QUICK GUIDE | Witrox instrument

1.3 LOLIGO® SYSTEMS

FIRST TIME USE

1 Download the latest Witrox compatible software (WitroxView (free), AutoResp or OmniCTRL) from our website (*www.loligosystems.com/downloads*). Follow the instructions on the screen and then restart the PC.

FOR EACH TRIAL

2 Connect the (green) **WiBu copy protection dongle** (containning the software license) to a USB port on the same PC (2a).

NB. Please only run one Loligo® software at a time from a single PC.

3 Connect the recommended **long-range Bluetooth adapter** to a USB port on the same PC and let Windows initialize it (2b). Disable any built-in/other Bluetooth radios on your PC.

4

a. Connect the power adapter for the Witrox instrument to a wall outlet and then the USB cable to the backside socket (alternatively, power the Witrox directly from a USB port).

b. Connect the PT1000 temperature sensor to the socket labelled "Temp" on the front of the Witrox instrument.

c. Connect the fiber optic oxygen sensor(s) to the SMA ports labelled **CH1-CH4** on the front of the Witrox instrument.

d. Turn on the Witrox instrument by pushing the power button (lower left corner). Notice that the instrument will time out after 300 seconds of inactivity.

CALIBRATION, SERVICE & MAINTENANCE

5 Each oxygen sensor must be calibrated before use. Follow these steps for a manual calibration (5.1 and 5.2):

a. Place the sensor tip in a mixed air-equilibrated water sample. This can be achieved by purging atmospheric air into sample water, e.g. with an air pump.

b. Wait for the phase reading (sensor signal) to stabilize and then click **Read current values** to save the current value as the HIGH calibration value (100 % air saturation).

c. Transfer the sensor to an oxygen free water sample, e.g. by purging nitrogen gas into sample water or by dissolving ~10 grams of Na_2SO_3 in 500 ml of distilled water.

d. Wait for the phase reading to stabilize and then click **Read current values** to save the current sensor signals as the LOW calibration value (0 % air saturation).

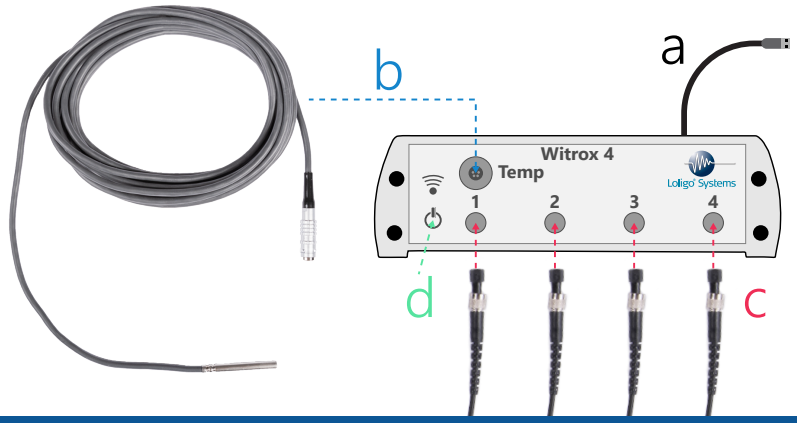
NB. The software calibration menu may vary depending on the software being used. Refer to the user manual of the preferred software for more info.

6 To clean the oxygen sensor(s), use a mild soap solution or bleach, and rinse with demi water. Then dry.

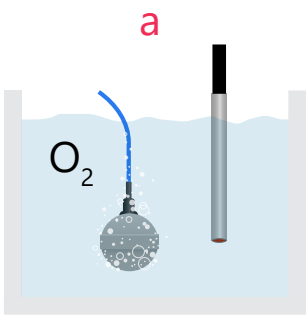
7 Store oxygen sensors in a dark place between trials to avoid exposing the fluorescent dye to UV light. UV light will bleach the sensor dye and decrease the signal strength (amplitude).

2

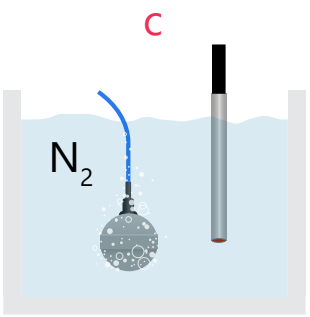
4



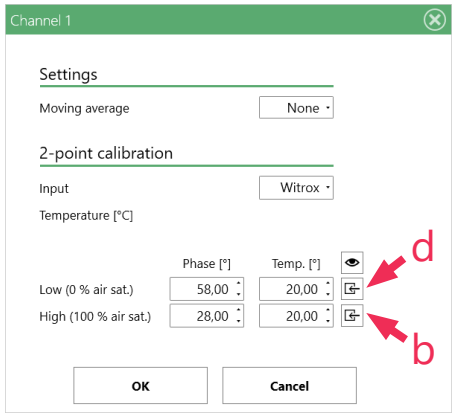
5.1



100 % air sat.

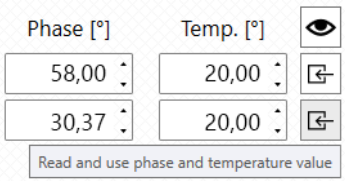


0 % air sat.

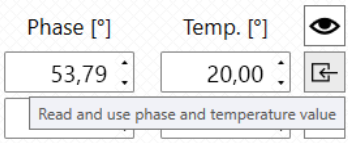


5.2

b



d



6