

## Gustometer GU002



Figure: GU002 (Variant GM5)

### Areas of application

The Gustometer was specially designed for use in clinical and industrial research. The focus is on experiments for the derivation of evoked potentials as well as the area of food and stimulant research. We will be happy to implement customer-specific adaptations or extensions.

## Brief description

The GU002 is a complex device for creating clearly defined, reproducible tasting stimuli on the tongue.

All liquids are heated to exclude tactile or thermal stimulation and to fully preserve the natural sensitivity of the tongue. A special spraying principle makes it possible for the rising edges to be less than 50 ms, thus enabling the derivation of gustatory evoked potentials (GEPs).

## Features

Up to 5 liquids can be used, which can be mixed and diluted by software. However, these should have a similar viscosity to water. The modular design makes the device easy to expand and maintain. The GU002 has space for extensions of taste channels that can be mixed and diluted by software. The PC software is designed to simplify the user interface and reduce the risk of operator error. The PC and gustometer connect via a standard USB port. Furthermore, the gustometer provides an interface for transferring class data and time information to an external recording device. The unit can trigger external devices or be triggered by external devices (e.g. PC with E-Prime).

The unit can be operated either with in-house compressed air or, with the supplied pressure pump.

## Basic device

Total weight (empty)	150 kg
Total width	1 m plus connection hose (at least 0.2 m in addition for hose bend)
Total depth	0.75 m
Total height	1.55 m (1.95 m with opened splash guard)
Protection class	IP 21

## Connection hose

Weight (empty)	1.5 kg + 0.5 kg/m
Length	up to 12 m, according to customer specifications
Greatest diameter from device	<50 mm (a wall bushing of 50 mm diameter is sufficient)

## Electrical data

Mains connection	230 VAC, 50 Hz or 110 VAC 50- 60 Hz
Power consumption main device	Switched on, standby: 86 VA Maximum in operation: 1400 VA

## Interfaces

- USB
- 25-pin SUB-D (Stimulus data output)
- Trigger Out
- Class type information
- Trigger In + UDP remote control software interface

## Computer

No PC is supplied. Technical requirements for the PC to be provided:

Windows 10 (Windows 7 runnable, but no support).  
4GB RAM minimum, 8GB or more recommended  
Dual core processor minimum, 4 cores or more recommended  
Minimum effective resolution of 1280x1024 at 32 bit colour depth.  
(Scaling affects resolution)

## Additional continual supply requirements

Compressed air supply (only in case of external supply) 1 litre / minute; purified compressed air  
At 3 to 16 bar (43.5 to 232 psi)

## Ranges and precision

Temperature measurement: 1.0 to 49.0 °C +/- 1 °C  
Input pressure measurement: 0 to 3000 mbar +/- 20 mbar

## Ambient conditions

Operating temperature +10°C to +40°C  
Storage temperature -25°C to +70°C  
Rel. humidity during operation 10% to 75%  
Rel. moisture in storage 10% to 80%

Operation and storage without frost, dew, dripping water, rain, direct sunlight.