

HI5421

## Research Grade Bench Meter

Dissolved Oxygen and BOD



- Capacitive touch keypad
- Clean user interface
- Methods
  - % saturated, ppm, mg/L, BOD, OUR and SOUR
- GLP features
  - Meets Good Laboratory Practices
- Hold feature
  - DO direct, DO direct/autohold
- Logging
  - Large log memory with different logging methods
- Connectivity
  - PC compatible via USB
- On-screen help
  - Users can consult the on-screen help from any mode simply by pressing the HELP key. The instrument will then display the meaning and options available of the current screen.

### Extensive DO Capabilities

The HI5421 is a research grade dissolved oxygen bench meter with extensive capabilities in measuring DO as well as BOD (Biological Oxygen Demand), OUR (Oxygen Uptake Rate), SOUR (Specific Oxygen Uptake Rate) and temperature.

DO measurements can be performed with ppm, mg/L or in % air saturation units of measurement and feature automatic or manual temperature and atmospheric pressure compensation, as well as manual salinity compensation.

The DO probe uses the polarographic principal of measurement and has a built-in temperature sensor.

### Profiles

Up to 10 profiles can be saved and recalled, eliminating the need to reconfigure each time when a different application is used. User-definable configurations can include: reading mode (direct or BOD, OUR, and SOUR), measurement units, temperature units, stability criteria, and temperature, atmospheric pressure and salinity compensation.

### Dedicated Help Menu

Clear tutorial messages and directions for DO measurement and calibration as well as BOD, OUR and SOUR methods are available on-screen to guide users.

## On-screen Features



Direct measurement



BOD (Biological Oxygen Demand)



OUR (Oxygen Uptake Rate)



SOUR (Specific Oxygen Uptake Rate)

### Specifications

### HI5421

DO	Range	0.00 to 90.00 ppm (mg/L); 0.0 to 600.0 % saturation
	Resolution	0.01 ppm; 0.1% saturation
	Accuracy	±1.5% of reading ±1 digit
	Calibration	automatic using single or two-point calibration; user calibration single point
Barometric Pressure	Range	450 to 850 mmHg; 560 to 1133 mBar (additional units available (kPa, mHg, psi, atm))
	Resolution	1 mm Hg
	Accuracy	±3 mm Hg + 1 least significant digit
Temperature	Range	-20.0 to 120°C; -4.0 to 248.0°F; 253.15 to 393.15K
	Resolution	0.1°C; 0.1°F; 0.1K
	Accuracy	±0.2°C; ±0.4°F; ±0.2K (without probe)
Additional Specifications	Measurement Modes	direct DO; BOD (biochemical oxygen demand); OUR (oxygen uptake rate); SOUR (specific oxygen uptake rate)
	Temperature Compensation	0.0 to 50.0°C; 32.0 to 122.0°F; 237.1 to 323.1 K
	Salinity Compensation	0 to 45 g/L (ppt), % or PSU
	Barometric Pressure Calibration	single point calibration
	Probe	HI76483 thin body, polarographic dissolved oxygen probe with internal temperature sensor and 1 m (3.3') cable (included)
	Record Samples Logging	100,000 records storage, 100 lots each for automatic and manual logs; maximum 50,000 records/log for automatic logging
	Interval Logging	fourteen intervals available from 1 second to 180 minutes/interval
	Logging Type	manual AutoHOLD, automatic
	Alarm (DO, BOD, OUR, SOUR)	inside and outside limits
	PC Connection	opto-isolated USB
	Display	graphic color LCD with on-screen help, graphing, language selection and custom configuration
	Power Supply	12 VDC adapter (included)
	Dimensions	160 x 231 x 94 mm (6.3 x 9.1 x 3.7")
	Weight	1.2 kg (2.6 lbs.)
Ordering Information	HI5421-01 (115V) and HI5421-02 (230V) is supplied with HI76483 DO probe, HI76404N electrode holder, HI7041S electrolyte solution (30 mL), DO membrane caps (2), 12 VDC adapter, quality certificate and instruction manual.	

DO solutions and accessories begin on page 7.21