

A QUICK, EASY TO USE AND RELIABLE INSTRUMENT TO ASSESS THRESHOLD SENSITIVITY



SMALGO

SMall Animal ALGOmeter

INSTRUMENT OVERVIEW

Bioseb's SMALGO (SMall animal ALGOmeter) is a new pressure-based analgesimeter **especially designed for small animals like rats and mice.**

Bioseb's SMALGO fits on your finger (thumb or index) and allows to easily apply a force or pressure on the desired location. Designed for OA quantification, it is generally used on the knee joint or on the lumbar vertebrae for low back pain assessment.

HOW DOES IT WORK?

Once the operator adjusted the algometer to their index or thumb, and thanks to the miniature size of the apparatus, they can apply a progressive pressure to the relevant location on the animal, **as if they were applying the pressure directly with their own finger.**

The **pressure value triggering an escape reaction is automatically determined and displayed** on the screen of the instrument.

The sensor has a 1500 grammes capacity with 0,1% accuracy and so can be used for both rats and mice - two different rounded bits with different surfaces are provided to fit the different species and applications.

The **BIO-CIS software is included** and allows to display the force and can be used either to train on the way the force is applied (repeatability) or to compare and discard extra limits trials.

The **threshold sensitivity** of the animal (rats or mice) is **quickly and reliably determined by applying a progressive force.** The threshold is immediately displayed on the electronic device in grams or Newtons.

SMALGO can also be used for screening purposes applying a known force for a considered period.

KEY FEATURES

- EASY TO USE AND RELIABLE
- WORKS FOR BOTH RATS AND MICE
- CAN BE USED TO DETERMINE PAIN THRESHOLD WITH A PROGRESSIVE FORCE
- CAN BE USED TO SCREEN DRUGS WITH A GIVEN FORCE
- THRESHOLD IS IMMEDIATELY DISPLAYED
- PRESSURE VALUE TRIGGERING AN ESCAPE REACTION IS AUTOMATICALLY DETERMINED
- INCLUDES A SOFTWARE FOR DATA TRANSFER TO EXCEL
- OPTIONAL USB FOOTSWITCH LETS YOU RESET THE DISPLAY WITH HANDS FREE
- A MUST FOR OSTEO-ARTHRITIS AND PAIN STUDIES

An innovative sensor

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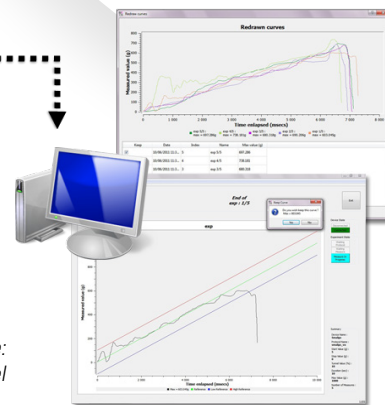
SMALGO: Bioseb's Small Animal ALGOMETER



DEDICATED SOFTWARE

An **embedded statistical computation** has been included in the electronic device. This is a very useful feature that has been very well received and used by users of large numbers of tests. The display shows in real time the mean, standard deviation and variation coefficient from groups of animals.

The **included BIO-CIS software** sends data acquired via the SMALGO Algometer into a MS Excel sheet using the RS232 port and USB converter. Easy to set up, this soft interface also allows the display of the applied force vs. time for different trials, which is a useful function for the technician training (repeatability improvement).



Bioseb's Bio-CIS software:
Export data from the Vetalog to Microsoft Excel

DOMAINS OF APPLICATION

- Osteo-arthritis (for instance Pain by Percutaneous Injury-Induced Lumbar Facet Joint Osteoarthritis)
- Drug screening: Rapid Precise Screening of Analgesic Drugs
- Phenotyping: improvement assessment of functional recovery and/or hyperalgesia
- Neuropathy: Detection of Neuropathic Pain after Spinal Cord Injury
- Inflammation: Assessment of Anti-Inflammation and antinociceptive effects of drugs
- Post-operative pain: especially suitable for Spinal Cord Injuries

HIGHLIGHTED BIBLIOGRAPHY Exhaustive list on our website



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Evidence for a differential opioidergic involvement in the analgesic effect of antidepressants: prediction for efficacy in animal models of neuropathic pain? *Br J Pharmacol.* (2011), Wattiez AS. et al, DOI: 10.1111/j.1476-5381.2011.01297.x

TECHNICAL SPECIFICATIONS

| | |
|---------------------|---|
| Measuring Range | 0 to 1500 grams (15 N) |
| Sensitivity | 0.1 gram or 0.01 N |
| Tips | 3, 5 or 8 mm in Diameter (stainless steel) |
| Sampling speed | Automatically detect the respond to pain at 1000 Hz |
| Overload protection | 200% |
| Display | Extra-large to read both Peak (threshold) applied force and current force values |
| Dimensions | 178x85x151 without probe |
| Memory | SMALGO includes internal memory for 100 measures . Easy to use internal statistic package for a quick check between animal groups. |
| Output | to PC via RS232-USB and BIO-CIS dedicated software. |
| Power | from the Main or using the embedded rechargeable battery (8 hours) |

ORDERING INFORMATIONS

| Reference | Description |
|-------------------|---------------------------|
| BIO-SMALGO | Complete Smalgo Device |
| BIO-CIS | Included Bio-CIS Software |

SUPPLIED WITH

- Carry case, mains adaptor 110/220 V
- Control unit and its sensor (cable is 1 meter long)
- 3 sensor tips 3, 5, 8 mm diam.
- Software BIO-CIS include
- RS-232-USB cable to plug it to a laptop under windows OS .
- *Option:* USB footswitch to reset the display with hands free

FOR MORE INFORMATION, VISIT OUR WEBSITE: WWW.BIOSEB.COM/SMALGO

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