

# KWS-670A Portable Dissolved Oxygen Analyzer

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## 1.Introduction

This product uses the principle of fluorescence method to monitor dissolved oxygen data. Compared with the traditional electrode method, it has the characteristics of accurate and stable monitoring data, strong resistance to environmental interference, fast measurement speed, and long service life. In addition, the fluorescent film of this detector breaks the foreign monopoly technology and is a hard fluorescent film developed domestically. It also has the characteristics of scratch resistance and not easy to fall off.

## 2.Features

- The fluorescent membrane of the dissolved oxygen probe is replaceable.
- One-touch measurement, press the measurement button to observe the data at any time.
- Night backlight, clear and visible at night.
- Long standby time, the device automatically shuts down after the test is completed.
- The display screen uses an ink screen, the observation experience of a paper book, eye protection without glare, strong light is clearly visible

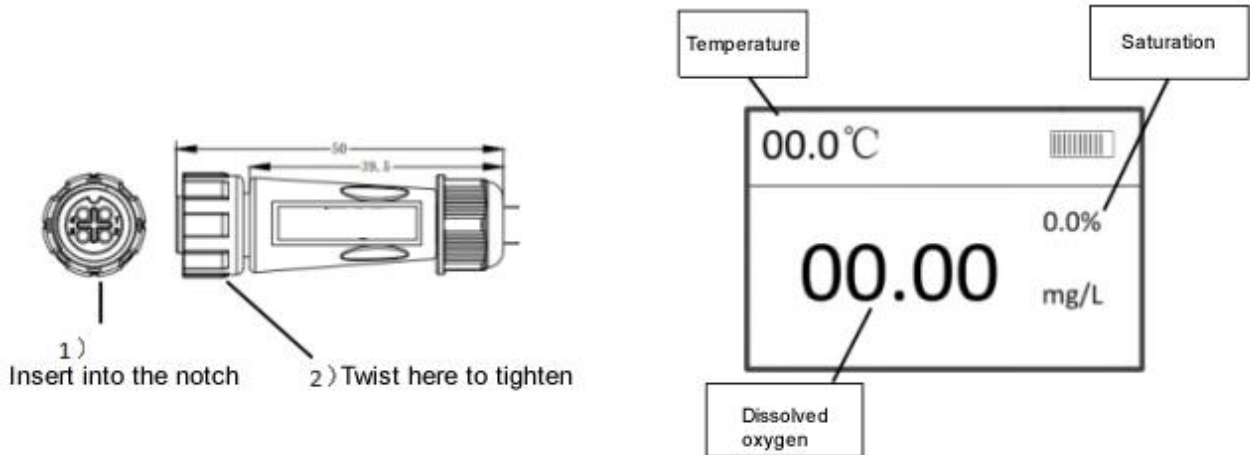
## 3.Technical Parameters

Measuring principle	Fluorescence method
Range	0-20mg/L
Resolution	0.01mg/L,0.1℃
Accuracy	±3%
Repeatability	±0.3mg/L
Response time (T90) <sup>1</sup>	<120s
Temperature accuracy	±0.3℃
Temperature compensation	Automatic temperature compensation
Working conditions	0-50℃
Calibration method	One-point calibration
Life of fluorescent film head	>1 year

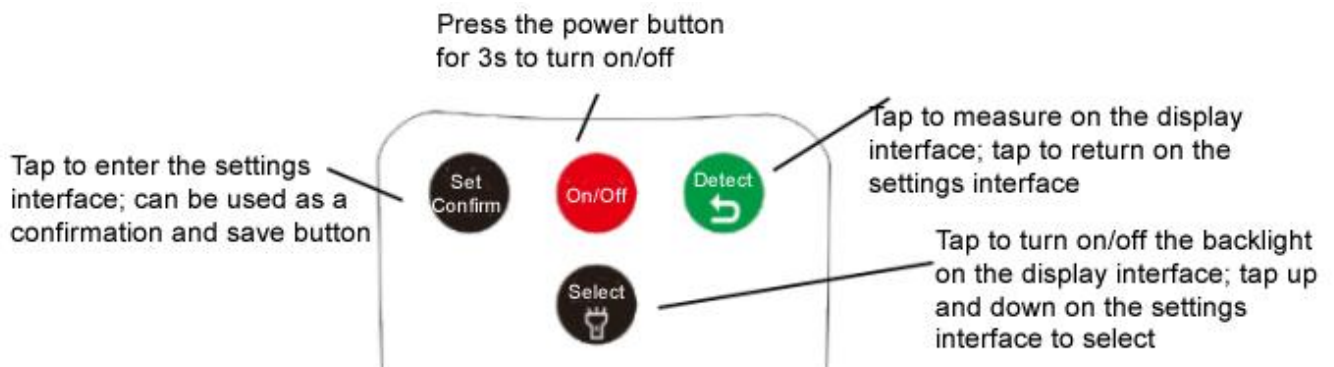
1. Response time (T90): refers to the product's ability to achieve 90% of the accuracy of the measurement value within the specified time.

