

Lumi4 DO/TGP

NEW

NEW Combination Optical Dissolved Oxygen Probe & Total Dissolved Gas Pressure Probe in One!

MAXIMUM VERSATILITY FOR MEASUREMENT

Point Four Systems introduces its first combination Optical Dissolved Oxygen (DO) probe with a Total Dissolved Gas Pressure (TGP) sensor.

The Lumi4 DO/TGP probe allows users to simultaneously measure multiple parameters - Total Dissolved Gas Pressure (TGP), Dissolved Oxygen (DO) and temperature with a single probe.

Increasing water temperatures, injection of air in water, algal blooms, or pumping can result in gas supersaturation. This may lead to bubble trauma or sub-lethal toxicological problems for aquatic life. The TGP probe provides an accurate measurement of total dissolved gas pressure. With the addition of an oxygen probe, the user can determine the percentage of TGP attributed to nitrogen & other gases.



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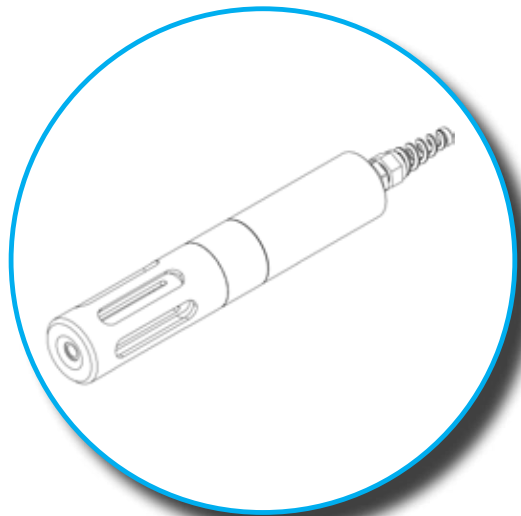
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FAST & EASY MAINTENANCE

The oxygen sensor in the Lumi4 DO/TGP probe has many advantages over previous electro-chemical sensors. The optical dissolved oxygen sensor in the Lumi4 does not consume oxygen, and doesn't require stirring or regular calibration. The design of the optical DO sensor eliminates the need for electrolyte and membranes which can easily be damaged and require frequent servicing. The Lumi4 utilizes a tough, scratch resistant silicon sensing cap that extends the reliability of the sensor under adverse conditions, and is expected to last at least a year under normal operating conditions.

The unique design of the TGP cartridge in the Lumi4 DO/TGP probe allows for quick, and reliable cartridge changes in the field. Simply unscrew the protective cover, and slide on a low cost replacement TGP cartridge.



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Point Four specializes in the design and supply of systems for measuring and controlling levels of oxygen and other gases in water. Established in 1988, Point Four's success is built on our willingness to "go that extra mile"; helping our customers with engineering expertise and the very best after-sales support.

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FEATURES AND BENEFITS

- **Combination DO/TGP sensors**
The user can easily calculate the percentage of TGP attributed to nitrogen.
- **No oxygen consumption**
No stirring or flow control needed
- **Fast & Easy Maintenance**
No regular calibration necessary
Rugged sensor cap instead of fragile membrane
Electrolyte free, no risk of leakage
Error free servicing
- **Multiply Meter Choices**
Connects to Tracker handheld unit with datalogging
Connects to multi channel ION system
Connects to ION Field Case Datalogger (coming soon)
Direct connection to PC utilizing ModBus RS485 communication
Wireless option available



APPLICATIONS

- **Fish Hatcheries**
- **Industrial Effluent**
- **Lakes, Rivers, Oceans**
- **Research Facilities**
- **Hydro-electric dams (waterways)**
- **Fish Farms**
- **Live Fish Transport**
- **Well Monitoring**
- **Aquariums**
- **Water Treatment Plants, Aeration Basins**



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SPECIFICATIONS

Measured:	Measurement Range	Resolution	Accuracy
Total Gas Pressure [mmHg]	0 - 1550 mmHg	1.0 mmHg	+/- 2.0 mmHg
Dissolved Oxygen [%Sat]	0 - 300% Sat	0.1 % Sat	+/- 1.0 % Sat
Temperature [°C]	0 - 50 °C	0.1 °C	+/- 0.2 °C
Barometric Pressure [mmHg]	0 - 1550 mmHg	1.0 mmHg	+/- 2.0 mmHg
Derived			
Total Gas Pressure [% SAT]	0 to 200%	0.1%	+/- 4.0 % Sat
ΔP (Delta P) [mmHg]	+/- 1500 mmHg	1.0 mmHg	+/- 4.0 mmHg
Dissolved Oxygen [mg/L]	0 - 25 mg/L @ 20°C	0.1 mg/L	+/- 0.2 mg/L
Salinity Compensation [ppt]	0 - 50 ppt	1.0 ppt	

Probe Properties	
Measurement Principal	TGP (Membrane Diffusion) O2 (Optical Phase Angle)
Response Time Dissolved Oxygen	~ 95% @ 30 seconds
Response Time Total Gas Pressure	~ 95% @ 5 minutes
Max. Operating Depth	60m [200 ft]
Operating Temperature	0 - 50 °C
Max. Operating Deployment Time	1 month (TGP cartridge service necessary)
Material	Delrin, Silicon, 316 Stainless Steel
Power	5 - 14 VDC, 50mA Nom, 80 mA Peak
Output	Digital RS485 (Modbus Protocol)

Dimensions	Length	Diameter	Weight
	24.6 cm [9.69"]	4.34 cm [1.71"]	0.7 kg [1.5 lbs] w/ 5m of cable

Part No	
1SSP050	Lumi4 Oxygen /TGP/Temp Probe with 5m cable
1SSP070	Lumi4 Replacement DO Cap
1SSP080	Lumi4 Replacement TGP Cartridge
1OXPA012	Extra Probe Cable, 6 Cond PolyU [\$m/\$ft]

* Subject to Change without Notice



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