

MICRO 1000 OZONE METER
PRECISION OZONE METER FOR USE WITH DPD TEST**Technical Specification**

Instrument Type	Single beam colorimeter, pre-programmed for direct-reading of ozone
Optics	Palintest M2 optical system with pulsed blue green LED, wavelength filter and photodetector
Operating Range	0.00 - 3.00 mg/l O ₃
Operating Temperature	0 - 40°C/32 - 104°F
Display	10 mm LCD
Test Cells	For use with round test tubes 10 ml, 20 mm OD, 18 mm path length
Operation	Single button
Blank/Zero Setting	Optionally held in memory or reset for each reading
Internal Calibration	Factory set. Recalibration through internal software
Instrument Case	Splash-proof case with membrane keypad
Power Supply	2 X 1.5 v batteries. Power management system with auto-switch off
Size	Instrument only 173 x 75/44 x 41 mm

OPERATING INSTRUCTIONS**Blank and Sample Tubes**

The ozone meter uses a BLANK TUBE to set the instrument to zero and a SAMPLE TUBE to take the ozone measurement.

A BLANK TUBE is a test tube filled with untreated water sample. A SAMPLE TUBE is a test tube containing the sample to which the DPD tablets have been added in accordance with the test procedure described.

The zero setting can be held in memory or reset each time a reading is taken. If similar water samples are being tested it is not necessary to reset the blank each time a test reading is taken if the water samples are similar and the conditions of use are the same. The blank setting can be confirmed however by simply taking a reading on the blank tube.

To Set Zero

1. Insert BLANK tube into the test chamber.
2. Press and hold down the ON key until the '___' symbol appears on the display (2 seconds).
3. Release the ON key when the display shows '0.00'. This zero setting will be held in memory.

To Take Test Reading

1. Insert the SAMPLE tube into the test chamber.
2. Press the ON key until the display appears (1 second). (Do not hold the key down or the instrument will attempt to blank on the sample and cause errors in the readings).
3. The test reading for the sample will be displayed.

Display	Cause	Action
E1	Coloured, dirty or scratched BLANK tube used.	Re-zero instrument on a correct BLANK in a clean, dry tube.
E2 or E3	a) Incorrect BLANK used to zero instrument. b) Instrument fault.	a) Re-zero instrument on a correct BLANK. b) Return instrument for repair.
E4	Battery voltage too low for correct reading.	Change batteries.
E5	Stray light has affected the reading.	a) Check instrument not placed under a spotlight. Remove instrument from vicinity of spotlights or other bright light sources. b) Check instrument case for damage

The instrument is designed for use with the Palintest DPD Ozone test. The operating range for

this test is 0 - 3.00 mg/l O₃.

DPD OZONE TEST

Method

The Palintest Ozone test is based on a standard DPD procedure. Ozone reacts with DPD indicator in the presence of potassium iodide to produce a pink colouration.

Reagents and Equipment

Palintest DPD No 4 Tablets - Photometer Grade
Pound Test Tubes, 10 ml glass (PT 515/5)

Test Instructions

1. Rinse a test tube with sample leaving two or three drops of sample in the tube.
2. Add one DPD No 4 tablet, crush tablet and then fill the test tube with sample to the 10 ml mark. Mix to dissolve tablet.
3. Take the Ozone meter reading. The reading represents the **ozone** residual as milligrams per litre O₃.

Note

For the determination of ozone in the presence of chlorine or bromine, a supplementary procedure using DPD Glycine tablets must be used. For details of this procedure, see supplementary instruction sheet.

CARE AND MAINTENANCE

Keep test tubes clean, and place the plastic cap on the tube before taking a reading. Avoid test solutions being spilt into the instrument and to prevent excessive amounts of moisture entering the instrument under outdoor conditions. Spillages and moisture should be wiped off immediately with a dry cloth. On no account should solvents or abrasive materials be used to clean the instrument.

Replace the battery when the 'B' symbol remains on the display. To remove the battery compartment cover press gently on the sides of the instrument and pull downwards. Use 2 x 1.5v alkaline 'AA' batteries, MN 1500, LR6, E91, AM3 or equivalent. Remove batteries from instrument if it is to be stored to left unused for a long period of time.

The Micro 1000 Ozone meter is guaranteed for a period of one year from the date of purchase excluding accidental damage or damage caused by unauthorized repair or misuse. Should repair be necessary, contact our Technical Services Department quoting the serial number shown in the battery compartment. his guarantee does not effect statutory rights.