



# ALOHA H<sub>2</sub>O

## Gas Analyzer for Trace Moisture in Ammonia

GASES & CHEMICALS

CEMS

ENERGY

ATMOSPHERIC

SEMI & HB LED

SYNGAS

LABORATORY

### Designed for trace moisture in ammonia analysis, the ALOHA H<sub>2</sub>O offers:

- Low parts per billion (ppb) moisture detection capability in ammonia (NH<sub>3</sub>)
- Absolute measurement (freedom from calibration)
- Extremely low cost of ownership
- Great ease of use
- Wide dynamic range – over four orders of magnitude
- Unprecedented speed of response
- Clean technology

### A superior analytical solution for your HB LED needs

The ALOHA H<sub>2</sub>O moisture analyzer provides 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. Manufacturers of HB LEDs rely on Tiger Optics' family of proven Continuous-Wave Cavity Ring-Down Spectroscopy-based moisture sensors to ensure the ammonia gas used in the process are of the high quality necessary to produce the best performing LEDs.

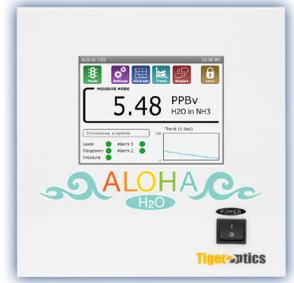
The ALOHA H<sub>2</sub>O analyzer is extremely cost-effective, utilizing a very compact analyzer design. Users can measure moisture in ammonia and inerts. There are no off-line periodic sensor maintenance procedures, no span calibrations, no purifier replacement and no pump rebuilds required. The ALOHA H<sub>2</sub>O is fully self-calibrating and the "bright" choice for your detection needs!

**Tiger**optics

21<sup>ST</sup> CENTURY SPECTROSCOPY

# ALOHA H<sub>2</sub>O

## Gas Analyzer for Trace Moisture in Ammonia



Performance, H <sub>2</sub> O in NH <sub>3</sub> :	
Operating range	0 – 20 ppm
Detection limit (LDL, 24 h peak-to-peak variation)	10 ppb
Sensitivity (3σ)	8 ppb
Accuracy (greater of)	± 4% or 1/2 of LDL
Speed of response	< 3 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 <sup>-9</sup> mbar l / sec
Inlet pressure	10 – 125 psig (1.7 – 9.6 bara)
Flow rate	Up to 1.8 slpm
Sample gases	Ammonia (NH <sub>3</sub> ) and inert matrices
Gas temperature	Up to 60°C

\*Vacuum source required  
U.S. Patent # 7,277,177

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 (fits up to two sensors)	8.75 x 19 x 23.6 (222 x 483 x 599)
Weight	
Standard sensor	34 lbs (15.4 kg)
Electrical	
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 per sensor
User interfaces	5.7" LCD touchscreen 10/100 Base-T Ethernet 802.11g Wireless (optional) RS-232