WATER QUALITY MONITORING / DATA SHEET

SS304-02
Turbidity Transmitter

A compact online turbidity transmitter for routine water-quality monitoring. It uses a mature 90-degree scattered-light method, an infrared LED source and fiber-optic light path, with filtering and automatic temperature compensation for stable long-term operation.

Overview

- Four selectable turbidity ranges: 0-50, 0-200, 0-1000 and 0-4000 NTU.
- Resolution from 0.01 to 1 NTU, depending on range, with a response time of 30 seconds or less.
- Infrared 90-degree scattered-light measurement with filtering and automatic temperature compensation.
- Wall-mount enclosure with RS485, analog, Wi-Fi, 4G, Ethernet and LoRa options.

Measured	Ranges	Resolution	Supply
Turbidity	0-50 / 200 / 1000 / 4000 NTU	0.01-1 NTU	DC 10-30 V

Key Functions

- Infrared LED source and fiber-optic light path improve resistance to ambient-light interference.
- Probe IP68 protection and wall-mount enclosure IP65 protection.
- Automatic temperature compensation supports stable continuous monitoring.
- Multiple output options support local, network and cloud-connected monitoring.

Applications

- Drinking-water treatment and distribution monitoring.
- Industrial process-water and circulating-water monitoring.
- Swimming-pool and aquaculture water-quality control.
- Environmental water and wastewater monitoring.

SYSTEM DATA

Technical Specifications

Item	Specification
Supply Voltage	DC 10-30 V; 0-10 V output requires DC 24 V
Turbidity Range	0-50 NTU, 0-200 NTU, 0-1000 NTU or 0-4000 NTU
Resolution	0.01 NTU (0-50); 0.1 NTU (0-200 and 0-1000); 1 NTU (0-4000)
Measurement Error	±5% FS at 25 °C
Temperature Measurement Error	±0.5 °C; temperature resolution 0.1 °C
Response Time	≤30 s
Operating Conditions	Probe: 0-40 °C; enclosure: -40 to 60 °C, 0-95% RH non-condensing
Power Consumption	0.2 W for RS485; ≤0.8 W for analog; 0.4 W for network versions
Measurement Principle	90-degree scattered-light method with infrared LED and fiber-optic path
Service Life	Approximately 2 years in normal use
Protection	Probe IP68; wall-mount enclosure IP65
Cable Length	5 m standard
Housing Material	Corrosion-resistant plastic

INTERFACES

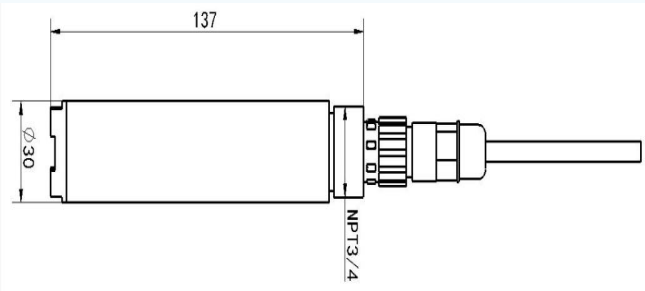
Output and Communication Options

Option	Power	Description
RS485	0.2 W	Modbus-RTU; 4800 bit/s default; 1200 / 2400 / 4800 / 9600 / 19200 / 38400 / 57600 / 115200 configurable
Analog	≤0.8 W	4-20 mA, 0-5 V or 0-10 V selectable; 0-10 V requires DC 24 V
Wi-Fi	0.4 W	2 s acquisition; 10 s default upload; 1-65535 s configurable; LAN / WAN communication
4G	0.4 W	2 s acquisition; 60 s default upload; 1-65535 s configurable; default monthly traffic below 25 MB
Ethernet	0.4 W	2 s acquisition; 30 s default upload; 1-60000 s configurable
LoRa	0.4 W	Long-range spread-spectrum communication with low power consumption

HARDWARE

Transmitter and Electrode Dimensions

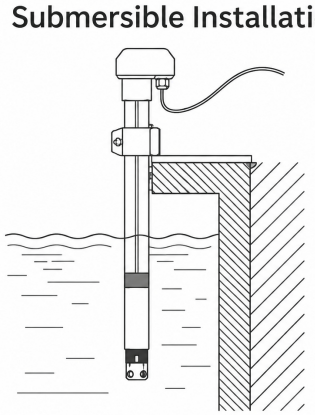
Wall-mount enclosure | 117 × 87 × 43 mm (max)



Turbidity probe | 137 mm or 147 mm | Ø30 mm | NPT 3/4

INSTALLATION

Submerged Probe Installation



Submerged installation

Installation Requirements

- Install the probe in a compatible waterproof tube or submerged fitting with the NPT 3/4 thread.
- Keep the measurement end fully immersed and the water flow slow and stable.
- Keep the probe at least 5 cm from surrounding walls and at least 7 cm above any obstruction.
- Avoid bubbles and reflective materials below the sensor; keep the sensing area free of obstructions.

CONTACT / SUPPORT

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