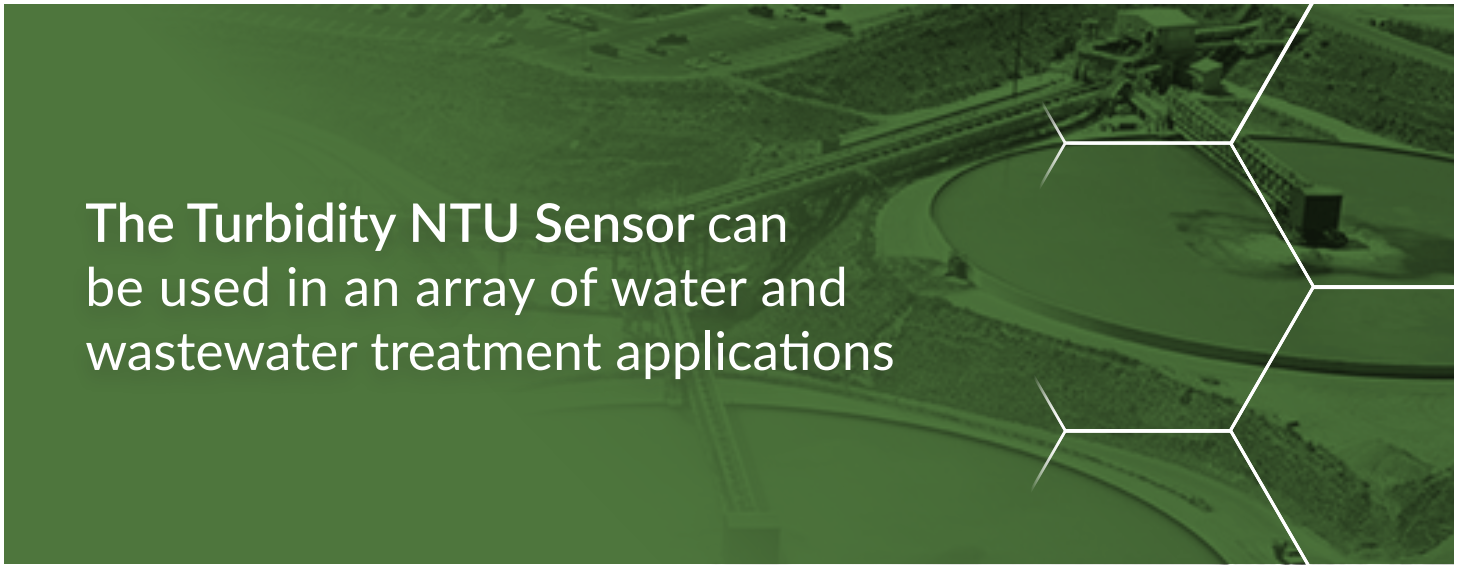


Turbidity NTU Sensor

Features

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

- **Digital communication:**
  The PONSEL 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.

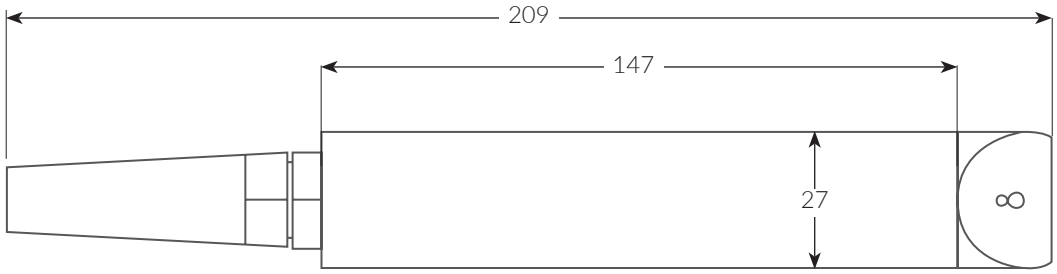
- **Integrated transmitter:**
  All data concerning calibration, history, users and measures are directly treated within the NTU sensor and transmitted via RS-485 or SDI-12.

Sensor name		Turbidity NTU Sensor	
Measure principle		Turbidity: Diffusion IR at 90° Temperature: NTC	
Suspended Solid measure	Measure ranges	0 to 4000 NTU in 5 ranges: • 0 – 50 NTU • 0 – 200 NTU • 0 – 1000 NTU • 0 – 4000 NTU • AUTOMATIC	0 to 4500 mg/L Calibration : Range 0-500 mg/L according to NF EN 872 Range >500 mg/L according to NFT 90 105 2
	Resolution	0,01 to 1 NTU - mg/L	
	Accuracy	<5% of the reading	
Temperature measure	Technology	NTC	
	Range	0°C to + 50°C	
	Resolution	0,01 to 1 NTU - mg/L	
	Accuracy	± 0,5 °C	
	Response time	< 5 seconds	
	Storage temperature	0°C to + 60°C	
Sensor	Dimensions	Diameter: 27mm; Length: 170mm	
	Weight	300 g *(sensor + cable 3 meters)*	
	Wetted Material	Head of the sensor: PVC Body: DELRIN Optical part: Quartz Cable: polyurethane jacket Steam gland: Polyamide	
	Safeway	The optical windows are vulnerable to: - Chemicals *(organic solvents, acids and strong bases, peroxide, hydrocarbons)*, - Mechanical treatments *(impact, abrasion)*.	
	Maximum pressure	72.5 PSIG *(5 bars)*	
	IP Classification	IP68	
	Connection	9 armoured connectors, polyurethane jacket, bare-wires or waterproof Fisher connector	
	Cable	Standard: 3, 7 & 15m *(other length on request)*.	
Communication Power Supply	Signal Interface	Modbus RS-485 *(Standard)* or SDI-12 *(optional)*	
	Power requirements	5 to 12 volts for cable 0-15 m 7 to 12 volts for cable >15 m Max. 13.2 V	
	Consumption	Standby : 40 µA Average RS485 *(1 measure/second)* : 820 µA Average SDI12 *(1 measure/second)* : 4,2 mA Current pulse : 500 mA Heating time : 100 mS Protection against the inversions of polarity	
Warranty		12-month conditional warranty. See turtletoughsensors.com/support/warranty-returns	

Dimensions & Wiring diagram

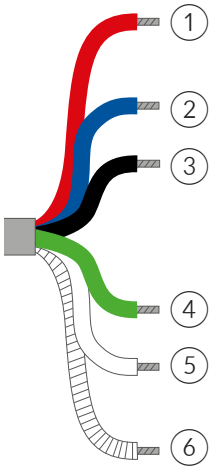
Turbidity NTU Sensor

Dimensions



(all measurements in mm unless specified)

Wiring diagram



Cable length up to 15 metres

1 - Red	Power supply V+
2 - Blue	SDI-12
3 - Black Power supply	Power supply V-
4 - Green	B " RS-485 "
5 - White	A " RS-485 "
6 - Green/yellow	Cable shield

Cable length 15 to 100 metres

Red	Power supply V+
Purple	
Yellow	
Orange	
Pink	
2 - Blue	SDI-12
3 - Black Power supply	Power supply V-
4 - Green	B " RS-485 "
5 - White	A " RS-485 "
6 - Green/yellow	Cable shield