



turbidity sensor

NTU digital turbidity sensor

overview

The NTU Turbidity Sensor is a low cost, low maintenance monitoring solution ideal for waste water industry.

The NTU is based on optical technology, is delivered pre-calibrated and does not require regular re-calibration, and has digital outputs (SDI-12 or Modbus RS-485) to connect to existing SCADA, PLC or data acquisition systems.

The NTU sensor is a digital turbidity sensor that is ideal for waste water monitoring, aquaculture, environmental monitoring, and scientific research in shallow waters.



features

- IR optical sensor with optical fibre
- Range : 0 to 4000 NTU or 0-4500 mg/L
- Robust and waterproof (IP68)
- Ultra low-power consumption
- Nephelometry measurement
- RS-485 or SDI-12 outputs

who uses the NTU turbidity sensor?

The NTU sensor is widely used among water quality managers, environmental consultants, aquaculturalists, scientific researchers and students. Many government agencies around the world install the NTU as part of their water quality management monitoring.

measurement principle

The turbidity measurement according to DIN EN ISO 7027 is a tried and tested method for monitoring waters with low to strong turbidity.

The measuring principle of the NTU turbidity sensor is based on an infrared light measurement according to the 90° scattered light method. Thanks to the light measurement at a wavelength of 880 nm and the wide measuring range of 0 to 4,000 NTU, the sensor can be used in an array of water and wastewater treatment

applications, e.g. for monitoring the water quality, detecting filter leaks, and for wastewater final inspection.

Apart from the turbidity value, the sensor also measures the medium temperature and Suspended Solid in mg/L (0-4500 mg/L).

The NTU sensor stores its calibration data and history directly in the sensor electronics. This means that it can be used quickly anywhere without the need for constant recalibration.

The sensor is characterized by its slim and robust design.

Suitable fittings are required for the installation of the sensor, e.g. in order to prevent the influence of extraneous light and any possibly resulting measurement errors. Corresponding immersion, suspended, and flow fittings are available.

whole system monitoring solutions



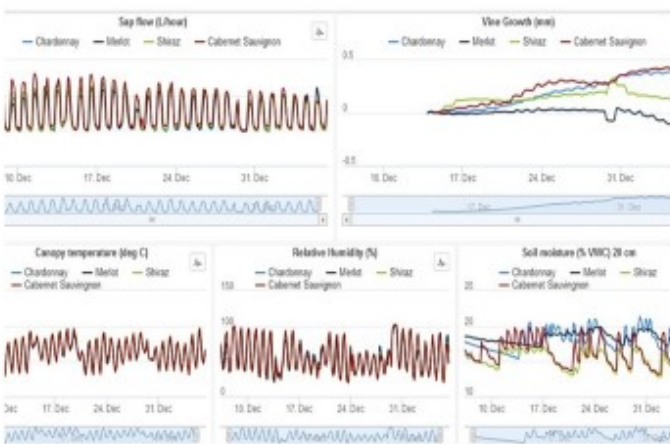
Edaphic Scientific is a one-stop shop for a whole system monitoring solution. We provide dissolved oxygen monitoring systems for industry, researchers, aquaculture and water quality monitoring.

Our systems not only support turbidity sensors but can support additional parameters including [dissolved oxygen](#), [ozone](#), [hydrogen peroxide](#), [hydrogen sulfide](#), [carbon dioxide](#), [methane](#), [pH](#), [EC/salinity](#), [water level](#) and [more](#).

At Edaphic Scientific we want to work with you from the start of your project through to its completion. We can provide:

- Assistance with project and experimental design
- Procurement of all monitoring equipment, including sensors, data loggers and data management software. Edaphic Scientific is a one-stop shop where we can source and find any necessary equipment for your project from our preferred suppliers or third party suppliers
- Installation and training
- On-going assistance with data interpretation and equipment maintenance
- Data correction and analysis, including statistical analysis with the R-package
- Report and publication preparation including tables, figures, graphs, and manuscript writing

advanced data collection and management solutions



Edaphic Scientific recognises the need for flexible and adaptable sensor and [data logging solutions](#) for experimental or environmental monitoring projects.

Data can be downloaded directly in the field from data loggers. A direct connection between the data loggers and your computer, via a USB cable, can be used for manual downloading of data.

Alternatively, data can be [downloaded over the internet](#) on your iPhone, iPad or desktop computer with the Eagle.io cloud-based, data management software solutions. Through this remote based downloading capabilities, you can download, view and manage your data, and system, anywhere in the world and at anytime.

specifications

feature	specification
Measurement Principle	Diffusion IR at 90°
Measurement Ranges	5 – 50 NTU 5 – 200 NTU 5 – 1000 NTU 5 – 4000 NTU
Resolution	0,01 to 1 NTU - mg/L
Accuracy	< 5% of the reading
Operating Temperature	0°C to + 50°C
Storage Temperature	-10°C to + 60°C
Minimum Measurement Interval	5 seconds
Storage Temperature	- 10°C to + 60°C
Signal Interface	Modbus RS-485 (standard) SDI-12 (optional)
Sensor Power Supply	5 to 12 VDC
Power Consumption	Standby: 40 µA Average RS485 per Measurement: 820 µA Average SDI12per Measurement: 4.2 mA
Current Pulse	500 mA
Sensor Dimensions	Diameter: 27 mm Length: 170 mm
Weight	300 g (sensor + cable 3 m)
Material	PVC, DELRIN, Quartz, PMMA, Polyamide
Maximum Pressure	5 Bars
Connection	9 armoured connectors, polyurethane jacket, bare wires or waterproof Fisher connector
Environmental Protection	IP68
Warranty	1 year

manual & docs

- [NTU Turbidity Sensor Datasheet](#)
- [NTU Turbidity Sensor Manual](#)

related products

- [Dissolved gas sensors and meters](#)
- [pH, redox and temperature digital sensor](#)
- [Environmental monitoring systems](#)
- [Underwater data logger](#)
- [Water level sensors](#)
- [Water flow/velocity meter](#)