

Thermal desorber
Chromatec TDA



General Information:

Applications range:

Volatile and semi-volatile compounds determination in ambient / indoor / workplace / car air by thermal desorption
 Food, flavor and fragrance analysis
 VOCs emissions determination, toxins/VOCs extracted from different materials (paints, coatings, fibers, packages, construction materials, plastics)
 Trace VOCs in water and soil

Key Features

Fully automated High performance Thermal desorber
 50 tubes capacity tray
 Compact benchtop design, easy to connect to a GC or GC-MS
 Touch screen with graphical interphase
 Peltier cooled trap is free of cryoagent demand
 Integrated UEPC, 3 channels for carrier gas, blowing gas and split vent
 Inert Sample path heated up to 350°C suitable for C2 - C44 range as well as for labile components determination
 Compliant with: US EPA TO-14, TO-15, TO-17, ISO 16017-1, 16017-2

General Specifications:

Ordering info

P/N 400-1201
 Thermal Desorber Chromatec TDA (50 tubes tray capacity, 1/4" OD)

System Performance

Basic specifications

Operating principle – two-stage thermal desorption
 3D loader capacity 50 tubes (for the model P/N 400-1201 only)
 Integrated Touch Screen with graphical interphase
 3 UEPC channels integrated (Carrier gas, Split vent & blowing gas)
 Inert sample path (SilcoNert® 2000 & SS 316 activity tested)
 Sample path heated up to 350°C
 Suitable for C2 - C44 volatility range determination (checked at on-column connection)
 Peak Area Reproducibility: < 2% RSD
 Compliant with: US EPA TO-14, TO-15, TO-17, ISO 16017-1, 16017-2

Sorbent tube

Size: length 3½" (89 mm) x O.D. ¼" (6.4 mm)
 Improved design of sorbent tube sealing

**Desorption &
Cold Trap**

Primary desorption

Sorbent tube temperature T (amb) +10 ... 400°C (0.1°C resolution)
Desorption time 0 ... 60 min (1 sec resolution)
Capping / Uncapping automated by stepping motor
Leak test Automatic prior to desorption
Automated re-sealing in case of leak
Moisture elimination prior to desorption
Quick heating and cooling of sorbent tube
Sorbent tube conditioning (with programmable parameters: Temperature, Conditioning time, Blowing gas flow rate)

Cold Trap:

Trap cooling principle Electrically powered Peltier
Temperature range: – 20 ... + 400 °C
Heating rate: 500; 1000; 1500 or 2000 °C/min
Desorption time: 0 ... 15 min
Material: Borosilicate glass
Backflushing flow at desorption
Trap purity check mode
Trap cleaning mode
Split at desorption: programmable
Sample re-collection at the current or a new sorbent tube available

**Switching
valve**

Temperature: +150 ... +350 °C
Valve actuator: Electrical
Desorption time 0 ... 60 min
SS316 (standard)

**Transfer line
&Connection
to GC**

Transfer line

Flexible Transfer line easy to connect to the GC inlet
Temperature range: + 40 ... + 350 °C
Length: 1 m

Connection to GC

Standard connection to the inlet via needle (split/splitless injection)
On-column connection (optional)

UEPC

2 independent channels of Unified Electronic Pneumatic Control (UEPC)
Carrier gas: flow range 0 - 200 ml/min, Gas type: N₂, He, Ar, H₂
Blowing gas: flow range 0 - 200 ml/min, Gas type: N₂, He, Ar
Resolution for flow setting: 0.1 ml/min
Split vent rate max: 1:100
Gas type programming independent for each channel

Data system

Communication Interfaces:

RS-232 or Ethernet
"Start out" slot

Software:

Chromatec Analytic Software
Integrated Touch Screen

Compatibility

Chromatec Crystal GC or GC/MS
Any GC or GC/MS

**Operating
Conditions:**

Ambient Air temperature from 10 to 35 °C
Relative humidity, not more than 80 %

Atmospheric pressure from 84 to 107 kPa (from 630 to 800 mm Hg)
Power Requirements: ~220V ±10%, 50 – 60 Hz
Power consumption: 700W

**Dimensions &
Weight**

Dimensions: (WxDxH): 345 mm x 550 mm x 630 mm
Weight, max - 30 kg

**Safety &
Certification**

The Product is designed and manufactured under regulations of GOST R ISO 9001 quality standard
CE Conformity Certificate approves the compliance of the Product with essential safety requirements of the following EC New Approach Directives: 2014/95/EU Low Voltage Directive, 2014/30/EU Electromagnetic Compatibility
European harmonized standards used for CE conformity assessment:
EN61326-1:2013, EN 61010-1:2010, EN 61010-2-081:2002/A1:2003



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