

FMS

Field Metabolic System

A rugged, portable, fully integrated field metabolic system

The FMS is a fully integrated respirometry system about the size of a briefcase. The FMS combines O₂, CO₂, and H₂O analysis with data acquisition and subsample flow control and measurement. Whether in the lab or field, the FMS has all the versatility needed in a respirometry system without compromising accuracy.

Onboard Data Storage

Capable of onboard data logging using an internal SD card (up to 32 GB).

Expandable

Accompanied by an external expansion box with eight 0-5V analog inputs to connect other devices to the FMS. The expansion box also provides eight TTL level digital outputs for external device control.

Barometric Pressure Compensation

Standard in our analyzers, barometric pressure compensation eliminates errors caused by ambient pressure variation.

Three-year warranty

Sable Systems instruments are warranted to be free of defects in material or workmanship for a period of three (3) years from date of purchase. See website for warranty policy.



FEATURES

Fully-integrated respirometry system optimized for field use

Rugged case with carry handle for maximum portability

Onboard SD card data storage allows storage of information without a separate computer

Barometric pressure compensation

8 analog inputs for other analyzers or sensors

Connect recording instruments through 8 analog outputs

Touch screen control

New smaller footprint for improved portability

FMS Field Metabolic System

Lifetime Technical Support

Our technical support team will help you overcome any challenges you may face with equipment setup as well as provide advice and assistance on future applications.

Optional Accessories

BP-R: For ultimate portability, order a rechargeable Li-ion battery pack (4.8 A-H) lasting up to 6 hours run time.

CABLE-B-BC: Cable for use with customer supplied batteries.



SPECIFICATIONS

SENSOR TYPE	O ₂ fuel cell; CO ₂ dual wavelength, non-dispersive infra-red; H ₂ O thin-film capacitive; External Temperature type T thermocouple
OXYGEN SENSOR LIFE	2 years in normoxia, typical
RANGE	O ₂ 0-100%; CO ₂ 0-5%; H ₂ O 0-100% RH; Temperature 0-100° C
ACCURACY	O ₂ 0.1% typical, 2-100%; CO ₂ 1% of reading typical over range of 0-5%; H ₂ O 1% typical 0-95% RH, better than 2% 95-100%; Temperature 0.2° C
RESOLUTION	O ₂ 0.001%; CO ₂ 0.0001%-0.01% depending on concentration; H ₂ O 0.001% RH, 0.01° C dewpoint
DRIFT	O ₂ at constant temperature and [O ₂] <0.02% per hr; CO ₂ at constant temperature and 0% [CO ₂] <0.001% per hr; H ₂ O at constant temperature with constant N ₂ flow < 0.01% RH/hr
WEIGHT	FMS 9 lbs (4 kg); Expansion Box 2 lbs (1 kg)
DIMENSIONS	FMS L: 14 in (35 cm), W: 12 in (30 cm), H: 6 in (15 cm); Expansion Box L: 7 in (17 cm), W: 7 in (17 cm), H: 3 in (7 cm)
POWER REQUIREMENTS	12-15 VDC nominal, 225-850mA consumption, universal AC adapter supplied
FLOW RATE	10-1,500 mL/min
FLOW ACCURACY	2% of reading, typical
FLOW RESOLUTION	0.1 mL/min from 0-99.9 mL/min, 1 mL/min above 100 mL/min
ANALOG INPUTS	Eight bipolar analog inputs for voltage standard
ANALOG OUTPUTS	Eight 0-5V outputs, for user-configurable ranges
DIGITAL DATA OUTPUTS	RS-232 from USB port, SableBus from 5-pin DIN
DIGITAL CONTROL OUTPUTS	8 TTL logic signals
INTERNAL DATA STORAGE	SD Card (up to 32 GB)
RECORDING INTERVAL	User selectable from 0.5 sec to 1 hr
OPERATING CONDITIONS	3-50° C, non-condensing
STORAGE CONDITIONS	3-60° C



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