

OL022 Experiment Olfactometer



The OL022 is suitable for:

- Smell experiments with subjective answers (identification, discrimination, smelling thresholds).
- Presentation of defined odorant mixtures and concentrations for measuring slow changes (heart rate, skin resistance) during olfactory stimulation.
- Behaviour or memory tests in the presence of smells.
- Other studies needing reproducible smell stimuli.

The Experiment Olfactometer generates a pure air flow to which odorant blocks of adjustable concentration are added under computer control. The odorants are released by an outlet just in front of or within the test person's nose. A nasal adapter can also be used which is enclosed by the nostrils. It is also possible to

work with alternating pulses of air and odorant; here again, mixing and dilution is possible. The flows are adjusted by hand valves, with a float flow meter (Rotameter ®) for display purposes. Air/odorant flow is controlled by the supplied software on a MS-Windows™ PC with a free USB-port. Stimulation times and intervals can be specified and saved, so that experiments can easily be repeated.

The OL022 is a compact solution for various experiments. It opens up a wide field of possible tests for the sense of smell and for the impact of smells on all conceivable physiological functions. For economic reasons the OL022 comes without a heating system and therefore measurements of evoked potentials, magnetic fields, electro olfactograms and functional MRI scans are less meaningful. The Olfactometer is noise-reduced and if external pressure is used the noise level at the work place again sinks noticeably.

Base flow rates

The base version comes with a setup for 4 lpm base flow. This rate can be changed on request.

Control and Dilution channel

In **base** version these channels **are not** humidified but for better results channels can be equipped with humidification modules.

Odorant Channels:

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

Humidifier Modules:

The Experiment Olfactometer can be upgraded with all types of humidifier modules: large cartridge, small cartridge, cartridge for solids and the pad cartridge.

Connections:

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

Included in delivery:

- Software CD
- USB cable
- Set of replacement and wearing parts
- User manual

Specials (Add-ons) on request:

- The device can be driven by directControl. This control allows a direct switching of the valves
- direct BNC connections
- Preparation lamp

- Box with feedback buttons (software detects reaction time after stimulus)

Important notices:

- The device might be used for EEG recording but this is not the intended use.
- If the room temperature is below the temperature of the humidification chambers, water may condensate in the tube and may be expelled from the outlet.