

vigi e-nose*

Online analysis and monitoring of odorous compounds
Sulfur & VOC monitoring

Odor Unit (OUE/m³)

tVOC

H₂S

SO₂

Total
Reduced
Sulfur

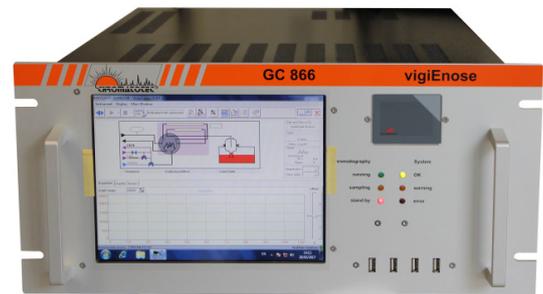
Mercaptans

Sulfides

Odor
Index



Model: V10022
(wall mounted version
with gas generators)



Model: V20022
(rack version)

On-line applications:

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



Targetted compounds:

Standard version: H₂S / SO₂ / MM / EM / DMS / DMDS / DES / Total VOC
Upon request: TBM / NPM / MES / 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.

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Online analysis and monitoring of odorous compounds
Sulfur & VOC monitoring



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 composed by one autoGC-ED (MEDOR® Electrochemical wet cell Detector) and PID for VOCs. Zero air generator included in the same box for autonomous operation.

Principle:

- Automatic sampling using a loop linked to sampling pump
- Automatic loop injection on metallic capillary column
- Isothermal gas chromatograph
- Detection of all compounds eluting from the column performed by MEDOR® Detector: Electrochemical wet cell Detector which is SSD 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 embeded permeation tube for sulfurs. No span gases required.
- Continuous monitoring with automatic online sampling
- Analytical performances:
 - Specific, linear 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 with electrolyte, 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
- Intelligents system with tunable and interactive alarm levels
- PID detector in addition to MEDOR® 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 version Exp or Exd for ATEX, IECEx zone 1 and 2 and also for CSA C1D2
- Calculation modules (Average / Statistics / Odor unit OU e/m3 and more)
- Automatic data transfert through: Module for 4 outputs 4-20mA / Modbus RTU or TCP IP
- 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/m³ (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 : Odor Index, TVOC, Total Sulfur, (OU e/m3 with XXXOU)

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, SO2, MM, EM, DMS, DMDS, DES** **600s**
- With special application following compounds can be added :
IPM, TBM, NPM, 2BM, IBM, NBM, MES and THT **1200s**

Supervisor:

- Embeded computer Windows® based with LCD display
- 128 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)	Wall mounted box :
• Height: 222 mm	• Height: 1440 mm
• Width: 482mm	• Width: 600mm
• Depth: 660 mm	• Depth: 300 mm
• Net weight: 22 Kg	• Net weight: From 45 to 70 Kg

To order:

vigi e-nose (rack version)
vigi e-nose (wall mounted version)
NH₃ analyzer associated (upon request)
NH₃ sensor associated (upon request)

Model:

V20022
V10022
D27000
XXXNH3

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

To contact us: sales@chromatotec.com

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