

# OxyGuard Micro Probe

*Very Small Size Dissolved Oxygen Probe*



*The smallest version is  
12mm in diameter and 20mm long*

The OxyGuard Micro Probe is a membrane covered galvanic cell that generates an electrical signal proportional to the oxygen pressure it senses. It is an extremely small version of the probe that has become the preferred choice of dissolved oxygen probe for fish farmers all over the world.

It is available in two versions, both 12mm in diameter. The smaller version, 20 mm long, is for moulding into devices affixed to fish to track living conditions in the wild. It will then provide a continuous signal proportional to the dissolved oxygen in the water the fish is in.

The second version is 27mm long and is for fixing into devices rather than being moulded into devices.

The main advantage of the OxyGuard probe when used in very small devices is that it does not need an external electrical supply to make its measurement - it generates its own output signal. Its design is such that the chemical changes inside the probe necessary to generate the output signal do not affect the sensitivity of the probe within a lifetime of decades.

## Technical Advantages

- Galvanic type.
- No warm up time.
- Remarkably short response time.
- Excellent long-term stability.
- Probe renovation easy and fast when needed.
- Self-polarizing.
- Fully temperature compensated.
- Very small size, very light weight.
- Tough membrane.
- Spares available at very low price.

## Specifications

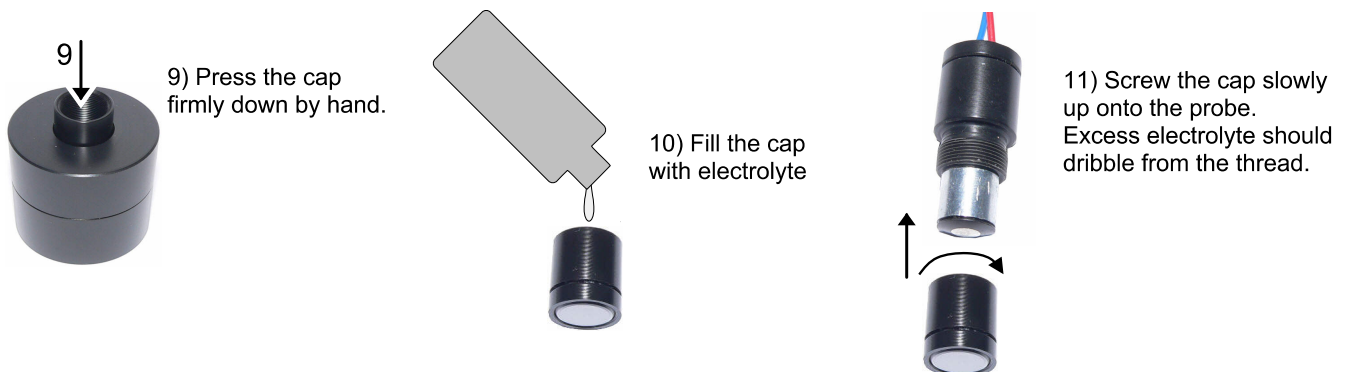
