



Gas measurement technology

SAFE EthanTest

Simple and automatic analysis of gas to differentiate between natural gas and biogas



- Robust complete system in a service box
- Fully automatic sampling and analysis
- Reliable measurement result within five minutes
- Automatic evaluation by the measurement system
- Document the measurement with the built-in printer
- Data memory and infrared interface to transfer all measurement data to the PC

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In practise, there will always be locations where gas is emanated, making a gas analysis necessary. It should be guaranteed from the analysis that it concerns the emanation of natural gas and not bio-gas (fermentation gas or marsh gas).

The differentiation occurs by the evidence of ethane (C₂H₆) in gas. Ethane is only in natural gas and therefore is suitable as a clear indicator for evidence. The **SAFE EthanTest** contains a chromatographic separating column in which the gas sample is broken down and is let out for a delayed period of time. The small-molecular methane is the first to reach the sensor and is displayed. Ethane then follows after a certain interval, if it is natural gas.

This technology has already been on the market for years. However, the operation was rather complicated and only very experienced personnel could make clear statements.

But that is the end of that!

The main focus of the development was on reliable analysis and completely trouble-free use. The user does not need to mix a sample of a suitable concentration nor evaluate the measurement results. Even measurement inaccuracy at low service temperatures could be eliminated by tempering and temperature monitoring of the separated columns.

In practise, this means:

- Taking the service box to the measurement site
- Activate device and connect sensor
- Feed sensor into sensor hole and start analysis at the touch of a button
- SAFE absorbs a gas sample and displays its concentration in vol.%
- The gas sample passes through the separating columns and the display of methane and ethane (if applicable) takes place
- The results display shows the clear results along side the measured gas concentrations
- A results protocol is printed out and in addition, the measurement is filed in the memory



Technical data	
Display	LCD graphic display 128 x 64 pixels, illuminable
Power supply	Lead accumulator, integrated load system with 12V input
Operating time	Depending on outside temperature, over 50 analyses
Analysis range	Depending on the ethane concentration in natural gas from approx. 1,000 ppm to 100 vol.-% natural gas
Operating temperature	- 10°C to + 45°C
Documentation	built-in thermo printer and memory
Dimensions	Width 35cm, Depth 30cm, Height 15cm
Weight	5,600 g approx

Subject to technical modifications! Status 03/2016

