

meta

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GC-TID

Portable-Process-Gaschromatograph
Type: meta GC-TID / 3HU



CONSTRUCTION

19" housing as rack or table
version with 3 height units (3HU)

Detector:

TID - Thermal Ionization Detector

Column:

packed or capillary

Oven:

Isothermal temperature control
with 40, 60 or 120°C

Carrier gas:

synthetic air or N₂

SAMPLE INPUT

Sample taking:

- automatic
- manual (optional)

Signal processing:

- PC / Laptop with evaluation
software

Signal-output:

- 0...1V
- RS 232 (optional)

MEASURING PARAMETER

Volatile halogenized
hydrocarbons(VOC)

Examples:

vinyl chloride
1,2 cis dichloroethene
1,1,1 trichloroethane
trichloroethylene
tetrachloroethylene
carbon tetrachloride
methylene chloride
chloroform
chloromethane

Detection limit:

0.01mg / m³

Technical specifications

Power supply:	230VAC / 50Hz
Power consumption:	0,5 kW
Humidity:	0 - 90% rel. humidity, none condensing
Operating temperature:	0 - 40°C
Protection class:	IP 20 / DIN 40050
Environmental condition:	dust-free

Description of the GC-TID

The gas chromatograph GC - TID enables manual and automatic samplings and analysis. The application areas are the online analysis of emission / immission / soil air / exhaust air / process and waste water. Control functions are possible through the connection of other devices, for example an measuring multiplexer.

Detector - TID (Thermal Ionization Detector)

The TID has a high selectivity for volatile halogenized hydrocarbons (VOC).

TID:	Thermal Ionization Detector
Carrier gas:	synthetic air (free of hydrocarbons) or N ₂

TID - Functions

Central part of the detector is a special ceramics, which is heated on a temperature of 300°C. By the temperature of ceramics in connection with a platinum wire, standing under voltage, ionization on detector takes place, depending on gas molecule (VOC), which comes through the column. In this way ions of hydrocarbon will be faultlessly detected.

Injector

- Split / Splitless samplings
- manual sampling by means of septum in the injector block (optional)
- automatic sampling by means of time controlled sample loop

Oven

Column:	Steel or quartz capillary - it depends on your application
Standard:	Steel capillary, type meta OV 101
Temperature:	isothermal with 40, 60 or 120°C, (Option: temperature program)

Implementation of Analysis

The system cyclically starts the measurement. From sampling up to the evaluation, all steps are performed automatically. A single measurement can be performed, also a re-analysis. The system has a minimal cycle time of 1 min (vinyl chloride) for single channel. The normal cycle time is 10...15min (it depends from your measurement task), that means 96...144 measurements per day are possible.

Process control and data-storage

The evaluation software stores all measurements and external signals (optional) on hard-disk of attached computer.

Reports from these data can be created daily, weekly or monthly (MS-EXCEL) with min. / max. limits.