

Dryden Oxygen Probe DOP014

The oxygen probe is a high performance robust oxygen probe manufactured by Dryden Aqua for the measurement of oxygen in water and air. The probe provides for a low cost, easy maintenance sensor suitable for connection to APCS signal conditioning modules. The probe high output increases accuracy and reduces electrical noise problems. The unique shape provides a streamlined approach, and the rubber bumper provides additional protection against damage and data errors from the impact of the probes against objects such as tank sides. Typical applications include:



- Aquaculture
- Rivers and lakes
- Sewerage effluent
- Industrial waste water treatment systems
- Hydroponics
- Almost any application where you need to measure the oxygen content of a liquid
- Air quality monitoring, environmental warehouses

Technical Properties

The oxygen probe galvanic cell acts like a battery, there are two dissimilar metals in a conducting electrolyte solution. The anode is zinc and the cathode is silver, oxidation takes place on the surface of the anode to form a white deposit of zinc oxide. The rate of oxidation is a function of the diffusion of oxygen through a semi permeable Teflon membrane, which is in turn directly related to the partial pressure of oxygen in solution, or in the air. A potential difference is established in the probe, the mv output being approximately 6mv per 1 mg/l of dissolved oxygen. This gives the probe a reading of approximately 60mv when in air.

Typical Specifications

- No zero point error
- Very accurate usually better than +/- 0.2mg/l
- Calibrate to 100% in air
- Self-temperature compensating from 0 to 40 deg C
- Connect with good quality two core cable, tested up to 2000m with ordinary cable
- Very stable, usually 3 to 6 months between calibration checks
- Very easy to maintain, can be serviced in the field
- Strong Teflon membrane
- Very heavy duty sub-sea urethane cable, into epoxy sealed internals
- Diameter = 63 mm, length = 73 mm. Cable length = 5 m (standard)
- Weight 1000 g incl. cable.
- 5 to 7 millivolt per ppm (mg/l) (depends on temp)
- 0 to 40°C, and pressure to 10 atmospheres
- Water flow should be at least 4 cm/sec
- Response time, to change in DO, approx 15 to 30 seconds
- Standard probe is a 2 wire, with temp sensor there are 5 wires
- Temperature sensor Pt100 built in to probe is available as an optional extra

Ordering Codes

DOP014-10 Standard DO probe with 5m cable
DOP014-20 Standard DO probe plus Pt100 sensor with 5m cable

*) Price Extra..

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