

HIGH NITRATE SENSOR

HN3L SERIES



FEATURES & BENEFITS

- Affordable real-time water quality monitoring
- Multiple wavelength sensor uses UV LED technology for superior measurement performance
- Operator friendly, low maintenance UV LED design
- Reagent free optical measurements
- Simple to install and operate
- Ideal for real-time monitoring of high levels of nitrate

MUNICIPAL DRINKING WATER
MUNICIPAL WASTEWATER
INDUSTRIAL PROCESS WATER
INDUSTRIAL WASTEWATER

WATER QUALITY
MONITORING
SOLUTIONS

REAL-TIME MONITORING SOLUTION

High Nitrate Sensor

Real Tech's bypass High Nitrate sensor provides affordable real-time measurement of high levels of nitrate in water or wastewater. Designed to meet the needs of many monitoring application, the HN3L series offers multiple sensor path length selections to meet the desired measurement range.

Controllers and Accessories

Our innovative modular product platform allows a system to be configured around the ideal sensor with controller options and various accessory products, including automatic chemical cleaning systems that lower maintenance while improving system performance and dilution systems that extend the measurement range for highly concentrated wastewaters. We can truly meet the physical demands of any installation, wastewater or high purity, to ensure reliable, continuous operation.

Liquid Ai Compatible

Our Liquid Ai data services complement our real-time water quality monitoring systems. Calibration Health Monitoring ensures accuracy and reliability are maintained so our clients can have the utmost confidence in their results, while our Remote Monitoring platform enables access to data anywhere, anytime.

MEASUREMENT PRINCIPLE

Real Tech's High Nitrate sensor provides 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 measurement are compensated for using additional reference wavelengths. Real Tech's innovative High Nitrate sensor is advancing water and wastewater management.

REALTECH
INC.



HIGH NITRATE SENSOR SPECIFICATIONS

CHARACTERISTIC

TECHNICAL DATA

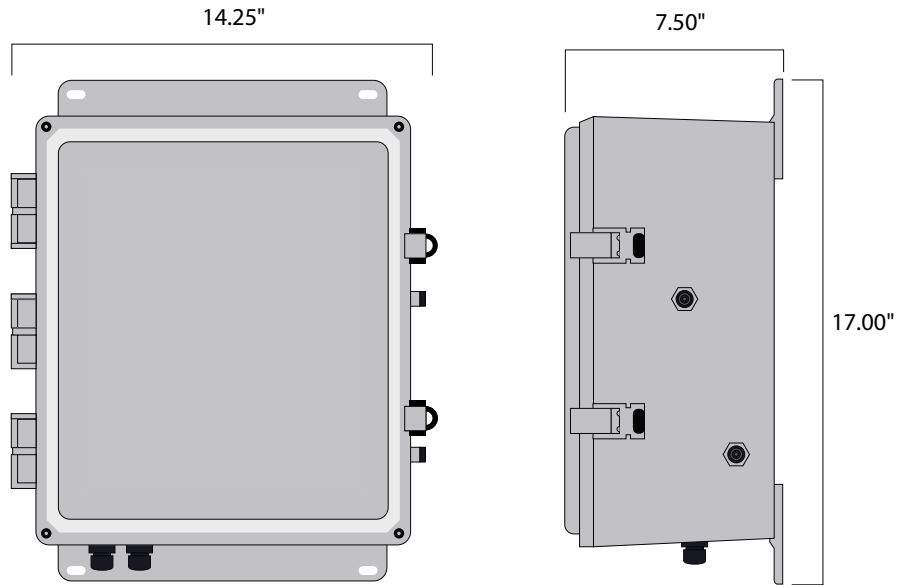
MODEL	HN3L2010	HN3L2020	HN3L2040	HN3L2080	HN3L4025	HN3L4050	HN3L4100	HN3L4150
Path Length	1 mm	2 mm	4 mm	8 mm	25 mm	50 mm	100 mm	150 mm
Parameters	Nitrate (NO ₃)							
Range	Depends on model selected. Refer to range chart on page 4.							
Accuracy	± 0.5% full scale							
Units	mg/L, ppm							
Sampling Time	30 seconds							
Calibration	Factory calibrated. Field adjustment of calibration is possible.							
Cleaning	In-situ chemical cleaning makes cleaning quick and easy. Automatic chemical cleaning is optional.							
Self-Diagnostics	Detection and diagnosis of internal system fault							
Alarms	Dry contact terminals allow for operator configurable alarms for: high and low set points, low lamp output, leaks, system fault, etc.							
Humidity Control	Humidity sensor with large plug-in regenerating desiccant system							
Wavelength	UV and visible light wavelengths							
Light Source	UV LED							
Flow Rate	300-1000 mL/min							
Pressure Rating	20 PSI maximum							
Fluid Connections	1/4" OD tube push-in fittings							
Electrical/Comm.	From controller							
Storage Temp.	-20 to 60°C (-4 to 140°F)							
Operating Temp.	0 to 45°C (32 to 113°F)							
Enclosure	NEMA 4X, wall mountable							
Weight	22 lb				24 lb			
Dimensions	17"H x 14.25"W x 7.5"D				17.75"H x 15.5"W x 6.75"D			
Warranty	2-year limited warranty (Extended care packages available)							
Sensor Upgrades	High Temp. Upgrade I, High Temp. Upgrade II							

