

Odor Unit (OUE/m<sup>3</sup>)

+VOC

H<sub>2</sub>SSO<sub>2</sub>Total  
Reduced  
Sulfur

Mercaptans

Sulfides

Odor  
Index

# vigi e-nose\*

Online analysis and monitoring of odorous compounds  
Sulfur & VOC monitoring

**Model: V10022****On-line applications:**

Fence line  
Odor control monitoring  
Deodorisation process  
Fugitive emission  
Process control / CIP

**Targetted compounds:**

Standard version: H<sub>2</sub>S / SO<sub>2</sub> / MM / EM / DMS / DMDS / DES / Total VOC  
Upon request: TBM / NPM / 2BM / IBM / NBM / THT / IPM

**Main markets:**

WWTP / Refineries / Petrochemicals / Gas process sites / Rendering plants  
Ambiant / Industrial air monitoring  
Odor impact management  
TRS measurement

**Standards:**

ISO 19739:2004, DIN 51855/7  
ASTM D 7493-08  
Correlation with EN13 725 / ASTM 679-E04



\* Analytical solution for vigiODOR platform

Chromatotec® is specialized in VOC, Sulfur and permanent gases analysis at trace and ultra trace levels (% , ppm, ppb, ppt).  
Please visit our website for more details.

# vigi e-nose\*

Online analysis and monitoring of odorous compounds  
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## Description:

The vigi e-nose is the first analyzer able to track VOC & Sulfurs at ppb/ ppt levels. It is more sensitive than human nose. It is an auto GC (gas chromatograph based) with specific detector for sulfurs and VOC.

## Principle:

- Automatic sampling using a loop
- Loop injection by automatic valve on the column
- Isothermal gas chromatograph
- Detection of all compounds eluting from the column performed by Chromatotec's wet cell sulfur specific detector
- Signal provided by reaction between the wet cell electrolyte and the sulfur compounds
- PID dedicated for total VOC measurement.

## Key points:

- Automatic calibration/validation of the data, with embedded permeation tube for sulfurs
- Continuous monitoring with automatic online sampling
- Analytical performances:
  - Specific and very sensitive to sulfur compounds
  - Results validation by automatic standard injection
  - Long term stability using detector installed in reservoir
- Extremely low maintenance
  - Very long life time detector, up to 10 years
  - Low gas consumption, can be reduced in option
  - More than 10 years data storage
  - No cylinders required thanks to internal calibration tube and gas generators
- Automatic control with process device
- Intelligent system with tunable and interactive alarm levels
- PID detector in addition to specific wet cell detector
  
- Powerful VISTACHROM Chromatotec® software:
  - Remote monitoring & injection control
  - Full traceability with on board archiving of results and chromatograms
  - QC Set up and control of threshold alarms
  - Data export by MODBUS / 4-20 mA / 0-10 V
  - Time stamp results

## Options:

- Multiple stream selector (up to 16 streams with one analyser)
- Portable olfactometer or lab olfactometer (EN 13725)
- Modeling software with weather station for live odor/chemical impact
- Complaints management with platform for automatic integration of perception of neighborhood
- Explosion proof Exp box
  - ATEX Zone 2: Ex II 3G Ex pz IIC T4
  - CSA international Class 1 Div 2, group B,C & D
- Calculation modules (Average / Statistics / Odor index and more)
- Automatic data transfert through: Module for 4 outputs 4-20mA / Modbus
- **air generator**
- 24 V DC power supply
- Electric selection valve to reduce air consumption
- Wall mounted box
- Nitrogen generator when standard used for calibration is different from DMS
- Vigiodor: dispersion modeling software for odor impact

## Technical Specifications:

### Total VOC with PID detector

### Sulfur compounds analysis:

- Speciation and Total Reduced Sulfur by sum (TRS): H2S, SO2, DMS, MM, DES, DMDS, EM compounds

### Detection limits\*:

- Sulfur detector: less than 1 ppb for H2S
- TVOC PID detector: less than 10 ppb on DMS
- 50 UO E/m<sup>3</sup> (limit of the olfactometer)
- \*more sensitive analyzers available upon request with special application

### Range (adjustable depending on application):

- 0/10 or 0/100 or 0/1000 (ppb or ppm)
- Calculation TRS, mgS/m<sup>3</sup>, UO e/m<sup>3</sup>, T VOC

### Relative Standard Deviation for sulfur detector:

- RSD < 3 % on concentration over 48H
- RSD < 0.5% on retention time over 48H

### Relative Standard Deviation for PID:

- < 1% on concentration at 100ppb over 24h

### Cycle Time for the following different analyses:

• H2S/TS	<b>120s</b>
• <b>H2S, SO2, MM, EM, DMS, DMDS, DES</b>	<b>600s</b>
• H2S, SO2, MM, EM, DMS, DMDS, DES, IPM TBM, NPM, 2BM, IBM, NBM, MES and THT	<b>1200s</b>

### Supervisor:

- Embedded computer Windows® based with LCD display
- 32 GB of Hardware storage on SSD memory

### Communication:

- Ethernet, remote control

### Gas supply:

- Carrier: Dry air or N2 (3 bars): ≤ 4 ml/min.
- CALIB: in continuous ~ 50 ml / min.
- CALIB during validation ~ 250ml/min for M52 configuration
- Pneumatic valve 90ml/commutation
- Sampling dryer: 150 to 200 ml/min

### Power supply:

- Main: 230V 60Hz or 115V / 50Hz

### Electrical consumption:

- 150 VA

### Dimensions and weights:

Rack: 19" (5U)	<b>Wall mounted box :</b>
• Height: 222 mm	• <b>Height: 800 mm</b>
• Width: 482mm	• <b>Width: 600mm</b>
• Depth: 660 mm	• <b>Depth: 300 mm</b>
• Net weight: 22 Kg	• <b>Net weight: 40 Kg</b>

### To order:

vigi e-nose (rack version)  
vigi e-nose (wall mounted version)

### Model:

V20022  
V10022

*Chromatotec® is continuously improving its products, therefore these specifications are subject to change without notice*

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