Levels

应用:
生命保护
空气质量

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. 我们给IoT行业的气体感应提供了一个简单的方法.我们的丝网印电化技术和技术顶尖的电路和算法,使得更容易集成小的,高性能,低功耗的气体传感器到各领域.

BENEFITS

- Low Power – 1 mW @1 minute sampling
- Fast Response – 15 seconds typical
- Calibrated & Temp. Compensated Output
- Simple Digital UART Interface 好处:
- Integrated T & RH Sensors 1, 低功耗
- Robust 10-year Estimated Lifetime 2, 快速响应-15秒典型值
- ROHS Compliant 3, 输出温度补偿的数据
- Small form Factor 4, 简单的数字UART接口
- UART to USB adapter provided 5, 内置温湿度传感器
- Windows Software Utility included 6, 十年预计寿命
- Lightweight (< 2 Oz.) 7, RohS标准
- Scalable to high volume 8, 小尺寸
- 9, 提供UART到USB适配器
- 10, 包含点绕软件程序
- 11, 质量轻<57克
- 12, 大批量生产的能力

Measurement Range	0 to 1000 ppm
Resolution	0.1 ppm
Zero Accuracy	+/- 1 ppm when Zeroed after Power-up Stabilization
Measurement Accuracy	10% of reading
Measurement Repeatability	< +/- 3 % of reading or 0.5 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 55C 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) Standard test conditions 15 to 30C and 20-60% RH
- 2) Contact factory for custom calibration for improved measurement performance

注意:

- 1)标准测试环境是15-30度,湿度是20-60%
- 2)和我们联系获得如何定制化你的校正来改善测试精度

CROSS SENSITIVITY

The following table lists the relative response of common potential interfering gases, and the concentration at which the data was gathered.

Gas/Vapor	Concentration	Typical Response PPM CO	
Carbon Dioxide	5000 ppm	< 1	二氧化碳
Methane	3000 ppm	< 1	甲烷 [mi.θeɪn]
Ammonia	100 ppm	< 1	氨气
Nitrogen Dioxide	10 ppm	< 1	二氧化氮
Hydrogen Sulfide	25 ppm	< 1	硫化氢
Carbon Monoxide	400 ppm	400	一氧化碳
Ozone	5 ppm	< 1	臭氧
Sulfur Dioxide	20 ppm	< 1	二氧化硫
Chlorine	10 ppm	< 1	氯气 [klo:ri:n]
n-Heptane	500 ppm	< 1	正庚烷 [hepteɪn]
Toluene	200 ppm	< 1	甲苯 [tɒlju:ɪn]
Isopropyl Alcohol	200 ppm	1.3	异丙醇 [aɪsəʊ'prɒpəl]
Acetone	200 ppm	< 1	丙酮 [æsɪtəʊn]

SIMPLE COMMAND LIBRARY

- Continuous Data Acquisition with 5,10, 30 or 60 second
 - Sensor Re-Zero
 - Restore factory default calibration factors
 - Trigger a Measurement
 - Enable/Disable Verbose Data Output
 - Request Calibration info in EEPROM
- 简单的命令库
 1)连续数据采集5,10,30,60秒
 2)传感器重新到零
 3)恢复工厂默认校正因子
 4)触发一个测量
 5)开启/关闭一个冗长的数据输出
 6)要求EEPROM的校正信息

IMPORTANT PRECAUTIONS

All sensor designs are made for air monitoring @ 1 atm +/- 0.2 atm. Because applications of use and device implementation are outside our control, SPEC Sensors cannot guarantee performance in a given device or application, and disclaims any and all liability therefore. **Customers should test under their own conditions to ensure the sensors are suitable for their requirements.**

Contact the factory to discuss specific concerns that might damage the sensor performance or life.

- Condensation and Water (1)
- High Temperature Operation (> 40C) for more than 1 month
- Low Humidity Operation (< 15% RH) for more than 3 months
- Highly contaminated air over a prolonged period
- High levels of particles or soot (unless proper filtering is provided)[2]

- (1) Use of porous PTFE membrane or filter cap may address this concern)
- (2) Use of replaceable filter recommended where dust and particulate is expected.