### HI97732

10

<u>Photometers</u>

# Dissolved Oxygen Portable Photometer

- Advanced LED optical system
  - Innovative optical design that utilizes a reference detector and focusing lens to eliminate errors from changes in the light source and from imperfections in the glass cuvette.
  - LEDs have a much higher luminous efficiency, providing more light while using less power. They also produce little heat, which could otherwise affect electronic stability.

#### • CAL Check<sup>™</sup>

 Validate instrument performance at any time using CAL Check cuvettes made with NIST traceable standards. The CAL Check screen guides the user step-by-step through the validation process and user calibration.

#### • On-screen tutorial mode with animations

- Guides users step-by-step through the measurement process
- Waterproof and floating IP67 case
- Unit of measure is displayed along with reading

#### • Built-in timer

- Built-in reaction timer that ensures consistency between tests.
- Error messages on display
  - Alerts to problems including no cap, high zero, and standard too low
- GLP data
  - Displays the last calibration date.
- Auto logging
- Battery status indicator
- Auto-shut off

## Significance of Use

Dissolved oxygen analysis measures the amount of gaseous oxygen  $(O_2)$  dissolved in an aqueous solution. Dissolved oxygen is one of the most important parameters in aquatic systems. This gas is required for metabolism by aerobic organisms and also influences inorganic chemical reactions. Therefore, knowledge of the solubility and dynamics of oxygen distribution is essential to interpreting both biological and chemical processes within water bodies. Oxygen gets into water by diffusion from the surrounding air by aeration (rapid movement) and as a product of photosynthesis. The amount of oxygen that can dissolve in pure water is inversely proportional to the temperature of the water; the warmer the water, the less dissolved oxygen is present.



