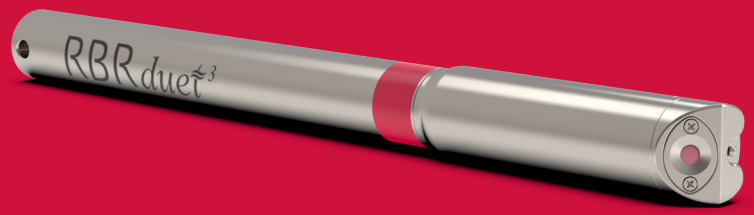
RBR

MEASURE THE BLUE PLANET

rbr-global.com

RBR*duet*³ T.ODO

QUICK START GUIDE



The RBR*duet*³ T.ODO is a small temperature and optical dissolved oxygen instrument with low power consumption and high stability. The |fast variant has a time constant of only 1s and is well suited for profiling applications. The |slow version has a protective layer to facilitate automated cleaning by a wiper, which keeps it biofouling-free during long-term moored deployments.

Included with your instrument

- Storage cap
- One AA-type battery
- O-rings
- O-ring removal tool
- Silicone compound
- Desiccant
- USB-C desktop cable with adaptor
- USB stick containing Ruskin software and documentation
- Calibration certificates*

* Calibration certificates are available in Ruskin. To download, connect your instrument, go to **Information**, and select the **Download** button.

Ruskin software

Find Ruskin software for Mac and PC on the USB stick included with your instrument, or visit rbr-global.com/products/software.

Deploy

1. Connect the USB-C desktop cable to the instrument. The instrument will appear on Ruskin.
2. Select the required **Sampling** mode and speed.
3. Select **UTC** or **Local** to synchronise the instrument clock to the computer.
4. Choose whether to start **Now** or enter your desired **Start** date/time.
5. Ensure the **Battery** selection reflects the chemistry installed.
6. Review the estimated **End** date to ensure it fulfils the deployment requirements. Longer deployments can be achieved with better battery chemistry or lower sampling speeds.
7. Click **Enable** to start the deployment.

Download

1. Connect to the instrument.
2. Select the **Download...** button and choose a location to store the dataset.

Protect your optode

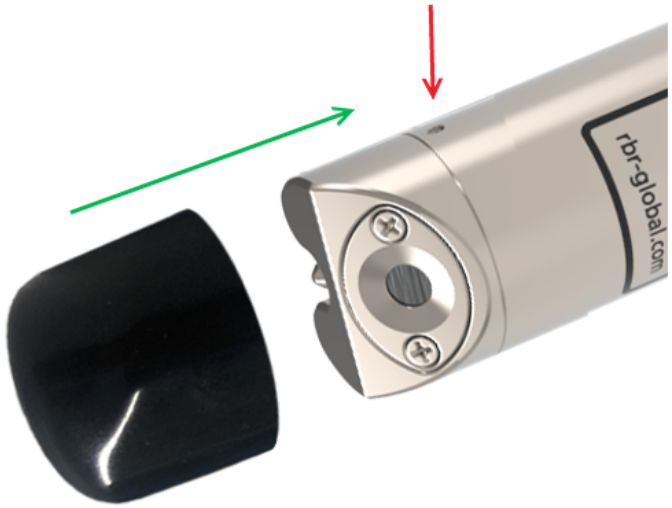
The RBR optical dissolved oxygen sensors have an oxygen-sensitive substrate that requires special care. Any damage will permanently affect performance.

- Avoid direct sunlight
- Never touch the sensitive element while cleaning or handling
- Use the storage cap when the sensor is not in use



Short-term storage (three weeks or less)

1. Fill the storage cap with distilled water until about 50% full.
2. Place the cap on the sensor and gently push it past the locking pin.



3. Refill the water once a week during storage.

Long-term storage (more than three weeks)

Note: For longer storage periods, store your sensor dry.

1. Place an empty cap on the sensor and gently push it past the locking pin.
2. Before deployment, fill the storage cap with distilled water like for short-term storage, place it on the sensor, and rehydrate for **five** days.

   Note: It takes up to five days for a dry optode to equilibrate after being placed in water. Insufficient hydrating time before deployment may lead to unreliable data.

   Note: Always remove the batteries from the instrument during long-term storage! Doing so will prevent internal damage due to battery leakage and/or corrosion.

Deployment considerations

RBR ships the RBR*duet*³ T.ODO instruments with a hydrated storage cap on, new lithium iron batteries and fresh desiccant capsules included, and the O-rings installed, so that the instrument is ready for its first deployment.

*Note: Long transportation times and low cabin pressure may result in the loss of water. Verify that the storage cap is still wet. If not, rehydrate the optode for **five** days before deployment.*

For any subsequent deployment:

1. Hydrate the optode for at least **five** days.
2. Install new batteries.

   Note: For replacement, use any battery chemistry except for lithium thionyl chloride (LTC). The optode will not work correctly on the LTC battery.

3. Install fresh desiccant (orange).

Fresh desiccant  Exhausted desiccant

4. Inspect, clean, replace, and lubricate O-rings.

   Note: Always remove the batteries from the instrument during long-term storage! Doing so will prevent internal damage due to battery leakage and/or corrosion.

Support

To access support within the Ruskin app, navigate to **Help** > **Comment on Ruskin...**.
For technical support, please reach out to support@rbr-global.com, call +1 613 599 8900 (UTC-5), or visit rbr-global.com/support/service.