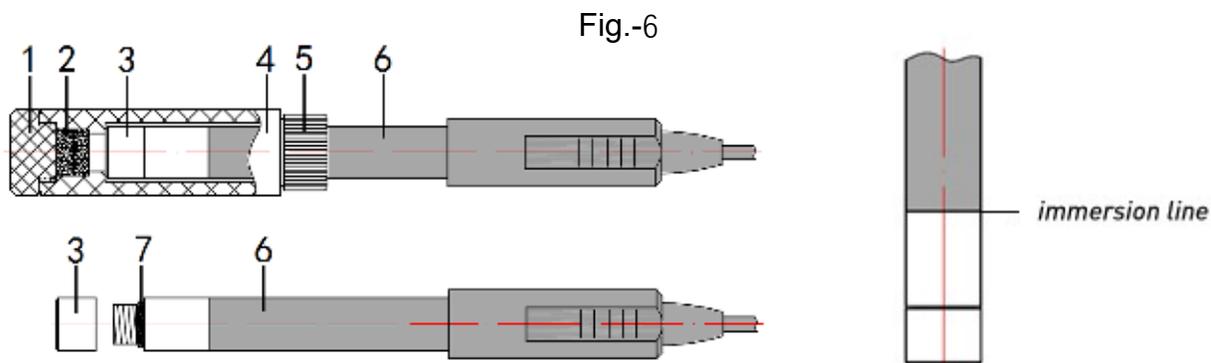


# APERA INSTRUMENTS DO803 Optical Dissolved Oxygen Probe

## 1. Probe Structure

The instruments DO803 optical dissolved oxygen probe has a cable length of 3m and built-in temperature sensor for automatic temperature compensation. The electrode structure is shown in Fig.-6



|   |  |
|---|--|
| 1. Bottom cover of the calibration sleeve | 5. Locking cap   |
| 2. Sponge for water storage               | 6. Optical DO electrode  |
| 3. Sensor cap                             | 7. O ring  |
| 4. Calibration sleeve                     | Immersion line:<br>The tested solution should be above this line |

## 2. Probe Maintenance

The sensor cap of the optical DO electrode must be kept in a moist environment. If the surface coating of the sensor cap dries out, the measured value will be unstable or the response will be slow. The electrode calibration sleeve is used to store the probe.

- (A) Short-term storage (less than 30 days): The probe head is kept in the calibration sleeve. **Always keep the sponge inside the calibration sleeve wet. Several drops of clean water should be added to a dry sponge (let the sponge be saturated, but not dripping)**, and tighten the lock cap, so that the sensor cap is kept in the moist-saturated air.
- (B) Long-term storage (greater than 30 days): The probe head is kept in the calibration sleeve. Check whether the water storage sponge is moist every 30 days or user can store the electrode in a beaker containing water.

- (C) Before the first use, unscrew the calibration sleeve to check if the sponge is wet. If the sponge is dry or if the electrode is exposed to dry air for more than 8 hours, the surface coating of the sensor cap may be completely dry. So the electrode should be immersed in tap water at room temperature 25°C for 24 hours. If the water temperature is low, soaking time is 48-72 hours.
- (D) The sponge cannot be allowed to get stained or moldy, otherwise it will consume or produce oxygen. If stained or moldy, please clean immediately.

### **3. Sensor Cap**

- (A) The sensor cap is an important part of the optical DO probe. The surface coating of the cap cannot be scratched or mechanically worn. Otherwise, the life of the sensor cap will be reduced or the probe will be damaged. Please pay special attention to it when using the probe.
- (B) The surface coating of the sensor cap cannot withstand high temperatures, so the optical DO probe cannot be tested in water above 50 °C.
- (C) If the surface of the sensor cap is contaminated, please do not use alcohol and organic solvents to clean, otherwise it may damage the probe. It can be gently wiped with a soft cloth or paper towels. To disinfect the probe, immerse it in 3% hydrogen peroxide for 15 to 30 minutes and then rinse off with water.
- (D) The sensor cap has a service life of more than 8000 hours. When the probe is not being used, it does not "bleach" luminescence layer; in addition, the storage time will not reduce the life of the probe, so the actual use time of the sensor cap is far more than a year. The major factor affecting the service life of the sensor cap is the surface coating being damaged under external force. So the key is to protect the sensor cap from external damage.
- (E) If the sensor cap is damaged or deteriorated, users need to purchase a new one. Every new cap has a set of calibration codes which need to be input into the instrument. The specific input method will be described in the instruction manual of sensor cap.
- (F) The probe that comes with the instrument can be used directly without the input of the calibration codes. So users should not take off the sensor cap when it is not in use. Nor should one swap the caps from different instruments. When being installed, the sensor cap must be tightened and the interior cannot be contaminated or wet.

## **Limited Warranty**

We warrant this DO803 optical DO probe (excluding sensor cap) to be free from defects in material and workmanship and agrees to repair or replace free of charge, at option of APERA INSTRUMENTS (Europe) GmbH, any malfunctioned or damaged product attributable to responsibility of APERA INSTRUMENTS (Europe) GmbH for a period of Two Years ( 1 year for DO8032 sensor cap) from the delivery.

This limited warranty does not cover any damages due to:

- i. transportation;
- ii. storage;
- iii. improper use;
- iv. failure to follow the product instructions or to perform any preventive maintenance;
- v. modifications;
- vi. combination or use with any products, materials, processes, systems or other matter not provided or authorized in writing by us;
- vii. unauthorized repair;
- viii. normal wear and tear; or
- ix. external causes such as accidents, abuse, or other actions or events beyond our reasonable control.

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