

OxyGuard 505 Probe

Dissolved Oxygen probe with built-in transmitter for Deep Sea or Profile Measurements

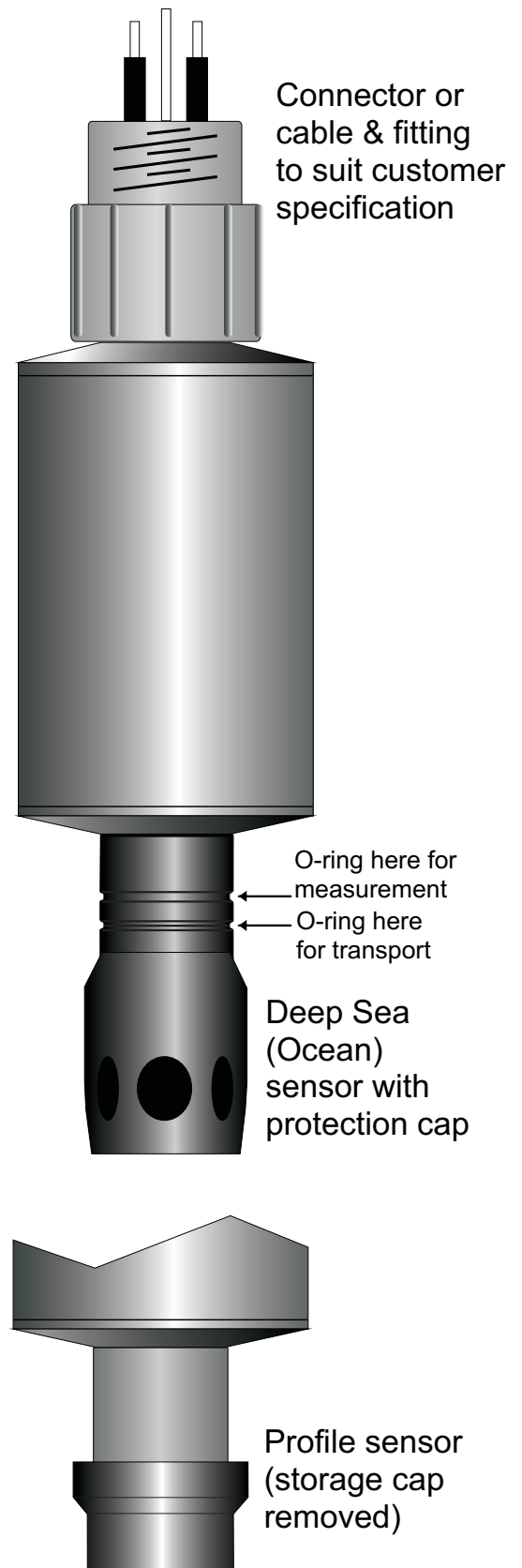
The OxyGuard 505 Probe is a combined dissolved oxygen sensor and transmitter with galvanic isolation. It is designed to be fitted to a sonde or sensor array for measurements in the sea, lakes or similar.

Two types are available. When fitted with an Ocean sensor the OxyGuard 505 can be used at depths up to 2000 m, and when fitted with a Profile sensor it can be used for making profiling measurements where it is moved through the water. The Profile sensor can, however, only be used at depths up to 150 m.

The OxyGuard 505 Probe has separate output signal and power supply. It therefore has two connections for the voltage output and two for the supply. It can be powered by supplies between 8.5 and 24 VDC. The probe can be supplied with a cable, with a cable and connector or be fitted with a connector to suit user specifications.

The output signal is directly proportional to the oxygen partial pressure sensed and is compensated for the temperature characteristics of the membrane. As standard the output signal of 0-5V corresponds to 0-200% saturation dissolved oxygen.

OxyGuard dissolved oxygen sensors have a number of advantages over other types of sensor that make the OxyGuard 505 a very accurate, reliable and easy to use device.



Technical Information

Technical Advantages:

- * Not cross-sensitive to hydrogen sulphide.
- * Galvanic type - the OxyGuard probe makes its own electricity.
 - Uses a chemical principle superior to that of traditional DO probes.
 - Chemistry maintains full sensitivity throughout probe lifetime.
 - No zero error - no zero adjustment needed.
 - No warm-up time - always ready to measure.
 - No external excitation voltage to calibrate.
- * Built-in temperature compensation.
- * Linear output signal.
- * Very tough membrane.
- * Extremely easy - and inexpensive - to maintain.

Ocean Sensor for Deep Sea use:

- * For use at up to 2000 m depth (200 bar pressure)
- * Available with two membrane types:
 - High stability membrane for toughest use.
 - Fast response membrane for quicker measurements.

Profile Sensor for Profiling:

- * Very fast temperature equilibrium time
- * Can measure at 7 knots!
- * Max 150 m depth (15 bar).

Specifications:

Output Signal:	Nominal 0-5 V = 0-200% saturation.
Supply voltage:	8.5 to 24 VDC
Operating Temperature:	0 - 40°C
Temperature Compensation:	Built into probe.
Connections:	To customer specification.
Accuracy:	+/- 1% of measured value, temperature unchanged. +/- 2% of measured value between 5 and 25°C

With Ocean sensor:

Operating Pressure:	Max 200 bar (2000 m submersion).
Response Time:	With fast response membrane 10 sec. to 90% at unchanged temperature.

With Profile sensor:

Operating Pressure:	Max 15 bar (150m submersion).
Response Time:	90% of final value within 10 sec. at unchanged temperature. Temperature compensation: approx. 10 sec. per 10°C.

Ordering Information:

D1704*: OxyGuard 505 with Profile sensor for % sat measurements.
D17051*: OxyGuard 505 with Ocean sensor for % sat measurements - high stability membrane.
D17052*: OxyGuard 505 with Ocean sensor for % sat measurements - fast response membrane.
*NB Code will be added to type number for cable or desired connector type.

Spares for Profile sensor:

D04XE250: 250 ml electrolyte; D04XM: Set of membranes and O-rings.

Spares for Ocean sensor:

D05XE250: 250 ml electrolyte; D05XMS: Set of high stability membranes and O-rings;
D05XMF: Set of fast response membranes and O-rings.

Data subject to change without notice
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