

NITRATE SENSOR

NL SERIES



FEATURES & BENEFITS

- Accurate and reliable monitoring of nitrates (NO₃)
- Optical measurement method (reagent free)
- Wastewater to high purity measurement ranges
- Operator friendly, low maintenance design
- Easy to install and operate
- Liquid Ai compatible for optional Remote Monitoring service

MUNICIPAL DRINKING WATER
MUNICIPAL WASTEWATER
INDUSTRIAL PROCESS WATER
INDUSTRIAL WASTEWATER

WATER QUALITY
MONITORING
SOLUTIONS

REAL-TIME MONITORING SOLUTION

Nitrate Sensor

Real Tech's bypass Nitrate sensor provides real-time measurement of nitrate (NO₃) in water or wastewater. Designed to meet the needs of many monitoring applications, the NL series offers multiple sensor 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 chemical cleaning systems that lower maintenance while improving system performance, Real Tech provides a total solution for all of your unique water quality 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 Nitrate sensors utilize UV-VIS light for measurement as nitrate ions have a natural absorbance peak in the 200-220 nm wavelength range. Common interferences with nitrate measurement, such as organic compounds, nitrite, iron (II), and turbidity or suspended solids are automatically compensated for by measurements at additional reference wavelengths in the UV-VIS spectrum where the interfering compounds absorb, but nitrates do not. The nitrate sensor benefits from Real Tech's innovative Split-Sense Pro technology that compensates for lamp drift and fluctuations, providing an accurate and stable output overtime.

REALTECH
INC.



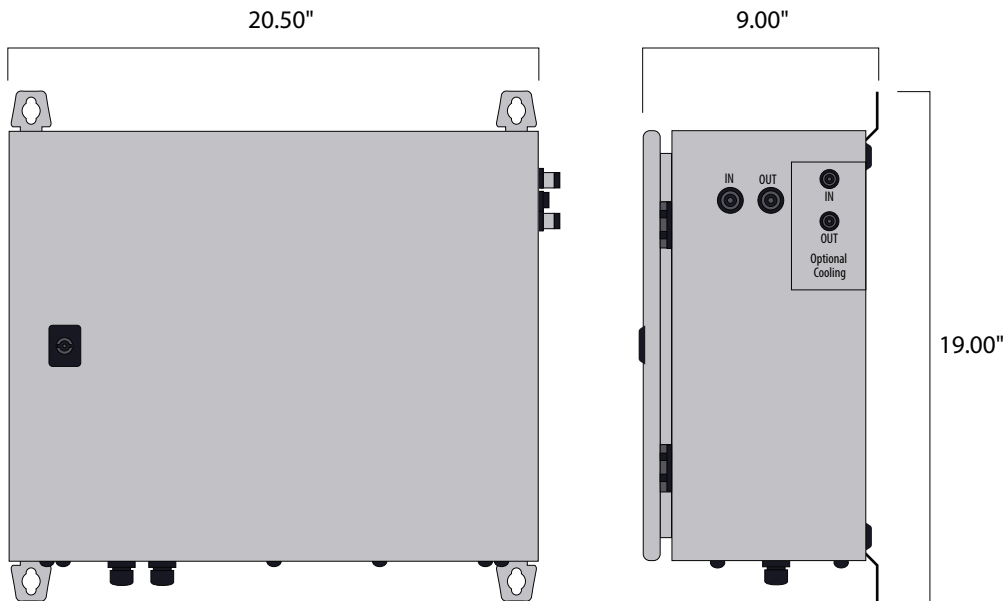
NITRATE SENSOR SPECIFICATIONS

CHARACTERISTIC	TECHNICAL DATA							
	MODEL	NL2010	NL2020	NL2040	NL2080	NL4025	NL4050	NL4150
Path Length	1 mm	2 mm	4 mm	8 mm	25 mm	50 mm	150 mm	
Parameters	Nitrate (NO ₃ ⁻ , NO ₃ ⁻ N)							
Range	Depends on model selected. Refer to range chart on page 4.							
Units	mg/L, ppm							
Sampling Time	1 minute							
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, leak detect, system fault, etc.							
Humidity Control	Humidity sensor with large plug-in regenerating desiccant system							
Wavelengths	Configurable up to 40 wavelength between 200-750 nm							
Light Source	Xenon Flash Lamp							
Lamp Life	2-5 years							
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 4, wall mountable							
Weight	44 lb							
Dimensions	19.0"H x 20.5"W x 9.0"D							
Warranty	2-year limited warranty (Extended care packages available)							
Sensor Upgrades	Cooling Upgrade I, Cooling Upgrade II, Ultra High Temp./Chemical Upgrade							

* Technical Specifications are subject to change without notice.

DIMENSIONS

The 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.



SENSOR MODELS & RANGE

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

MODEL #	PATH LENGTH	NO ₃ ⁻ N (mg/L)	NO ₃ (mg/L)
NL2010	1 mm	0 - 50	0 - 220
NL2020	2 mm	0 - 25	0 - 110
NL2040	4 mm	0 - 12.5	0 - 55
NL2080	8 mm	0 - 6.25	0 - 27.5
NL4025	25 mm	0 - 2	0 - 8.8
NL4050	50 mm	0 - 1	0 - 4.4
NL4150	150 mm	0 - 0.33	0 - 1.45

* Stated ranges are approximate, dependent on industry, site and application - contact Real Tech to confirm model selection

* Higher maximum range possible with use of Dilution System option

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
S-1789121	Dual Feed II	Dual feed option includes Digital I/O module for use with controllers

Real Tech Inc.

1150 Champlain Court,
Whitby, Ontario L1N 6K9 Canada
TF: 1.877.779.2888 T: 1.905.665.6888
info@realtechwater.com

REALTECH
INC.