



**TURTLE
TOUGH**

Turtle Tough's **SMART Optical Dissolved Oxygen Sensor** can be used in an array of water and wastewater treatment applications

SMART Optical DO Sensor for water treatment applications; Digital Optical Technology

Code: TT-SMART2-DO-OPTO-DSS

Optical technology

- The SMART2-OPTO Optical Dissolved Oxygen sensor is based on luminescent optical technology and is approved by the ASTM International Method D888-05.
- Without calibration requirements and an ultra low power technology, the sensor meets the demands of field works and short or long term campaigns.
- Without oxygen consumption, this technology allows you an accurate measure in all situation and especially in very low oxygen concentrations

Digital communication

- The SMART2-OPTO sensor stores calibration and history data within the sensor. This allows for a “plug and play” system without re-calibration.
- Thanks to the Universal Modbus RS485 protocol, the SMART2-OPTO can be connected to all devices commonly used (Datalogger, Controller, Automat, Remote System)

Physical characteristics

- Compact, strong and light, the sensor allows a portable or in fixed/permanent use.
- Body in Stainless steel 316 L (passivation treatment) or in Titanium for applications in corrosive environment.





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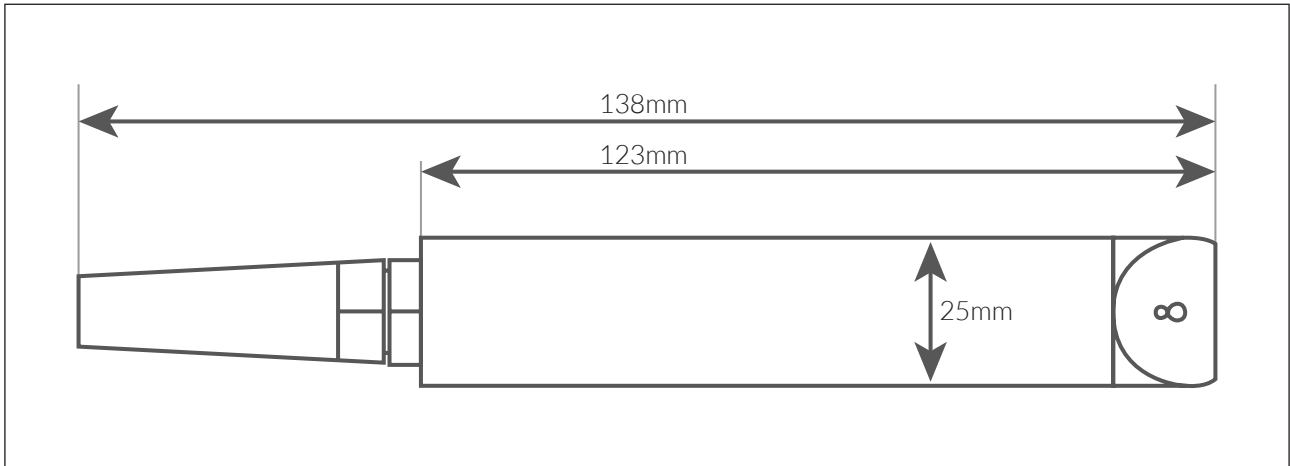
Specifications

SMART Series Optical DO Sensor

Description	SMART2-OTPO Optical Dissolved Oxygen Sensor for water treatment applications
Part Number	TT-SMART2-DO-OPTO-DSS
Measurement Principle	Optical measure by luminescence
Measurement Ranges	<ul style="list-style-type: none">• 0.00 to 20,00 mg/L• 0.00 to 20,00 ppm• 0-200%
Resolution	0.01
Accuracy	+/- 0,1mg/L +/- 0,1 ppm +/- 1 %
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 Time	< 1 second
Sensor Power-Supply	5 to 12 volts
Electric Consumption	Standby: 25µA Average RS485 (1 measure/second): 4.4mA Average SDI12 (1 measure/second): 7.3mA Current pulse: 100mA
Dimensions	Diameter: 25mm; Length: 146mm
Weight	Stainless steel version 450g (sensor + cable 3 m) Titanium version 300 g (sensor + cable 3 m)
Material	Stainless Steel 316L or Titanium
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: www.turtletooughsensors.com/support/warranty-returns



Dimensional drawing



Wiring schematic

