



PROMETHION<sup>TM</sup>  
ROOM CALORIMETRY

REVOLUTIONIZING **METABOLIC MEASUREMENT**

# Turnkey Room Calorimetry System

Sable Systems' Promethion room calorimetry system incorporates the GA-6 dual channel combined O<sub>2</sub>, CO<sub>2</sub>, and H<sub>2</sub>O analyzer with an FG-1 flow generator providing a compact, complete respirometry system capable of synchronously recording all measured parameters in a completely traceable manner.



## Traceable

All raw data are synchronously recorded and stored to allow the user to apply the latest algorithms for data analysis. No data are ever lost or compromised.

## Versatile

Designed for use with rooms, the system can easily be adapted to smaller chambers or masks with no additional expense.

## Background Baselineing

The patent pending GA-6 dual analyzer chain allows for baselineing without interruption of data acquisition.

## Water Vapor Dilution Compensation

Relative humidity is monitored in both incurrent and excurrent air streams, allowing mathematical compensation for water vapor dilution and practically eliminating scrubber chemicals.

## Lifetime Technical Support

Our technical support team will ensure you get the most out of your equipment and provide advice and assistance on future applications.

## Expandable Configurations

**Room Temperature:** Additional environmental sensors can be integrated into the system data stream.

**Activity Detection:** Passive infrared activity monitoring is also available.

**Body Temperature:** Third party telemeter data can be easily integrated into the data stream to provide a more complete picture of total energy expenditure.

## GA-3M2 Specifications

**Sensor Type:** O<sub>2</sub>: fuel cell, CO<sub>2</sub>: dual wavelength, non-dispersive infra-red, H<sub>2</sub>O: thin-film capacitive

**Oxygen Sensor Life:** 2 years in normoxia, typical easily replaced

**Range:** O<sub>2</sub>: 0-100%, CO<sub>2</sub>: 0-5%, H<sub>2</sub>O: 0-100%RH

**Accuracy:** O<sub>2</sub>: 0.1% typical, 2-100%, CO<sub>2</sub>: 1% of reading typical, H<sub>2</sub>O: 1% typical 0-95%RH, better than 2% 95-100%

**Resolution:** O<sub>2</sub>: 0.001%, CO<sub>2</sub>: 0.0001%-0.001% depending on concentration, H<sub>2</sub>O: 0.001%RH, 0.01°C dewpoint

**Drift:** O<sub>2</sub>: at constant temperature and [O<sub>2</sub>] <0.02% per hr, CO<sub>2</sub>: at constant temperature and 0% [CO<sub>2</sub>] <0.001% per hr, H<sub>2</sub>O: At constant temperature with constant N<sub>2</sub> flow < 0.01%RH/hr

**Flow Rate:** 400-2000mL/min per channel

**Internal Temperature Range:** Room Temperature +5 to 50 °C

**Internal Temperature Accuracy:** 0.2 °C typical from -5 to 60 °C

**Internal Temperature Resolution:** 0.001 °C

**Barometric Pressure Resolution:** 0.0001kPa

**Barometric Pressure Accuracy:** 0.1% of reading

## FG-250 Specifications

**Flow Rate:** 50-250L/min

**Flow Accuracy:** 2% of reading, typical

**Flow Resolution:** 0.1L/min

## Shared Specifications

**Weight:** 120lbs/55kg (136lbs/62kg with packaging)

**Dimensions:** W: 28in/71cm, H: 31in/79cm, D: 28in/71cm

**Power Requirements:** 12-15VDC nominal 5Amp consumption, universal AC adapters supplied

**Digital Interface Protocol:** Sable Bus CAN Protocol, Direct digital data transfer

**Operating Conditions:** 0-50 °C, non-condensing

# Contact Sable Systems.

We encourage you to discuss your application with us.

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