

Experiment Olfactometer OL022

The OL022 is suitable for:

Olfactory experiments with subjective responses (identification, discrimination, olfactory thresholds), presentation of defined odorant mixtures and concentrations to measure slow physiological changes during olfactory stimulation (heart rate, skin resistance), behavioural or memory tests with accompanying olfactory stimuli or other studies requiring reproducible olfactory stimuli.

The OL022 deliberately avoids the complex heating required to obtain evoked potentials, magnetic fields, electro-olfactograms and meaningful functional MRI scans.



The device generates a pure air flow in which olfactory stimuli of various concentrations are applied in a computer-controlled manner. The odour is delivered right in front of or inside the person's nose. It is also possible to use a nose adapter that is enclosed by the nostrils. It is also possible to work with alternating pulses of air and odorant. Mixing and dilution is possible. The flows are adjusted by hand, using a flow meter Rotameter ®). The air and odorant channels are operated with a MS-Windows™ PC (via USB). The software does the switching for the presentation of the desired odorant. Stimulation times and intervals can be individually adjusted and stored so that experiments can be easily repeated.

The OL022 is a compact solution for many experiments. It allows a wide range of different tests regarding the sense of smell and the effect of odours for all conceivable scenarios. For a more comfortable working with the olfactometer, the noise of the device has been reduced. The use of an external compressed air supply is not possible.

Base flow rates

The base flow rate in the basic version is configured to 6lpm. This configuration can be changed on request.

Control and Dilution channel

These channels are built with humidification to achieve better results.

Odorant Channels:

Each channel has a corresponding dilution flowmeter so that no adjustment in Dilution is necessary when changing the channel.

Humidifier Modules:

Also in this device all types of humidifier modules can be used: large cartridge, small cartridge, cartridge for solids and the pad cartridge.

Connections:

As all Burghart devices the OL022 is equipped with "stimulus data" port. This interface provides Trigger and class information but can also be used for external triggers.

Scope of delivery:

- Software
- USB cable
- Set of some spare and wear parts
- Instructions for use

Specials (Add-ons)

- The device can be driven by directControl. This control allows a direct switching of the valves (on request)
- direct BNC connects (on request)
- Preparation lamp (on request)
- Box with feedback buttons (on request) (software detects reaction time after stimulus)

Important notices:

- The air could condensate in the tube and shoot out waterdrops if the tubings are lead through a room which is below temperature of the humidification chamber.