



Recorder



Flow



Pressure



Temp



Analyzer



Level

# Datasheet

## Turbidity Sensor

### SUP-PTU-8010

# Supmea<sup>®</sup>

Committed to process automation solutions

Tel: 86-15158063876

E-mail: [info@supmea.com](mailto:info@supmea.com)

[www.supmea.com](http://www.supmea.com)

## Datasheet

### Turbidity Sensor SUP-PTU-8010

The turbidity sensor is based on infrared scattered light technology, that is, the infrared light emitted by the light source will be scattered when it passes through the measured sample during the transmission process, and the scattered light intensity is proportional to the turbidity. The turbidity sensor is provided with a scattered light receiver in the direction of  $90^\circ$ , and the turbidity value is obtained by analyzing the intensity of the scattered light.

It can be widely used in on-line monitoring of turbidity in the water inlet, sedimentation tank and other links of water plants; on-line monitoring of turbidity in sewage plants, various industrial production process water and wastewater treatment processes and other links.

#### Applications

- Waterworks inlet
- Sedimentation tank
- Wastewater Treatment Plant
- Industrial process water
- Aquaculture

#### Features

- The sensor adopts dual-beam infrared scattered light photometer detection technology and has good repeatability and stability.
- Built-in self-diagnosis
- With self-cleaning function to reduce the maintenance of sensor.
- Digital sensor, high anti-jamming capacity and far transmission distance.
- Standard digital signal output, can achieve integration and networking with other equipment without controller.
- Plug-and-play sensors, quick and easy installation.



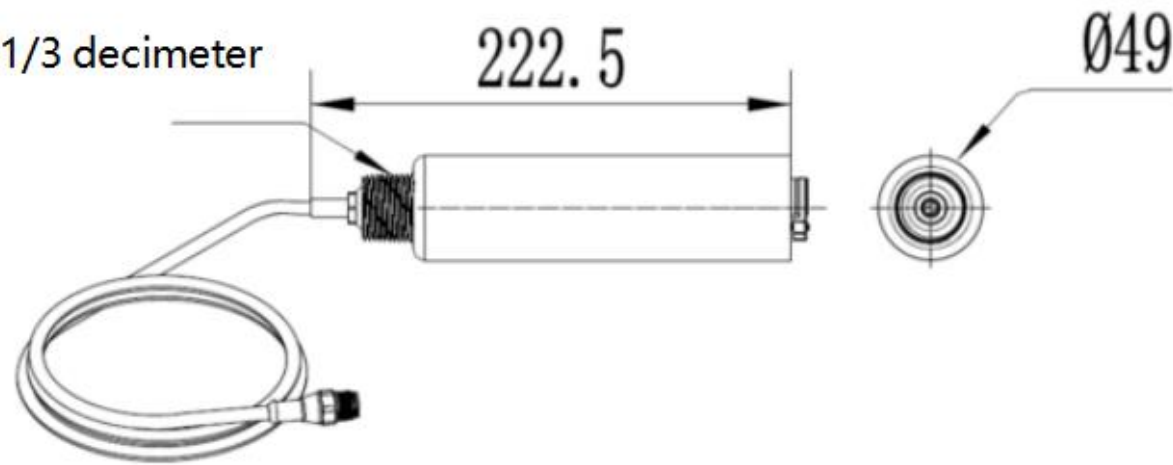
**Turbidity Sensor**

## Principle

The turbidity sensor is based on infrared scattered light technology, that is, the infrared light emitted by the light source will be scattered when it passes through the measured sample during the transmission process, and the scattered light intensity is proportional to the turbidity. The turbidity sensor is provided with a scattered light receiver in the direction of 90° , and the turbidity value is obtained by analyzing the intensity of the scattered light.

Parameters	
Measure range	Turbidity:0.01-3000NTU
Accuracy	±0.5NTU
Repeatability	±3%
Resolution	0.01NTU,0.1NTU
Pressure range	≤0.2MPa
Calibration	Standard solution calibration,water sample calibration
Sensor material	Body:SUS316L Cover:PPS+glass fiber Cable:PUR
Power	9~36VDC
Communication	MODBUS RS485
Storage temperature	-15-50℃
Operating temperature	0-45℃(not freeze)
Dimension	Diameter49mm*216.5mm
Weight	0.8KG
Ingress protection	IP68
Cable	10m (Standard),≤100m

Dimension



Wiring

Core number	Sensor wire	Signal
1	Red	+12VDC
2	Black	AGND
3	Blue	RS485 A
4	White	RS485 B
5	Yellow+Green	Ground wire

Ordering code

SUP-PTU-8010-HM1-ES0-CS10				Description
SUP-PTU-8010	-	-	-	Measuring range: (0.01~3000) NTU Temperature range: (0~45)℃ Pressure resistance: 0.4MPa Thread: R1
Shell Material	HM1			Stainless steel shell
	HM2			Titanium shell
Electrode scraper		ES0		Without electrode scraper
		ES1		With electrode scraper
Cable length			CS10	10m
			CSXX	XXm