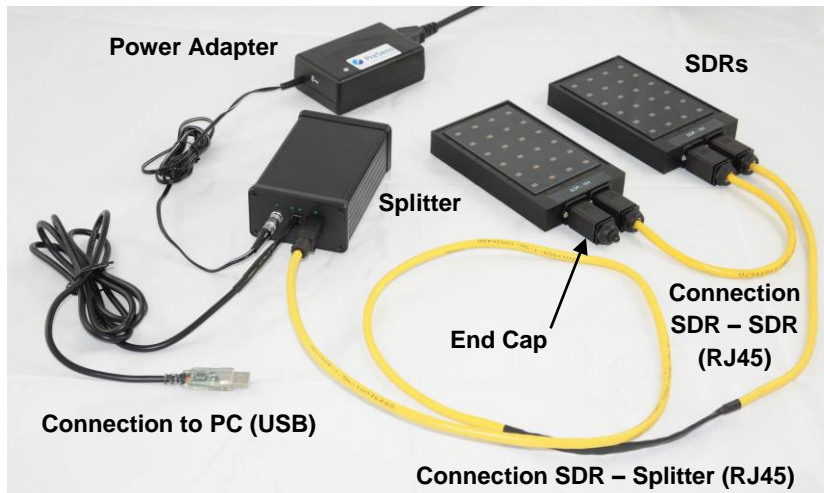


# SDR SensorDish® Reader –

## Getting Started

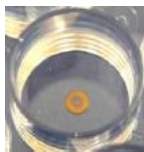
1. Connect the components as shown (here: 1 Basic Set + 1 Extension Set):



- Attach the **End Cap** to the last SDR.
  - Only the SDRs are kept in the incubator, not the Splitter.
2. Insert the supplied CD or download the file from our homepage (<http://www.presens.de/support-services/download-center/software.html>), choose the file Setup\_SDR\_v4.0.0.exe (or a higher version) and follow onscreen instructions.
    - Please use either English (US) or German **regional settings** of your PC. Open previous measurements always with the same regional settings they were created with.
    - No other software should run simultaneously with the SDR measurement (incl. internet browser). Deactivate energy-saving options, and automatic updates.
  3. Connect the system to your PC / laptop with the USB serial cable. The installation wizard opens (not in Windows 7 or higher versions, which install the driver automatically).
  4. Choose “no, not this time” (only Windows XP and Vista).
  5. Install the USB serial cable driver: Follow onscreen instructions (only Windows XP and Vista). The supplied CD has to be inserted, or the file has to be downloaded from our homepage.
  6. Start the software SDR\_v4.0.0 (or higher).
  7. Log in as Administrator: User name: admin, default password: admin.
  8. Press the button **Connect SDRs**:
    - One tab per SDR (Serial No. in heading) is created. For each SDR you can switch between Graph, Last Values and Info. window.
  9. Choose measurement interval, parameter (oxygen or pH), the Batch No. of your SensorDish®, measurement temperature, and, for oxygen measurements, the oxygen unit. The Batch No. is printed on the silver package of the SensorDish®. For new batches, please download the calibration

data file from [www.presens.de/support-services/download-center/calibration-data.html](http://www.presens.de/support-services/download-center/calibration-data.html) and upload it using **Calibration / Upload Calibration Dataset**. OD stands for OxoDish®, HD for HydroDish®. You can also create a user-defined Batch-No.

- For **Measurement Temperature** use an independent temperature sensor. The temperature should be **constant** during measurement. Equilibration can take several hours. If possible, pre-equilibrate the medium to minimize temperature effects. Avoid unnecessary opening of the climate chamber.
  - Set the current air pressure, if known. You need an external pressure meter for this. Default value is the pressure at calibration.
  - For marine applications please set the Salinity value.
  - For long measurements, choose an **appropriate measurement interval** (e.g. 5 min). The interval can be changed during measurement.
10. Put the SensorDish® with your sample on the SDR. It must have the correct orientation and rest properly in the groove. The well numbers are engraved in the SDR. Allow the sensor to hydrate for 20 min after first exposure to liquid.
- Use control wells (medium without organisms) and 3 - 4 replicates per sample.
  - Choose oxygen for the OxoDish® (orange sensor) and pH for the HydroDish® (white sensor).



**Orange oxygen sensor spot in an OxoDish® (low well)**



**White pH sensor spot in a HydroDish® (low well)**

11. Press **Single Scan** to read out immediately (values are not stored).
12. If necessary, perform a One-Point Adjustment (details: see Instruction Manual).
13. To start a kinetic, press **Log Measurement** and choose file name and location. If more than one SDR is connected, press **Log All Meas..** Data are stored automatically.
- Do not move the .xml file and folder of the same name separately! Otherwise, data will be lost.
  - Do not rename files manually in the Windows Explorer. Use the **Rename Measurement** button.
14. Press **START** to start the measurements of all connected SDRs.
- It is not possible to start, pause or stop them at different times.
15. To stop all measurements, press **STOP/PAUSE**. If you press **CONTINUE**, the measurement continues and data are stored in the same file as before the break.
16. After stopping, data can be exported to Excel or ASCII format using **File / Export Measurements**.
17. The current measurement is closed by pressing the button **Close Measurement**. Pressing **Close All Measurements** closes all measurements simultaneously.

#### Handling of the SensorDishes®

- Avoid exposure of the sensor to light whenever it is possible. Light will lead to signal drift.
- Unpack the SensorDish® just before measurement and do not re-use it! It cannot be cleaned.