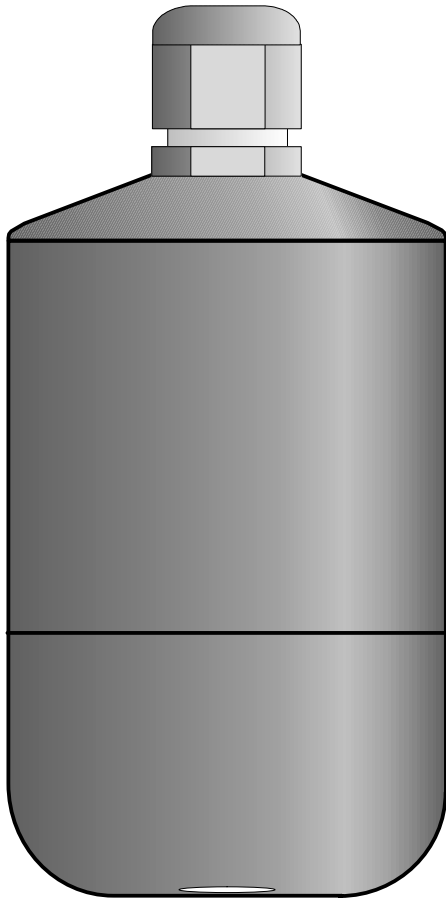


# OxyGuard Model 525

*Combined Oxygen Probe and Transmitter for use with Data Loggers*



The Model 525 is specially designed for use with data loggers in the field. It combines an OxyGuard dissolved oxygen probe and a transmitter with voltage output. It can be used to measure dissolved oxygen as well as oxygen in the air or other gas.

The power consumption and minimum operating voltage are low, enabling it to be powered by solar panel sources. The standard output is 0-2.5 V, the input signal requirement for many data loggers, but the 525 can be delivered with other output voltages on request.

A whole series of outstanding specifications ensure accurate, trouble free measurements under all conditions and no matter how long the connections are.

A special feature of the 525 is a fast warm-up time to enable the use of effective power saving techniques.

## Technical Advantages

- \* 0-2.5 V output - other on request.
- \* Supply from as little as 5.5 volts!
- \* Galvanic isolation between outputs and sensor.
- \* Very low impedance voltage output - approx. 32 ohms.
- \* Fast warm-up time.
- \* Low power consumption.
- \* 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 water flow as low as 1 cm/s.
- \* Galvanic type - True zero.
- \* Built-in temperature compensation.
- \* Wide range of armatures and fixtures for measuring in liquids and gases - ask for details.
- \* Wide range of accessories - e.g. the EasyCal calibrator, OxyClean compressed air cleaner etc.

# Technical Information

## Specifications

Dimensions:	Diameter = 58 mm, length = 88 mm. Standard cable length = 5 m.
Weight:	Approx. 600 g incl. cable.
Measurement Principle:	Galvanic cell, self polarizing, self temperature compensating.
Operating Conditions:	0 to 50°C, max.
Flow Requirements, water:	Minimum flow dependent on DO and temperature, typically less than 1 cm/sec.
Output:	0-2.5 V.
Voltage Output Impedance:	Approx. 32 ohm.
Amplifier Impedance:	Recommended min. 10 kilohm.
Power Supply:	Min. 5.5 VDC, max. 24 VDC. Max. consumption 6 mA.
Galvanic Isolation:	1000 V RMS between sensor and outputs.
Accuracy:	Error less than +/- 2% of actual value when measuring temperature is the same as calibrating temperature (barometric pressure unchanged) and calibrated with the EasyCal. Zero Drift less than 0.1 ppm (mg/l) per month.
Warm-up Time:	25 millisecond.
Response Time:	(To step change in oxygen level) 90% of end value within 1 minute.
Supplied With:	Spare cap fitted with membrane, 50 ml electrolyte, spare anode, calibration screwdriver, cleaning pad, cleaning needle.

## Ordering Information

Choose the Model 525 that suits your use from the following, which shows the typical use for each particular model. If you cannot find the one you need please consult OxyGuard - other ranges, other types, e.g. for measuring pure oxygen, or special versions can be supplied. Please state the desired range when ordering.

Type 1 - Aquaculture, environmental and similar dissolved oxygen uses. Not cross-sensitive to H<sub>2</sub>S.

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

D121P: For continuous measurement up to 35 mg/l. Standard range setting 0-20 mg/l.

D121S: For continuous measurement up to 350%sat. Standard range setting 0-200% sat.

Type 2 - Waste water treatment, low DO levels or oxygen in air/gas. Not cross-sensitive to CO<sub>2</sub>.

Detection limit approx. 0.03 mg/l (0.3% sat) or 0.06% volume O<sub>2</sub>.

D122P: Standard range setting 0-20 mg/l (ppm). 0-5mg/l and 0-10 mg/l also possible.

D122S: Standard range setting 0-200% sat. or 0-50% volume O<sub>2</sub>.

0-50%sat, 0-100%sat, 0-10%vol and 0-25%vol also possible.

