

# Respirometric BOD secure, easy, convenient

OXITOP®-i



# BOD Measurement - Easy and convenient

- No need to convert data direct input of sample volume
- Most reliable results display of the curve at the head
- Full information interim values always available







Oxitop®-i B

#### Up-to-date BOD Measurement

The new OxiTop®-i is a modern easy-to-use instrument for BOD measurement (Biochemical Oxygen Demand). The duration can be defined between one and seven days.

The sample volume can be selected in the menu. The conversion into the corrseponding BOD value will be automatic, error-free and convenient. A small LED informs about the actual operating condition of the head.

#### Unmistakable

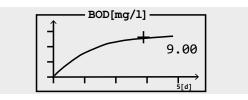
The heads with two colors in a modern design with adjustable numeric sample ID support the distinction between inlet and outlet.



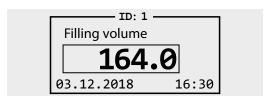
#### Display

A modern graphic display supports the input and provides multiple information.

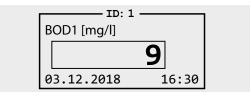
- Display of the curve
- Selection of the sample volume
- Call-up of interim values



Head with curve representation: BOD curve after 5 days



Sample volume



Current BOD value

#### Set

For OxiTop® sets including stirring platforms and accessories are available.

- 6 respectively 12 measuring places
- Inductive stirring platforms with program controlled operation
- Two overflow measuring flasks for inlet and outlet measurement
- Including CO<sub>2</sub> absorbant and nitrification inhibitor

#### Accessories

A routine supports in each head a testing of the pressure measurement with the OxiTop® PT.

Our new thermocabinets provide the optimum incubation, please order our flyer "Provide the right

Temperature ...

... WITH THERMOSTATIC CABINETS FOR OxiTop®" Order number 999253US



#### **Technical Specifications**

Model	OxiTop®-i G resp. OxiTop®-i B	
Pressure range (hPa)	500 to 1250	
Selectable duration (days)	1 to 7	
Selectable sample volumes (ml)	22.7; 43.5; 97.0 ; 164 ; 250 ; 365 ; 432	
BOD measuring range	0 to 4000 mg/l	
Display	LCD grahic, backlit, menu controlled	
Indicator LED	RGB	
Battery	1 x CR 2450	

#### Ordering information

Model	Description	Order No.
OxiTop®-i IS 6	BOD instrument for self-check with 6 measuring units, with direct display of the BOD value at the measuring head, universal power supply 100 to 240 VAC, 50/60 Hz; accessories.	208260
OxiTop®-i IS 12	BOD instrument for self-check with 12 measuring units, with direct display of the BOD value at the measuring head, universal power supply 100 to 240 VAC, 50/60 Hz; accessories.	208262
OxiTop®-i SET 2	SET for 2 measuring units, complete with 2 OxiTop®-i measuring heads (1 x blue, 1 x grey), including 2 sample bottles PF600, 2 rubber sleeves GK 600 and 2 magnetic stirring bars RST 600.	208264
OxiTop®-i SET 6	SET for 6 measuring units, complete with 6 OxiTop®-i measuring heads (3 x blue, 3 x grey), including 6 sample bottles PF600, 6 rubber sleeves GK 600 and 6 magnetic stirring bars RST 600.	208266
OxiTop®-i G	OxiTop®-i measuring head (grey), menu-operated, with backlit graphic LCD, control LED, operating buttons, for direct BOD readings, volume pre-selection, measurement duration between 1 and 7 days selectable, display of measuring curve, display of current readings.	208270
OxiTop®-i B	OxiTop®-i measuring head (blue), menu-operated, with backlit graphic LCD, control LED, operating buttons, for direct BOD readings, volume pre-selection, measurement duration between 1 and 7 days selectable, display of measuring curve, display of current readings.	208272
OxiTop®-i 2	2 OxiTop®-i measuring heads (blue and grey), menu-operated, with backlit graphic LCD, control LED, operating buttons, for direct BOD readings, volume pre-selection, measurement duration between 1 and 7 days selectable, display of measuring curve, display of current readings.	208274
OxiTop®-i 6	6 OxiTop®-i measuring heads (3 x blue and 3 x grey), menu-operated, with backlit graphic LCD, control LED, operating buttons, for direct BOD readings, volume pre-selection, measurement duration between 1 and 7 days selectable, display of measuring curve, display of current readings.	208276
OxiTop®-i 12	12 OxiTop®-i measuring heads (6 x blue and 6 x grey), menu-operated, with backlit graphic LCD, control LED, operating buttons, for direct BOD readings, volume pre-selction, measurement duration between 1 and 7 days selectable, display of measuring curve, display of current readings.	208278
Accessories*		
OxiTop® PT	Equpiment for testing the tightness and functionality of the pressure sensor of OxiTop® measuring heads.	209334

<sup>\*</sup> for more accessories please see our current price list.





