



ODO RTU

OPTICAL DISSOLVED OXYGEN & TEMPERATURE SENSOR



An easy way to install YSI ODO™ technology at your site, tank, or pond.

Engineered specifically for aquaculture applications, but at home in any Modbus system, the optical dissolved oxygen (ODO) sensor can be used to ensure adequate oxygen levels for your livestock or for improved energy efficiency. With YSI's **ODO RTU**, you'll benefit from reduced costs, less maintenance, and better data.

ODO RTU utilizes the most advanced DO technology and can be connected anywhere without the need for special connectors. Additional inputs for barometric pressure and salinity are used to accurately calculate the DO% and mg/L. ODO RTU is also available with built-in conductivity measurement to automatically compensate for salinity.



Connect directly to your PLC or data logger and communicate via Modbus



Highly-accurate ODO sensor technology with no stirring



2-year cable and probe warranty with user-replaceable DO cap



a xylem brand

ODO RTU OPTICAL DISSOLVED OXYGEN & TEMPERATURE SENSOR

ODO RTU



ODO/T

ODO/CT

ODO RTU Specifications (ODO/T probe assembly)

Size	2.46 cm diameter, Cable options for 1, 4, 10, 20, 30, 50, and 100 m lengths						
Dissolved Oxygen (Optical luminescence) Units: % saturation, % saturation local, mg/L, ppm	<table border="0"> <tr> <td>Range</td> <td>0 to 500%, 0 to 50 mg/L</td> </tr> <tr> <td>Accuracy</td> <td>0 to 200%: $\pm 1\%$ of reading or 1% saturation, whichever is greater; 200 to 500%: $\pm 8\%$ of reading; 0 to 20 mg/L: ± 0.1 mg/L or 1% of reading, whichever is greater; 20 to 50 mg/L: $\pm 8\%$ of reading</td> </tr> <tr> <td>Resolution</td> <td>0.01 mg/L and 0.1 %, or 0.1 mg/L and 1% (auto-adjusted based on range)</td> </tr> </table>	Range	0 to 500%, 0 to 50 mg/L	Accuracy	0 to 200%: $\pm 1\%$ of reading or 1% saturation, whichever is greater; 200 to 500%: $\pm 8\%$ of reading; 0 to 20 mg/L: ± 0.1 mg/L or 1% of reading, whichever is greater; 20 to 50 mg/L: $\pm 8\%$ of reading	Resolution	0.01 mg/L and 0.1 %, or 0.1 mg/L and 1% (auto-adjusted based on range)
Range	0 to 500%, 0 to 50 mg/L						
Accuracy	0 to 200%: $\pm 1\%$ of reading or 1% saturation, whichever is greater; 200 to 500%: $\pm 8\%$ of reading; 0 to 20 mg/L: ± 0.1 mg/L or 1% of reading, whichever is greater; 20 to 50 mg/L: $\pm 8\%$ of reading						
Resolution	0.01 mg/L and 0.1 %, or 0.1 mg/L and 1% (auto-adjusted based on range)						
Temperature (Thermistor) Units: °C, °F, K	<table border="0"> <tr> <td>Range</td> <td>-5 to 70°C (-5 to 50°C; DO compensation range for mg/L)</td> </tr> <tr> <td>Accuracy</td> <td>$\pm 0.2^\circ\text{C}$</td> </tr> <tr> <td>Resolution</td> <td>0.1°C or 0.1°F (auto-adjusted based on range)</td> </tr> </table>	Range	-5 to 70°C (-5 to 50°C; DO compensation range for mg/L)	Accuracy	$\pm 0.2^\circ\text{C}$	Resolution	0.1°C or 0.1°F (auto-adjusted based on range)
Range	-5 to 70°C (-5 to 50°C; DO compensation range for mg/L)						
Accuracy	$\pm 0.2^\circ\text{C}$						
Resolution	0.1°C or 0.1°F (auto-adjusted based on range)						
Communication	Modbus/RS485 (4 wire)						
Default Baud Rate	9600 (user programmable)						
Power Requirements	10 V to 16 V DC, 15 mA max						
Warranty	2 years on cable, probe, and ODO sensor cap						

Additional Conductivity Specifications (ODO/CT probe assembly)

Conductivity (Four nickel electrode cell) Units: $\mu\text{S}/\text{cm}$, mS/cm	<table border="0"> <tr> <td>Range</td> <td>0 to 200 mS/cm</td> </tr> <tr> <td>Accuracy</td> <td>0 to 100 mS/cm $\pm 0.5\%$ of reading or 0.001 mS/cm, whichever is greater; 100 to 200 mS/cm $\pm 1.0\%$ of reading</td> </tr> <tr> <td>Resolution</td> <td>0.001, 0.01, or 0.1 μS (range dependent)</td> </tr> </table>	Range	0 to 200 mS/cm	Accuracy	0 to 100 mS/cm $\pm 0.5\%$ of reading or 0.001 mS/cm, whichever is greater; 100 to 200 mS/cm $\pm 1.0\%$ of reading	Resolution	0.001, 0.01, or 0.1 μS (range dependent)
Range	0 to 200 mS/cm						
Accuracy	0 to 100 mS/cm $\pm 0.5\%$ of reading or 0.001 mS/cm, whichever is greater; 100 to 200 mS/cm $\pm 1.0\%$ of reading						
Resolution	0.001, 0.01, or 0.1 μS (range dependent)						
Salinity (See YSI.com for additional calculated parameters) Units: $\mu\text{S}/\text{cm}$, mS/cm	<table border="0"> <tr> <td>Range</td> <td>0 to 70 ppt</td> </tr> <tr> <td>Accuracy</td> <td>$\pm 1.0\%$ of reading or ± 0.1 ppt, whichever is greater</td> </tr> <tr> <td>Resolution</td> <td>0.01 ppt</td> </tr> </table>	Range	0 to 70 ppt	Accuracy	$\pm 1.0\%$ of reading or ± 0.1 ppt, whichever is greater	Resolution	0.01 ppt
Range	0 to 70 ppt						
Accuracy	$\pm 1.0\%$ of reading or ± 0.1 ppt, whichever is greater						
Resolution	0.01 ppt						

Part Numbers

627350-x	ODO RTU Probe Assembly cable lengths available in 1, 4, 10, 20, 30, 50, and 100m options
627370-x	ODO RTU Probe Assembly with Conductivity cable lengths available in 1, 4, 10, 20, 30, 50, and 100m options
627180	Replacement ODO Extended Warranty Sensor Cap

YSI, a Xylem brand
1725 Brannum Lane
Yellow Springs, OH 45387

+1.937.767.7241
info@ysi.com
YSI.com



YSI.com/ODORTU