

Gas Analyzer GAE3 CH₄/O₂



The gas analyzer works on the principle of a non-dispersive infrared photometer (NDIR) when measuring CH₄. It records the absorption of infrared radiation caused by the sample gas. The wavelength of the absorption bands characterizes the type of gas, while the strength of the absorption is a measure of the concentration of the measured component.

The O₂ measurement works with a chemical sensor.

Oxygen does not absorb infrared light to the same extent as other gases and is therefore measured using an oxygen measuring cell.

Oxygen measuring cells are generators that

do not require an external voltage source. As the measurement is linked to a chemical reaction, the cell is gradually consumed in the presence of oxygen.

Compatible to Binios 100
off year of construction
11.1997

- Complete interface compatible
- Identical front dimensions
- Lower installation depth



Gasanalysator GAE3 CH₄/O₂

Technical Specifications

	CH ₄	O ₂
Range	0-5 Vol% or 0-100 Vol%	0-25 Vol%
Measuring Principle	NDIR ¹	Chemical sensor
Accuracy	± 2% FS ²	± 1% FS ²
Repeatability	± 1% FS ²	± 1% FS ²
Pressure Dependence	< 0,2% FS ^{2,3} / 10hPa	< 1% FS ^{2,3} / 10hPa
Lower Detection Limit	< 1% FS ²	< 1% FS ²
Linearity Error	< 2% FS ²	< 1% FS ²
Temperatur Dependence	1% / 10K	<0,5 % / 10K
Response Time (T90)	<30 Seconds	<30 Seconds
Operating Temperatur Range	5-45 °C	
Operating Humidity Range	0-100% rel. Humidity (not condensing)	
Operating Flow Range	10 - 60 l/h	
Power Supply	24-30VDC (electric stabilized)	
Current Consumption	< 500mA	
Analog Output	4-20mA scalable (isolated)	
Max Load mA-Output	max. 500 Ohm	
Digital Outputs	4 x Relay, Limit value adjustable, max 30VDC / 100mA NC/NO configurable	
Dimensions	width: 107mm (¼ 19") deep: 270mm	
Weight	ca. 1,3 kg	

¹ Non-dispersive infrared sensor with Two-beam correlation method

² Full scale

³ Pressure compensated

Item Numbers

Analysator type	Item Number
GAE3 CH ₄ 100% / O ₂ 25%	N10708
GAE3 CH ₄ 5% / O ₂ 25%	N10709