



## EDU3 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 EDU3 system allows to concentrate substances or to select certain compounds for the following chemical analysis.*

**EDU3** is the newest development comprising the proven operation principle of the EDU technology and new features, due to complete redesign of the instrument.

With this technique gaseous compounds of interest can be adsorbed, leading to **enrichment factors** of 10 to 1000 – depending on the target substance and the sampling time. The instrument can be used in problems which require **lowest detection limits**.

The **sensitivity** and **selectivity** of the whole Trap & Thermal Desorption procedure can be adjusted easily. The appropriate adsorbent can be chosen from a huge range. Additionally, the parameters of the procedure are adjusted by the software.

The system works as a stand-alone unit performing single steps like sampling, thermal desorption, injection, cleaning and cooling automatically. The desorption of tubes, sampled manually or by external pumps is also possible.

Due to its internal flow path design, the instrument can be easily adapted to any kind of sampling system and detector instrumentation.

Special versions for combinations with laboratory GC's, Micro-GC's and Massspectrometers are available.

Online sampling techniques or the combination with a headspace sampler can be ordered.

### Advantage of EDU3:

- Increased Selectivity
- Better Detection Limits
- Automatic Cycles from Sampling to Thermal Desorption
- Adsorbent Tubes can be easily Changed
- Software „EDU“ for Programming the Trap
- Stand-alone Operation
- Self Check Procedure
- Display for Instant Control

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# Specifications



## Sampling

Inlet Sampler	made of stainless steel and Teflon <sup>®</sup> 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 <sup>®</sup> 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
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## 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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