

# HIGH NITRATE PROBE

HN3A-X SERIES



## FEATURES & BENEFITS

- Affordable real-time nitrate ( $\text{NO}_3$ ) monitoring
- Ideal for monitoring high levels of nitrate
- Multiple wavelength sensor uses patent-pending technology for superior measurement performance
- Robust submersible probe with titanium housing
- Operator friendly, low-maintenance UV and Visible LED design
- Reagent free optical measurements
- Simple to install and operate

MUNICIPAL DRINKING WATER  
MUNICIPAL WASTEWATER  
INDUSTRIAL PROCESS WATER  
INDUSTRIAL WASTEWATER

WATER QUALITY  
MONITORING  
SOLUTIONS

## REAL-TIME MONITORING SOLUTION

### High Nitrate Probe

Real Tech's robust submersible High Nitrate Probe provides affordable real-time measurement of high levels of nitrate ( $\text{NO}_3$ ) in water or wastewater. The probe's rugged titanium body is built to withstand harsh environments. Designed to meet the needs of many monitoring applications, the HN3A-X series offers multiple path length selections for the desired measurement range.

### Controllers and Accessories

Our innovative modular product platform ensures our clients gain the real-time water quality monitoring system that meets their specific demands and budget. With multiple controller and accessory options available such as automatic compressed air cleaning systems that lower maintenance while improving system performance, Real Tech provides a total solution for all of your unique water quality monitoring needs.

### Liquid Ai Compatible

Our Liquid Ai data services complement our real-time water quality monitoring systems. Our Remote Monitoring platform is a powerful data management and visualization tool that enables access to data anywhere, anytime.

## MEASUREMENT PRINCIPLE

Real Tech's High Nitrate Probe utilizes patent-pending technology to provide superior measurement performance across multiple wavelengths of light using UV and Visible LEDs. Many compounds absorb light in the UV-VIS spectrum, and how much the compounds absorb is directly proportional to their concentration. Compounds that may interfere with nitrate and nitrite measurement are compensated for using additional reference wavelengths. Real Tech's innovative High Nitrate Probe is advancing wastewater management.

**REALTECH**  
INC.



# HIGH NITRATE PROBE SPECIFICATIONS

## CHARACTERISTIC

## TECHNICAL DATA

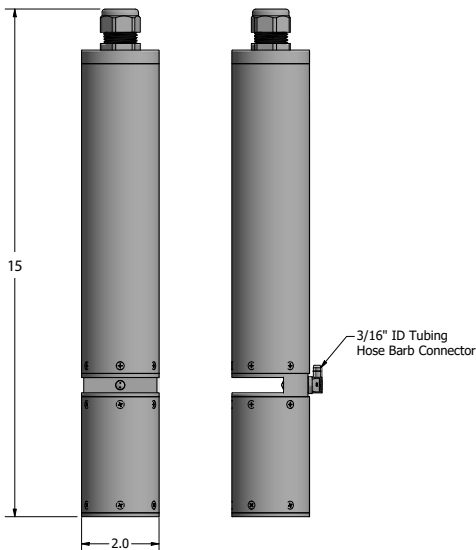
MODEL	HN3A-X2010	HN3A-X2020	HN3A-X2040	HN3A-X2100
Path Length	1 mm	2 mm	4 mm	10 mm
Parameters	Nitrate (NO <sub>3</sub> )			
Range	Depends on model selected. Refer to range chart.			
Accuracy	± 0.5% full scale			
Units	mg/L, ppm			
Sampling Time	10 seconds			
Calibration	Factory calibrated. Field adjustment of calibration is possible.			
Cleaning	Automatic compressed air cleaning with optional Real Air Clean Systems			
Self-Diagnostics	Detection and diagnosis of internal system fault			
Alarms	Continuous detection of leaks, lamp output, humidity, temperature and electrical fault			
Humidity Control	Humidity sensor with desiccant pack			
Wavelength	UV and visible light wavelengths			
Light Source	UV and VIS LED			
Electrical/Comm.	From controller			
Storage Temp.	-20 to 60°C (-4 to 140°F)			
Operating Temp.	0 to 45°C (32 to 113°F)			
Housing Material	Titanium			
Weight	4.6 lb			
Dimensions	15" H x 2.0" Diameter			
Warranty	2-year limited warranty (Extended care packages available)			

\* Technical Specifications are subject to change without notice.

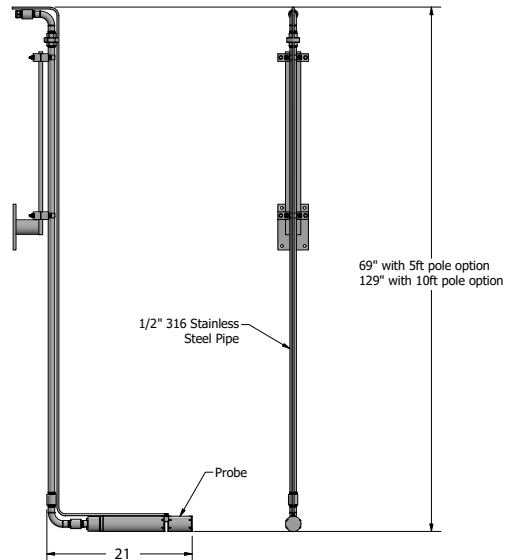
## DIMENSIONS

The high nitrate probe is a submersible instrument installed directly in-situ using a mounting kit attached to a tank wall or railing.

### DIMENSIONS FOR HIGH NITRATE PROBE



### MOUNTING FOR HIGH NITRATE PROBE



## PROBE MODELS & RANGE

Includes high nitrate probe sensor and 35 feet of communication cable.  
Controller, mounting kit and cleaning system sold separately.

MODEL#	PATH LENGTH	NO <sub>3</sub> -N mg/L	NO <sub>3</sub> mg/L
HN3A-X2010	1 mm	100 - 20,000	450 - 88,000
HN3A-X2020	2 mm	50 - 10,000	225 - 44,000
HN3A-X2040	4 mm	25 - 5000	110 - 22,000
HN3A-X2100	10 mm	10 - 2000	45 - 8800

\* Stated ranges are based on testing in deionized water. Site specific conditions, such as interfering substances (e.g., suspended solids) in the water, may limit the measuring range and accuracy. Please contact Real Tech to confirm model selection.

## CONTROLLERS

PRODUCT #	NAME	DESCRIPTION
S-169000	Real Controller	Wall mounted controller with 4-line x 20-character back lit LCD display
S-11TPC	Real Controller Pro	Wall mounted controller with touch panel PC interface (PC inside cabinet model)
S-11TPCD	Real Controller Pro	Wall mounted controller with touch panel PC interface (PC external on door model)

## ACCESSORIES

PRODUCT #	NAME	DESCRIPTION
S-188101	Air Clean System I	Air cleaning valve module requires on-site air (no compressor)
S-188102	Air Clean System II	Low power automatic CO <sub>2</sub> air cleaning system
S-188103	Air Clean System III	Automatic compressed air cleaning system including compressor
S-219081	Probe Mounting Kit I	Provides secure mounting attachment for titanium probe to a tank wall or open channel wall. No pole included.
S-219082	Probe Mounting Kit II	Provides secure mounting attachment for titanium probe to a tank wall or open channel wall. 5' pole included.
S-219083	Probe Mounting Kit III	Provides secure mounting attachment for titanium probe to a tank wall or open channel wall. 10' pole included.

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