

Turbidity Meter

General information about ADWQ-5017T Online Turbidity Meter Product Overview:

The product adopts 90 degree light scattering principle, according to ADWQ-5017T and ISO 7027. It uses infrared light as light source without sample chromaticity of interference.

According to online measuring the light scattering degree generated by insoluble particulate matter floating in water, measure the content of these suspended particles and water turbidity.

Application:

- ✓ Waterworks: turbidity monitoring of reservoir, well,
- ✓ clean water pool, filter, filtered, precipitation and
- ✓ water treatment plant
- ✓ water distribution systems water quality monitoring, industrial process water
- ✓ quality monitoring, circulating cooling water.
- ✓ Industrial process: water quality monitoring of production recycled water,
- ✓ recycled water, activated carbon filter water, membrane filter water
- ✓ Sewage treatment: water quality of inlet and outlet
- ✓ Online turbidity measurement of electric, pure water, beverage, wine and pharmaceutical industries



Feature:

- Standard 90°scattering light measurement technique which provides reliable measurement results
- Immersion type probe with self-clean wiper, maintenance-free
Simple key operation
- Digital sensor, two-channel input, plug and play
- Self-diagnostic function
- low-scale circulating built-in bubble eliminating system
- The measurement result is not affected by the bubbles.
- Scattering composite light,Low turbidity data is not affected by Brownian diffusion impact.
- Automatically compensation for voltage fluctuations, device aging, temperature change and sludge color.

Working principle:

- Immersion sensor, the transmitter transmits an infrared beam at an angle to the direction of the radiating medium,light encounter particles in the medium, then scatter.
- part of the scattered light incident on the receiver 90°,absorbed by the receiver,compared with the reference Comparative optical receiver combining the plurality of receivers to compensate for the calculation, because the detector receives the light intensity and the measured turbidity of the effluent of a certain relationship,so by measuring the scattered light intensity can be calculated turbidity of the water .
- Flow- sensor,water samples go through the bubble trap, entrained air bubbles are removed.
- it flow into the measurement chamber of sensor ,through the center column.
- The measuring chamber is sealed in a dark chamber , do continuous online measurement accuracy .
- And a replaceable desiccant pack ensure reliable measurement environment
- Incandescent light emitted by the light source assembly of the sensor , after being scattered by particles in the sample with a beam of 90 ° to a monitor receiver ,the received signal proportional to the turbidity of the sample.



Technical specification of the device:

Flow type sensor

- Measurement Range: 0-2-10-100NTU
- Resolution:0.001NTU(0-2NTU)-0.01NTU(2-10NTU)-0.1NTU(10-100NTU)
- Accuracy: $\pm 2\%$ FS
- Zero drift: Less than 0.5%
- Repeatability: better than reading $\pm 2.0\%$ or ± 0.002 NTU
- Response time: 1S (can be adjusted)
- Velocity of flow: 100-700ml/min
- Sampling volume: 30mL
- Sample Temperature: 0°C to 50°C(320-1220F)
- Light source: Replaceable halogen lamp
- Service life of light source:More than 30,000hours(41 months)
- Water pipe:1/4"NPT Internal thread, 1/4" Compression fittings (provided)
- Drainage pipe:1/2"NPT Internal thread, 1/2" Hose(provided)

Immersion sensor:

- Measurement Range: 0-100-1000-9999NTU / 0-100-1000-10000mg/L
- Resolution: 0.1NTU(0-100NTU)- 1NTU(100-9999NTU)
- Accuracy: $\pm 2\%$ FS
- Zero drift: Less than 0.5%
- Repeatability: better than reading $\pm 1.0\%$ or ± 0.002 NTU
- Response time: 1S (can be adjusted)
- cable length: standard 10m, The maximum length 100m
- Protection: IP68 transmitter
- Display unit: NTU, FTU, mg/L
- Display screen: 240*160 Dot matrix backlit LCD
- Analog output:2 roads 4~20mA current output, max 750 ohm resistance
- Digital output: MODBUS/RS485, MODBUS/RS232
- Output relay: Two alarm system , 250VDC, 3A,One cleaning system
- Frequency of reading:0.5S one time
- Power supply:220VAC $\pm 10\%$, 49-51HZ,10W
- Shell material:Stainless steel and PC
- Protection:IP65
- Installation:Single modem design, Wall-mounted installation, guide rail type Installation
- Size:234/185/118mm, L/W/H
- Weight:3.9kg

