



**ANAREX – OPTIMUM
MEASURING ACCURACY
AND PERFORMANCE**

Innovative gas sensors

smartGAS.

ANAREX –

Customized solutions for gas measuring technology

The ANAREX product family impresses with its stable high-precision measuring performance, intuitive operation and easy calibration. Designed as a 19-inch multi-gas analyzer, the products can be easily commissioned via plug-and-play.

The flowmeter at the front enables the gas flow to be controlled while the measuring values can be both read at the 5.6 inch LCD touch screen or transmitted via RS232 interface and an analog output.

Top gas sensor technologies combined

ANAREX gas analyzers are primarily based on the NDIR sensors of the Flow^{EVO} and SILAREX series, however, they can be supplemented with paramagnetic and photoacoustic or electrochemical sensors.

If required, up to five gases can be measured with three sensors in one ANAREX gas analyzer. The internal software controls the zero and end point calibration to ensure perfect accuracy of the measuring values.

Possible application areas and measuring gas combinations

Industrial plants, cogeneration plants, power plants: CO₂ (0...20% by volume) and CO (0...1000 ppm) – already available
Fruit ripening & storage: CO₂ (0...5% by volume), O₂ (0...25% by volume) and Ethylene (5...1000 ppm) – already available
TOC measurement: CO₂ (100 ppm / 500 ppm / 2000 ppm) – already available

Blast-furnace gases: CO, CO₂, CH₄, O₂
Process gas analysis: CO, CO₂, O₂, NO_x
Pesticides: CH₃Br, SO₂F₂

Waste incineration gases: SO₂, NO, NO₂, O₂, CO₂
Emission monitoring: CO₂, NO, SO₂
Biogas plant: CO₂, CH₄

- High and stable measuring performance
- Easy operation via touch screen
- Simple sensor calibration
- For installation in a 19 inch rack
- Analog or digital output
- Sensor technology optimally matched to the application
- Low maintenance and high durability
- High selectivity and measuring accuracy
- Long-term stability and very low drift
- Low detection limits with short response times



Technical specifications

Display:	5.6 inch LCD touch screen
Housing:	19 inch rack
Analog output	4 – 20 mA (during operation)
Interface:	RS232 (DB9 socket)
Mains voltage:	198 – 242 VAC, 50/60 Hz
Mains connection:	EN 60320 C1
Protection class:	IP42
Weight:	15 kg

Gas flow and ambient

Gas flow:	0.4 – 0.8 l/min
Flow rate fluctuation:	≤ 0.02 l/min
Gas temperature:	5 – 35 °C
Gas pressure:	76 – 116 kPa
Moisture:	non-condensing
Input dew point:	5 °C ± 0.1 °C
Max. particle content:	100 $\mu\text{g}/\text{m}^3$, ≤ 1 μm
Operating temperature:	10 °C – 40 °C
Humidity:	0 – 95% rH (non-condensing)
Ambient pressure:	76 – 116 kPa

Metrological specifications

Measurement resolution:	0.01% (photoacoustic) 0.001% (paramagnetic) 0.1% (NDIR)
Repeat accuracy:	0.1% FS (photoacoustic) 1% FS (paramagnetic) 1% FS (NDIR)
Linearity:	0.1% FS (photoacoustic) 1% FS (paramagnetic) 1% FS (NDIR)
Response time:	<25 s (t90@60 l/h, smooth flow rate)
Warm-up period:	<25 s (t90@60 l/h, smooth flow rate)

About smartGAS

smartGAS Mikrosensorik GmbH is a dynamic company specialized in the development, the production and the marketing of innovative gas sensors and gas analyzing solutions. smartGAS develops, produces and sells both OEM and customized sensor systems. Most of the products are based on infrared absorption (NDIR) and photoacoustic spectroscopy (PAS), which allows selective detection of a gas and accurate determination of its concentration. Recent developments have seen not only significant reduction in size but also an increase in the number of detectable gases. The sensors are used in applications such as fruit

ripening and storage, high voltage, emission monitoring, process control, refrigeration analyzers and monitoring, analytical appliances and process control.

The goal of smartGAS is to simplify the handling of gases using innovative technologies to protect the environment and to advance the safety for humans and equipment. Therefore we offer our standard products and customized solutions and provide support and assistance for the design in.

Ambitioned to make earth a safer place.

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