EDU-GC3 Enrichment and Desorption Unit
Trap / Thermal Desorption

Trap & Adsorption with thermal desorption is a well known method for the analysis of air or for sample preparation purposes in the lab.
The EDU-GC3 system allows to concentrate substances or to select certain compounds for the following chemical analysis.

EDU-GC3 is a unit of the successful Trap/Thermal Desorption series of Airsense. EDU-GC3 is optimised for Standard-GC's.
EDU-GC3 is a fully automatic sampling and desorption device.

With this technique compounds of interest can be adsorbed, leading to **enrichment factors** of 100 to 1000 – depending on the target substance and the selected sampling parameters.
This instrument can be used to solve analytical tasks which require lowest detection limits.

The **sensitivity** and **selectivity** of the whole Trap & Thermal Desorption procedure can be adjusted easily. The appropriate trap can be chosen from a huge range of adsorbent materials. Additionally, the parameters of the procedure are adjusted by the software. When working with GC's, it is important to remove uninteresting compounds, such as water in environmental applications.

EDU-GC3 works also with inert gases.

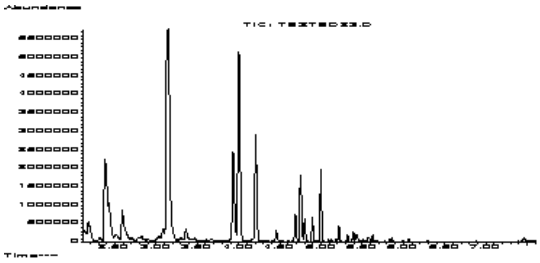
Through an internal pump the unit takes samples automatically. EDU-GC3 can be used as a stand-alone unit which can perform single steps like sampling, thermal desorption, injection, cleaning and cooling automatically.

Because of easiness of handling, it can also be used for single steps such as only thermal desorption for a fast analysis. The user has quick access to the adsorbent tube.

The easy connection to all standard-GC's makes the EDU-GC3 very flexible.

Advantage of EDU-GC3:

- **Very flexible and small unit**
- **It can be easily adapted to any kind of GC**
- **Better detection limits**
- **Increased selectivity and sensitivity**
- **Automatical cycles from sampling to thermal desorption**
- **Adsorbent tubes can be manually changed without tools**
- **Easy handling**
- **For quick lab analysis**
- **Desorption and injection with inert gases (He, N_2) or air**



compounds of gasoline detected
with HS / TD/ GC using EDU-GC

dijkstra vereenigde
Postbus 2151
8203 AD Lelystad
Tel: 0320-266171
Pascallaan 9
8218 NJ Lelystad
Fax: 0320-257354
email: laboratorium@dijkstra.net
www.dijkstra.net

AIRSENSE ANALYTICS

AIRSENSE Analytics GmbH

Specifications

Sampling

Inlet Sampler	made of stainless steel and Teflon® heated tube up to 150°C, special fluidic and electrical connector
Inlet Detector	made of stainless steel, connection per swagelok to detector heated tube up to 150°C, special fluidic and electrical connector
Flow	adjustable : 50 to 500 ml/min
Temperatures	for sampling adjustable : typical 30°C for desorption adjustable : up to 250°C (during cleaning higher)
Condition	non-condensing gas of 0°C to 45°C
Adsorbent	different adsorbent materials available, most common Tenax TA® 50/100 mg or Tenax TA/Active Charcoal combination 100/50 mg
Tube holder	holder for one adsorbent tube which can be easily replaced
System	one internal pump for sampling, internal multiport valve, heated
Cycle time	typical 10 min full cycle : sampling, desorption, injection, cleaning and cooling
Cycle operation	single or continuous cycle
Repeatability	<1%, typical

Environment Requirements

Temperature	typical : 0°C to 45°C
Humidity (relative)	5% to 95%, non-condensing

Power Requirement

Main Power	110 to 230VAC or 12VDC (optional), max. 80W

Communication

Computer Interface	USB port or serial RS-232 (optional)
Electrical Interface	TTL & relay, for devices attached to the unit

Device Control / Data Handling

Requirements	Win98SE, ME, 2000, XP
Software	TTD-Terminal

System descriptions

Display	60 x 38 mm blue, CFC backlight text display
Dimensions	255 x 190 x 92mm
Weight	2.3 kg

Safety class Compliant to EN292 Part1 & 2, EN294, EN61010-1, EN1050, EN60204-1, EN 55011 G1 CB, EN50270, EN61326

Warranty 12 month

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