

# DO Meter



EPC / PRODUCTS / APPLICATION / SOFTWARE / ACCESSORIES / CONSUMABLES / SERVICES

**Analytical Technologies Limited**

An ISO 9001 Certified Company

[www.analyticalgroup.net](http://www.analyticalgroup.net)

The DO3000 is a rugged, portable dissolved oxygen (DO) meter designed for demanding applications. This professional, waterproof meter complies with IP67 standards and measures DO, barometric pressure, BOD and temperature. The DO3000 is supplied complete with all accessories to perform a DO measurement packaged into a durable carrying case.

- Preformed PTFE Membrane
- Quick Connect
- Ergonomic, One-Handed Operation

## ►► **Details:**

For the measurement of DO, the DO3000 is supplied with the DO3000 polarographic dissolved oxygen probe. This probe uses preformed PTFE membrane caps that are field replaceable. The probe connects to the meter with a unique quick connect waterproof DIN connector allowing for a secure attachment without a threaded connect that is also easy to remove.

The DO3000 portable DO meter has extended ranges of up to 50 ppm and 600% saturation. When measuring dissolved oxygen, compensations for pressure, temperature and salinity are essential for an accurate reading.

Pressure compensation can be done automatically with the meter's built-in barometer or by manual entry. Calibration of the built-in barometer is done to one point by entering the value of a reference barometer. Pressure is displayed in user-selectable units including mmHg, inHg, atm, psi, kPa, and mbar.

The DO3000 DO probe has a built-in temperature sensor for automatic temperature compensation. The temperature sensor can be calibrated to one or two points. Manual entry of salinity values allows for the salinity compensation of dissolved oxygen readings in saline waters.

Other features include built-in methods and calculations for the measurement of Biological Oxygen Demand (BOD), Oxygen Uptake Rate (OUR) and Specific Oxygen Uptake Rate (SOUR).

The DO3000's log on-demand feature allows users to store up to 400 readings. This data can then be transferred to a PC with the DO3000 USB cable and DO3000 software.

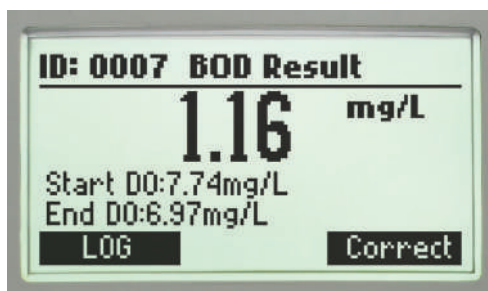
GLP data is accessible by a fixed dedicated key this data includes date, time, pressure, calibrated value, temperature and salinity value of the last calibration.

The high contrast graphic LCD is easy to read outdoors in bright sunlight to low-lit areas with the backlight. A combination of dedicated and virtual keys allows easy, intuitive operation in a choice of languages.

The compact, durable DO3000 carrying case is thermoformed to hold all necessary components for taking a field measurement, including the meter and electrode, beakers, buffer solutions, cleaning solutions and storage solutions.

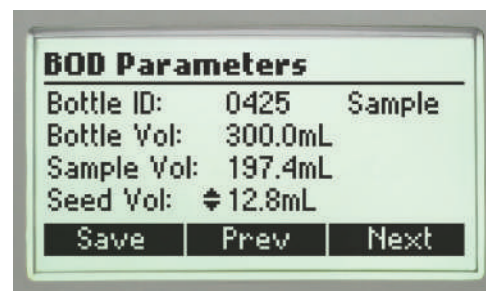
## ► On-screen Features:

### BOD results



BOD is calculated in mg per liter from the difference between the initial and final dissolved oxygen concentration readings.

### BOD parameters and records



All necessary parameters for BOD testing can be set and displayed at once.

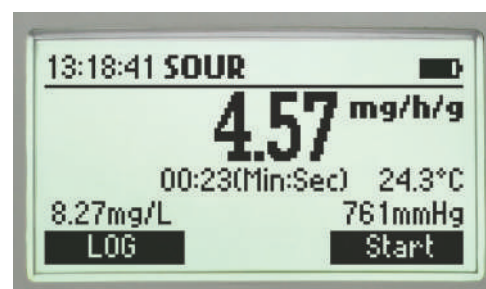
A list of all saved BOD data can be easily retrieved and shown on the LCD display.

