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## DYNAMIC PLANTAR AESTHESIOMETER

Cat. No. 37400

### MECHANICAL STIMULATION

### ASSESSMENT OF ANIMAL SENSITIVITY TO LIGHT TOUCH OF THE PAW

#### NEW INSTRUMENT, featuring:-

- Computer compatibility : direct connection to a PC (via optional 52010 software)
- Read-out : multifunction graphic display
- Print-out : by incorporated thermal printer

*Micro-  
processor  
Controlled  
Unit*



#### GENERAL

The 37400 Dynamic Plantar Aesthesiometer is a new instrument for the assessment of "touch sensitivity" on the plantar surface of the rodents.

Somesthetic (mechanical) stimulation has a long history of effective clinical use to diagnose pathologies of hyper- or hypo- aesthesia, brought about by drugs, neural pathology or experimental lesions, etc., in model and experimental systems using laboratory animals.

The instrument basically consists of:

- a movable touch-stimulator unit
- a framed metal mesh
- a two-compartment animal enclosure
- a microprocessor controlled electronic unit, provided with graphic LCD display, serial port (RS232) and thermal printer

The electronic unit, enclosed into a tiltable cylindrical case of original design, has an internal memory for data storage, scrolling screen review and optional output to PC.

# DYNAMIC PLANTAR AESTHESIOMETER

Cat. No. 37400



**UGO BASILE**

Via G. Borghi 43, 21025 COMERIO – VA- ITALY  
www.ugobasile.com

## OPERATION

The rat, mouse or other small rodent moves about freely in one of the compartments of the enclosure, positioned on the metal mesh surface.

After cessation of exploratory behaviour, the operator places the touch-stimulator below the target area of the animal paw, using the adjustable angled-mirror to position the filament.

Pressing **START** key provided at both sides of the handle of the touch-stimulator vessel, invokes the following automatic sequence:

- an electrodynamic actuator of proprietary design lifts a straight metal filament;
- the filament touches the plantar surface and begins to exert an upward force below the threshold of feeling;
- the force increases (at the preset application rate), until a stop signal is attained, either the animal removing the paw or the point at which greatest preset force is met.



The actuator filament (0.5mm diameter) produces force over the entire range of all typical aesthesiometer test devices.

Paw withdrawal reflex is automatically recorded using two metrics: the latency until withdrawal, in seconds, and the force at which paw was withdrawn, in grams.

## BASIC SPECIFICATIONS

Starting : via keys on the touch-stimulator vessel  
Force range : 0 to 50.0 grams, in 0.5 g steps  
Force increasing rate : adjustable in the interval 1 to 20 seconds, in 1 s steps  
Filament travel : 12 mm  
Latency time : read-out on graphic display, in 0.1s steps  
Connection to PC : through DELTA 9-pin connector

## DATA ACQUISITION

The 37400 microprocessor controlled and features direct PC output. Internally-stored data can be routed via a 9-pin D-type connector to the PC serial port (RS232).

Data output is managed by 52050-06 Data Acquisition Software Package (Windows® based), which enables the research worker to store the data into individual files, ready to be easily managed by most statistical analysis packages available on the market. **Ask for details!**

## ORDERING INFORMATION

**37400 DYNAMIC PLANTAR AESTHESIOMETER**, complete with following standard accessories:

- 37400-001** Microprocessor controlled electronic unit
  - 37400-002** Touch stimulator, complete with filament actuator and adjustable angled-mirror
  - 37400-003** Platform with supporting columns
  - 37400-005** Framed metal mesh
  - 37400-006** Two-compartment animal enclosure
  - 37400-305** Package of 10 Heat Sensitive Paper Rolls
  - 37400-302** Instruction manual
  - 37400-321** Set of two 0.5 mm diam. stainless-steel filaments and two calibration weights (5 & 50 g)
  - 37400-324** 4-Space Partition for Animal-Enclosure
  - 37400-326** 6-Space Partition for Animal-Enclosure
  - E-WP008** Mains Cord
- Set of 2 fuses for either 230V or 115V operation

## Physical

Power Requirements : 115 or 230 V, 50/60 Hz  
20 W max.  
Dimensions: Electronic Unit : cm 26(w) x 13(d) x 12(h)  
Assembled Platform : cm 50(w) x 32(d) x 40(h)  
Total Weight : Kg. 10.20  
Shipping Weight : Kg. 18.50 approx.

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