

PRODUCT DATASHEET

ALOHA+ H₂O™

Gas Analyzer for Trace Moisture
in Ammonia



Designed for trace level moisture analysis in ammonia, the ALOHA+ H₂O offers:

- 3 parts-per-billion (ppb) detection capability in ammonia (NH₃) and sub-ppb in inert matrices
- Rapid response time
- Wide dynamic range
- Absolute and calibration-free measurement technology
- Extremely low cost of ownership
- User-friendly touchscreen and remote communication

The superior analytical solution for your High-Brightness LED needs

The ALOHA+ H₂O™ advances moisture detection in ammonia (NH₃) to unprecedented levels. The analyzer provides specialty gas and High-Brightness LED makers with the exceptional detection limits, accuracy, reliability, speed of response and ease of operation that our customers have come to expect. LED manufacturers rely on our proven Cavity Ring-Down Spectroscopy-based moisture sensors to ensure the ammonia process gas is of the high quality necessary to produce High Brightness LEDs. The cost effective analyzer is quick to install, easy to use and effortless to maintain. There are no off-line periodic sensor maintenance procedures, no span calibrations, no purifier replacement and no pump rebuilds required. The ALOHA+ H₂O analyzer is fully self-calibrating and the “bright” choice for your detection needs!

Specifications

Performance

Operating range:	See table below
Detection limit (LDL, 3σ/24h):	See table below
Precision (1σ, greater of):	± 1% or 1/3 of LDL
Accuracy (greater of):	± 4% or LDL
Speed of response:	< 5 minutes to 95%
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*

Wetted materials:	316L stainless steel, 10 Ra surface finish
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)
Outlet pressure:	<2 Torr (2.7 mbar)
Flow rate:	up to 1.8 slpm (gas dependent)
Sample gases:	Ammonia (NH ₃) & inert matrices
Gas temperature:	Up to 60°C

Dimensions & Weight

Standard sensor (incl. shutoff valves):	H x W x D: 8.73 x 8.57 x 26.4 in (222 x 218 x 670)
Sensor rack (fits up to two sensors):	H x W x D: 8.73 x 19.0 x 26.4 in (222 x 483 x 670)
Standard 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. (excluding vacuum pump)
Signal output:	Isolated 4–20 mA
User interfaces:	5.7" LCD touchscreen. 10/100 Base-T Ethernet. USB, RS-232, RS-485
Data storage:	Internal or external flash drive
Certification:	CE Mark

Performance, H₂O

	Range	LDL (3 σ)	Precision (1 σ) @ zero
In Ammonia:	0 – 20 ppm	3 ppb	1 ppb
In Nitrogen:	0 – 6 ppm	0.5 ppb	0.2 ppb
In Helium:	0 – 3 ppm	0.3 ppb	0.1 ppb
In Argon:	0 – 4 ppm	0.4 ppb	0.15 ppb
In Hydrogen[†]:	0 – 6 ppm	0.5 ppb	0.2 ppb

*Vacuum source required

[†]Please ensure that the vacuum source used meets all safety requirements for use in pure hydrogen. U.S. Patent # 7,277,177

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.

Process Insights – The Americas

4140 World Houston Parkway Suite 180, Houston, TX 77032, USA +1 713 947 9591

Process Insights – EMEA

ATRICOM, Lyoner Strasse 15, 60528 Frankfurt, Germany +49 69 20436910


Process Insights – APAC

Wujiang Economic and Technology, Development Zone, No. 258 Yi He Road, 215200 Suzhou, Jiangsu Province, China +86 400 086 0106

For a complete range of products, applications, systems, and service options, please contact us at: info@process-insights.com

For a complete list of sales & manufacturing sites, please visit: <https://www.process-insights.com/about-us/locations/>

COSA Xentaur, Tiger Optics, Extrel, Alpha Omega Instruments, ATOM Instrument, MBW Calibration, MGA, Guided Wave, ANALECT and LAR TOC Leader are trademarks of Process Insights, Inc.



REVOLUTIONIZING MEASUREMENT

EVERYWHERE