

# Gas Analyzing System NGA3



## NGA3 Components

- Floor-mounted cabinet
- Use of up to 4 measuring channels
- Cabinet fan and internal heater
- Measuring gas fine filter
- Measuring gas cooler
- Condensate pump
- Flow indicator with precision regulation valve
- Flow control with alarm switch
- NAE2 Evaluation unit with alarm output of the gas alarms
- Special filter for moisture protection
- Measuring gas pump
- Potential-free alarm contacts
- Galvanic separation of measurements
- 10 litre condensate collector

The **gas analyzing system NGA3** is designed to continuously measure gases from waste landfill sites, digester gas, mine gas or biogas.

The methane and carbon dioxide analysers are equipped with infrared sensors, the oxygen analyser is provided with a paramagnetic sensor or 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. 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 condensate pumps.

The system is optionally available with 1-4 channels.

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



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## Technical Data

<b>Gas analyser Type:</b>	<b>EMERSON X-STREAM</b>
<b>Channel CH<sub>4</sub>/CO<sub>2</sub></b>	
<b>Measuring principle:</b>	Infrared absorption
<b>Measuring range:</b>	0-100 Vol%
<b>Accuracy:</b>	+/- 1% of full scale
<b>Zero-point drift:</b>	< 2% of full scale per week
<b>Response time:</b>	< 20 seconds
<b>Channel O<sub>2</sub></b>	
<b>Measuring principle:</b>	Electrochemical or paramagnetic cell
<b>Measuring range:</b>	0-25 Vol%
<b>Accuracy:</b>	+/- 1% of full scale
<b>Zero-point drift:</b>	< 2% of full scale per week
<b>Response time:</b>	< 20 Sekunden
<b>Channels per system:</b>	4 channels maximum
<b>Measuring gas processing :</b>	Gas cooler, measuring gas diaphragm pump, fine filter, flow regulation valve, float-type flow meter, peristaltic pump for the discharge of condensate, membrane filter, deflagration arresters
<b>Monitoring</b>	NAE2 evaluation unit with flow alarm, CH <sub>4</sub> -alarm, CH <sub>4</sub> -pre-alarm, O <sub>2</sub> -alarm, O <sub>2</sub> -prealarm, group alarm, alarm suppression during system calibration
<b>Calibration:</b>	Manuell calibration with test gas
<b>Pump capacity:</b>	-150 mbar at a flow rate of 60 l/h
<b>Electrical connection:</b>	230 VAC / 50 Hz / 10 A
<b>Air-conditioning of cabinet:</b>	Heating 1x200 W / cooling fan
<b>Temperature range:</b>	5°C to 35°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>	4-20 mA / apparent ohmic resistance: 500 Ohm
<b>Cabinet:</b>	Steel sheet, protection class IP54, dimensions B 800 x H 1900 x T 600 mm, colour: RAL 7035
<b>Documentation:</b>	One copy established in English or German language
<b>Options:</b>	<ul style="list-style-type: none"> <li>• Special voltage</li> <li>• Measuring gas pump and bypass control with increased capacity range – 600 mbar at a flow rate of 60 l/h</li> <li>• Moisture detector integrated in the measuring gas circuit provided with alarm outputs and pump switch-off</li> <li>• Air conditioning unit for use at high ambient temperatures</li> <li>• Auxiliary heating</li> <li>• Function monitoring, ventilator</li> <li>• Leakage control system LCS1 including automatic shutdown in case of alarm</li> </ul>