## 4. User Guide

### 4.1 Product Installation and Display Instructions

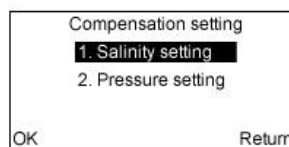
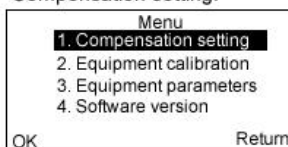


### 4.2 Key Function Description



### 4.3 Compensation setting

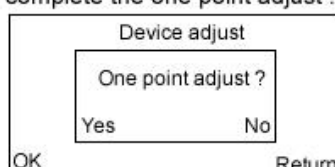
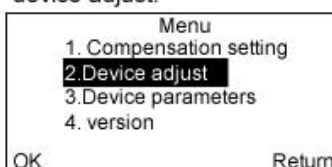
- (1) Click the setting key to enter the setting interface and select Compensation setting. (2) Enter the compensation setting interface and select salinity setting. (3) Enter the salinity setting interface and select salinity up and down. (4) Press the select key to set the salinity and press the OK key to save the setting.



The pressure setting process is the same as the salinity setting process.

### 4.4 Calibration Setting

- (1) Click the setting key to enter the setting interface and select device adjust. (2) Press the select key to select yes, and press the confirm key to complete the one point adjust.

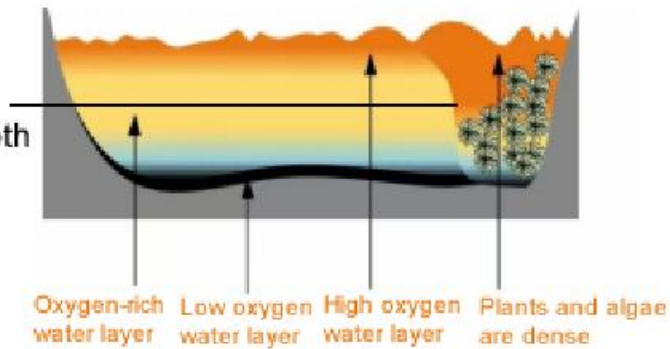


Note: After the probe calibration is completed, the saturation will be displayed in the calibration water body around 100%

## 4.5 Product Installation Instructions

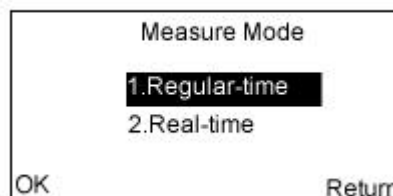
Users can place the probe at different depths in the water layer for measurement. Please note that the included float must be installed during the measurement process to prevent the probe from touching the bottom, which may result in inaccurate measurement data.

Recommended to be placed at mid-water depth



## 4.6 Measurement Mode Selection

The product measurement mode is divided into timed measurement and real-time detection. The default state is timed measurement. The user generally presses once and the measurement accuracy is about 90%. You can measure and confirm multiple times according to the measurement needs. The real-time monitoring mode can be placed in water to observe the change data of dissolved oxygen in real time. Users can choose different measurement modes according to their needs.



Reference for accuracy of each measurement in timing mode					
Number	First time	Second time	Third time	Fourth time	Fifth time
Accuracy	87-92%	90-93%	93-95%	94-97%	95-99%

## 5.Precautions

- (1) Avoid exposing the sensor membrane head to the sun during storage.
- (2) Avoid applying any mechanical stress (pressure, scratches, etc.) directly to the fluorescent membrane during use.

- (3) Do not touch the fluorescent membrane directly with your hands, and do not scratch it with hard objects such as nails.
- (4) Do not use organic solvents such as alcohol and acetone to clean the fluorescent membrane head.
- (5) It is recommended to replace the fluorescent cap of the sensor every 2 to 3 years.
- (6) Check the sensor housing regularly for damage due to corrosion or other reasons.
- (7) After a period of use, the probe may be contaminated by algae and needs to be cleaned regularly. Use a damp, soft cloth or a sponge with water to gently wipe the front fluorescent membrane. For some stubborn dirt, add some household detergent to the water for cleaning.
- (8) When not in use, please place the front end of the sensor in a protective cover with a damp sponge to keep the sensor moist for a long time so that the probe can still be in good condition when it is used next time.
- (9) If the sensor is in a dry state for a long time, the measurement results will drift, resulting in inaccurate measurement data. If it is in a dry state, it needs to be soaked in water for more than 24-48 hours before continuing to work.