



# Masinotek WQS-D series

## multi-parameter water quality sensor



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Masinotek provides the entire spectrum of IoT services including sensors, telemetry, data logging, cloud software and data analysis.

# Masinotek WQS-D series multi-parameter water quality sensor

## Product overview

The Masinotek WQS-D series multi-parameter sensor is based on the principle of ultraviolet-visible light absorption spectroscopy, enabling the measurements of organic components (COD, TOC) and turbidity in water. The sensor series has an automatic compensation for interference of turbidity, which can effectively improve the accuracy of the measurement results. Masinotek WQS-D series sensor allows a high performance online water quality monitoring of municipal and industrial waste waters as well as natural waters. With the assistance of data loggers and cloud software services, data can be viewed both on-site and remotely.

## Application

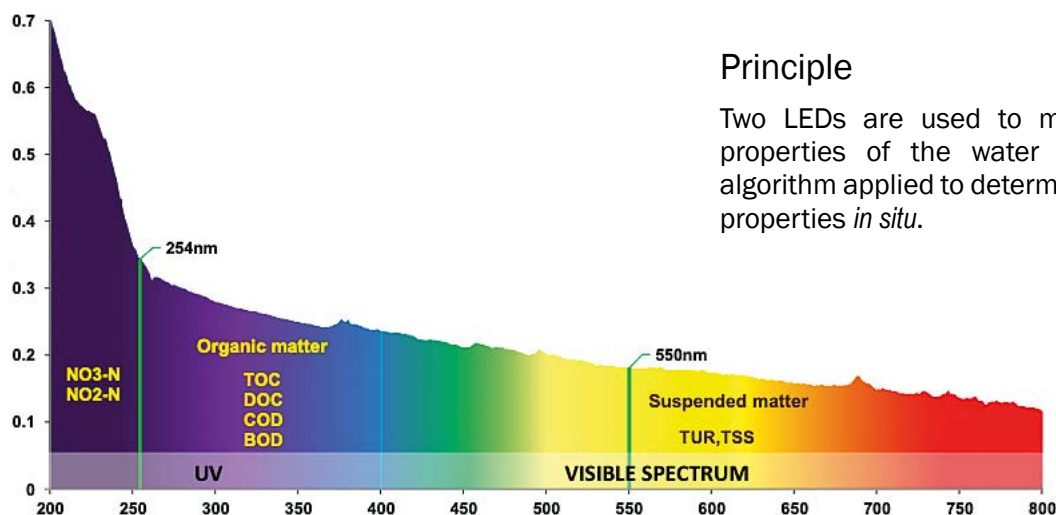
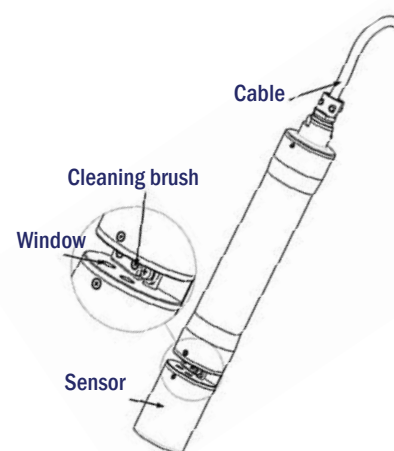
- environmental monitoring of natural and storm waters
- wastewater treatment plant outflow quality and load monitoring
- municipal sewage monitoring and treatment process optimization

## Features

- optical *in situ* measurement
- water temperature, turbidity (TUR) and chemical oxygen demand (COD) as default, (total organic carbon (TOC optional))
- no chemicals, environmentally safe
- measurement cycle down to 1 s
- suitable for harsh environments (AISI 316L, IP68)
- automatic brush for cleaning optical windows
- low maintenance needs
- RS485 communication
- WiFi/Bluetooth compatible

## Technical Specifications

<b>Principle</b>	UV-Vis Spectral Absorption	<b>Operating Voltage</b>	DC 12-24V
<b>Light source</b>	LED	<b>Dimension</b>	Φ45×325mm
<b>Spectral range</b>	Two bands in the range of 200nm~800nm	<b>Communication</b>	RS485 Modbus RTU
<b>Measuring optical path</b>	5mm, 10mm	<b>Certification</b>	CE, RoHS
<b>Measurement period</b>	Minimum 1s	<b>IP rating</b>	IP68
<b>Sample flow rate</b>	< 3 m/s	<b>Material</b>	AISI 316L
<b>Parameters</b>	TUR, COD, water temp. TOC (optional)	<b>Weight</b>	1,6 kg
<b>Parameters</b>	<b>COD</b>	<b>TUR</b>	<b>TOC</b>
<b>Range</b>	0-500mg/l 0-1000mg/l	0-500NTU 0-1000NTU	0-200mg/l 0-400mg/l
<b>Accuracy</b>	±2.5%FS or ±2.5mg/l	±2.5%FS or ±5NTU ±2.5%FS or ±10NTU	±2.5%FS or ±2.5mg/l
<b>Resolution</b>	0.01mg/l	0.01NTU	0.01mg/l



## Principle

Two LEDs are used to measure the optical properties of the water and an innovative algorithm applied to determine the water quality properties *in situ*.