

Full Spectrum Water Quality Sensor



WQS-F-C Series

RoHS

CE

Overview

The full spectrum sensor adopts the measurement principle of UV-Vis absorption spectroscopy to monitor the "light pattern" (fingerprint) information in the wavelength range of 200-800 nm online in real time, and realize multi-parameter measurement through AI algorithm, including: O3, COD, TOC, DOC, BOD, TUR, TSS, nitrate, chroma, etc. WQS-F-C series full-spectrum adopts configurable measuring range design, with the measuring range of 4mm-150mm that can be set continuously. It supports automatic window cleaning, and can be applied to a variety of water body water quality measurement, supports in-situ installation, flow-through installation.

It is mainly used for real-time online monitoring of water quality in waterworks, water distribution network and secondary water supply, as well as for online monitoring of surface water and ground-water quality.



Main Features

- 200-800nm full spectrum measurement with more water samples spectral information
- Water pattern recognition, which identifies the type of water sample based on the water pattern (fingerprint).
- Optical in-situ measurement, no chemical reagent consumption, environmentally friendly
- Quick measurement, the shortest measurement cycle is 1 second
- The maintenance-free period is long, and the sensor has its own cleaning brush
- RS485 communication mode, can quickly connect to the meter
- IP68 protection grade, can be used in harsh environment
- Low power consumption, can be powered by battery, convenient for equipment deployment



Self Cleaning Brush

Specifications

Principle	Ultraviolet-visible(200 nm~800 nm)	Power	<8 W
Dimension	φ66x 513.5 mm	Material	AISI 316L
Power requirements	DC+12 V ~ +24 V	Cleaning method	Cleaning brush
Measurement period	10 to 65535 seconds	IP rating	IP68
Operating temperature	0 to 50 °C	Sample flow rate	<3 m/s
Pressure	6 bar	Communication	RS485(Modbus RTU), WiFi, Bluetooth

optical

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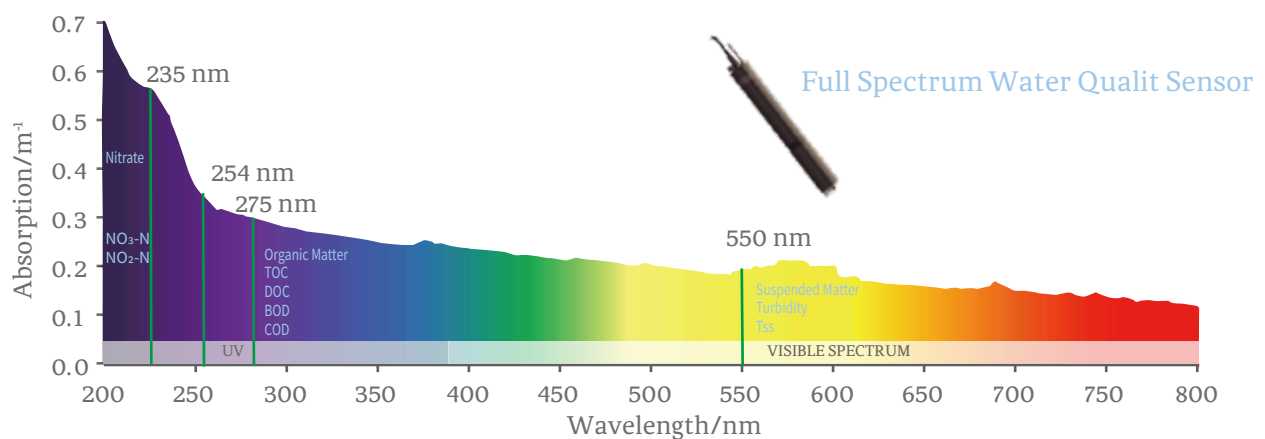


WQS-F-C Series

Parameter information

Parameter	Gap	Range	Resolution	Accuracy
COD	80 mm (Typical)	0-15 mg/L	0.01 mg/L	±0.5 mg/L
	4 mm (Min)	0-500 mg/L	0.01 mg/L	±3% or ±2.5 mg/L
TUR	80 mm (Typical)	0-15 NTU	0.01 NTU	±1 NTU
	4 mm (Min)	0-500 NTU	0.01 NTU	±5% or ±10 NTU
NO ₃ -N	80 mm (Typical)	0-0.5 mg/L	0.01 mg/L	±0.05 mg/L
	4 mm (Min)	0-25 mg/L	0.01 mg/L	±3% or ±0.2 mg/L
O ₃	100 mm (Typical)	0-0.5 mg/L	0.001 mg/L	±5% F.S.
	4 mm (Min)	0-15 mg/L	0.01 mg/L	±5% F.S.

Optical Detection Principle



Application



Wastewater treatment plant influent/effluent/process monitoring



Basin, surface water, groundwater monitoring



Tap water and pipe network monitoring



Industrial water monitoring