Masinotek

Masinotek WQS-T-SC1

turbidity/suspended matter sensor

Masinotek is your data partner integrating disparate data from open online sources, databases, laboratory samples, and sensors from various manufacturers into one location for optimal viewing and analysis.

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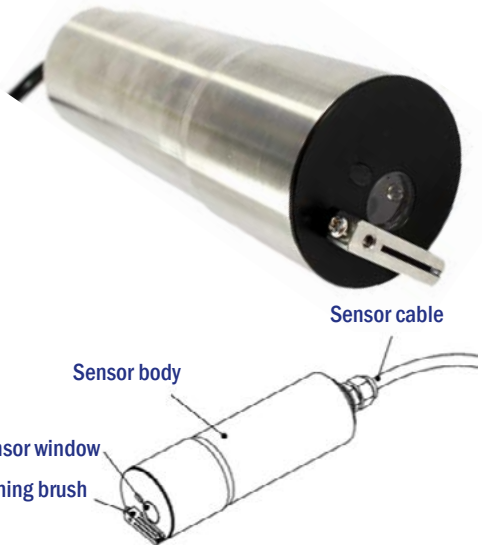
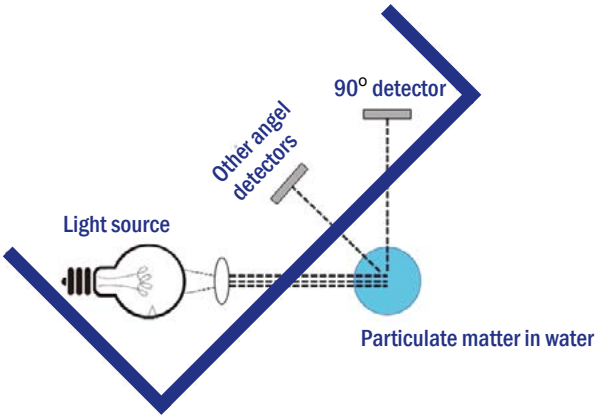
Masinotek WQS-T-SC1 Turbidity/Suspended Matter Sensor

Product overview

The Masinotek WQS-T-SC1 turbidity/suspended solids (sludge concentration) sensor is a water quality sensor that measures turbidity and suspended solids based on 90° and backscattered light measurement principles. Applications of this sensor are primarily in the fields of natural water, domestic sewage and industrial sewage. The turbidity sensor is equipped with an automatic optical window cleaning function, which greatly reduces the amount of manual maintenance and ensures the normal operation of the sensor even in harsh environments. In addition, with the assistance of dataloggers and cloud software services, users can implement both on-site and remote data viewing.





Operating Principle

The Masinotek WQS-T-SC1 sensor utilizes the principle of scattered light measurement. The 860 nm laser light source emits light, the 90° detector receives the light scattered by the suspended matter in the water and generates a signal. The detectors at other point angles receive signals from other angles. The turbidity and suspended solids concentration of the water body can then be calculated according to the proportional relationship between the two angle signal values and the concentration of suspended solids in the water body.

Technical Specifications

Measurement method	Nephelometry
Dimensions	φ55×212 mm
Material	AISI 316L
Weight	1.6 kg
Power requirements	DC 12-24 V
Power	< 3 W
Protection class	IP68
Sensor cable length	6 m (can be modified)
Range	Turbidity: 0-4000 NTU/FNU Suspended matter: 0-10 g/l
Method detection limit	Turbidity: 0.0032 NTU at 25℃ Suspended matter: 1 mg/l
Measurement period	Minimum 3 s (adjustable)
Accuracy	Turbidity: ±5 % or ±0.015 NTU (the larger value) Suspended matter: ±5 % or ±1 mg/l (the larger value)
Resolution	0.001 NTU
Sample requirements	Temperature: 2-50 ℃ Flow rate: Max 3 m/s Pressure: 6 bar maximum compared to air (2 to 50 ℃ sample)
Calibration options	Support for single point calibration
Communication	RS485 Modbus RTU
Mounting	Submerged, flow-through

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