

# YSI ODO - Optical Dissolved Oxygen Sensor

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YSI Incorporated (YSI) is part of Xylem Analytics and is a leading provider of water measurement solutions.

The YSI ODO is compatible with the NexSens X2 data logger using the RS-485 communication protocol.

## **YSIs Sensor Manual**

[https://www.fondriest.com/pdf/ysi\\_proodo\\_manual.pdf](https://www.fondriest.com/pdf/ysi_proodo_manual.pdf)



# Calibrating the YSI ODO - Optical Dissolved Oxygen Sensor

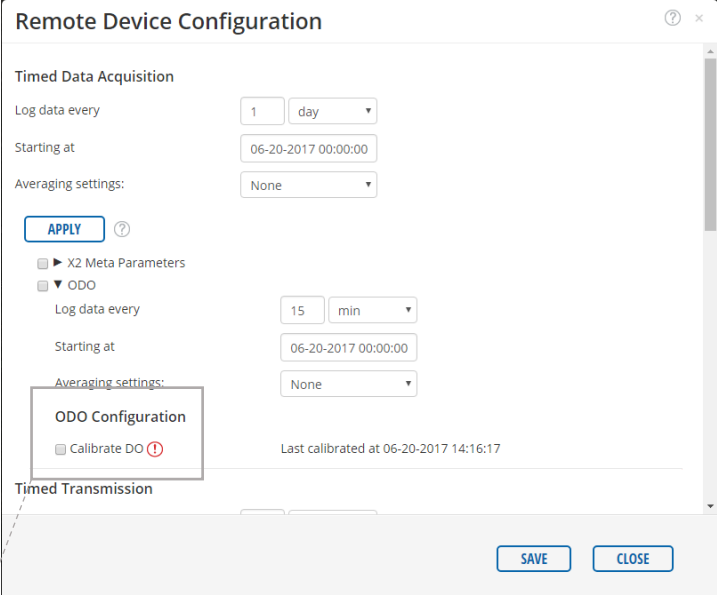
Specific calibration or configuration actions can be performed for each sensor detected by the X2.

Click the arrow next to "ODO" to expand the sensor specific options for the detected YSI ODO

**Note:** Before calibrating, leave a moistened sponge in the bottom of the sleeve in a low-light setting for at least 5 minutes to allow for an accurate calibration.

Check the box to calibrate DO and click **SAVE**


- Ensure that the YSI ODO sensor is in a 100% water saturated air or air-saturated water environment and fully stabilized



The screenshot shows a 'Remote Device Configuration' window with the following sections:

- Timed Data Acquisition:** Log data every (1 day), Starting at (06-20-2017 00:00:00), Averaging settings (None). An 'APPLY' button is present.
- X2 Meta Parameters:** A collapsed section.
- ODO:** Expanded section with Log data every (15 min), Starting at (06-20-2017 00:00:00), and Averaging settings (None).
- ODO Configuration:** A sub-section containing a 'Calibrate DO' checkbox with a red warning icon and the text 'Last calibrated at 06-20-2017 14:16:17'.
- Timed Transmission:** A section at the bottom.

'SAVE' and 'CLOSE' buttons are located at the bottom right of the window.



This is a close-up of the 'ODO Configuration' section from the screenshot. It shows a checkbox labeled 'Calibrate DO' with a red warning icon to its right. To the right of the checkbox, the text 'Last calibrated at 06-20-2017 14:16:17' is visible.

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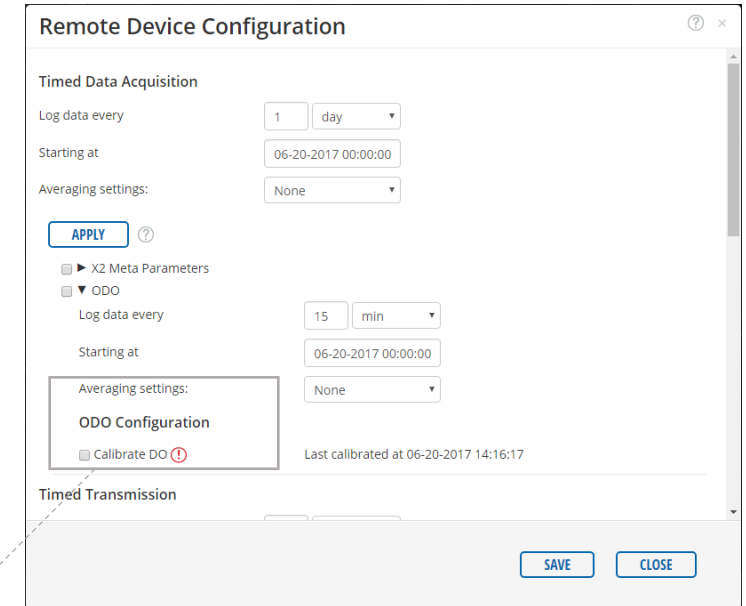
Cycle power on the X2 to force it to immediately start the calibration

- The yellow LED above the X2 logo will be on (solid) while the calibration is taking place

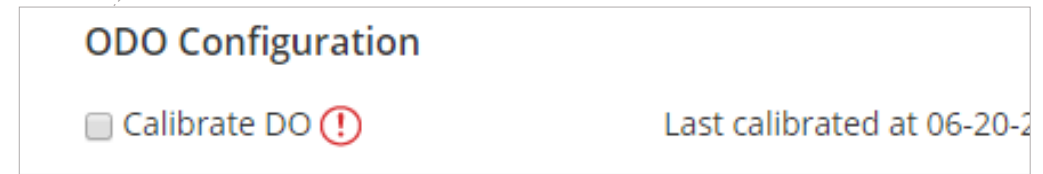
Refresh the WQData LIVE remote device configuration page shortly after the yellow LED turns off

- Ensure that the last calibration time is updated

After the next logging interval, check that the DO% saturation value is close to 100



The screenshot shows a 'Remote Device Configuration' window with several sections. The 'Timed Data Acquisition' section includes 'Log data every' (1 day), 'Starting at' (06-20-2017 00:00:00), and 'Averaging settings' (None). Below this is an 'APPLY' button. The 'X2 Meta Parameters' section is expanded to show 'ODO' settings: 'Log data every' (15 min), 'Starting at' (06-20-2017 00:00:00), and 'Averaging settings' (None). A box highlights the 'ODO Configuration' section, which contains a 'Calibrate DO' checkbox with a red warning icon and the text 'Last calibrated at 06-20-2017 14:16:17'. The 'Timed Transmission' section is partially visible at the bottom. 'SAVE' and 'CLOSE' buttons are at the bottom right.



This is a close-up of the 'ODO Configuration' section from the screenshot above. It shows the 'Calibrate DO' checkbox with a red warning icon and the text 'Last calibrated at 06-20-2017 14:16:17'.

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## **Calibration**

While optical ODO sensors are capable of holding their calibration for months at a time, the manufacturer recommends cleaning and spot-checking readings frequently for the highest data quality. Specific information on general sensor maintenance is provided on Page 30 of the manufacturer's sensor manual.

The optical sensor cap should be replaced annually for best performance. Each cap has a set of unique calibration constants which must be committed to the X2 for the most accurate readings.

Please contact NexSens with this information when new caps are acquired so these constants may be updated.