

WTW IQ UVT-254 Probe

UVT-254/SAC Measurement with Correlated Carbon Measurements for the IQ SensorNet System



Parameters:*

UVT-254

SAC (total and soluble)

Correlated Parameters:

COD

TOC

BOD

DOC

*Only one parameter can be displayed at a time.

The WTW UVT-254 sensor is a reagentless, optical-based absorption (SAC) and transmittance (UVT) sensor built into a rugged, corrosion-resistant field probe for the IQ SensorNet system. The probe measures UVT-254 and SAC (spectral absorption coefficient - total and soluble) and can provide correlated values for COD, TOC, BOD and DOC. The probe measures the absorption at two wavelengths: 254 nm and 550 nm to compensate the SAC measurement for interferences from turbidity. The probe's built-in UltraClean® ultrasonic cleaning technology reduces routine maintenance.

- 2 wavelength absorption measurement: 254 and a second at 550 nm for turbidity compensation
- SAC measurement used to determine organic loading without reagents
- UVT-254 measurement used to determine required UV light intensity and contact time for disinfection, lowering a facility's disinfection costs
- Factory calibrated
- 2-year warranty
- Measurement directly in the process, no sample processing, or reagent required
- Maximum durability due to high-tech materials Titanium/PEEK
- Maintenance free ultrasonic cleaning with built-in UltraClean technology prevents biofouling from taking place. Built-in air holes for added air cleaning in high fouling applications.



A 5 mm gap UV sensor deployed after one week with UltraClean continuous, ultrasonic cleaning technology. No fouling observed.



IQ UV probes are rugged, accurate and designed to withstand field conditions. The optics are kept clean with UltraClean technology.

IQ UVT-254 Probe Technical Specifications

Measurement Method	Absorption measurement at 254 nm	
Measurement Range	IQ UVT-254701 (high range SAC values)	IQ UVT-254705 (low range SAC values)
UVT-254*	0.0 to 100.0 %	0.0 to 100.0 %
SAC 254 soluble	0 to 3,000 1/m	0.0 to 600.0 1/m
SAC-254 total	0.0 to 3,000 1/m	0.0 to 600.0 1/m
COD dissolved (correlated)	0.0 to 12,500 mg/L	0.0 to 800.0 mg/L
COD total (correlated)	0.0 to 20,000 mg/L	0.0 to 800.0 mg/L
TOC (correlated)	0.0 to 20,000 mg/L	0.0 to 500.0 mg/L
BOD (correlated)	0.0 to 8,000 mg/L	0.0 to 500.0 mg/L
DOC (correlated)	0.0 to 12,500 mg/L	0.0 to 500.0 mg/L
Resolution (range dependent)	IQ UVT-254701 (high range SAC values)	IQ UVT-254705 (low range SAC values)
UVT-254*	11/m, 0.1%, 1 mg/L	0.11/m, 0.1%, 0.1 mg/L
SAC 254 soluble	11/m	0.11/m
SAC-254 total	11/m	0.11/m
COD dissolved (correlated)	1 mg/L	0.1 mg/L
COD total (correlated)	1 mg/L	0.1 mg/L
TOC (correlated)	1 mg/L	0.1 mg/L
BOD (correlated)	1 mg/L	0.1 mg/L
DOC (correlated)	1 mg/L	0.1 mg/L
Turbidity Compensation	Yes	
Operating Temperature	0 to 45°C (32 to 113°F)	
Storage Temperature	-10 to 50°C (14 to 122°F)	
Warranty	2-years	
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 (2.36 in); weight ~ 7.8 kg (17.2 lbs)	
Certifications	CE, cETLus	
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	

IQ UVT-254 Optical Sensor Ordering Information (must be used with the IQ SensorNet, sensor cable sold separately)

IQ UVT-254701 Item #481036	1 mm path length optical SAC and UVT-254 sensor for water/wastewater monitoring and control; integrated UltraClean technology provides ultrasonic continuous cleaning; includes protective guards
IQ UVT-254705 Item #481038	5 mm path length optical SAC and UVT-254 sensor for water/wastewater monitoring and control; integrated UltraClean technology provides ultrasonic continuous cleaning; includes protective guards

*The UVT-254 value is standardized to 10mm gap width.

Visit xylemanalytics.co.uk/wastewater for additional information on the entire IQ SensorNet system.

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