Range0.0 to 10.0 mg/L (ppm) (as 02)Resolution0.1 mg/LAccuracy@25°C (77°F)±0.4 mg/L ±3% of readingMethodAdaptation of Standard Methods for Examination of Water and Wastewater (18th edition) Azide modified Winkler method reaction causes a yellow tint in sampleMeasurementLight Sourcelight emitting diodeBandpass filter466 nmBandpass filter wavelength accuracy8 nmBandpass filter wavelength accuracy±1.0 nmLight Detectorsilicon photocellCuvette typeround 24.6 mm diameter (22 mm inside)Auto logging50 readingsDisplay128 x 64 pixel B/W LCD with backlightAuto-offafter 15 minutes of inactivity (30 minutes before a READ measurement)Battery type / Life Environmentalkaline 1.5 V AA (3) / > 800 measurements (without backlight)Dimensions142.5 x 102.5 x 50.5 mm (5.6 x 4.0 x 2.0")Weight380 g (13.4 oz.)H97732 is supplied with sample cuvettes (2), sample caps (2), plastic stoppers (2), 1.5 V AA batteries (3), instrument quality certificate, and instruction manual.	Specifications		HI97732 Oxygen, Dissolved
MeasurementAccuracy@25°C (77°F)±0.4 mg/L ±3% of readingAccuracy@25°C (77°F)±0.4 mg/L ±3% of readingAdaptation of Standard Methods for Examination of Water and Wastewater (18th edition) Azide modified Winkler method reaction causes a yellow tint in sampleMeasurementLight SourceBandpass filter466 nmBandpass filter8 nmBandpass filter wavelength accuracy±1.0 nmLight Detectorsilicon photocellCuvette typeround 24.6 mm diameter (22 mm inside)Auto logging50 readingsDisplay128 x 64 pixel B/W LCD with backlightAuto-offafter 15 minutes of inactivity (30 minutes before a READ measurement)Additional SpecificationsBattery type / LifeInvironment0 to 50°C (32 to 122°F); 0 to 100% RH, non-serviceableDimensions142.5 x 102.5 x 50.5 mm (5.6 x 4.0 x 2.0")Weight380 g (13.4 oz.)Ardational SpecificationsHI97732 is supplied witt-sample cuvettes (2), sample caps (2), plastic stoppers (2), 1.5V AA batteries (3), instrument quality certificate, and instruction manual.	Measurement	Range	0.0 to 10.0 mg/L (ppm) (as O <sub>2</sub> )
Measurement   Light Source   light emitting diode     Bandpass filter   466 nm     Bandpass filter   466 nm     Bandpass filter   8 nm     Bandpass filter   8 nm     Bandpass filter   silicon photocell     Light Detector   silicon photocell     Cuvette type   round 24.6 mm diameter (22 mm inside)     Auto logging   50 readings     Display   128 x 64 pixel B/W LCD with backlight     Auto-off   after 15 minutes of inactivity (30 minutes before a READ measurement)     Battery type / Life   alkaline 1.5 V AA (3) / > 800 measurements (without backlight)     Environment   0 to 50°C (32 to 122°F); 0 to 100% RH, non-serviceable     Dimensions   142.5 x 102.5 x 50.5 mm (5.6 x 4.0 x 2.0")     Weight   380 g (13.4 oz.)		Resolution	0.1 mg/L
Methodand Wastewater (18th edition) Azide modified Winkler method reaction causes a yellow tint in sampleLight Sourcelight emitting diodeBandpass filter466 nmBandpass filter8 nmBandpass filter bandwidth8 nmBandpass filter wavelength accuracy±1.0 nmLight Detectorsilicon photocellCuvette typeround 24.6 mm diameter (22 mm inside)Auto logging50 readingsDisplay128 × 64 pixel B/W LCD with backlightAuto-offafter 15 minutes of inactivity (30 minutes before a READ measurement)Battery type / Lifealkaline 1.5 V AA (3) / > 800 measurements (without backlight)Environment0 to 50°C (32 to 122°F); 0 to 100% RH, non-serviceableDimensions142.5 x 102.5 x 50.5 mm (5.6 x 4.0 x 2.0")Weight380 g (13.4 oz.)HI97732 is supplied with sample cuvettes (2), sample caps (2), plastic stoppers (2), 1.5 V AA batteries (3), instrument quality certificate, and instruction manual.		Accuracy @25°C (77°F)	±0.4 mg/L ±3% of reading
Measurement SystemBandpass filter466 nmBandpass filter bandwidth8 nmBandpass filter bandwidth8 nmBandpass filter wavelength accuracy±1.0 nmLight Detectorsilicon photocellCuvette typeround 24.6 mm diameter (22 mm inside)Auto logging50 readingsDisplay128 x 64 pixel B/W LCD with backlightAuto-offafter 15 minutes of inactivity (30 minutes before a READ measurement)Additional SpecificationsBattery type / LifeInvironment0 to 50°C (32 to 122°F); 0 to 100% RH, non-serviceableDimensions142.5 x 102.5 x 50.5 mm (5.6 x 4.0 x 2.0")Weight380 g (13.4 oz.)H197732 is supplied with sample cuvettes (2), sample caps (2), plastic stoppers (2), 1.5V AA batteries (3), instrument quality certificate, and instruction manual.		Method	and Wastewater (18th edition) Azide modified Winkler
Measurement SystemBandpass filter bandwidth8 nmBandpass filter wavelength accuracy±1.0 nmLight Detectorsilicon photocellCuvette typeround 24.6 mm diameter (22 mm inside)Auto logging50 readingsDisplay128 x 64 pixel B/W LCD with backlightAuto-offafter 15 minutes of inactivity (30 minutes before a READ measurement)Battery type / Lifealkaline 1.5 V AA (3) / > 800 measurements (without backlight)Environment0 to 50°C (32 to 122°F); 0 to 100% RH, non-serviceableDimensions142.5 x 102.5 x 50.5 mm (5.6 x 4.0 x 2.0")Weight380 g (13.4 oz.)H197732 is supplied with sample cuvettes (2), sample caps (2), plastic stoppers (2), 1.5V AA batteries (3), instrument quality certificate, and instruction manual.		Light Source	light emitting diode
Measurement SystembandwidthB nmBandpass filter wavelength accuracy±1.0 nmLight Detectorsilicon photocellCuvette typeround 24.6 mm diameter (22 mm inside)Auto logging50 readingsDisplay128 x 64 pixel B/W LCD with backlightAuto-offafter 15 minutes of inactivity (30 minutes before a READ measurement)Battery type / Lifealkaline 1.5 V AA (3) / > 800 measurements (without backlight)Environment0 to 50°C (32 to 122°F); 0 to 100% RH, non-serviceableDimensions142.5 x 102.5 x 50.5 mm (5.6 x 4.0 x 2.0")Weight380 g (13.4 oz.)H197732 is supplied with sample cuvettes (2), sample caps (2), plastic stoppers (2), 1.5 V AA batteries (3), instrument quality certificate, and instruction manual.		Bandpass filter	466 nm
