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YSI 701/705 IQ NitraVis® UV/VIS Sensor Nitrate/TSS UV/VIS Measurement for the IQ SensorNet System

The NitraVis® is a reagentless, optical-based spectrophotometer built into a rugged, corrosion-resistant field probe for the IQ SensorNet system. The NitraVis probe scans 256 wavelengths per measurement between 200 and 720 nm to provide the most accurate Nitrate and TSS measurements with precise compensation for interferences such as turbidity. The NitraVis provides continuous data to help operational improvement decisions. The probe's built-in UltraClean ultrasonic cleaning technology reduces routine maintenance requirements.

Parameters:

Nitrate

TSS (optional)

- 256 wavelength scans per measurement results in better accuracy and better compensation for interferences
- Factory calibrated
- 2-year warranty
- Two options available - one ideal for effluent applications and one ideal for influent and aeration tank applications
- Maintenance free ultrasonic cleaning with UltraClean technology; prevents biofouling from taking place. Built-in air holes for added air cleaning in high fouling applications.



A 5 mm gap YSI UV/VIS sensor deployed after one week with UltraClean technology. No fouling observed.



UV/VIS probes are rugged, accurate and designed to withstand field conditions. The optics are kept clean with UltraClean technology and the sensor's 256 wavelength scan provides unmatched accuracy. 1 mm gap sensor shown here.

NitraVis 701/705 IQ Technical Specifications

Measurement Method	UV/VIS spectral measurement (200-720 nm)	
Measurement Range	NitraVis 701 (influent/aeration/effluent)	NitraVis 705 (effluent)
NO ₃ -N	0.00 to 60.00 mg/L (influent/aeration)	0.00 to 50.00 mg/L
NO ₃	0.0 to 300.0 mg/L (influent/aeration)	0.0 to 250.0 mg/L
NO ₃ -N	0.0 to 150.0 mg/L (effluent)	
NO ₃	0.0 to 750.0 mg/L (effluent)	
TSS (optional)	0.00 to 15.00 g/L (influent) 0.00 to 20.00 g/L (aeration tank)	0.0 to 900.0 mg/L
Resolution (range dependent)	0.01 mg/L, 0.1 mg/L, or 0.01 g/L,	0.01 or 0.1 mg/L
Measuring gap	1 mm	5 mm
Operating Temperature	0 to 45 °C (32 to 113 °F)	
Storage Temperature	-10 to 50 °C (14 to 122 °F)	
Flow Rate	≤ 3 m/s (~1 ft/s)	
pH range	4 to 12 units	
Cleaning System	UltraClean, ultrasonic cleaning system built directly into the sensors; air cleaning also available	
Dimensions	Length 802 mm (31.5 in); diameter 59.9 mm (2.35 in)	
Weight	~4 kg (8.8 lbs)	
Protection Class	Sensor with SACIQ cable connected: IP68	
Pressure Resistance	1 bar (14.5 psi)	
Lightning/Voltage Protection	Yes	
Electrical	Power Consumption: 8 W, Two wire shielded IQ cable provides power and communication	
Materials	Housing: Titanium 3.7035, PEEK Window: Sapphire glass	
Certifications	CE, cETLus	
System Compatibility	YSI IQ SensorNet system	
Warranty	2-years	

NitraVis 701/705 IQ Digital Sensor Ordering Information (must be used with the YSI IQ SensorNet)

NitraVis 701 IQ Item #481 044Y	1 mm gap UV/VIS spectral nitrate sensor for water/wastewater monitoring and control; influent or aeration tank; integrated UltraClean technology provides ultrasonic cleaning; includes protective guards
NitraVis 701 IQ TS Item #481 045Y	1 mm gap UV/VIS spectral nitrate and TSS sensor for water/wastewater monitoring and control; influent or aeration tank; integrated UltraClean technology provides ultrasonic cleaning; includes protective guards
NitraVis 705 IQ Item #481 046Y	5 mm gap UV/VIS spectral nitrate sensor for water/wastewater monitoring and control; effluent; integrated UltraClean technology provides ultrasonic cleaning; includes protective guards
NitraVis 705 IQ TS Item #481 047Y	5 mm gap UV/VIS spectral nitrate and TSS sensor for water/wastewater monitoring and control; effluent; integrated UltraClean technology provides ultrasonic cleaning; includes protective guards

Visit YSI.com/IQ for additional information on the entire IQ SensorNet system.

YSI

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