

Tail Flick Meter and Hot Plate Analgesia Meter



Tail Flick Analgesia Meter

- For rapid screening of analgesic drugs using rats (as described by D'Amour and Smith)

This meter measures a rat's reaction time to radiant energy, from a 150 watt light source. The beam is focused on its tail using a parabolic reflector. The energy of the light source can be adjusted and the display indicates, as a percentage, how much energy is being utilized.

An optical sensor is located underneath the focused light source. The rat should be positioned such that its tail obscures the focused light source from the sensor. When the system is started, either using the supplied footswitch or front panel mounted start key the light source illuminates and a timer starts counting in tenths of a second. When the rat's tail flicks, indicating its pain threshold, it uncovers the sensor. This tail movement turns off the timer and light source. Reaction time can be read directly from the display in seconds and tenths of a second.

A standard parallel port permits connection to a printer to record the trial number, energy level and reaction time. A calibration facility allows the light source to be set to the desired level before commencing with the experiment.

Mouse version is also available. Please contact Harvard Apparatus for details.

Specifications

| | |
|-----------------------|---|
| Lamp Intensity | 150 W, adjustable between 0 and 100% in 1% increments |
| Timer Range | 0 to 99 min 59.9 secs in 0.1 sec steps |
| Printer Interface | Centronix parallel |
| Lamp Heat Control | Digital DC regulated |
| Dimensions, H x W x D | 260 x 450 x 260 mm (10 x 18 x 10 in) |
| Weight | 9 kg (19.8 lbs) |

Order # Product

- PY2 52-9487** Tail Flick Analgesia Meter, 115 VAC, 60 Hz
PY2 52-9495 Tail Flick Analgesia Meter, 240 VAC, 50 Hz



Hot Plate Analgesia Meter

- Digital display of plate temperature
- Digital timer with remote start stop
- Accurate temperature control from 35°C to 65°C ($\pm 0.3^\circ\text{C}$)

The Harvard Apparatus UK Hot Plate Analgesia Meter is a sophisticated temperature control and timing system, and has been designed to perform rapid and precise screening of the narcotic type analgesic drugs (Morphine, Codeine, etc.) according to the Eddy and Leimback hot plate test. This method evaluates the reaction time of mice when a heat stimulus is applied to the plantar surface. This reaction time increases when a central analgesic is administered to the animal. This system can be used with both mice and rats.

Utilizing a simple user interface the user can quickly and easily set up the required hot plate temperature and a large easy to read LED display shows the current temperature.

The timer requires a single press of the Start / Stop Key to start and another press to stop, with reset automatically executed when timing is initiated. This function is also duplicated by a remote Start/Stop footswitch (supplied). The reaction time is again clearly displayed on a large LED display.

Using digital electronics, the hot plate temperature is constantly monitored and regulated to ensure the actual temperature and the desired temperature accurately match. The system also monitors the heating characteristics of the system and uses this data to minimize heating overshoot, providing faster temperature stabilization.

Specifications

| | |
|-----------------------|---|
| Temperature Range | 35° to 65°C |
| Temperature Stability | $\pm 0.3^\circ\text{C}$ |
| Temperature Control | Digital proportional PWM |
| Timer | Digital readout in 0.1 sec increments |
| Timer Range | 0 to 9 mins 59 secs 9 tenths of a sec |
| Remote | Momentary make to start/stop |
| Remote Socket | 6.35 mm 2 pole jack |
| Animal Container | Two furnished, large round cylinders |
| Mains Supply Voltage | 115 VAC/230 VAC, 50/60 Hz (factory set) |
| Dimensions, H x W x D | 128 x 275 x 293 mm (5 x 10.8 x 11.5 in) |
| Weight | 4.5 kg (9.9 lb) |

Order # Product

- PY2 52-8570** Hot Plate Analgesia Meter 110 to 115 VAC, 60 Hz
PY2 52-8588 Hot Plate Analgesia Meter 220 to 230 VAC, 50 Hz



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