

## AquaMetrix AM-ODO-TX Luminescent Dissolved Oxygen Sensor With Dual 4-20mA Output and Modbus Communication



### Features

- Dual 4-20mA Output
- RS485 or Modbus Communication
- Output choice of:
  - Saturation (%)
  - Concentration mg/l (ppm)
  - Temperature
- No Electrolyte
- Sample Flow Not Required
- Very Rugged
- Visual Lifecycle Indication (VLI)
- Replaceable Membrane
- Saltwater Compensation
- Not affected by CO<sub>2</sub> or H<sub>2</sub>S

### Description

The AM-ODO-TX is one of the most compact, durable, and user friendly dissolved oxygen sensors on the market. It is an optical sensor that utilizes fluorescence quenching technology.

The AM-ODO-TX is part of the AquaMetrix smart sensor series. The probes in this series are direct output digital sensors with the precision of a controller and the accuracy of our core probes. The AM-ODO-TX can communicate via RS485 or Modbus protocols.

This innovative sensor outputs two (2) digital-based analog (4-20 mA) signals that can be set as 2 of 3 options: Percent-saturation, concentration, or temperature. It can connect to the AquaMetrix AM-2300 controller, AM-2252 controller or directly to a PLC.

Optical DO sensors are inherently self-referencing, require no warm-up period, do not require constant flow to maintain a stable reading, and are less affected by fouling. The ODO-TX is reli-

able and reads accurately within 90 seconds of going from dry to wet conditions. The reliability is backed by the factory-programmed 90-point calibration, stored directly on in a memory chip embedded in the membrane cap.

The sensor membrane lasts for one to two years and is inexpensive to replace. The intuitive membrane cap Visual Lifecycle Indication (VLI) methodology lets users know when to replace the cap, giving the user comfort in reliable operation.

Membrane caps come pre-calibrated, so for maintenance simply press on the new cap, and you're ready to go! When needed, intermittent calibration is simple and can be done on a controller or directly on the probe.

This sensor is proven via extensive testing and its core technology helped develop the EPA-approved method that other manufacturers follow.

Simply put, the ODO-TX, like

### Applications

- Aquaculture
- Fish Farms
- Industrial Wastewater
- Wastewater Treatment
- Sewage
- Boilers
- Horticulture

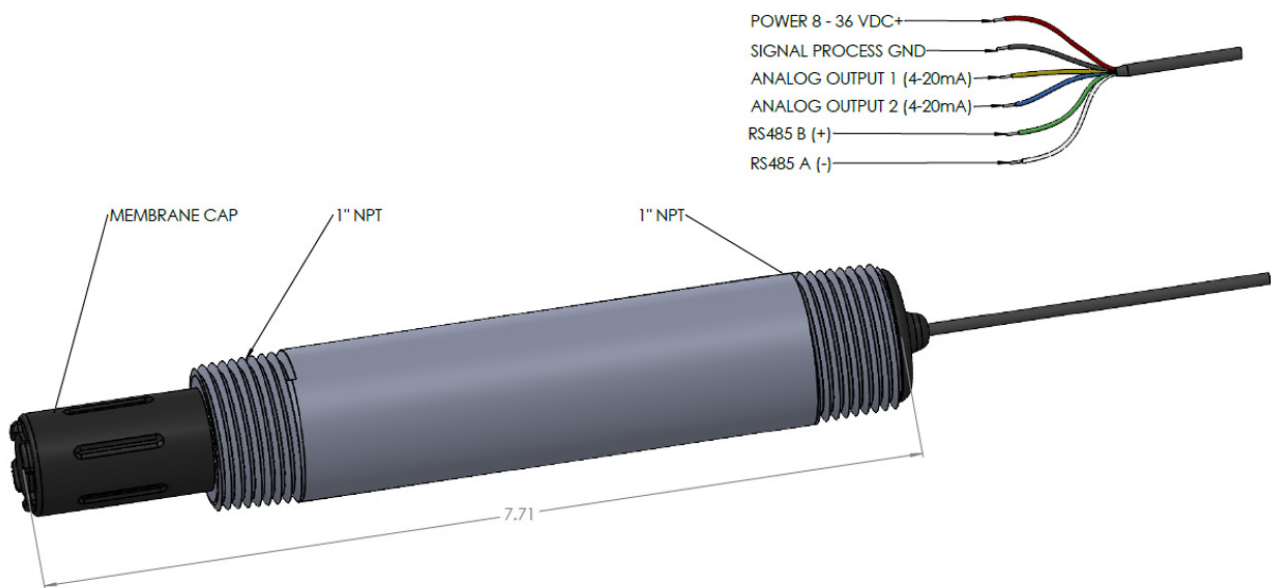
**Simply put, the AM-ODO-TX, like all AquaMetrix Sensors, works when our customers need it to!**

# AM-ODO-TX Optical Dissolved Oxygen Sensor

## Technical Data

Measuring Range	0 to 60ppm ( 0 to 600% saturation)	Storage Temperature	-40 to 65 °C
Accuracy at 25 °C DO (0-20 mg/L) (20-60 mg/L).	±0.1 mg/L ±2 %	Salinity Comp. Pressure Comp.	Fixed or real-time capable Fixed or real-time capable
Temperature	± 0.1 °C	Wetted Materials	PVC Body, Cyclocoly® (PC/ABS), Ryton® (PPS), PC/PMMA
Resolution DO Temp	10 ppb (0.01 ppm) 0.01 °C	Power input	8 to 36 VDC
Response Time	T90 < 45 seconds T95 < 60 seconds	Power consumption	0.6W Max @12VDC 0.024W Idle @ 12VDC
Operation Temperature	-5 to 50 °C	Output	Dual 4-20 mA (current sourcing) Modbus/RS485 (All Models)
Depth Maximum Pressure	210 m (689 ft) @ 25°C 150 psi from 0° to 50°C	Mounting	1" MNPT on both ends
		Ingress Protection	IP67

## Dimensions



## Related Products

### ANALYZERS

AM-2300	Multi-Input Controller
AM-2252	Dual-Input Controller

### ACCESSORIES

AM-ODO-TX-CAP	Replacement Membrane Cap
AM-ODO-TX-CAL	Calibration/Storage cap
AM-ODO-MPR	Metal Protector
AM-JB2	Junction Box
AM-HTA-R5	Ball Valve assembly for Hot-Tap insertion
AM-ARM-5	Submersion mounting kit
AM-TEE-R5	1" Union Tee with 3/4" adapter
AM-CFT-R5	Compression Fitting for 1" NPT sensors
AM-CBL	Extension cable

## Ordering Information

### STANDARD

AM-ODO-TX-015	Optical Dissolved Oxygen Sensor with direct 4-20 mA output for ppm and %sat. 15ft cable
AM-ODO-TX-XXX	Optical Dissolved Oxygen Sensor with direct 4-20 mA output for ppm and %sat. Custom Cable length

### CUSTOMIZED COMMUNICATION (ADD-ON)

AM-ODO-TX-Cust	Optical Dissolved Oxygen Sensor with customized direct 4-20 mA outputs (See form for customizations)
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