Additional Specifications   battopass Intel wavelength accuracy   ±1.0 nm     Light Detector   silicon photocell     Cuvette type   round 24.6 mm diameter (22 mm inside)     Auto logging   50 readings     Display   128 x 64 pixel B/W LCD with backlight     Auto-off   after 15 minutes of inactivity (30 minutes before a READ measurement)     Battery type / Life   alkaline 1.5 V AA (3) / > 800 measurements (without backlight)     Environment   0 to 50°C (32 to 122°F); 0 to 100% RH, non-serviceable     Dimensions   142.5 x 102.5 x 50.5 mm (5.6 x 4.0 x 2.0")     Weight   380 g (13.4 oz.)     H197732 is supplied with sample cuvettes (2), sample caps (2), plastic stoppers (2), 1.5 V AA batteries (3), instrument quality certificate, and instruction manual.			8 nm
Additional   Substrain Specifications     Additional   Battery type / Life     Battery type / Life   alkaline 1.5 V AA (3) / > 800 measurements (without backlight)     Environment   0 to 50°C (32 to 122°F); 0 to 100% RH, non-serviceable     Dimensions   142.5 x 102.5 x 50.5 mm (5.6 x 4.0 x 2.0")     Weight   380 g (13.4 oz.)     H197732 is supplied with sample cuvettes (2), sample caps (2), plastic stoppers (2), 1.5 V AA batteries (3), instrument quality certificate, and instruction manual.			±1.0 nm
Additional Specifications Auto logging 50 readings   Additional Specifications Display 128 x 64 pixel B/W LCD with backlight   Additional Specifications Auto-off after 15 minutes of inactivity (30 minutes before a READ measurement)   Battery type / Life alkaline 1.5 V AA (3) / > 800 measurements (without backlight)   Environment 0 to 50°C (32 to 122°F); 0 to 100% RH, non-serviceable   Dimensions 142.5 x 102.5 x 50.5 mm (5.6 x 4.0 x 2.0")   Weight 380 g (13.4 oz.)   HI97732 is supplied with sample cuvettes (2), sample caps (2), plastic stoppers (2), 1.5 V AA batteries (3), instrument quality certificate, and instruction manual.		Light Detector	silicon photocell
Additional Specifications   Display   128 x 64 pixel B/W LCD with backlight     Additional Specifications   Auto-off   after 15 minutes of inactivity (30 minutes before a READ measurement)     Battery type / Life   alkaline 1.5 V AA (3) / > 800 measurements (without backlight)     Environment   0 to 50°C (32 to 122°F); 0 to 100% RH, non-serviceable     Dimensions   142.5 x 102.5 x 50.5 mm (5.6 x 4.0 x 2.0")     Weight   380 g (13.4 oz.)     HI97732 is supplied with sample cuvettes (2), sample caps (2), plastic stoppers (2), 1.5 V AA batteries (3), instrument quality certificate, and instruction manual.		Cuvette type	round 24.6 mm diameter (22 mm inside)
Additional   Auto-off   after 15 minutes of inactivity (30 minutes before a READ measurement)     Additional   Battery type / Life   alkaline 1.5 V AA (3) / > 800 measurements (without backlight)     Environment   0 to 50°C (32 to 122°F); 0 to 100% RH, non-serviceable     Dimensions   142.5 x 102.5 x 50.5 mm (5.6 x 4.0 x 2.0")     Weight   380 g (13.4 oz.)     HI97732 is supplied with sample cuvettes (2), sample caps (2), plastic stoppers (2), 1.5 V AA batteries (3), instrument quality certificate, and instruction manual.		Auto logging	50 readings
Additional Specifications Battery type / Life alkaline 1.5 V AA (3) / > 800 measurements (without backlight)   Environment 0 to 50°C (32 to 122°F); 0 to 100% RH, non-serviceable   Dimensions 142.5 x 102.5 x 50.5 mm (5.6 x 4.0 x 2.0")   Weight 380 g (13.4 oz.)   HI97732 is supplied with sample cuvettes (2), sample caps (2), plastic stoppers (2), 1.5 V AA batteries (3), instrument quality certificate, and instruction manual.		Display	128 x 64 pixel B/W LCD with backlight
Specifications Battery type / Life (without backlight)   Environment 0 to 50°C (32 to 122°F); 0 to 100% RH, non-serviceable   Dimensions 142.5 x 102.5 x 50.5 mm (5.6 x 4.0 x 2.0")   Weight 380 g (13.4 oz.)   HI97732 is supplied with sample cuvettes (2), sample caps (2), plastic stoppers (2), 1.5V AA batteries (3), instrument quality certificate, and instruction manual.		Auto-off	
Interview non-serviceable   Dimensions 142.5 x 102.5 x 50.5 mm (5.6 x 4.0 x 2.0")   Weight 380 g (13.4 oz.)   Ordering Information HI97732 is supplied with sample cuvettes (2), sample caps (2), plastic stoppers (2), 1.5V AA batteries (3), instrument quality certificate, and instruction manual.		Battery type / Life	
Weight     380 g (13.4 oz.)       Ordering Information     HI97732 is supplied with sample cuvettes (2), sample caps (2), plastic stoppers (2), 1.5V AA batteries (3), instrument quality certificate, and instruction manual.		Environment	
Ordering Information HI97732 is supplied with sample cuvettes (2), sample caps (2), plastic stoppers (2), 1.5V AA batteries (3), instrument quality certificate, and instruction manual.		Dimensions	142.5 x 102.5 x 50.5 mm (5.6 x 4.0 x 2.0")
1.5V AA batteries (3), instrument quality certificate, and instruction manual.		Weight	380 g (13.4 oz.)
CAL Check standards and testing reagents sold separately			
Reagents and high reagents and	Reagents and Standards	Н197732	
			HI93732-01 dissolved oxygen reagent for 100 tests
HI93732-03 dissolved oxygen reagent for 300 tests			HI93732-03 dissolved oxygen reagent for 300 tests



