

# Gas Analyzing System NAGA5



## NAGA5 Components

- Floor-mounted cabinet
- Cabinet fan and internal heater
- Inspection switch
- Pre-separator
- Measuring gas fine filter
- Measuring gas cooler
- Condensate pump
- Flow indicator with precision regulation valve
- Flow control with alarm switch
- Special filter for moisture protection
- Measuring gas pump
- 10 litre condensate collector
- Change-over switch to calibration gas
- Potential-free alarm contacts
- Galvanic separation of measurements

The **exhaust gas analyzing system NAGA5** is designed to continuously measure gases from flares.

The methane analyser is equipped with an infrared sensor and the oxygen analyser with an electrochemical sensor.

The measured value is displayed and gives an analogous signal of 4 - 20mA.

The specific use of integrated gas processing ensures trouble-free operation of the system. The measuring gas is cooled down to 5 degrees Celsius in a Peltier cooler, thus preventing precipitation of condensate inside the analysers and consequently avoiding corrosion of the measuring cells. The condensate separated in the gas cooler is constantly conveyed to the exits of the system by means of condensate pumps. Furthermore, a pre-separator is installed. Before being fed to the analysers, the pre-cleaned gas is additionally cleaned by a fine filter as well as a special absorber.

A float-type flow meter regulates and indicates the measuring gas flow.

The life cycle of an oxygen sensor reaches 2 up to 4 years.



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## Technical Data

<b>Gas analyser CH<sub>4</sub></b> <b>CH<sub>4</sub> Type / Measuring principle:</b> <b>Measuring range:</b> <b>Accuracy:</b> <b>Response time:</b>	GAE CH <sub>4</sub> / Infrared absorption 0-5 % by vol. +/- 2% of full scale < 5 seconds
<b>Gas analyser O<sub>2</sub></b> <b>Type / Measuring principle:</b> <b>Measuring range:</b> <b>Accuracy:</b> <b>Response time:</b>	GAE-O <sub>2</sub> / Electrochemical 0-25 % by vol. +/- 1% of full scale < 15 seconds
<b>Measuring gas processing:</b>	Pre-separator, gas cooler, measuring gas diaphragm pump with bypass valve, fine filter, flow regulation valve, float-type flow meter, peristaltic pump for the discharge of condensate, absorber filter, membrane filter
<b>Monitoring:</b>	Control of gas analysis circulation with flow alarm
<b>Calibration:</b>	Manually by means of a three-way change-over switch to calibration gas Inspection key switch
<b>Pump capacity:</b>	-150mbar at a flow rate of 60l/h
<b>Electrical connection:</b>	230 VAC / 50Hz / 10 A
<b>Air-conditioning of cabinet:</b>	Heating 2x800W / fan
<b>Temperature range:</b>	-15°C up to 40°C
<b>Pressure range:</b>	800-1200 hPa
<b>Mechanical connections:</b>	Compression type fitting 6/4mm VA
<b>Alarm outputs:</b>	Volt-free contacts
<b>Signal outputs:</b>	4-20mA / apparent ohmic resistance: 500 Ohm
<b>Air outlet:</b>	Exit filter
<b>Cabinet:</b>	Steel sheet, protection class IP44, dimensions B800xH1500xT500mm, colour: RAL 7035
<b>Documentation:</b>	One copy established in English or German language
<b>Options:</b>	<ul style="list-style-type: none"> <li>• Pressure compensation of the methane measurement</li> <li>• Air-conditioning unit for the cabinet</li> <li>• Stainless steel socket for outdoor installation</li> <li>• Special voltage</li> </ul>