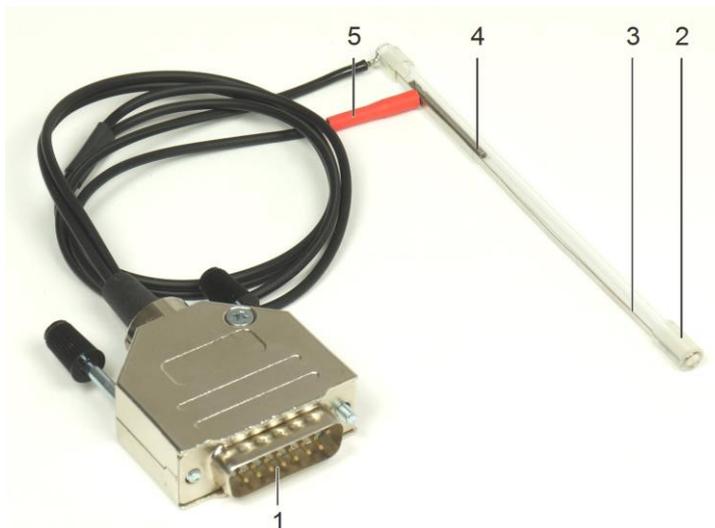


Stimulator for Earthworm Experiments 1020603

Instruction Sheet

07/17 MH/JS



- 1 Magnet cable
- 2 Glass tube
- 3 Contact strip with scale
- 4 Drop pin
- 5 Bar magnet

1. Safety instructions

The stimulator is intended for use in dry areas that are suitable for electrical equipment. When it is used as intended, the safe operation of the device is guaranteed. The safety of the device is, however, not guaranteed if it is operated incorrectly or handled carelessly. If it is suspected that it is no longer possible to operate the device safely (e.g. in the event of visible damage), the device must be taken out of service without delay.

- Before using the device, read the operating instructions carefully and completely.
- Only connect the stimulator to the Bio-Interface (1020602).

2. Description

The stimulator is used for the tactile stimulation of an earthworm in neurophysiological experiments. A stimulus corresponding to the natural way of life is administered with a drop pin released from a defined height; this evokes action potentials in the nerve of the earthworm. A relationship between the twitch reflex and the underlying nerve and muscle potentials can be established. The animal remains unhurt and can be released back into its habitat once the experiment is finished.

The stimulator is connected to the Bio-Interface (1020602) for use. The measurement results are transferred via the Bio-Interface to a computer and displayed with the appropriate software (Elphys.exe). Recording of the derived signals is enabled from software (status indicator on the Bio-Interface flashes slowly).

3. Contents

- 1 Stimulator
- 3 Drop pins

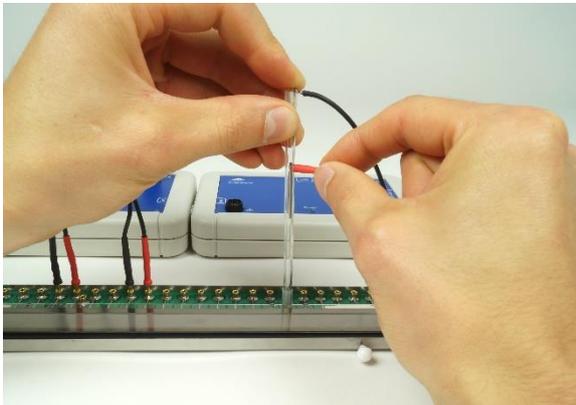
4. Technical data

Power supply:	+5 V (via D-sub plug)
Mass of the drop pin:	1 g
Dimensions of the drop pin:	40 mm x 2 mm Ø
Scale step size:	1 cm
Plug:	D-sub, 15-pin
Dimensions:	Approx. 125x15x15 mm ³
Mass:	Approx. 75g

5. Operation

- Set up the experiment in accordance with the operating instructions for the earthworm experiment chamber (1020601).
- Place the earthworm in the experiment chamber and fix it in place.
- Connect the stimulator to the Bio-Interface.
- Depending on the experiment, place the glass tube of the stimulator in one of the holes in the experiment chamber (see picture).
- Set the defined drop height with the bar magnet, and then release the drop pin by rapidly (!) pulling away the bar magnet.

The trigger pulse generated by the stimulator during the rapid removal of the magnet starts the measurement (status indicator on the Bio-Interface flashes rapidly). All further information can be found in the booklet or the experiment instructions in the respective measurement software (Elphys.exe).



6. Disposal

- Dispose of the packaging at the local recycling points.
- When the time comes for the device itself to be scrapped, it does not belong in the normal domestic waste. If the device is used in private households, it may be disposed of at the local public disposal facilities.
- Observe the applicable regulations for the disposal of electronic waste.