* Technical Specifications are subject to change without notice.

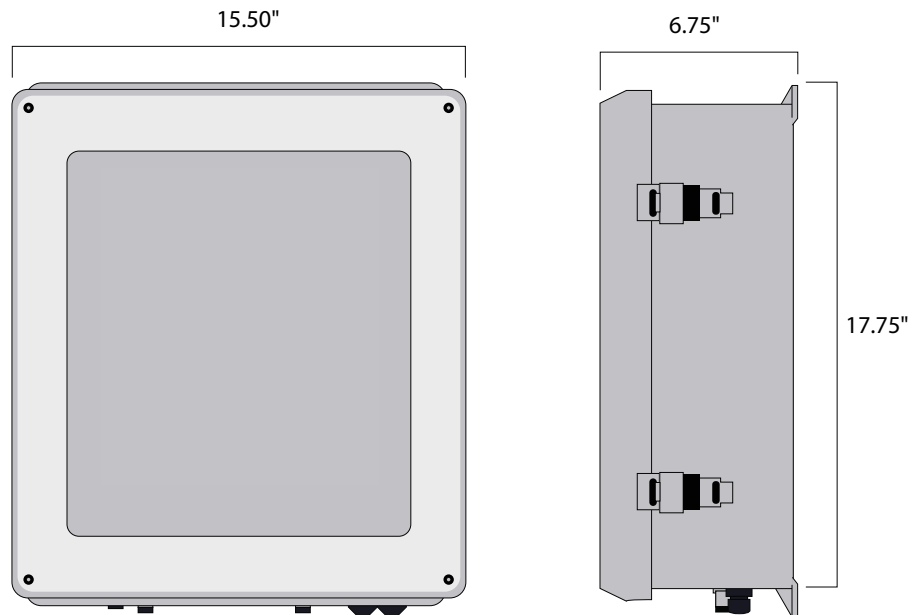
DIMENSIONS

The High Nitrate sensor is a bypass cabinet instrument installed directly on a wall, railing or system backboard. Sample is supplied to the sensor from either a pressurized source or from an open-channel using an accessory pumping system.

DIMENSIONS FOR 2000 SERIES MODELS



DIMENSIONS FOR 4000 SERIES MODELS



SENSOR MODELS & RANGE

Includes sensor, flow cell, calibration bottle and dehumidifier.
Controller and accessories sold separately.

MODEL#	PATH LENGTH	NO ₃ (mg/L)	NO ₃ -N (mg/L)
HN3L2010	1 mm	450 - 88,500	100 - 20,000
HN3L2020	2 mm	225 - 44,250	50 - 10,000
HN3L2040	4 mm	100 - 22,000	25 - 5000
HN3L2080	8 mm	50 - 11,000	12.5 - 2500
HN3L4025	25 mm	20 - 3500	4 - 800
HN3L4050	50 mm	10 - 1750	2 - 400
HN3L4100	100 mm	5 - 900	1 - 200
HN3L4150	150 mm	3 - 600	0.7 - 140

* Stated ranges are based on testing in deionized water. Site specific conditions, such as interfering substances 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 for sensors
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
UVT-078130	Real Clean System I	Automatic chemical cleaning system for use with 2000 series models
UVT-118010	Real Clean System II	Automatic chemical cleaning system for use with 4000 series models
UVT-079121	Pump Clean System I	Self-priming pump and automatic chemical cleaning for use with 2000 series models
UVT-129122	Pump Clean System II	Self-priming pump and automatic chemical cleaning for use with 4000 series models
S-1789121	Dual Feed II	Dual feed option includes Digital I/O module for use with controllers

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