SBA-5

CO_2 Gas Analyzer

With Optional H_2O Measurement

PPSystems™
Science made seamless™

The SBA-5 is designed for accurate, reliable and continuous measurement of CO_2. It is extremely easy to set up and integrate into your instrument or it can be used as a stand-alone gas analyzer. The SBA-5 features our innovative "Auto-Zero" technology ensuring long term stability, accuracy and calibration. The SBA-5 requires minimal maintenance without the need for factory recalibration that saves both time and money.

Product Features

- High precision, compact, non-dispersive infrared gas analyzer for CO_2
- Accuracy: < 1% over calibrated CO_2 range
- CO_2 ranges up to 100000 ppm (10%)
- Automatic pressure and temperature compensation
- Operation from 6-18 VDC power supply
- Small footprint (12 cm L x 3.5 cm H x 7.5 cm W)
- Powerful **GAS** software package
- Analog and digital output
- Low power consumption
- Low cost
- Available options include:
  - H_2O sensor (Solid state)
  - Sampling pump
  - Absorber column (for Zero)
  - Enclosure

User Programmable

A perfect solution for custom applications and for users that demand accuracy, reliability and long term stability

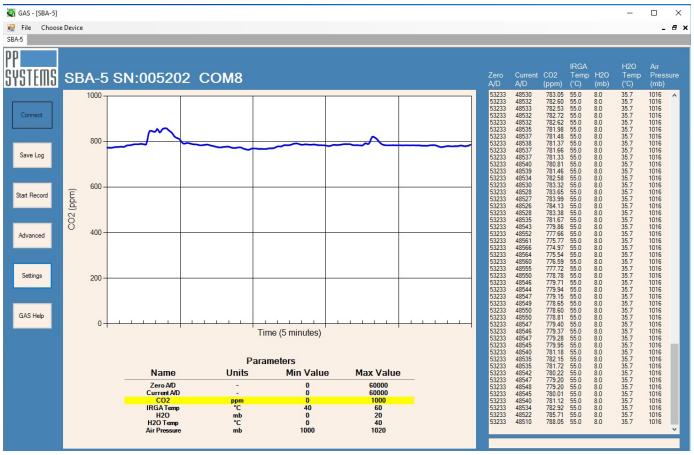
The SBA-5 can be supplied in a rugged, anodized, aluminum enclosure with convenient USB port, gas connections and terminal block for sensor inputs/outputs.

Applications

- Plant growth chambers
- Environmental control rooms
- Incubators
- Fruit storage
- FACE sites
- Breweries
- Indoor air quality and safety
- Industrial monitoring
- CO_2 leakage detection
- Oceanography
- Ambient air monitoring

GAS Software

Our **GAS** (Gas Analysis Software) software package is available for use with the SBA-5 for monitoring, logging and recording environmental sensor data.



Solution for OEM Customers

Since 1984, PP Systems has partnered up with many OEM customers offering custom solutions that meet a wide variety of applications. Our CO_2 gas analyzers have the enviable reputation for being high quality, reliable, stable, accurate and versatile. If you have a requirement for an accurate CO_2 gas analyzer that requires minimal maintenance, please get in contact with one our experienced gas analysis experts or through our extensive network of over 40 distributors worldwide.

We look forward to working with you.

Technical Specifications

Analysis Method	Non-dispersive infrared, configured as an absolute absorptiometer with microprocessor control of linearization.
CO_2 Measurement Ranges *Please specify at time of order*	0-1000 ppm (µmol mol^{-1}) 0-2000 ppm (µmol mol^{-1}) 0-5000 ppm (µmol mol^{-1}) 0-10000 ppm (µmol mol^{-1}) 0-20000 ppm (µmol mol^{-1}) 0-30000 ppm (µmol mol^{-1}) 0-50000 ppm (µmol mol^{-1}) 0-100000 ppm (µmol mol^{-1}) Readings are automatically corrected for temperature and pressure.
Pressure Compensation Range	55-115 kPa
Accuracy	< 1% of span concentration over the calibrated range but limited by the accuracy of the calibration mixture
Linearity	< 1% throughout the range
Stability	Auto-Zero at regular intervals corrects for sample cell contamination, source and detector aging and changes in electronics.
Calibration	User programmable calibration (if required)
Warm-up Time	Approximately 15 minutes
Sampling Rate	10 Hz. Sample data is averaged and output every 1.0 seconds.
Gas Flow Rate	100-1000 cc/min (200-500 cc/min is optimal).
Terminal Block	12 pin terminal block for system inputs and outputs
Analog Output	Dual 0–5V linear (CO_2 and H_2O) 4-20mA (CO_2 only)
Digital Interface	RS232 (Header and terminal block) USB (Mini Type B)
Sensor Input	1 sensor input channel (0-1V)
Power Supply	6-18 VDC
Power Consumption	Warm up: 9W Normal operation: 1.3W
Electrical Connections	USB (Mini Type B), 12 pin pluggable terminal block, 2 pin power input and 0.1" header (12 pin)
Gas Connections	Three barbed fittings (inlet, exhaust and zero) for use with 1/8" (.125") ID tubing
PCB Type	FR4
Operating Temperature	-20 to +50 °C, non-condensing External filtration is recommended in dirty/ dusty environments.
Dimensions	12 cm (L) x 3.5 cm (H) x 7.5 cm (W) (PCB only) 13 cm (L) x 4.5 cm (H) x 8 cm (W) (With enclosure)
Weight	0.2 kg (PCB only) 0.4 kg (With enclosure)
Optional Accessories	• H_2O Sensor • Sampling Pump • Absorber Column • Enclosure

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For further information, please contact us at:

PPSystems™

110 Haverhill Road, Suite 301
Amesbury, MA 01913 U.S.A.
TEL +1 978-834-0505
FAX +1 978-834-0545
EMAIL sales@ppsystems.com

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