



The **SMART Turbidity Sensor** can be used in an array of water and wastewater treatment applications

## **SMART** Turbidity Sensor for Water Treatment Applications; Digital Optical Technology

Code: TT-SMART-NTU / TT-SMART-NTU

### **Optical Technology**

- The measure principle is based on IR nephelometry / 850 nm. The sensor can be calibrated with a formazine standard solution.
- The NTU sensor integrates an optical technology, with a very few maintenance and no consumables.

### **Digital Communication**

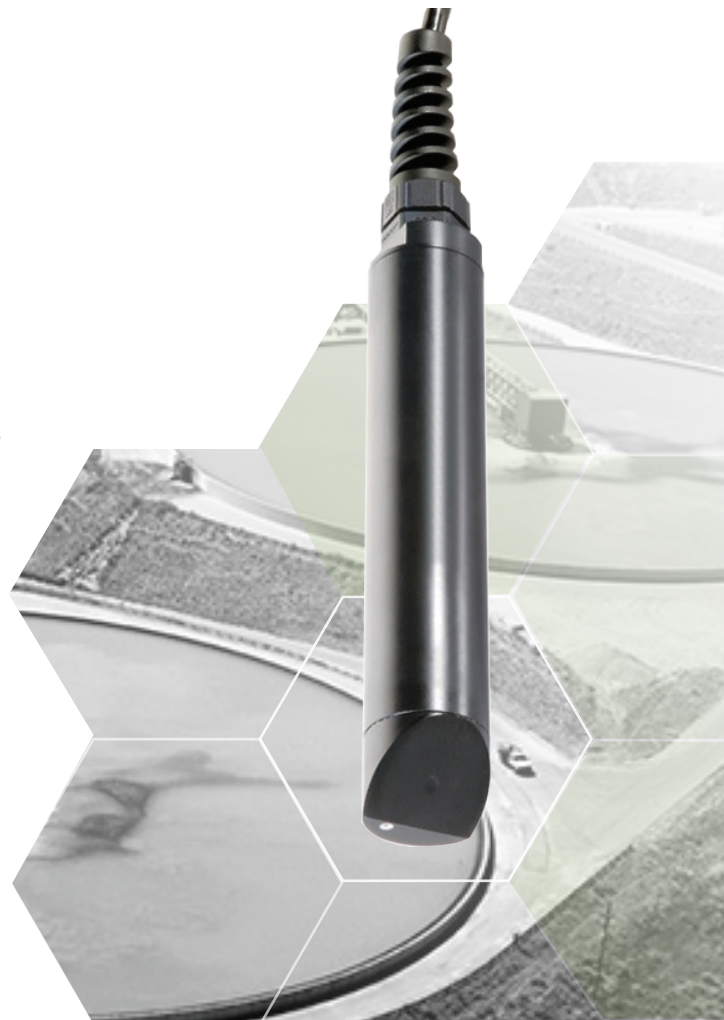
- The SMART sensor can be connected to any types of transmitters, display units, controllers or data loggers with Modbus RS-485 or SDI-12 inputs. The optical sensor saves its calibration data for better measures management.

### **Integrated Transmitter**

- All data concerning calibration, history, users and measures are directly treated within the NTU sensor and transmitted via RS-485 or SDI-12.

### **Physical Characteristics**

- Compact, robust and light, the PVC sensor allows a handheld or fixed unit application.





# Specifications

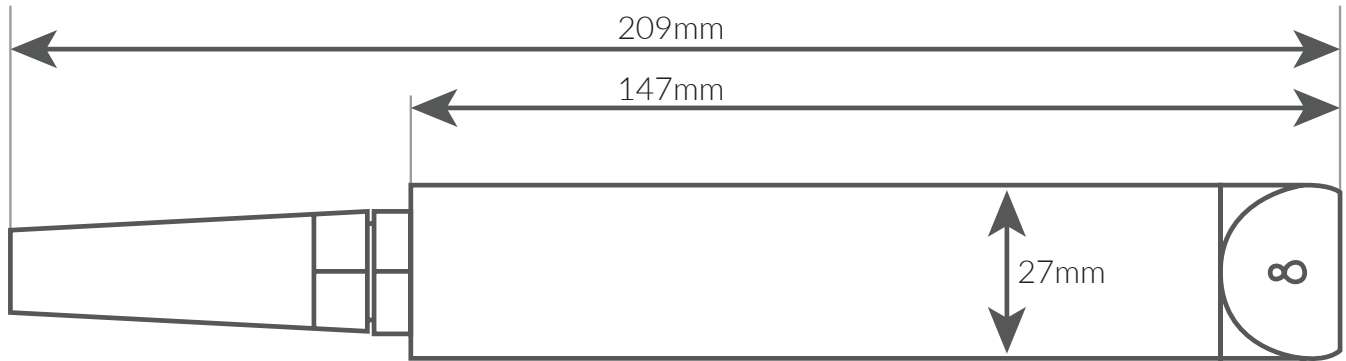
## SMART Series Turbidity Sensor

### Specifications:

Description	SMART Turbidity Sensor for Water Treatment Applications	
Part Number	TT-SMART-NTU	
Measurement Principle	Diffusion IR at 90°	
Measurement Ranges	0 to 4000 NTU in 5 ranges: <ul style="list-style-type: none"> <li>• 0 – 50 NTU</li> <li>• 0 – 200 NTU</li> <li>• 0 – 1000 NTU</li> <li>• 0 – 4000 NTU</li> <li>• AUTOMATIC</li> </ul>	0 to 4500 mg/L Calibration : Range 0-500 mg/L according to NF EN 872 Range >500 mg/L according to NF T 90 105 2
Resolution	0,01 to 1 NTU - mg/L	
Accuracy	<5% of the reading	
Working Temperature	0°C to + 50°C	
Measure Of Temperature	Via NTC	
Stocking Temperature	-10°C to +60°C	
Signal Interface	Modbus RS-485 (standard) and SDI-12 (optional)	
Maximum Refreshing	<1 second	
Sensor Power-Supply	5 to 12 volts	
Electric Consumption	Standby: 40µA Average RS485 (1 measure/second): 820µA Average SDI12 (1 measure/second): 4,2mA Current pulse: 500mA	
Dimensions	Diameter: 27mm; Length: 170mm	
Weight	300g (sensor + 3m cable)	
Material	PVC, DELRIN, Quartz, PMMA, Polyamide	
Maximum Pressure	72.5 PSIG (5 bar)	
Connection	Quick Connect Plug or Tinned Leads	
Protection Rating	IP68	
Storage	Item should be kept at room temperature with closed protector cap to protect the optic. Shelf life warranted for 12 months from the date of purchase	
Warranty	12 Month Conditional Warranty Please go to: <a href="http://www.turtletooughsensors.com/support/warranty-returns">www.turtletooughsensors.com/support/warranty-returns</a>	



### DIMENSIONAL DRAWING:



### WIRING SCHEMATIC:

#### CABLE LENGTH: 1 - 15M

#### CABLE LENGTH: 15 - 100M

