

Full Spectrum Water Quality Sensor



WQS-F Series

RoHS

CE

Overview

The multi-parameter 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: COD, TOC, DOC, BOD, TUR, TSS, nitrate, color, etc. It is mainly applied to influent feature identification and real-time online monitoring of domestic and industrial wastewater, as well as process parameter optimization enhancing efficiency and reducing consumption of the sewage treatment. It can be matched with our DL series data transmitter and WQS-Server cloud service to realize remote monitoring of data and remote operation and maintenance of equipment.



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 10 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 505 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

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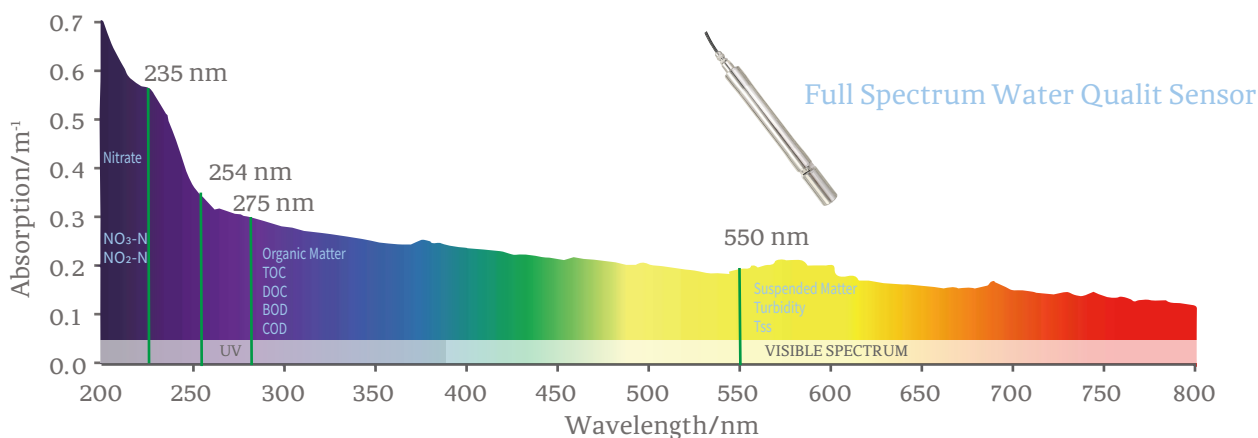
WQS-F Series



Parameter information

Parameter	Model No.	Range	Resolution	Accuracy
COD	WQS-F-L02	0-1000 mg/L	0.01 mg/L	±3% or ±3 mg/L
	WQS-F-L05	0-500 mg/L	0.01 mg/L	±3% or ±2.5 mg/L
	WQS-F-L15	0-150 mg/L	0.01 mg/L	±3% or ±1.5 mg/L
TUR	WQS-F-L02	0-1000 NTU	0.01 NTU	±3% or ±10 NTU
	WQS-F-L05	0-500 NTU	0.01 NTU	±3% or ±10 NTU
	WQS-F-L15	0-150 NTU	0.01 NTU	±3% or ±2.5 NTU
NO ₃ -N	WQS-F-L02	0-50 mg/L	0.01 mg/L	±3% or ±0.5 mg/L
	WQS-F-L05	0-20 mg/L	0.01 mg/L	±3% or ±0.2 mg/L
	WQS-F-L15	0-8 mg/L	0.01 mg/L	±3% or ±0.1 mg/L

Optical Detection Principle



Application



Wastewater treatment plant influent/effluent/process monitoring



Watershed, surface water, groundwater monitoring



Tap water and pipe network monitoring



Industrial water monitoring

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