

NITRATE

**DIGITAL NITRATE SENSOR - NO3 900**

Liquid Analysis

Measurement & Monitoring



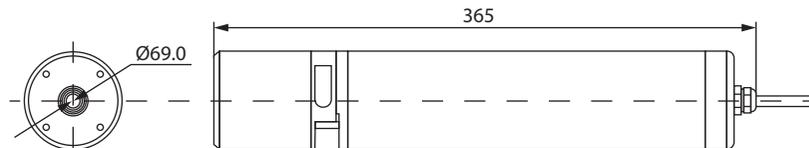
**DESCRIPTION**

The NO3 900 Nitrate Sensor operates on UV spectrometry, measuring nitrate concentration based on its absorption of 210 nm ultraviolet light. During operation, the water sample flows through an optical slit within the probe, where part of the UV light is absorbed by dissolved nitrate while the remaining light is detected and analyzed to calculate nitrate levels. Designed for direct immersion, the sensor requires no sampling, chemical reagents, or pre-processing, eliminating secondary pollution and reducing operational costs. Its fast response time enables continuous, real-time monitoring, while the automatic cleaning function minimizes maintenance requirements. The NO3 900 sensor is widely used in drinking water, surface water, industrial process water, and sewage treatment, particularly for monitoring aeration tanks and optimizing denitrification control in wastewater treatment processes.

**FEATURES**

- ✓ Digital sensor with RS485 signal output
- ✓ UV spectrometry method, absorption of 210nm ultraviolet light
- ✓ Direct and continuous monitoring
- ✓ No chemical reagents
- ✓ No secondary pollution
- ✓ Automatic cleaning function
- ✓ Fast response time
- ✓ Low maintenance cost

**DIMENSION/DRAWING**



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DIGITAL NITRATE SENSOR - NO3 900  
01-2026 I-SYSTEM 515007

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## TECHNICAL FEATURES

### Operating Condition

**Range** 0.1-100.0mg/L (1mm optical path)  
0.1-50mg/l (2mm optical path)

**Measuring Temperature** 0 to 45°C

**Pressure Range** ≤0.4Mpa

### Sensor Performance

**Accuracy** ±5%

**Repeatability** ±2%

**Resolution** 0.01 mg/L

### Electrical

**Communication** RS485 (Modbus)

### Dimension and Protection

**Dimension** Diameter 69 mm, Length 365 mm

**Weight** 3.2 kg

**Protection** IP68/NEMA 6P

**Sensor Material** SUS316L (fresh water); Titanium allow (sea water)  
Cable PUR

**Signal Cable Length** Standard 10 meter (Maximum 100 meter)

### Storage Requirement

**Storage Temperature** -15 to 50°C

