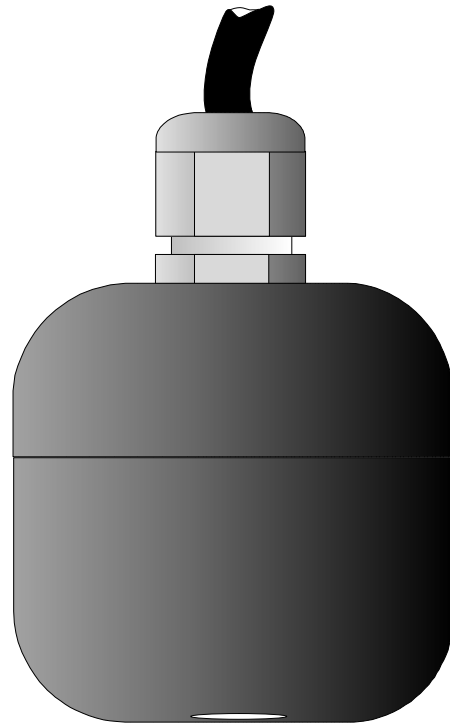


# OxyGuard Standard Oxygen Probe

*Probe for High and Low Levels of both Dissolved and Gaseous Oxygen*



The **OxyGuard** probe is a membrane covered galvanic cell that generates an electrical signal proportional to the oxygen pressure it senses, no matter whether it is in water, air or another medium. The **OxyGuard** probe is very robust and easy to use. It does not need an external supply - it makes its own electricity. The OxyGuard probe is connected using ordinary cable, and can be placed as required - there is no restriction on cable length. It can measure at a depth of 100 meters or more. The membrane can be wiped with a cloth, a tissue or even with your thumb!

Cleaning the membrane is, apart from an occasional calibration, the only routine maintenance necessary. Probes for use at lower oxygen concentrations (e.g. in waste water treatment) never need service unless the membrane is damaged - and the membrane is very tough. Probes for use at higher oxygen concentrations can, after some 5 years' use, need renovation - which takes just two minutes to perform!

## Technical Advantages

- \* **Extremely high stability - zero adjustment is never needed, calibration seldom.**
- \* **No regular maintenance needs. The robust membrane is easily cleaned, but if damaged can be replaced by anyone - at negligible cost.**
- \* **Correct measurements with flow as low as 1 cm/s.**
- \* **Based on a chemical principle superior to that of traditional DO probes.**
- \* **Galvanic type - True zero.**
- \* **Built-in temperature compensation.**
- \* **No practical limit to cable length - extension can be made with any type of cable.**
- \* **Wide range of armatures and fixtures - e.g. the AirAlarm for worker safety in areas where fluctuating oxygen levels could occur in the air, a Flow Cell for measuring gases etc. Ask for details.**
- \* **Wide range of accessories - e.g. the EasyCal calibrator, OxyClean compressed air cleaner etc.**

# Technical Information

## Specifications

<b>Dimensions:</b>	Diameter = 58 mm, length = 59 mm. Cable length = 5 m (standard).
<b>Weight:</b>	Weight 450 g incl. cable.
<b>Principle:</b>	Galvanic cell, self polarizing, self temperature-compensating.
<b>Range and Output:</b>	2.5 to 5 millivolts per ppm (mg/l). Output impedance approx. 1 kilohm.
<b>Flow Requirements, water:</b>	Minimum flow dependent on DO and temperature, typically 1 cm/sec.
<b>Operating Conditions:</b>	0 to 40°C, and pressure to 10 atmospheres or more.
<b>Standard Accessories:</b>	Junction box with cable glands etc., spare cap with membrane, spare anode, spare O-ring, electrolyte. These are shipped with every probe.

## Variations and Ordering Information

Choose the probe that suits your use from the following, which shows the oxygen levels that the particular model is best suited to measure. If you cannot find the one you need please consult OxyGuard - we have a wide variety of special versions. Please state the desired range when ordering.

OxyGuard Standard 2-wire oxygen probes:

Type 1 - Aquaculture and similar dissolved oxygen uses.

Detection limit approx. 0.1 mg/l (1% sat):

D0221P: 0-5 to 0-20 mg/l (ppm)    D0221S: 0-50 to 0-200% sat.

D0221PH: 0-10 to 0-40 mg/l (ppm)    D0221SH: 0-100 to 0-400% sat.

Type 2 - Waste water treatment or oxygen in air/gas.

Detection limit approx. 0.03 mg/l (0.3% sat) or 0.1% vol O<sub>2</sub>.

D0222P: 0-5 to 0-20 mg/l (ppm)    D0222S: 0-50 to 0-200% sat. or 0-10 to 0-50% vol. O<sub>2</sub>

D0222O: 0-50 to 0-200% sat. and 0-10 to 0-50% vol. O<sub>2</sub> where traces of oil may be found.

Type 0 - Oxygen gas or oxygen super-saturated water.

Detection limit approx 0.2% vol O<sub>2</sub> or 0.1 mg/l (1% sat).

D0220P: 0-40 to 0-200 mg/l (ppm)    D0220S: 0-400 to 0-2000% sat. or 0-100% vol. O<sub>2</sub>

You can also obtain probes that incorporate temperature sensors - these have the same ranges as above, just replace D022 with D024 for a probe with a precision NTC sensor or with D025 for a probe with a PT100 sensor. These have 4 and 5 core cables respectively.

All of these can be ordered with an M18 threaded part at the top for screwing into a flange: add the suffix **M18** for this option.

## Armatures, Fixtures and Accessories.

There is a very wide range of armatures, fixtures and accessories helpful when mounting and using the OxyGuard Standard Probe. These are listed in the "Oxygen Probe Accessories" brochure. Some are described in detail in separate brochures.