Metabolic Cages
## with Feeding/Drinking Analysis

Cat. No. 41853

General

Ingestive behavior sustains life, but in some forms can lead to serious conditions as obesity, diabetes, and chronic inflammation.

Understanding the signals that initiate ingestion and satiety require synchronized data with high temporal resolution, especially if the pattern of Ingestive events is important.

Animal models (for example, obese and diabetic mice) exhibit symptoms similar to those in humans.

When closely monitored model organisms reveal relevant differences that may correlate with those of human disorders in vital parameters such as feeding/drinking (quantity & frequency of food/drink uptake), activity (with optional I.R. motion detectors) and excretion (the latter assessed by volume or weight).

Ugo Basile introduces a new higher resolution model of feeding analiser, resulting from our cooperation with SABLE SYSTEMS International, worldwide leader in metabolic and intake measurement.
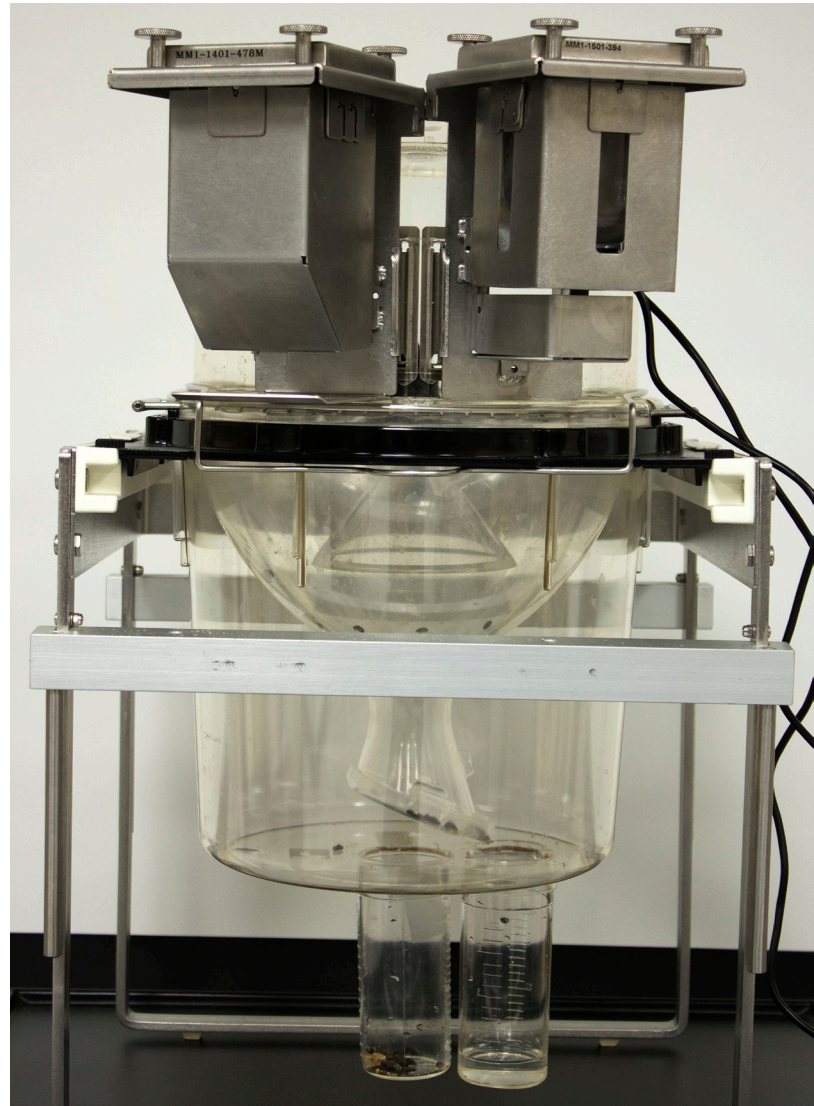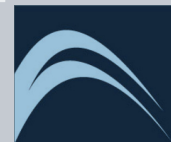

for Mice only

DESIGNED TO MEASURE:
- FEEDING BEHAVIOUR
- EXCRETORY FUNCTIONS
- ACTIVITY (OPTIONAL)

SABLE inside

INNOVATIVE DESIGN

- facilitates retrofitting of Ugo Basile older models of Mouse Feeding Analyser

- makes upgrade from simple Metabolic Cage to Feeding Analyser extremely easy!

