sensors

Emissions
Measurement
Solutions

Automotive Microbench II

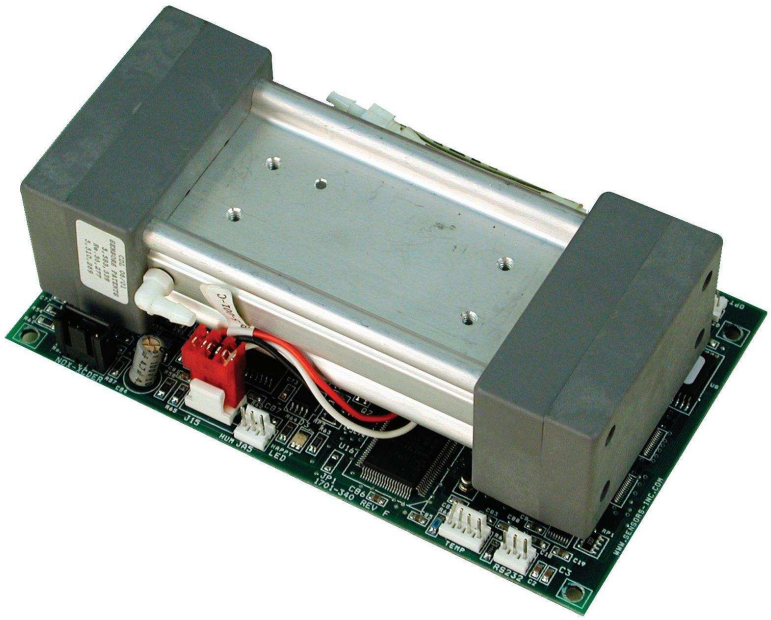
Optical Bench Module

On Board Emissions Analyzers

Test Cell Emissions Analyzers

Emissions Testing Services

Environmental Applications



Sensors' Automotive Microbench, AMBII, uses Non-Dispersive Infra-Red (NDIR) technology to measure the levels of CO, CO_2 and HC in the exhaust of both spark ignited and compression ignited engines. The analyzer meets worldwide measurement standards, while maintaining a light-weight, compact package and a low cost. With a power consumption of only 10 Watts and the elimination of all moving parts, the lifetime operational costs of the unit remain low, while continuously providing accurate and reliable gas measurement data.

Automotive Microbench II
Optical Bench Module

International Standards

The AMBII was designed to meet the following standards for emission inspection and maintenance programs:

- BAR97
- OIML R 99 class I
- OIML R 99 class 0
- ISO 3930

Options

The following options add flexibility to the standard AMBII platform.

- O_2 electrochemical sensor
- NOx measurement
- Connection for an external RPM probe
- Oil temperature
- High resolution A/D channels

AMBII Specifications

Gas	Standard Range	Resolution	Lower Detection Limit	High Range	Resolution	Accuracy
HC	0 - 2,000 ppm Hexane 0 - 4,000 ppm Propane	1 ppm	4 ppmh	0 - 20,000 ppm Hexane 0 - 40,000 ppm Propane	10 ppm	±4 ppmh or 3% reading (whichever is greater)
CO	0 - 15%	0.01% Vol	0.02%	-	0.001% Vol.	±0.02% ppm or 3% reading (whichever is greater)
CO_2	0 - 20%	0.1% Vol.	0.3%	-	0.01% Vol	±0.3% ppm or 3% reading (whichever is greater)
O_2*	0 - 25%	0.01% Vol.	-	-	-	±0.1% O_2
NOx*	0 - 5,000 ppm	1 ppm	-	-	-	±25 ppm or 4% reading (0-4000 ppm) ±25 ppm or 8% reading (4001 - 5000 ppm)

* Options

Ambient operating temperature:	-12°C to 48°C
Storage temperature:	-50°C to 70°C
Sample flow rate:	0.3 - 6.0 LPM
Data rate:	1 Hz
Response time:	T90 = 3.5s
Operating Pressure:	750 - 1100 mbar (1000mbar nominal)
Power Requirements:	5 VDC ±0.25V, 3A max
Communications:	RS232, 9600 baud

NOTE: Specifications are subject to change without notice. While due caution has been exercised in the production of this document, possible errors and omissions can occur.

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