


GERSTEL


Dynamic Headspace

DHS

Specifications

Uses

The GERSTEL DHS efficiently extracts and concentrates VOCs from liquid or solid samples placed in standard Headspace vials prior to GC or GC/MS analysis. The DHS module provides thermostating and agitation as well as purging of the sample headspace onto a replaceable sorbent tube with a controlled flow of inert gas.

System Configuration

- Compatible with most standard GCs
- Automated operation based on the GERSTEL Multi-Purpose Sampler MPS
- GERSTEL Thermal Desorption Unit TDU is used for thermal desorption of analytes
- GERSTEL Cooled Injection System CIS is used for analyte focusing prior to GC or GC/MS analysis

Sample Volume

- Max. 10 mL, in 20 mL headspace vials

Adsorbent Tubes

- Standard GERSTEL TDU tubes
- Individual tubes can be freely selected for each sample
- Detailed information on TDU tubes and adsorbent materials is available in a separate flyer

Analyte Transfer

- Heated needle system between the Headspace vial and TDU tube, similar to standard headspace technique
- No transfer line in system

Cooling Option

- Peltier Cooling UPC

Incubation Temperature

- 30 ... 200 °C depending on the ambient temperature
- 10 ... 200 °C with Universal Peltier Cooling UPC

Trap Temperature

- 20 ... 70 °C

Transfer Temperature

- Max. 150 °C

Agitation Speed

- 250 ... 1500 rpm

Gases

- He
- N₂
- Synthetic air

Gas Purge Volume

- Max. 100 liters

Gas Flow

- 5 ... 100 mL/min
- Controlled by a mass flow controller



Control

- Based on Controller C506
- In combination with the GERSTEL MAESTRO software, alternatively integrated in an Agilent® Technologies chromatography data system, or coupled to a chromatography data system from Thermo Scientific®, or operated in stand-alone mode
- Only one method and one sequence table required for the complete system including GC/MS when integrated in the ChemStation or MassHunter software

Dimensions (H x W x D)

- 27.5 x 7.5 x 27.5 cm

Weight

- 2.6 kg

Operating Conditions

- 20 ... 35 °C
- Relative humidity max. 50-60%, non-condensing
- Max. 4615 m above sea level

Storage Conditions

- 5 ... 40 °C
- Relative humidity max. 50-60%, non-condensing
- Max. 4615 m above sea level

DHS Large Option

The DHS Large Option enables the determination of volatile analytes from a large solid sample in a vessel with a volume of up to 1 liter. It is easily retrofitted to a DHS module.

Features

- Especially suitable for large-volume, solid samples
- Maximum sample container volume of 1 liter
- Maximum sample weight of 2 kg
- DHS FlowLog option at gas outlet for leak checking and logging
- Easy switching between DHS and DHS Large operation
- Software-controlled locking mechanism locks the carriage in the appropriate position
- Manual sample exchange
- Temperature range: AT ... 200 °C
- No upgrade to DHS Large Autosampler possible



Sample Vessel with Cover

- Vessel volumes of 1 L, 500 mL and 250 mL
- Inner diameter of 9.9 cm
- Maximum filling height:
11.7 cm (1 L vessel),
5 cm (500 mL vessel),
1.7 cm (250 mL vessel)
- Produced from stainless steel, deactivated
- Viton® sealing ring
- Safety valve limits the inner pressure to 2.3 bar

Power Consumption

- 300 Watt

Power Supply

- 100 ... 230 VAC, 50/60 Hz