Plethysmometer
Cat. No. 37140

General

In research on rheumatoid arthritis, the central development of oedema, and its modifications by pharmacological processes, it has proved of great value to measure inflammatory processes in the rat paw.

Our Plethysmometer 37140 displays the exact paw volume on the graphic LCD read-out. Small differences are detected by a transducer of original design.

The 37140 is provided with a pedal holding-command which freezes the reading, enabling the operator to concentrate its attention to the paw dipping.

The paw volume is shown on the multifunction graphic display in four digits, with 0.01 ml resolution. A zero key is provided to zero the meter before each measurement.

Including measuring cell for both RAT & MOUSE paw!!

FOR ACCURATE MEASUREMENT OF:
- RAT paw oedema
- MOUSE paw oedema

MICROPROCESSOR Controlled Instrument. Main Features:
- Computer compatibility: direct connection to PC (via the 52050 Software included)
- Read-out: multifunction graphic display
- Print-out: by optional thermal MiniPrinters 57145

Ugo Basile: more than 10,000 citations
Volume Measuring Water Cell

The measuring cell consists of two vertical interconnected Perspex tubes; the animal paw is dipped in the larger tube (1.8cm diam) to measure water displacement. A tube of smaller diameter (1.3cm) is also included for measuring the mouse paw.

The smaller diameter side tube contains the transducer which measures the conductance between two vertical wire electrodes.

Conductance is linearly proportional to the water level, hence to the displaced volume.

Data Acquisition

The 37140 Plethysmometer is microprocessor controlled, featuring direct PC output. Internally stored data can be routed to the PC serial (RS232) or USB port (via adaptor).

Communication is managed by the dedicated Software Cat. 52050-02, a Windows® based Data Acquisition Software Package, which enables data storage into individual files (in .csv format) to be easily managed Excel or other statistical analysis packages.

Also Available

- **37140-25** Plethysmometer, complete with water cell diam. 2.5cm & standard accessories
- **37140-35** Plethysmometer, complete with water cell diam. 3.5cm & standard accessories

Other Available Water Cells

- **7157** Special Water Cell, diam. 2.5cm, complete with Transducer 7153-L
- **7159** Special Water Cell, diam. 3.5 cm, complete with Transducer 7153-L

Optional

- **57145** Thermal Mini-Printer
- **37400-305** Thermal Paper Roll for 57145

Specifications

- **Power Requirement**: Universal input 85-264 VAC, 50-60Hz, 40 W max.
- **Data Read-out**: multifunction graphic display
- **Data Format**: 4 digits (2 integers, 2 decimals)
- **Resolution**: 0.01 ml
- **Commands via soft-buttons**
- **Connection to PC**: direct connection to PC USB port, via serial to USB adaptor
- **Data Print-Out via the optional MiniPrinter 57145**

Physical

- **Weight**: 4.8 Kg
- **Shipping Weight**: 8.1 Kg approx.
- **Shipping Dimension**: 67x42x53cm

Bibliography

- D. Piomelli et alia: “Anandamide suppresses pain initiation through a peripheral endocannabinoid mechanism”. Nature NSC, 2010