

MODEL UV6 - Nitrate ANALYZER

Compact online analyzer for the automatic measurement of Nitrate in water

APPLICATION FIELDS

- Potable water treatment plants
- Municipal waste water
- Industrial waste water
- Rivers and surface water
- Ion-exchange and Reverse Osmosis



ADVANTAGES / FEATURES

Dual compartment enclosure

To ensure complete separation between the electronics and the wet part.

Low operating cost – no reagents

The UV spectroscopy measuring principle requires no chemical reagent resulting in very low operating and maintenance costs.

Xenon lamp – UV light source

The high stability and long operating life make them ideal as light sources for water quality analyzers.

Factory tested, ready for installation and operation

Just connect the power, sample and the analyzer is fully operational.

Automatic calibration / zeroing / cleaning

These automatic functions ensure optimum performance with the minimum of manual intervention.

Free selectable cleaning, zeroing and calibration intervals.

Wide measuring range

The determination ranges of the UV6 Analyzer vary from 0.03 to 2500 mg/L NO₃ using internal dilution module.

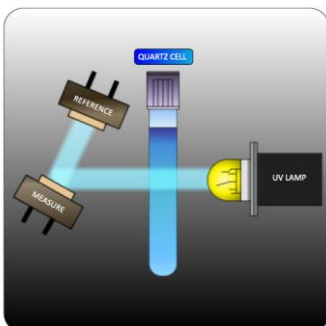
Dual-wavelength measurement for turbidity and dissolved organic compensation.

Color touchscreen user interface

The UV6 is equipped with a graphic touchscreen interface showing measured values and status information. Easy access to menus and functions. Multiple languages. Integrated datalogger with USB download.

Dual streams version – cost effective solution

Dual streams version gives two measurements in one instrument, each stream can be either high range or low range with different correlation factors.



MEASUREMENT PRINCIPLE

Nitrate dissolved in water absorbs UV light in the range 190-240 nm.

The xenon lamp produces a UV light radiation that pass through the sample water in a quartz measuring cell. The receiver analyzes the light pulses at two different wavelengths, the measurement wavelength (220 nm) and the reference wavelength (270 nm), at which the sample constituents of interest do not absorb. This dual-wavelength measurement allows turbidity and dissolved organic compensation.

TECHNICAL SPECIFICATIONS

| | | | |
|--|---|------------------------|--|
| Measured parameter: | NO ₃ , N-NO ₃ (mg/l, ppm). | Sample: | Pressure-free from overflow vessel Temperature: 41 - 122 °F (5 to 50 °C) Flow Rate: 80 to 500 mL/min Connection: 6 mm (¼-in.) |
| Measuring principle: | Dual wavelength technique, 220 nm measuring and 270 nm as reference, with matrix subtraction | Drain: | Pressure-free, atmospheric drain Connection: 12 mm (½-in.) |
| Measuring range: | 12 mm cell: 0.02-30 mg/L NO ₃ 6 mm cell: 0.05-60 mg/L NO ₃ 2 mm cell: 0.5-100 mg/L NO ₃ | Power supply: | Voltage: 100 - 240 VAC 50/60 Hz standard or 24 VDC (option) Power consumption: max. 80 VA |
| NO ₃ -N = NO ₃ / 4.42664 NO ₃ = NO ₃ -N * 4.42664 | All derivated higher range using internal dilution (up to 40 times dilution). | Outputs: | 2 x 4-20 mA outputs for measured data Modbus RTU RS485 |
| Reproducibility: | ±2 % of reading or ±0.5 mg/L NO ₃ , whichever is the greater ±2 % of reading or ±0.15 mg/L N-NO ₃ , whichever is the greater | Alarms: | 4 SPDT programmable potential free relays, N.O. or N.C. |
| Dimensions (H x W x D): | 23.6 x 15.0 x 8.2 in / 606 x 380 x 209 mm | Digital input: | Remote start / stop |
| Weight: | Approx. 44 lbs (20 Kg) | Operating Temperature: | 41 - 113 °F (5 - 45 °C) |
| Ingress Protection: | IP54 | Humidity: | 10 to 90% non-condensing (indoor use, outdoor installation only possible with protective cabinet or shelter not included) |
| Analysis frequency: | Freely programmable, batch near-continuous analysis. | Installation: | Wall mount (standard), bench top support or panel mount (options). |

