ALOHA+ H_2O
Gas Analyzer for Trace Moisture in Ammonia

GASES & CHEMICALS | CEMS | ENERGY | ATMOSPHERIC | SEMI & HB LED | SYNGAS | LABORATORY

Designed for trace level moisture analysis in ammonia, the ALOHA+ H_2O offers:

- 2 parts-per-billion (ppb) detection capability in ammonia (NH_3) 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+ H_2O advances moisture detection in ammonia (NH_3) 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 Tiger Optics customers have come to expect. LED manufacturers rely on Tiger Optics' family of proven Continuous-Wave 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+ H_2O analyzer is fully self-calibrating and the "bright" choice for your detection needs!

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ALOHA+ H_2O

Gas Analyzer for Trace Moisture in Ammonia

Performance	
Operating range	See table below
Detection limit (LDL,	See table below
8 h peak-to-peak variation)	
Sensitivity (3σ)	See table below
Precision (1σ, greater of)	± 1% or 1/3 of Sensitivity
Accuracy (greater of)	± 4% or the 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) and inert matrices
Gas temperature	Up to 60°C

Dimensions	H x W x D [in (mm)]
Standard sensor	8.75 x 8.5 x 23.6 (222 x 216 x 599)
Sensor rack	8.75 x 19 x 23.6 (222 x 483 x 599)
(fits up to two sensors)	

Weight	
Standard sensor	34 lbs (15.4 kg)

Electrical	
Alarm indicators	User programmable setpoints
	(1 per sensor)
	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
	802.11g Wireless (optional)
	RS-232

Performance, H_2O:	Range	LDL (peak-to-peak)	Sensitivity (3σ)
In Ammonia	0 – 20 ppm	2.0 ppb	1.6 ppb
In Nitrogen	0 – 6 ppm	1.0 ppb	0.5 ppb
In Helium	0 – 3 ppm	0.6 ppb	0.3 ppb
In Argon	0 – 4 ppm	0.8 ppb	0.4 ppb

*Vacuum source required
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