Process Insights™
Premium Insights Into Process

HIGH-PERFORMANCE GAS ANALYZERS

PRODUCT DATASHEET

HALO KA Max™

THE ULTIMATE TRACE GAS ANALYZER

HALO KA Max offers:

- Available for detecting traces on moisture (H_2O), ammonia (NH_3), or methane (CH_4)
- Parts per trillion (ppt) detection capability in an array of gases
- Absolute measurement (freedom from calibration)
- Field proven lowest Cost of Ownership and ease of use
- Wide dynamic range – over four orders of magnitude
- Unprecedented speed of response at sub-ppb levels
- Compact footprint (two HALO KA Max fit in a 19" rack)

Specifications

Performance

Operating range:	See gas performance table on next page
Detection limit (LDL)*:	See gas performance table on next page
Precision (1σ, greater of):	± 0.75% or see tables on next page
Accuracy (greater of):	± 4% or LDL
Speed of response:	< 2 min to 95% (for H_2O/NH_3), < 1 min to 95% (for CH_4)
Environmental conditions:	10°C to 40°C, 30% to 80% RH (non-condensing)
Storage temperature:	–10°C to 50°C

Gas Handling System and Conditions

Gas connections:	1/4” male VCR inlet and outlet
Leak tested to:	1 x 10^{-9} mbar l / sec
Inlet pressure:	10 − 125 psig (1.7 − 9.6 bara)
Flow rate:	~2 slpm in N_2 (gas dependent)
Sample gases:	See tables below
Gas temperature:	Up to 60°C

Dimensions & Weight

Standard sensor:	H × W × D 8.73 x 8.57 x 23.6 in (222 x 218 x 599 mm)
Sensor rack (fits up to two sensors)**:**	H × W × D 8.73 x 19.0 x 23.6 in (222 x 483 x 599 mm)
Standard sensor weight:	28 lbs (12.7 kg)
NH_3 sensor weight:	34 lbs (15.4 kg)

Electrical and Interfaces

Platform:	Max Series analyzer
Alarm indicators:	2 user programmable, 1 system fault, Form C relays
Power requirements:	90 − 240 VAC, 50/60 Hz
Power consumption:	40 Watts max.
Signal output:	Isolated 4−20 mA
User interfaces:	5.7” LCD touchscreen, 10/100 Base-T Ethernet, USB, RS-232, RS-485, Modbus TCP (optional)
Data storage:	Internal or external flash drive
Certification:	CE Mark

HALO KA Max H_2O Performance, H_2O

	Range	LDL*,†	Precision (1σ) @ zero
In Nitrogen:	0 – 5 ppm	100 ppt	40 ppt
In Helium:	0 – 1 ppm	100 ppt	10 ppt
In Argon:	0 – 2 ppm	100 ppt	20 ppt
In Hydrogen:	0 – 4 ppm	100 ppt	30 ppt
In Oxygen:	0 – 2.5 ppm	100 ppt	20 ppt
In Clean Dry Air (CDA):	0 – 4 ppm	100 ppt	30 ppt

HALO KA Max NH_3 Performance, NH_3

	Range	LDL† (3σ/24h)	Precision (1σ) @ zero
In Nitrogen:	0 – 7 ppm	100 ppt	40 ppt

HALO KA Max CH_4 Performance, CH_4

	Range	LDL† (3σ/24h)	Precision (1σ) @ zero
In Nitrogen:	0 – 8 ppm	500 ppt	200 ppt
In Helium:	0 – 5 ppm	400 ppt	140 ppt
In Argon:	0 – 7 ppm	450 ppt	150 ppt
In Hydrogen:	0 – 8 ppm	500 ppt	200 ppt
In Oxygen:	0 – 7 ppm	500 ppt	200 ppt

*The Detection limit (LDL) is defined as 3σ over 24 hours or the H_2O drydown limit, whichever is higher.
†Lowest achievable impurity level is dependent upon the quality of the sample gas and the integrity of the sampling system.

Contact us for additional analytes and matrices.
U.S. Patent # 7,277,177

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HIGH-PERFORMANCE GAS ANALYZERS

GAIN REAL-TIME INSIGHT INTO YOUR PROCESS

Process Insights manufactures and delivers premium sensors, monitors, detectors, analyzers, instrumentation, and software that are mission-critical to keep your operations, personnel, and the environment safe – every day across the globe.

Get the most reliable, precision analytical technologies available on the market today. We will work to match your needs and budget, and provide the optimal, and most stable process analysis solution for your application.

CENTERS OF EXCELLENCE | PROVIDING PROVEN SOLUTIONS

Process Insights is committed to solving our customers' most complex analytical, process, and measurement challenges everyday.

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