

OXYGEN CONSUMPTION MEASUREMENT SYSTEM



One channel system
(FOL/C1T175P)

This system is based on a fiber optic fluorescence lifetime measurement of oxygen concentration, the most advanced, efficient and stable technique available. The system reads the oxygen concentration in the medium surrounding the test specimen and, when sealed, yields an accurate measure of the oxygen consumption rate (OCR).

The top loading chamber is constructed of titanium with a glass plug/valve and glass covered stirring bar to eliminate any chemical reaction with the medium as well as oxygen absorption and re-release as the pO₂ falls. Titanium provides a totally inert environment with excellent thermal equilibration characteristics. The chamber is designed to permit analysis of small samples, with volumes low as 175µL.

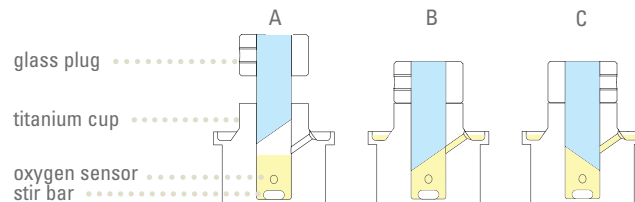
The fluorescence lifetime sensor is integral to the chamber and is capable of thousands of determinations without replacement or maintenance. The technique provides unparalleled stability with virtual immunity to fluorescence amplitude variations over time. Below the chamber is a miniature magnetic stirrer, with speed control, capable of low speed operation to keep the cells in suspension while minimizing damage. Stirring is not a requirement of the sensor.



The control software graphically displays oxygen levels and permits exporting the data to a text file for further analysis using a spreadsheet. Use a circulating water bath to maintain constant temperature control of the chamber and ensure accurate measurements. The system is equipped

with a sensor to monitor temperature. It is available in one, two, three and four channel configurations.

This is a preliminary information sheet. Please call for more information.



Chamber Operation: (A) Push the glass plug slowly into the chamber to expel air through the angled side port. (B) Add reagents through the side port. (C) Rotate the cap 180 degrees to seal the chamber.



Four channel system
(FOL/C4T175P)

Part No.	Description	Unit
FOL/C1T175P	FOL system, 1 channel, 175µL chamber	ea
FOL/C2T175P	FOL system, 2 channels, 175µL chambers	ea
FOL/C3T175P	FOL system, 3 channels, 175µL chambers	ea
FOL/C4T175P	FOL system, 4 channels, 175µL chambers	ea
FOL/C1T500P	FOL system, 1 channel, 500µL chamber	ea
FOL/C2T500P	FOL system, 2 channels, 500µL chambers	ea
FOL/C3T500P	FOL system, 3 channels, 500µL chambers	ea
FOL/C4T500P	FOL system, 4 channels, 500µL chambers	ea

© <http://www.instechlabs.com/Oxygen/fiberoptic/fol.php>