

THE COMMANDER PROBE

The OxyGuard Commander probe is a membrane-covered galvanic cell that generates an electrical signal proportional to the oxygen pressure it senses, whether it is water, air, gas, wine, oil, or another substance. The probe can measure very small oxygen concentrations in inert or explosive gases, as well as the oxygen content of ambient air and the purity of oxygen gas.

The Commander Probe represents a third-generation development of the OxyGuard Probe. The Commander Probe features a built-in temperature sensor and provides measurements of dissolved oxygen (DO) in mg/l and % saturation. The probe is compatible with OxyGuard's Commander, Pacific, Pond Master and Atlantic systems.

RELIABLE LONG-TERM MEASUREMENT

The Commander probe works like a battery, directly measuring the oxygen concentration it is subjected to. The more oxygen present outside the probe, the more oxygen can diffuse through the membrane to carry electrons between the anode and cathode to generate the output signal.

An OxyGuard probe does not require applied voltage or microprocessor-controlled electronics to function. It continuously measures oxygen and continues to do so until all anode metal has been converted to metal oxide, which takes approx. 30 years.

In practical use in Aquaculture, the Commander probe can maintain calibration for several years and operate for 5 to 7 years before membrane replacement is needed. The replacement procedure is simple and inexpensive.











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Technical information

SPECIFICATIONS

Commander probe

	DIMENSIONS
	Ø: 58 mm, L: 59 mm. Cable length = 7 m (standard)
	WEIGHT
	0.2 kg without cable, 0.5 kg with 7 m cable
	PRINCIPLE
	Galvanic cell, self-polarizing, self-temperature compensating
	RANGE AND OUTPUT
	0-400 %sat. 2.5 to 5 millivolts per ppm (mg/l). Output impedance approx. 1 kilohm
	FLOW REQUIREMENTS, WATER
	Minimum flow dependent on DO and temperature, typically 1 cm/sec
	OPERATING CONDITIONS
	0 to 40°C. submersible to 50 meters
	STANDARD ACCESSORIES
	As standard 10 spare membranes with O-rings, 50 ml electrolyte, and a cathode cleaning pad are shipped with each probe
	RESPONSE TIME
	90% of end value within 1 minute

ORDERING INFORMATION

Probes with 4 wire cable, for Commander, Pacific & Atlantic

D0243C
for mg/l(0-40), % saturation(0-400) and temperature(-5..45C) measurements
D0243CF
Same as D0243C. With an OxyGuard flange included
D0243CM18
Same as D0243C . With a M18 thread included
D0243CW
Same as D0243C , but with a special cable and connector. For wireless systems only, Seacages (wireless unit not included)
D0243CH
For high saturation (pure oxygen). Measures mg/l(0-80), % saturation(0-800) and temperature(-5..45C)
D0243CSH
For SuperHigh saturation. Measures mg/l (0-160), % saturation(0-1600) and temperature(-5..45C)