



TDS-1
Single-tube Thermal Desorber
for GC & GC/MS

Thermal desorber is intended for volatile and semi-volatile organic compounds determination in air and other samples by GC or GC-MS. TDS-1 thermal desorber is the cost-saving solution for many GC and GC/MS applications with thermal desorption.

Application range:

- Volatile and semi-volatile compounds determination in ambient and indoor air by thermal desorption
- VOCs determination in water by purge& trap technique
- Food, flavor and fragrance analysis
- VOCs determination in test chamber, toxins/VOCs extracted from different materials (paints, packages, construction materials, plastics)

TDS-1 Key features:

- Sample path temperature up to 250°C allows C2 – C20 proven determination. Sample path is effectively heated on its way from sorption tube to GC in order to avoid heavy analytes condensation
- High heating rate of the trap (up to 2000°C/min) provides instant release of components and transferring into GC column in a narrow band
- Desorption from the trap has reversed direction to sorption flow. This way heavy analytes avoid strong sorbent in multilayer tubes
- Leak test before desorption
- Inert sample path prevents from target compounds loss
- No cooling agents need with trap Peltier cooling technique
- Tube conditioning is carried out by separate gas flow
- Built-in digital gas flow controllers provide easy connection to any GC
- Simple connection to GC inlet makes it possible to use the same inlet for liquid injection

Technical Specification:
General Specification:

Operating principle	2 stage thermal desorption
Capacity:	Single tube
Sampling tubes:	6 x 115mm glass or SS 316 (activity tested)
User interface:	4-line LCD display and keyboard on the front panel remote control by Chromatec Analytic SW
Repeatability:	RSD < 2%
Data communication	RS-232
Compatibility	GC Chromatec-Crystal series
Sample path	SS 316 (activity tested), 0.8mm internal diameter
Electronic pressure and flow control	2 digital gas controllers: carrier gas flow (0-200 ml/min), blowing gas flow (0-200 ml/min)
Methods storage	Up to 10 methods storage

Primary desorption:

Sorption tube temperature	T (amb) +10 ... 400°C ,
Desorption time	0 ... 60 min
Leak test	Automatic before desorption

Trap:

Trap cooling principle	Electrically powered Peltier
Temperature range	- 20 ... + 400 °C
Heating rate	Up to 2000 °C/min
Desorption time	0 ... 15 min
Material	Borosilicate glass

Switching valve:

Temperature	+150 ... +250 °C
Valve actuator	Electrical
Material	Stainless steel

Transfer line:

Temperature	+150 ... +250 °C
Length	1 m

Environmental Conditions:

Ambient Operating Temperature:	from 10 to 35°C
Relative humidity:	not more than 80 %
Storage Temperature:	from -50 °C to 50°C
Power Requirements:	~220V ±10%, 50Hz
Power consumption:	700 W

Other specification:

Dimensions: (WxDxH);	280 mm x480 mm x 550 mm
Weight:	20 kg

Safety and Certification:

Products designed and manufactured under regulations of GOST R ISO 9001 quality standard.
 At electromagnetic compatibility the chromatograph meets the requirements of IEC 61010-1

Information and technical specification in this publication are
 subject to change without notice.

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