



## Grip Strength Meter for Rat

Cat. No. 47105

### General

This Grip Strength Meter measures forelimb grip-strength in rodents. The effects of drugs, toxins, muscle relaxants, disease, ageing or neural damage on muscle strength may be assessed.

The animal is placed over a base plate, in front of a grasping bar (either T-shaped or trapeze-shaped), whose height is adjustable. The bar is fitted to a force transducer connected to the Peak Amplifier.

When pulled by the tail, the animal grasps at the bar; rodents instinctively grab anything they can to try to stop this involuntary backward movement, until the pulling force overcomes their grip strength.

After the animal loses its grip on the grasping bar, the peak preamplifier **automatically stores the peak pull-force achieved by the forelimbs** and shows it on a liquid crystal display.



With grasping-BAR, TRAPEZE or GRID

**TO ASSESS THE FORCE REQUIRED TO MAKE A MOUSE OR A RAT RELEASE GRIP**

### Main Features

- analogue output for force curve display
- stand-alone peak amplifier and continuous reading mode
- grasping-bar and grasping trapeze (grid optional)
- force transducer of adjustable height
- base plate of black sand-blasted Perspex

## General

The instrument basically consists of a base plate of black sand-blasted Perspex, complete with upright and open-side boss-head to hold a force transducer at adjustable height.

The transducer 47105-002, provided with cable & connector to the peak amplifier, incorporates a grasping bar; a grasping trapeze is also supplied.

## Peak Preamplifier

The Rat transducer may be connected to the same Peak Amplifier 47105-001.

The display automatically shows the grip force expressed in grams, when testing a rat, and in gram decimals when operating with the mouse.

## Data Acquisition

The data supplied by the peak amplifier are available in digital and analog form. The waveform of the pull can be externally recorded, or can be further processed via analog data acquisition systems.

A BNC cable is supplied with the standard package, to connect the 47105-001 to our DataCapsule or to digital recorders of other make, for the recording of force against time.

## Ordering Information

**47105 Rat Grip-Strength Meter**, complete with following standard accessories:-

<b>47105-001</b>	Peak Amplifier, incorporating a digital display
<b>47105-002</b>	Force Transducer assembly for Rat
<b>47105-004</b>	Perspex Plate with 10 mm diam. upright
<b>4003</b>	Open-side Boss Head
<b>47105-301</b>	Dust Cover for the electronic unit
<b>47105-302</b>	Instruction Manual
<b>47105-321</b>	Trapeze for Rat

## Bibliography

- L. Bach-Rojecky & I. Samarzija: "Influence of Ethanol on the Myorelaxant Effect of Diazepam in Rats" Acta Pharm. 55: 115-122, 2005
- R. D'Hooge et alia: "Neurocognitive and Psychotiform Behavioral Alterations and Enhanced Hippocampal Long-Term Potentiation in Transgenic Mice Displaying neuropathological Features of Human  $\alpha$ -Mannosidosis" 25(28): 6539-6549, 2005
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