# OxiTop®-IDS: More than just BOD

BIOCHEMICAL OXYGEN DEMAND, DEGRADATION TESTS, SOIL RESPIRATION, BIOGAS - COMPREHENSIVE AND VERSATILE



# Simply Heads

# OxiTop®-IDS for all applications of respirometric measurements

- BOD (Biochemical Oxygen Demand)
- Extended BOD measurement up to 400 000 mg/l for industrial waste water plants
- Soil respiration
- Microbiological activity measurement
- Biogas determination
- Various degradation tests, e.g. plastic in sea water

#### OxiTop®-IDS: BOD and more

The new OxiTop®-IDS is a modern measuring instrument for all kinds of respirometric studies. Regardless whether aerobic or anaerobic examinations, because of its versatility the OxiTop®-IDS is suited for both. All heads can be used independently from any meter for normal BOD measurements between one and seven days.



Oxitop®-IDS For all applications except biogas



Oxitop®-IDS/B for all applications including biogas





#### OxiTop® goes IDS

OxiTop®, a new IDS family member: Simply use the proven Bluetooth® connectivity for convenient operation via one of our multi-parameter instruments Multi 3630 IDS or Multi 3620 IDS. A firmware update for existing Multis is sufficient.

This allows the measurement of pH/mV, conductivity, dissolved oxygen and turbidity, in addition to all OxiTop® applications.

- Direct calculation of all results in the meter
- Representation of curves for monitoring
- Parallel measurement of different examinations and methods
- Export to data acquisition programs

Additional information about the Multi 3620 IDS and 3630 IDS multi-parameter instruments on page 6

#### Display

A modern graphic display supports parameter input and user information

- Display of curves
- Selection of sample volume
- Polling of interim results

#### Visual control at a glance

#### **Signal LED**

A flashing LED signalizes the current status

**Blue:** Measurement in progress

**Green:** Measurement terminated

**Red:** Replacement of battery required, or the pressure in the vessel exceeds a given limit

#### Complete Sets for Immediate Measurement

Sets are available for the most common applications, including measuring heads, suitable vessels and additional accessories. The appropriate Multi 3620 IDS or 3630 IDS has to be ordered separately. Existing meters can be updated with a firmware update from our website www.wtw.com, additionally a wireless module IDS WLM-M is required.



## BOD Standard Measurement for Self-checking according to DIN EN 1899-2 and ASTM 5210 D

- Up to 12 parallel samples in a sample set
- Statistic averaging
- Measurement duration between 0.5 h and 180 days

All measurements with the OxiTop®-IDS can be documented with a data acquisition program (download from www.wtw.com) using the USB interface of the meter.



OxiTop®-IDS Set IS6



# BOD Special Mode, developed for BOD in an industrial wastewater treatment plant

- For special applications: Freely selectable vessel, sample volume and incubation temperature.
- BOD measuring range up to 400 000 mg/l Automatic calculation of dilution as a function of total volume and vessel.



#### Soil Respiration

according to DIN EN ISO 16072: 2011 09 and respiratory activity of bio-mechanically treated waste.

These sets are suitable for forecast, survey and monitoring of clean-up operations. Another task is the bio-degradation of pesticides, fungicides, insecticides, fertilizers ...

- Measurement in "P" pressure mode
- Sets with different vessels for adaptation to respiratory activity



OxiTop®-IDS B6M 2.5 for AT4 tests

### Aerobic Degradation according to OECD 301F/DIN EN ISO 9408

These tests quantify the biological degradability of chemicals. The OxiTop®-IDS A6 is also suited for high dilutions.

- Respirometric degradability tests according to OECD
- Different sets for appropriate adaptation to biological degradability
- Versatile measurement by using the BOD special mode



OxiTop®-IDS A6

## Anaerobic degradability with OxiTop®-IDS/B measuring heads

A main application for these sets is the testing of fermentability of biological waste for biogas plants. The yield of methane can be measured in the "P" pressure mode.

- Convenient and safe operation within an extended pressure range of up to 1500 hPa
- Pressure range excess warning
- Corrosion-proof head even in presence of H<sub>2</sub>S
- Special sets including OxiTop®-IDS/B



#### Specifications

Model	OxiTop®-IDS resp. OxiTop®-IDS/B	
Pressure range (hPa)	<b>OxiTop®-IDS:</b> 500 to 1250	
	<b>OxiTop®-IDS/B:</b> 500 to 1500	
Selectable Measuring Period	0.5 hours to 180 days	
Data sets	Up to 360	
Interface	Bluetooth® LE	
(via Multi 3620 IDS/3630 IDS)		

	Routine BOD without meter
Selectable sample volume (ml)	22.7 ; 43.5 ; 97.0 ; 164 ; 250 ; 365 ; 432
BOD range	0 to 400 000 mg/l
Display	LCD, backlit, menu-controlled
Signal LED	RGB
Battery	1 x Type LS14250 (1/2 AA Lithium)

Modell	Multi 3620 IDS	Multi 3630 IDS	
Universal measuring channels	2	3	
Data logger	Manual/time controlled		
Interface	USB-A/Mini USB-B		
Power supply	Plug-in power supply with charging function, 4 NiMH rechargeable batteries (AA Type), USB		
Protection class	IP 67		
Parameters	pH/mV, dissolved oxygen, conductivity, turbidity, BOD standard, BOD Special, pressure		
BOD mode	<b>BOD Standard:</b> clustering and averaging <b>BOD Special:</b> Free selection of vessel size between 50 and 10,000 ml, sample volume (1 ml up to bottle volume), temperature setting 5 to 40 °C, dilution calculation for measuring range up to 400 000 mg/l BOD		
Pressure mode	500 to 1250/1500 hPa (OxiTop®-IDS/B)		



