



## ODP 4 system

The ODP system is used for the olfactory determination of odor-active substances that have been separated beforehand using a gas chromatograph. The substances can be detected either by sniffing or by collecting them in a TD tube.

If you detect the substances by sniffing, you can record your olfactory impressions in spoken form using the ODP Recorder and evaluate the results using the Olfactory Data Interpreter software. If you collect the substances in a TD tube, you can use a GC or a GC/MS system with TD module to analyze the substances collected.

With the help of a parallel detection option, you can also use the ODP system in parallel with a detection system in the GC.

### System configuration

- Compatible with all current GCs
- Capable of operating in parallel with all current detection systems
- TD tubes for TDU, TD 3.5+ and TDS can be used to collect substances

### Specific features

- Sniffing is possible with or without a nose cone
- Detection inserts for sniffing and collection are easy to change
- Individually adjustable nose positioning markers for improved accuracy and sensitivity when sniffing without a nose cone

- Improved hygiene as the detection inserts of individual users can be changed and cleaned easily
- Relaxed working by adjusting the ODP to the individual body size of the user by means of a movable articulated arm on the GC
- Working is gentle on the nose due to the use of humidifier gas

### System requirements

To use the ODP system, you will need the following additional hardware:

- A GC
- A TD module (optional – for the analysis of the substances collected in a TD tube)
- A computer equipped as follows:
  - Operating system – Windows® 7 or higher, 64 bit version
  - 4 GB RAM
  - Screen resolution Full HD
  - 1 free USB interface
  - 2 free USB interfaces
- Dragon NaturallySpeaking® speech recognition software, version 7 or higher installed (optional)
- A parallel detection option

### Control

- Stand-alone with the controls on the controller
- or

- Stand-alone with the controls on the GC

## ODP 4

### Transfer temperature

- Ambient temperature ... 350 °C

### Mixing chamber temperature

- Ambient temperature ... 250 °C

### Length of transfer line

- 60 cm

## ODP pneumatic control box

### Make-up gas

- Helium or nitrogen
- 4 bar initial pressure
- Flow 0 ... 100 mL/min

### Humidifier gas

- Helium or nitrogen
- 4 bar initial pressure
- Flow 0 ... 100 mL/min

### Dimensions (W × H × D)

- 16 cm × 8.6 cm × 17 cm

### Weight

- 1.05 kg

## ODP recorder

The ODP recorder is used to record olfactory intensities and olfactory impressions. In the resulting olfactogram, the intensity peaks are labeled with the spoken olfactory impressions.

### System requirements

- A computer equipped as follows:
  - Operating system – Windows® 7 or higher, 64 bit version
  - 4 GB RAM
  - 1 free USB interface
- Dragon NaturallySpeaking® speech recognition software, version 7 or higher installed (optional)

### Speech recognition

- Using Windows® speech recognition or Dragon NaturallySpeaking® speech recognition software
- Speech recognition in German, English and Japanese possible

## Olfactory Data Interpreter

The Olfactory Data Interpreter ODI software evaluates GC data recorded in combination with a mass spectrometer (MSD) or a flame ionization detector (FID) together with the olfactory impressions and intensities recorded using ODP 4.

### System requirements

- A computer equipped as follows:
  - Operating system – Windows® 7 or higher, 64 bit version
  - 4 GB RAM
  - Screen resolution Full HD
  - 1 free USB interface
- A parallel detection option

### Databases

You can open the following database formats with the ODI.

- NIST-AMDIS database, version NIST 11 or higher (recommended)

or

- Any database in one of the following formats:
  - Agilent library format (\*.L)
  - AMDIS MS library (\*.msl)
  - CSV-MS identification list (\*.csv)
  - CSV-MS peak list (\*.csv)
  - JCAMP-DX (\*.jdx)
  - JDL Library (\*.jdl)
  - NIST database format (\*.db, \*.dbr)
  - Shimadzu library (\*.spc)

### GC data formats

You can open the following GC and GC/MS data formats with the ODI. The list is constantly being expanded; information on other formats is available on request.

- Agilent® Technologies
  - ChemStation GC detectors (\*.D/\* .ch)
  - VWD (\*.D/vwd1A.ch)
  - MassHunter (\*.D/\* .CH)
- Shimadzu®

- FID (\*.gcd)
- GC10 FID (\*.C0#)
- GCSolution
- MSD (\*.qgd)
- LabSolution (\*.gcd)
- QP-5000/QP-5000 MSD (\*.R##)
- GCSolution
- MSD (\*.qgd)
- Thermo Scientific®/Finnigan
  - MSD (\*.cgm)
  - Element II (\*.dat)
  - ICIS (\*.dat)
  - ITDS (\*.DAT)
  - ITS40 (\*.MS)
  - MAT (\*.dat)
  - RAW MSD (\*.raw)
  - FID (\*.dat/\*raw)
- Other
  - Bruker® Corporation/Varian® Inc., MSD (\*.SMS/\*XMS)
  - CSV-MS converter (\*.csv)
  - NETCDF (\*.cdf)
  - PerkinElmer®, Inc, FID (\*.raw)
  - Varian® Inc., FID (\*.run)

- Power consumption maximum 200 W

### Safety

- Protection class 1
- Type of protection IP 40

### Dimensions (W × H × D)

- 17 cm × 5.5 cm × 27 cm (C200)
- 9 cm × 4 cm × 22 cm (power supply)

### Weight

- 1.35 kg (C200)
- 1.0 kg (power supply)

### Control

- Stand-alone with the controls on the controller

## Site prep requirements

- Laboratory without any draft or background odors
- A distance of at least 30 cm from the right side of the GC to walls and other modules
- 1 free fused mains socket
- Agilent® Technologies GC 7890 or 8890 with 2 free connections for AUX heaters (for operation without C200)

## C200

The ODP system can be controlled using the C200.

### Operating conditions

- 5 ... 40 °C
- Relative humidity not exceeding 95%, non-condensing
- Max. 3000 m above normal height null (sea level)

### Storage conditions

- -40 ... 50 °C
- Relative humidity not exceeding 95%, non-condensing
- Max. 3000 m above normal height null (sea level)

### Electrical specifications

- Wide-range power supply 100 ... 240 VAC primary, 50 ... 60 Hz, max. 2.3 A, 48 V secondary, max. 5.21 A
- Power supply efficiency class V
- Power consumption on standby 10 W

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