TSP M51



ONLINE ANALYTICAL SOLUTIONS EXPERTS

GAS ANALYZER GC 866

H2S MEDOR[®]

A Online analysis and monitoring of H2S





Model: M51022

Model: M51022 - ATEX

Main applications:

Trace and ultra trace detection in Natural Gas / LPG / Gaseous Fuels H2S in crude oil / Diesel / Fuel oil / Condensates / water Deodorisation/Desulfurisation control ppb Catalyzer protection H2S in pure gas : H2 with special application

Targetted compounds:

H₂S In option: other sulfur compounds and total sulfur with other MEDOR version

Main markets:



H₂S **Refineries / Petrochemical** Gas transportation Process Sales metering station Emissions





Standard:

ASTM D7493-22 & D7165-22, ISO 19739:2004, DIN 51855/7

Certifications:

GOST, ATEX, IECEx, CSA, CSA international





INTERNATIONAL Standards Worldwide





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WWW.CHROMATOTEC.COM

H25

H2S MEDOR® Online analysis and monitoring of H2S

Description:

The H2S MEDOR® is an autoGC-ED (MEDOR® Electrochemical wet cell Detector) for the analysis and monitoring of H2S in natural gas and gaseous fuels.

Three versions exist:

- H2S MEDOR[®] ppb for 0 1 ppm
- H2S MEDOR[®] ppm for 0-10 / 0-50 / 0-100 ppm
- H2S MEDOR[®] % for 0-10 %

Principle:

- Automatic sampling using a loop
- Automatic loop injection on column
- Isothermal gas chromatograph
- Detection of H2S eluting from the column performed by MEDOR® Detector:Electrochemical wet cell Detector which is SSD Sulfur Specific Detector.
- Signal provided by electrochemical reaction between the wet cell electrolyte and the sulfur compounds

Key points:

Fully compliant with ASTM D 7493-22 : Standard Test Method for Online Measurement of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatograph and Electrochemical Detection.

Continuous monitoring with automatic online sampling.

Analytical performances:

- Specific, linear and very sensitive to H2S
- · Results validation by automatic standard injection
- 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
- · Intelligence system with tunable and interactive alarms levels

Powerfull 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
- · Time stamp results

Options:

- Multiple stream selector (up to 16 streams with one analyser)
- · Modeling software with weather station for live odor/chemical impact
- Explosion proof version Exp or Exd for ATEX, IECEx zone 1 and 2 and also for CSA C1D2 group B , C & D T4
- Calculation modules (Average / Statistics / Odor unit OU e/m3 and more)
- 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 hazardous area
- 24 V DC power supply
- · Electric selection valve to reduce air consumption
- Wall mounted box XXX934
- · Liquid injection valve for LPG analysis
- Touch screen on the front panel for Exp version (only ATEX)
- External cylinder inlet for automatic calibration from external cylinder
- MFC for multipoint calibration from internal CALIB and/or from cylinder
- · Zero method

Technical specifications:

Detection Limit:

H2S MEDOR[®] ppm : • H2S : 0.1 ppm (0.1417 mg/m3) H2S MEDOR[®] ppb :

H2S : 1 ppb (1.39 μg/m3)

Range (adjustable depending on application):

- 0/10 or 0/100 or 0/1000 (ppb or ppm)
- % with internal loop valve

Relative Standard Deviation:

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

Cycle Time:

- H2S 120 s for 0 3 ppm range
- H2S 300 s for higher range

Supervisor:

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

Linearity:

• > 0.995

Communication:

- · MODBUS RTU included in standard
- Ethernet, remote control

Gas supply:

- Carrier: Dry air or N2 (3 bar): < 4 ml/min
- Internal calibration: 50 ml/min for ppm range
- Sample inlet 1 bar and 160 ml/min sample flow
- Pneumatic valve 90 ml/commutation

Power supply:

- Main: 230 V / 115 V or 50/60 Hz
- Power: 24V (optional)

Electrical consumption:

• Average: 150 VA

Dimensions and weight:

- Rack: 19" (5U)
- Height: 222 mm
- Width: 482mm
- Depth: 600 mmNet weight: 22 Kgs
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To order:

- Wall mounted Exp version : • Height: 800 mm
- Width: 600mm
- Depth: 300 mm
- Net weight: 40 Kg

Model: M51022

H2S MEDOR® inbuilt computer 5U with CALIBM51022H2S MEDOR® Ex px certified ATEX zone 2M51022 -ATEX-Z2H2S MEDOR® Ex px certified ATEX zone 1M51022 -ATEX-Z1H2S MEDOR® Exd ATEX zone 1M51022 -ATEX-Z1-ExdH2S MEDOR® Ex px certified IECEX zone 1M51022 -IECEX-Z1H2S MEDOR® Exd IECEX zone 1M51022 -IECEX-Z1H2S MEDOR® Exd IECEX zone 1M51022 -IECEX-Z1H2S MEDOR® Exd IECEX zone 1M51022 -IECEX-Z1-ExdH2S MEDOR® Ex px CSA C1D2M51022 -CSA-C1D2H2S MEDOR® Exd CSA C1D2M51022 -CSA-Z1-Exd

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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