

ONLINE GAS ANALYZER EXPERTS

GAS ANALYZER GC 866

MEDOR[®] easy

Stand alone online analyser for H₂S and odorants
in natural gas and gaseous fuels

Model: M43022

Main applications

Odorant concentration monitoring ppm
Odorant concentration monitoring and odorant injection control level
H₂S trace monitoring in natural gas and gaseous fuels

Targetted compounds

H₂S
All odorants blend from ARKEMA Spotleak[®] and Chevron Philipps Scentinel[®]:
THT
THT and TBM
DMS and TBM
MES and TBM
TBM, IPM and NPM
EM

Main markets

Natural gas odourisation station
LPG odourisation
Petrochemical
Gas transportation
Process

Standard

ASTM D7493-14, ISO 19739:2004, DIN 51855/7

Certifications

GOST, ATEX, IECEx, CSA, CSA international



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

Updated: May 2021

THT

TBM

H₂S

DMS

ODOR
INDEX

ODORANTS

ET-SH

Me-SH
(MM)

MEDOR® easy

Stand alone online analyser for H₂S and odorants
in natural gas and gaseous fuels



Description:

- MEDOR® easy is a very simple auto GC-ED (MEDOR® Electrochemical wet cell Detector) for the analysis and monitoring sulfides and mercaptans in natural gas and gaseous fuels.
- This turnkey online solution MEDOR® easy monitor accurately all type of odorants blends depending on configuration

Principle:

- Automatic sampling using a loop
- Automatic loop injection on packed column
- Isothermal gas chromatograph
- Detection 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

Key Points:

- Simply and robust performance with an inexpensive and continuous control of odorant which allow to save money by odorant injection saving
- Fully compliant with ASTM D 7493-14 : Standard Test Method for Online Measurement of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatograph and Electrochemical Detection.
- Cylinder free autoGC with it's internal carrier and calibration gas generator
- Automatic calibration/validation of the data, with embeded permeation tube
- 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 : full chromatogram
 - No cylinders required thanks to internal calibration tube and gas generators
- Automatic control with process device
- Intelligents system with tunable and interactive alarm levels
- 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 32 streams with one analyser)
- Explosion proof version Exp or Exd for ATEX, IECEx zone 1 and 2 group IIC T4 and also for CSA C1D2 group B, C & D T4
- Calculation modules (Average / Statistics / Odor index and more)
- Alarm module with dry contact on low or high concentration or other on request
- Automatic data transfert through: Module for 4 outputs 4-20 mA (with 0 mA for instrument default) / 0 - 10 V / MODBUS RTU or TCPI IP or MGS1
- Nitrogen or air generator for safe and hasardous area
- 24 V DC power supply
- Electric selection valve to reduce air consumption
- Liquid injection valve from LPG up to condensates
- High concentration injection valve up to 5%
- External cylinder inlet for automatic calibration from external cylinder
- MFC for multipoint calibration from internal CALIB and/or from cylinder
- Zero method
- Sample pressure reducer from 20 bar (up to 200 bar in option) with sampling flow regulation at 100 ml/min

Product technical specifications:

Compounds Analysed:

- H₂S / All odorants blend from ARKEMA Spotleak® and Chevron Philipps Scentine® / THT / THT and TBM /DMS and TBM / MES and TBM / TBM, IPM and NPM / EM

Detection Limit:

- ppm Model 0.3 mg/m³ or 0.1 ppm

Detection Range:

- ppm model - 0 to 50 mg/m³ or 0 to 500 mg/m³ (adjustable)
- ppb model - 0.3 to 3.0mg/ m³ (Ranges adjustable depending on Application)

Relative Standard Deviation:

- RSD < 2 % on concentration over 48H
- RSD < 0.6% on retention time over 48H

Cycle Time:

- H₂S 5 min (2 min in option)
- THT 5 min (3 min in option)
- THT and TBM 5 min (3 min in option)
- DMS and TBM 10 min (5 min in option)
- MES and TBM 10 min (5 min in option)
- TBM, IPM and NPM 10 min (5 min in option)
- EM 5 min (3 min in option)

Supervisor:

- Embeded computer Windows® based with LCD touchscreen display on front panel
- 128 GB of Hardware storage on SSD memory

Linearity:

- > 0.995 for all compounds

Communication:

- MODBUS RTU included in standard
- Ethernet, remote control

Gas supply:

- Sample inlet 1 bar (160 ml/min) 1/8" double ferrule
- Bellow gas consumption are not required in case of internal gas generator option:
 - Carrier Gas: N₂ (3 bars): 10 ml/min 1/8" double ferrule
 - Internal calibration: 50 ml/min (if selected)

Power supply:

- Main: 230V / 60Hz or 115V / 50Hz
- In case of power loss, the instrument will restart automatically

Electrical consumption:

- Mean: 150 VA

Dimensions and weight:

- Wall mounted version
- Height: 800mm
 - Width: 600mm
 - Depth: 320mm
 - Net weight: 40Kg

To order:

MEDOR easy

Model:

M43022

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

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