For all types of investigations on METABOLISM, including:

- preclinical trials evaluating treatments for anorexia

- addiction/aversion to particular substances

- thirst arousing and quenching mechanism

- feeding habits and their modification brought about by environmental conditions or toxicity

Ugo Basile: more than 10,000 citations

This innovative ingestive behavior system includes:
- a basic Metabolic Cage
- a mass measurement system
- an interface and software routine
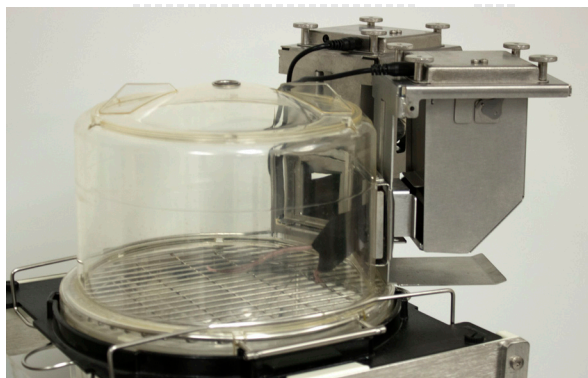- an optional activity sensor

Basic Cage Design

These carefully engineered metabolic cages are manufactured by TECNIPLAST, see separate datasheet, for separation and quantification of urine and faeces.

All components below the cage floor are removable without upsetting the test animal.

Feeding and Drinking Analysis

Basic Metabolic Cages are upgraded with the addition of the FiWi High-ResolutionFood and Water Systems, for intake quantification and meal patern analysis.

At the heart of the system is the Sable MM1 food and water load sensor, providing high quality results.


Activity Detection

This versatile option measures the ambulatory activity of the rodent can be measured via the optional Environmental Sensor Array (ESA), monitoring environment and activity.

The ESA Environmental Sensor Array also provides monitoring of light and sound level, barometric pressure, cage temperature, and relative humidity, all relevant data for the animal welfare and test repeatability.

Data Recording

Data are recorded and analysed by software/interface package 41850-010 which includes EXPEDATA (data analysis) and METASCREEN (data acquisition) software and IM-2 Interface Module.

Food and Water intake related to activity of a mouse in the FīWī system.
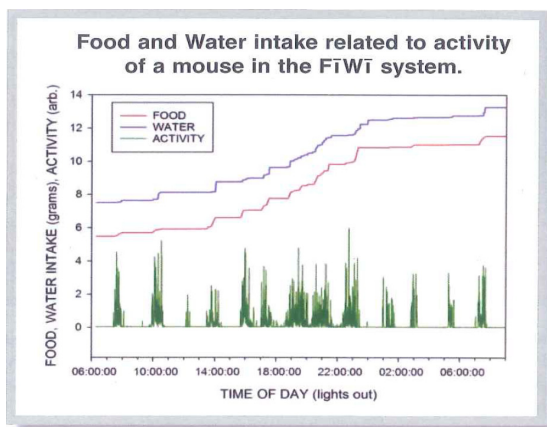
Ordering Information

METABOLIC CAGES WITH FOOD & DRINK RECORDING PROVISION

41853 Feeding/Drinking Monitoring system: one Mouse Metabolic Cage, provided with stainless-steel food and water hoppers, precision mass monitoring unit (0-1000g, 3mg resolution) & cage controller, plus software/interface pckg. 41850-010

41853-X2 Sistem of 2 Metabolic Cages, as above
41853-X3 Sistem of 3 Metabolic Cages, as above
41853-X4 Sistem of 4 Metabolic Cages, as above
41853-X5 Sistem of 5 Metabolic Cages, as above
41853-X6 Sistem of 6 Metabolic Cages, as above
41853-X7 Sistem of 7 Metabolic Cages, as above
41853-X8 Sistem of 8 Metabolic Cages, as above

Product Specifications (MM1 sensor)

Rated Load:	up to1Kg
Resolution:	0.002g RMS at 2s digital filtration
Sensor Type:	Quad strain gauge
Data Precision:	24bits (better than 1 part in 500,000)
Operating Temperature:	**-20 to 60°C**

Optional

41850-005 SSI Environmental Sensor Array (ESA)

Product Specifications (ESA sensor)

Light sensor:	0.05 to 10,000 Lux (auto ranging); resolution: 0.05 Lux-1 Lux
Sound sensor:	20 -100+ dB range
Temperature:	range 0-60°C, resolution: 0.01°C
RH Sensor:	range 0-100% (non condensing), resolution: 0.01%
Barometric Pressure:	range 40-110 kPa, resol. 0.001 kPa