



We work *hard* & *smart* so you can have a *smart* life

GDS Gas Dilution System



Gas Dilution System To Sampling VOC

The sampler and dilution unit are in a single cabin. Flow control of both units is done with two independent mass flow meters integrated into the device. Total and dilution gas volume can measure with two independent dry gas meter. All of this process is automatic and controlled by the device's microprocessor.

The two streams are regulated independently, so for different stack condition the dilution ratio can be changed independently. The temperatures inside both dry gas meters reads with two temperature sensor and stores in the memory of the sampler.

The dilution and total sample inlets are equipped with two easily replaceable cartridges. In addition, the user can easily replace the cartridge silica gel and charcoal. Unlike traditional manual sampler, it is fully automated. Dilution and total flow rates can be adjusted digitally. The sampler automatically controls the set flow rates and adjusts the flow rates. The sampler also directly reads gas volumes and temperatures from the dry gas meter. Thus, it is not necessary to note the first and last readings and temperatures from the dry gas meter.

Main Characteristics:

- Fast flow control at any condition
- Volume measurement with dry gas meter
- Optional probe temperature measurement and control
- Autotest
- USB interface to download stored data
- Visualization of stored data on display of the instrument
- Bluetooth interface to print data
- Wide color graphic display
- Available with ISO 17025 accredited laboratory certificate

Stored Report:

- Measurement report is a sample summary report of measurement log parameter.
- Report format is compatible with Windows, Google Chrome Microsoft Office.
- You can load the report to your mobile phone from the instrument and send it by e-mail to related person.

Quality Control:

Quality control for automatic sampling provide by calibration traceability of each sensor and measured parameters. **GDS** dilution system stores each calibration performed by the user or by the manufacture. The report is downloadable via USB. Points of the calibration for each sensor are programmable by the user. Temperature calibration curve following ITS 90 standards.

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Parameters Stored on Instrument Report:

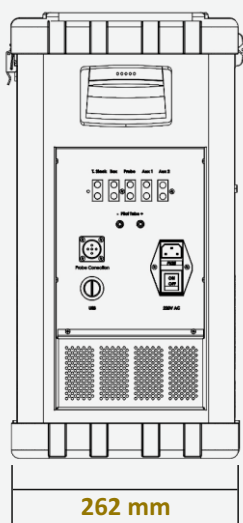
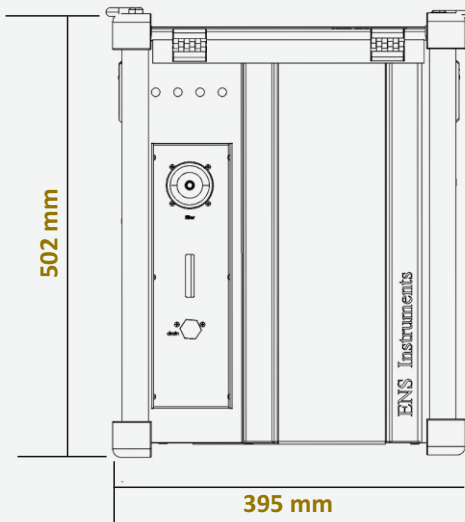
- Serial number of instrument
- Sampling date and hour
- Initial and final reading of dry gas meter
- Total and Dilution gas temperature
- Heated probe and 2 AUX temperature
- Total and Dilution Sampled volume,
- Sampled duration
- and more



HSP1 Heated Sampling prob for VOC

Technical Specifications:

- **Material** : Duple painted aluminum
- **Gas meter** : Class G1.6, $0.016 \text{ m}^3/\text{h} \div 2.5 \text{ m}^3/\text{h}$
- **Gas inlet** : Protected by filter and charcoal
- **Display** : 5.0 " color LCD display
- **Data port** : USB 2.0, (*)
- **Printer port** : Bluetooth
- **Data Transfer** : To PC by USB 2.0, Bluetooth to Printer
- **Dimension** : 395 x 262 x 502 mm
- **Weight** : 10 kg (with $4.5 \text{ m}^3/\text{h}$ pump)



(*) Optional

Measurement Parameters:

- **Total sampled volume measurement Dry gas metre:**
 - Flow Meter Class: G1.6 Dry Gas Meter
 - Flow Rate Range : $0.016 \text{ m}^3/\text{h} \div 2.5 \text{ m}^3/\text{h}$
 - Accuracy : 2%
 - Resolution : 0.02 liters
 - **Dilution sampled volume measurement Dry gas metre:**
 - Flow Meter Class: G1.6 Dry Gas Meter
 - Flow Rate Range : $0.016 \text{ m}^3/\text{h} \div 2.5 \text{ m}^3/\text{h}$
 - Accuracy : 2%
 - Resolution : 0.02 liters
 - **Total sampling flowrate:**
 - Device : Flow Meter in compliance with EN ISO 5167-2
 - Range : $0.1 \div 1.2 \text{ l/min}$
 - Accuracy : Better than 2%
 - Resolution : 0.01 liter / min
 - **Dilution sampling flowrate:**
 - Device : Flow Meter in compliance with EN ISO 5167-2
 - Range : $0.1 \div 1.2 \text{ l/min}$
 - Accuracy : Better than 2%
 - Resolution : 0.01 liter / min
 - **Absolute pressure (Static or barometric) :**
 - Range : $0 \div 105 \text{ kPa}$ (1050 mBar)
 - Accuracy : Better than 1% of measure $\pm 0.01 \text{ kPa}$
 - Resolution : 0.01 kPa (0.1 mBar)
 - **Temperature :**
 - N° of inlet : Depending on the request up to 3
 - Range : $0 \div 1200 \text{ }^\circ\text{C}$
 - Accuracy : % 1 off measure $\pm 0.2 \text{ }^\circ\text{C}$
 - Resolution : 0.1 $^\circ\text{C}$
- Dry gas meter temperature Pt¹⁰⁰ sensor
- Range : $-20 \div 80 \text{ }^\circ\text{C}$
 - Accuracy : 1% off measure $\pm 0.2 \text{ }^\circ\text{C}$
 - Resolution : 0.1 $^\circ\text{C}$