For more information on portable multi-parameter measurement of pH, dissolved oxygen, conductivity and turbidity, please see our flyer MultiLine IDS handhelds, order number 999180US

or on our website www.WTW.com/en/multiline-ids

#### System extensions and general accessories for OxiTop® measuring systems

To satisfy the increasing demand and to expand the applications range, matching extension products are available for all systems:

- Single heads and sets of measuring heads of OxiTop®-IDS/B and OxiTop®-IDS
- Complete extension sets, including heads, stirring platforms and accessories
- Stirring platforms
- Sample bottles and vessels





### Stirring platforms for all kinds of liquid samples

The maintenance-free and wearless inductive stirring platforms IS 6, IS 12 and IS 6-Var are perfectly suited for our bottles.

#### **Test aids PT and PM**

The OxiTop® PT is used for checking the functionality and leak tightness of OxiTop® heads.

OxiTop® PM tablets support the testing of OxiTop® BOD measuring systems with a simulated BOD value.

#### **Compact thermal cabinets**

Our new thermal cabinets are well suited for optimum incubation.

Ask for our folder "Provide the right Temperature with Thermostatic cabinets for OxiTop®" (Order. no. 999253US)

<sup>\*</sup> For additional accessories see our free-of-charge **Product Details** brochure.

#### Order information

Modell	Description	Order-Nr.
OxiTop®-IDS	OxiTop®-IDS measuring head with Bluetooth® LE technology to be operated with Multi 3620 IDS or Multi 3630 IDS, memory for 360 entries, with graphic LCD and signal LED; can be used for easy BOD measurement without Multi IDS meter.	209700
OxiTop®-IDS/B	Same as 209700, enhanced pressure range up to 1500 hPa, $\rm H_2S$ resistant pressure sensor for biogas measurement.	209701
OxiTop®-IDS Set 6	Respirometric measurement system for aerobic operation, also for BOD self-check measurements. 6 measuring places, requires IDS multi-parameter instrument Multi 3620 IDS Set WL or Multi 3630 IDS Set WL; please order separately. Universal power supply, 100-240 VAC, 50/60 Hz; includes stirring platform IS 6. Please order separately CO <sub>2</sub> absorber NHP 600.	209711
OxiTop®-IDS A6	Respirometric measurement system for aerobic operation, also for BOD self-check measurements, six measuring places. Requires IDS multi-parameter-instrument Multi 3620 IDS Set WL or Multi 3630 IDS Set WL, please order separately. Universal power supply, 100-240 VAC, 50/60 Hz. Includes six sample bottles PF45/1000 (1000 ml), six adapters OxiTop® AD/SK and stirring platform IS 6-Var. Please order separately CO <sub>2</sub> absorber NHP 600.	209721
OxiTop®-IDS AN6	Respirometric measurement system for anaerobic operation, e.g. biogas, six measuring places. Requires IDS multi-parameter-instrument Multi 3620 IDS Set WL or Multi 3630 IDS Set WL, please order separately. Universal power supply, 100-240 VAC, 50/60 Hz. Accessories: includes six sample bottles MF45/1000 (1000 ml) with two nozzles and septum seal, six adapters OxiTop® AD/SK and stirring platform IS 6-Var. Please order separately CO <sub>2</sub> absorber NHP 600.	209725
OxiTop®-IDS B6M	Respirometric measurement system for aerobic measurements, six measuring places. Requires IDS multi-parameter-instrument Multi 3620 IDS Set WL or Multi 3630 IDS Set WL, please order separately. For soils with middle to high respiratory activity. Six Vessels MG 1.0 1.0 I, DV/MG lid adapter, DV/MG/KL brackets, GK 600 rubber sleeves and MB 50 beaker (50 ml). Please order separately CO <sub>2</sub> absorber NHP 600.	209731
OxiTop®-IDS B6M-2.5	Same as 209730, particularly for AT4 testing. Six vessels MG 2.5 2.5 l, DV/MG lid adapter; DV/MG/KL brackets, GK 600 rubber sleeves and MB 50 beaker (50 ml), CO <sub>2</sub> absorber NKI 600.	209732
Multi 3620 IDS SET WL	Professional, digital multi-parameter instrument for portable measurement, with two universal measuring inputs, wireless-ready, color graphic display, data logger and USB interfaces. Also for operating OxiTop®-IDS. Single instrument with short instruction, CD-ROM and re-chargeable batteries, driver for USB, cable, power supply, armor SM Pro, IDS WLM-M module.	2FD56W
Multi 3630 IDS Set WL	Same as 2FD56W, but with three universal sensor inputs.	2FD57W
IDS WLM-M	Wireless module for IDS Multi instrument	108142
NHP 600	Sodium hydroxide pellets (CO <sub>2</sub> absorber)	209140



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