Digital Turbidity Sensor with Automatic Cleaning

The principle of the turbidity sensor is based on the combined infrared absorption and scattered light method. The ISO7027 method can be used to continuously and accurately determine the turbidity value. According to ISO7027 infrared double-scattering light technology is not affected by chromaticity to determine the sludge concentration value. The self-cleaning function can be selected according to the use environment. Stable data, reliable performance; built-in self-diagnosis function to ensure accurate data; simple installation and calibration.

The electrode body is made of 316L stainless steel, which is corrosion-resistant and more durable. The seawater version can be plated with titanium, which also performs well under strong corrosion. Fully automatic electrode scraper, self-cleaning function, effectively prevent solid particles from covering the lens, improve measurement accuracy, and prolong use accuracy.

IP68 waterproof design, can be used for input measurement. Real-time online recording of Turbidity/MLSS/SS, temperature data and curves, compatible with all water quality meters of our company.

Typical application:

Turbidity monitoring of water from waterworks, water quality monitoring of municipal pipeline network; industrial process water quality monitoring, circulating cooling water, activated carbon filter effluent, membrane filtration effluent, etc.

Main features:

- The internal upgrade of the sensor can effectively prevent the internal circuit from dampness and dust accumulation, and avoid damage to the internal circuit.

- The transmitted light adopts stable invisible near-monochromatic infrared light source, which avoids the interference of chroma in liquid and external visible light to sensor measurement.And built-in luminosity compensation, improve the measurement accuracy.

- The use of quartz glass lens with high light transmittance in the optical path makes the transmission and reception of infrared light waves more stable.

- Wide range, stable measurement, high precision, good reproducibility.

- Communication functions: RS-485 communication interface (Modbus-RTU protocol compatible), the fastest communication interval is 50ms. No instrument, can be directly connected to computers, PLC and other devices with RS485 signal interface for data acquisition. It is convenient for users to integrate the sensor into the upper computer system and the IoT system and other industrial control environment.

- Without meter, the sensor can be set online through software, from the machine address and baud rate, online calibration, restore factory, modify the range, proportional coefficient and incremental compensation settings.

Technical parameters:

Model No.	CS7833D
Power/Outlet	9~36VDC/RS485 MODBUS RTU
Measurement mode	90°+135°IR scattered light method, infrared dual beam
Dimensions	Diameter 50mm*Length 223mm
Housing material	PVC+316 Stainless steel
Waterproof rating	IP68
Measurement range	2-4000 NTU
Measurement accuracy	±1%
Pressure resistance	≤0.3Mpa
Measuring temperature	0-45℃
Calibration	Standard liquid calibration, water sample calibration
Cable length	Standard 10m,can be extended to 100m
Thread	1 inch
Weight	2.0kg
Application	General applications, rivers, lakes, environmental protection, etc.