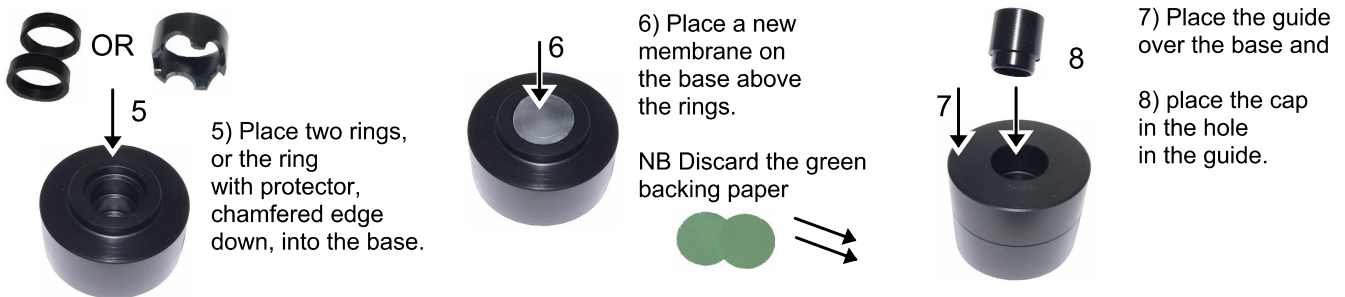
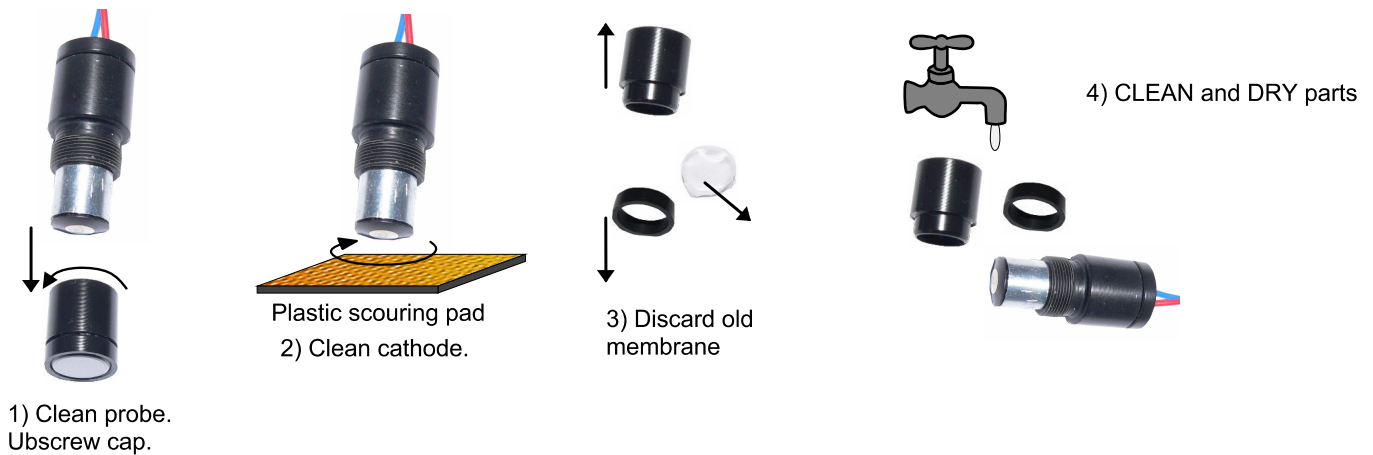
<b>Dimensions:</b>	Diameter = 12 mm, length = 27 mm.
<b>Weight:</b>	Approx. 3 grams plus leads.
<b>Principle:</b>	Galvanic cell, self polarizing, self temperature-compensating.
<b>Range and Output:</b>	0 to 40 millivolts = 0 to 200% saturation (approx)
<b>Flow Requirements, water:</b>	Minimum flow dependent on DO and temperature, typically 1 cm/sec.
<b>Operating Conditions:</b>	-5 to 45°C.
<b>Standard Accessories:</b>	As standard 5 spare membranes, 50 ml electrolyte and a cathode cleaning pad are shipped with each probe.

# OxyGuard Micro Probe - probe renovation

**Probe Renovation** should only be performed if the membrane is damaged, or if it is not possible to calibrate to the correct value after a long period of use. It should NOT be performed on a regular basis.

Clean the outer of the probe. Unscrew the cap. Rinse the probe and inspect the cathode. Remove any deposits using the brown plastic scouring pad provided with the unit. The cathode **MUST NOT BE POLISHED**.

Press a knife into the gap between the ring and cap to remove the ring. Discard the old membrane, clean and dry the parts. Fit a new membrane to the cap as shown, and fill it with electrolyte. Screw the filled cap slowly onto the probe. Excess electrolyte will dribble from the thread. Calibrate the probe. Re-calibrate after a few hours, since the probe will take a little time to settle down after renovation.



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