



Axel Semrau®

ODOR on-line



Product Information

ODOR on-line

ODOR on-line is a **fully-automatic** on-line measuring system for the quantification of odorizing substances and sulfur and naturally-occurring sulfur pollutants in gas (natural gas, town gas, liquid gas).

The measuring principle is a gas chromatograph with packed separation column and special electrochemical detector. The ODOR on-line is designed and constructed according to DIN 51855 Part 7 and/or ISO 19739 and therefore the **reference process** for odorization control according to DVGW Worksheet G280.

The electrochemical detector only gives a signal for substances which react with it chemically. These comprise all sulfurous compounds, such as for example tetrahydrothiophene (THT), mercaptan and mercaptan mixtures (Scentinel E[®], Spotleak 1009[®]) and hydrogen sulfide (H₂S). The detector does not react to the other substances in natural gas. This is a considerable advantage within your measuring task, as complicated separation of all the components of natural gas is no longer necessary.

Because of the low requirements placed on the chromatography itself, the ODOR on-line is operated with dry oil-free compressed air. This means that you **save** the cost of expensive operating gases.

The ODOR on-line is available in two versions, with and without mass flow regulator. The electronic mass flow regulator ensures precise regulation of the carrier gas flow and is particularly recommended when mercaptans are to be measured.

The main area of application of the ODOR on-line is odorization control in public gas utilities.

The system has been optimized over the years to provide **optimum stability** for use in the field. The ODOR on-line works with a permanently-heated separation column and automatic level regulation for the detector. This means that you profit from **long service intervals** and optimum stability and reliability.

Because of its robust design and the fact that it can be connected up to a 12 V power supply, the ODOR on-line has established itself as **market leader** within the area of mobile gas chromatographs for odorization control. It is easily possible to operate the device from the boot of the measuring vehicle.

The design of the ODOR on-line injector is ideally adapted for injection using a gas proof syringe. Injection of gas samples collected in advance has therefore been further improved. Results can now be reliably reproduced.

Three current loops for remote transfer of the results (4-20 mA) are already incorporated as standard, as well as an alarm relay for minimum and maximum concentrations.

Automatic restart following power failure is ensured.

Control and evaluation are realized via a Computer or Laptop. Peak recognition is by means of professional integration software.

All measuring results and calibrations, including the chromatograms, are **archived in a database** and can be viewed at all times. As an option, a printer can be connected up to the equipment in order to provide a paper-based record. This means that your measuring results are accessible to you at all times.

Use of a PC allows particular easy remote maintenance of the system. Using an additional program such as PCAnywhere™ and a telephone connection, you can check and control the system from remote locations, which means administration from your office or remote maintenance by our service team can easily be achieved.

No matter how you want to use the ODOR on-line -

- stationary in on-line operation
- mobile in the measuring vehicle
- for measurement of gas samples

the **ODOR on-line** is there where you need it.

Technical specifications

Measurement range	H ₂ S 0.1 mg/m ³ up to approx 100 mg/m ³ Mercaptans 0.1 mg/m ³ up to approx 100 mg/m ³ THT 0.1 mg/m ³ up to approx 100 mg/m ³ Note: Calibration gases and size of sample loop adjusted to suit specific concentration range.
Detection limit	H ₂ S below 0.05 mg/m ³ (0.035 ppm)
Detector	Electro chemical detector with CrO ₃ solution Automatic refill system
Column	Heated packed glass column
Sample loop	High volume loop (8 mL)
Injection	Automatically via sample in, manually with syringe via injection port
Calibration	Automatic with external calibration gas
Carrier gas	Instrument air or N ₂
Power supply	12 V DC, 115 V AC, 230 V AC; Automatic restart after power failure
Outputs	3 x 4-20 mA, Modbus (Option), 4 alarm relays
Data processing	Windows based software, with unlimited data logger, reprocessing ability and user defined reports

Subject to technical changes

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**ODOR on-line is a development by
Axel Semrau®**