



## 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><br>heated tube up to 150°C, special fluidic and electrical connector                      |
| Inlet Detector  | made of stainless steel, connection per swagelok to detector<br>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<br>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<br>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<br>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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