### OUR results



Measured in mg of oxygen consumed per L per hour.

### SOUR results



Measured in mg of oxygen consumed per g of volatile suspended solids per hour.

## ►► Features/Benefits:

### Ergonomic, rugged, waterproof (IP67) design Choice of units

- Display dissolved oxygen in % saturation or mg/L Built in Barometer
- Automatic barometric pressure compensation with 1 point calibration Displays pressure in user-selectable units (mmHg, inHg, atm, psi, kPa, mbar) Built-in temperature sensor
- Automatic temperature compensation with one or two point temperature calibration Displays temperature in °C or °F Salinity compensation
- Manual salinity compensation with a selectable salinity value Built-in calculations
- Determination of Biochemical Oxygen Demand (BOD), Oxygen Uptake Rate (OUR) and Specific Oxygen Uptake Rate (SOUR)

### Polarization

- Automatic polarization of polarographic probe at startup to ensure that the probe is ready to use when measurement screen is displayed Membrane caps
- Ready- to -use field replaceable PTFE membrane caps Log-on-demand
- Store measurement data at the press of a button GLP features
- GLP data provides calibration data including date, time, pressure, calibrated value, temperature and salinity value of the last calibration Contextual help at the press of a button
- Backlit, Graphic LCD

## ►► Specifications:

<b>DO Range :</b>	0.00 to 50.00 ppm (mg/L); 0.0 to 600.0% saturation
<b>DO Resolution :</b>	0.01 ppm (mg/L); 0.1% saturation
<b>DO Accuracy :</b>	±1.5% of reading ±1 digit
<b>DO Calibration :</b>	automatic one or two point at 100% saturation (8.26 mg /L) and 0% saturation (0 mg/L).
<b>Atmospheric Pressure Range :</b>	450 to 850 mmHg
<b>Atmospheric Pressure Resolution :</b>	1 mmHg
<b>Atmospheric Pressure Accuracy :</b>	± 3 mmHg within ±15% from the calibration point
<b>Atmospheric Pressure Calibration :</b>	one point at any in range pressure value
<b>Temperature Range :</b>	-20.0 to 120.0°C (-4.0 to 248.0°F)
<b>Temperature Resolution :</b>	0.1°C (0.1°F)
<b>Temperature Accuracy :</b>	±0.2°C; ±0.4°F (excluding probe error)
<b>Temperature Calibration :</b>	one or two point at any in range temperature value
<b>Temperature Compensation :</b>	automatic from 0 to 50°C (32 to 122°F)
<b>Measurement Modes :</b>	direct DO; BOD (biochemical oxygen demand); OUR (oxygen uptake rate); SOUR (specific oxygen uptake rate)
<b>Barometric Compensation :</b>	automatic from 450 to 850 mmHg
<b>Salinity Compensation :</b>	automatic from 0 to 70 g/L
<b>Electrode/Probe :</b>	DO3000 polarographic DO probe with protective sleeve, internal temperature sensor, DIN connector and 4m (13') cable (included)
<b>Log-on-demand :</b>	up to 400 samples
<b>PC Connectivity :</b>	opto-isolated USB with optional DO3000 software and micro USB cable
<b>Battery Type/Life :</b>	1.5V AA batteries (4) / approximately 200 hours of continuous use without backlight (50 hours with backlight)
<b>Auto-off :</b>	user selectable: 5, 10, 30, 60 min or can be disabled
<b>Environment :</b>	0 to 50°C (32 to 122°F); RH 100% (IP67)
<b>Dimensions :</b>	185 x 93 x 35.2 mm (7.3 x 3.6 x 1.4")
<b>Weight :</b>	400 g (14.2 oz.)



▶▶ **Regulatory compliances**



▶▶ **Corporate Social Responsibility**

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3. ANALYTICAL FOUNDATION aims to DETOXYFY human minds, souls and body by means of Yoga, Meditation, Ayurveda, Health Care, Awards, Media, Events, Camps etc.

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