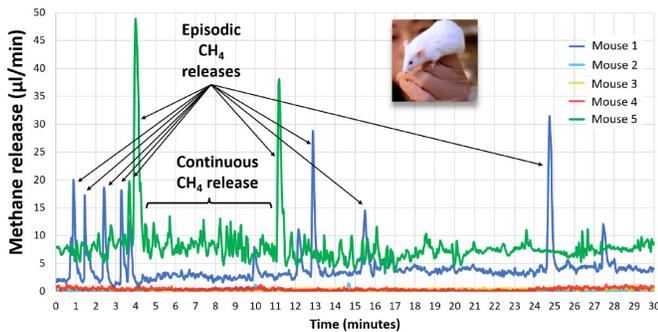


# Promethion Methane Gas Analyzer

Real-time measurement of discrete, small quantities of methane

The new Promethion Methane Gas Analyzer is a cutting-edge upgrade to our Promethion™ Core systems. Our methane analyzer is the only one available with the resolution and sensitivity to meet the demanding application of flow through respirometry. The methane analyzer data is synchronously added to the Promethion Core metabolic and behavioral data as well as the Promethion Stable Isotope Analyzer data.



Methane production from 5 mice. Mice 1 and 5 produced methane whereas mice 2, 3 and 4 produced almost no methane and no episodic releases.

Using this device with Promethion Core and the Stable Isotope Analyzer, a myriad of metabolic studies are now available including experimental manipulations of diet, pharmaceuticals, microbiome, transgenics, exercise, thermal exposure, age, and sex. For gnotobiotic studies, mice can be housed in our pathogen free [isolation cages](#).



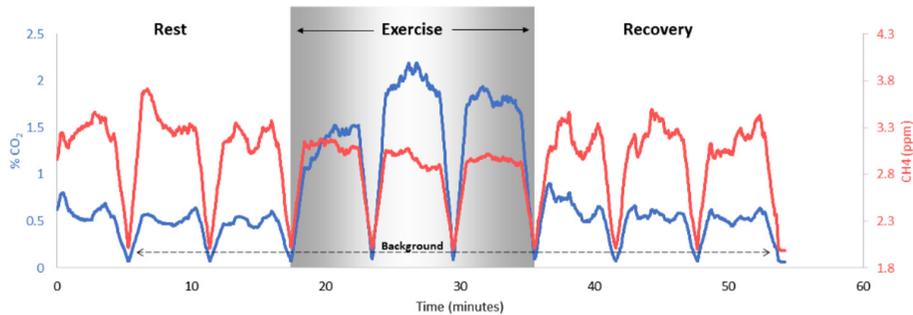
## FEATURES

- Fast response time and low power requirement
- Wide CH<sub>4</sub> measurement range: 0-100 ppm with high precision (0.9ppb per second)
- One analyzer can be multiplexed with up to 8 cages
- Synchronous coupling with Promethion Core and Field Metabolic Systems
- Real time analysis with Promethion Live Software
- No consumables or external calibration required

Experimental metrics include the number and magnitude of individual methane events, constitutive methane production, and cumulative methane production.

# Methane Gas Analyzer

## Human and other large animals – Measure constitutive methane production from breath in real time



Methane (red) and carbon dioxide (blue) production from a human before, during and after exercise. Both gasses were sampled continuously.



The Methane Analyzer can be coupled with the FMS indirect calorimetry system or the Promethion Room Calorimetry system for humans or when high resolution flow through measurements are required. The gas collection interface can be a mask, canopy, or custom enclosure.



## SPECIFICATIONS

### PRECISION

(1 SECOND / 10 SECONDS / 100 SECONDS)

[CH<sub>4</sub>]: 0.9ppb / 0.3ppb / 0.1ppb

[CO<sub>2</sub>]: 6ppm / 2ppm / 1ppm

[H<sub>2</sub>O]: 200ppm / 60ppm / 30ppm

### MEASUREMENT RANGE (MEETS ALL SPECIFICATIONS)

[CH<sub>4</sub>]: 0-100 ppm standard

[CO<sub>2</sub>]: 0-20,000ppm

[H<sub>2</sub>O]: 0-30,000ppm

### FLOW TIME RESPONSE

3Hz

### SAMPLING CONDITIONS

Sample Temperature: -40° – 50 °C

Operating Temperature: 5° – 45 °C

Ambient Humidity: 0-99% relative humidity non-condensing

### DATA OUTPUTS

WiFi, Ethernet, USB, MIU connection (8 ports), Serial (RS-232)

### POWER REQUIREMENTS

10-30 VDC or 110/240 VAC

27W

120W Power supply/charger included

100Wh internal battery included, 3-hour autonomy

### DIMENSIONS (H X W X D)

12cm x 34 cm x 29.5 cm

6 in. x 13.4 in. x 11.6 in.

### WEIGHT

6.1 kg (13.5 pounds) with internal battery

## ABOUT US

Sable Systems International designs and manufactures leading-edge gas, metabolic and behavioral measurement systems for calorimetry, respirometry, metabolic/behavioral phenotyping, and gas analysis. Our products enable the highest precision and resolution, optimum workflow and reliable performance – giving you utmost confidence in your results. By scientists, for scientists, Sable enables results that impact research and industry breakthroughs.



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