

# Dissolved Oxygen

Dissolved Oxygen is a vital measurement in an increasing number of applications, from fish farming/breeding and all forms of aquaculture, to environmental analysis, pollution control and effluent management. Where BOD is also part of the required monitoring or control profile then the Model 9500 can fulfil all the requirements. Designed for ease of use but with all the safe-guards of comprehensive GLP support.

## 9500 - Research

### Set-Up and Go

A simple menu enables the calibration levels, pressure and salinity correction to be entered. These are then stored in non-volatile memory, secure from changes in battery or power supply levels, until future changes are input.

Exit	
Calibration %DO <sub>2</sub>	100.0
Manual Pressure(bar)	1.013
Manual Salinity(g/l)	00
Setup	%DO <sub>2</sub> Status Results

### Memory and Data-logging

Up to 250 readings can be stored in the internal memory manually or automatically. In addition, a further 25 BOD sets (10 samples per set) can also be logged.

S(id)	Vr/Ve	S(0)	S(n)	BOD	DD:HH
1	5.00	5.86	5.86	2.80	3:0
2	5.00	13.75	7.46	34.25	3:0
3	5.00	6.56	5.88	6.30	3:0
4	5.00	10.32	12.79	-9.55	3:0
5	5.00	8.65	6.56	13.25	3:0
6	5.00	7.46	6.56	7.30	3:0
7	5.00	5.86	5.62	4.00	3:0
8	5.00	8.65	6.26	14.75	3:0
9	5.00	10.32	6.26	23.10	3:0
10	5.00	12.79	7.07	31.40	3:0

Setup BOD Results

### BOD Measurement

The BOD test is a measure of the amount of oxygen that is consumed by bacteria as they decompose the organic compounds of waste. BOD values are calculated from stored results of the initial dissolved oxygen level and the level following the 5 day incubation period. Correction is made for the blank and dilution effects. A simple batch processing system ensures easy data entry and calculation.

The 9500 uses two BSI standards for BOD calculation: EN 1889-1:1998 and EN 1889-2:1998.

### Set Up parameters

A specific set up menu for BOD enables Batch and Sample ID entry, Sample Type and Volumes to be input.

12.58 mg/l BOD	
Batch No. : 1	Sample No. : 1
Blank (0) : 12.77	Blank (n) : 0.19
Sample (0) : 12.77	Sample (n) : 0.19
Day(n) - Day(0) = 17 days 22 hrs	
Setup	BOD Results

### Warning Messages

If conditions are not met during the process, warning messages will be displayed giving details of the error conditions.

Exit	
BOD Batch ID	01
Sample ID	01
Sample Type	Blank
Clr Key	Delete Current Batch
Volumes...	
Clock Setup...	
Setup	BOD Results

12.58 mg/l BOD	
! The following BOD condition was not met. ((c1-c2)<=((2*c1)/3)) Press any key to continue	
Setup	BOD Results



- 950 001 Model 9500 supplied with DO<sub>2</sub> probe with ATC (522 008), electrode holder, UK power supply, condensed operating instructions and instruction manual.
- 950 101 Model 9500 supplied as above with US power supply.
- 950 201 Model 9500 supplied as above with European power supply.
- 950 301 Model 9500 supplied as above with 230V leaded power supply.