

HI98196

## Multiparameter Waterproof Meter

pH / mV, ORP, Dissolved Oxygen, Atmospheric Pressure and Temperature

- **Waterproof**
  - IP67 rated waterproof, rugged enclosure for meter, IP68 for probe
- **Digital probe**
  - Digital probe with two connections for pH (ORP) and DO sensors and integral temperature sensor
- **Color coded, field replaceable sensors**
- **Auto-sensor recognition**
- **Quick calibration feature**
- **Automatic temperature compensation**
- **Automatic logging**
  - Store up to 45,000 samples
- **GLP**
  - GLP data provides data from previous five calibrations to ensure Good Laboratory Practices are met
- **Dedicated help key**
  - On-screen context specific help is readily available at the press of a button
- **Backlit LCD display with multifunction virtual keys**
- **Intuitive keypad**
  - Hard and virtual soft keys
- **Connectivity**
  - PC connectivity via opto-isolated micro-USB with Hanna software
- **Up to 360 hours of battery life**
  - Powered by (4) 1.5V AA batteries



- **Quick Connect Probe**
  - Built in barometer for DO concentration in meter

## For Universal Applications

HI98196 provides multiparameter measurement in a compact and rugged, IP67 waterproof enclosure. Ideal for demanding applications, each meter features our rugged, quick connect multi-function probe with field replaceable sensors.

A backlit, graphic LCD provides easy to read resolution even in low-lit areas. A combination of dedicated and soft keys allows easy, intuitive operation in a choice of languages.

## Data Logging

The HI98196 allows users to store up to 45,000 continuous or log-on-demand samples with logging intervals from one second to three hours. Logged data can be later transferred to a PC with the HI920015 micro USB cable and HI929828 software.

## pH Specific Features

- **Calibration**
  - Up to a three point calibration with five standard buffers and one custom buffer available

## GLP and On-Screen Help

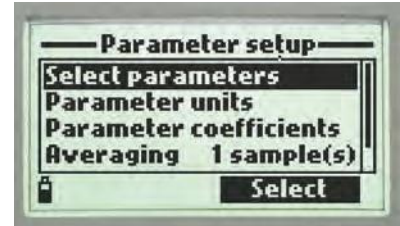
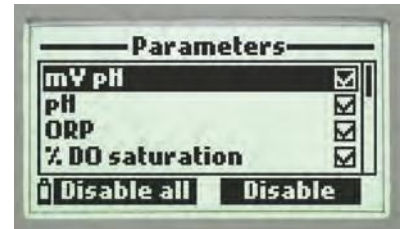
Comprehensive GLP data includes data from last five calibrations. The contextual Help Menu can be accessed to obtain on-screen information and assistance about each feature at the touch of a button.

## Quick connect probe

The HI7698196 probe features a quick connect DIN connector to make attaching and removing the probe simple and easy.

## Dissolved Oxygen Specific Features

- **Choice of units**
  - Display units in % saturation or mg/L (ppm)
- **Salinity compensation for concentration**
- **Pressure compensation for concentration**
  - Built-in barometer with user-selectable units (mmHg, inHg, atm, psi, kPa, mbar)
- **Temperature compensation**
- **Polarization**
  - Automatic polarization of probe at startup
- **Membrane caps**
  - Ready-to-use HDPE pre-tensioned membrane caps are easy to replace



- **Setup**
  - Extensive setup screen features



- rugged carrying case with custom thermoformed insert included



### Specifications

### HI7698196

Sensor inputs	two (pH/ORP, DO)	
Sample Environment	Fresh, brackish, seawater	
waterproof Protection	IP68	
Operating Temperature	-5 to 55°C	
Storage Temperature	-20 to 70°C	
Maximum Depth	20 m (66')	
Dimensions (without cable)	342 mm (13.5"); 46 mm (1.8") dia	
Weight (without batteries and sensors)	570 g (20.1 oz.)	
Cable specification	Multistrand-multiconductor shielded cable with internal strength member rated for 68 kg (150 lb.) intermittent use.	
Wetted Materials	Body	ABS
	Threads	Nylon
	Shield	ABS / 316 SS
	Temperature Probe	316 SS
	O-rings	EPDM

### Multi-function Sensor

- Quick sensor replacement
  - Sensor replacement is quick and easy with field replaceable, screw type connectors and are color coded for easy identification. The these meters automatically recognize sensors



Sensor Specifications	HI7698194-0	HI7698194-1	HI7698194-2
Description	pH sensor	pH/ORP sensor	DO sensor
Measurement Type	pH, mV (pH)	pH, mV (pH/ORP)	DO (% saturation and concentration)
Measurement Range	0.00 to 13.00 pH; $\pm 600.0$ mV	0.00 to 13.00 pH; $\pm 600.0$ mV; $\pm 2000.0$ mV	0.0 to 500.0 %; 0.00 to 50.00 mg/L
Temperature Range	-5 to 55°C	-5 to 55°C	-5 to 55°C
Color Code	red	red	white
Materials	Tip	glass (pH)	Cat/An: Ag/Zn
	Junction	ceramic	ceramic
	Body	PEI	PEI
	Electrolyte	gel	gel
	Reference	double	double
Maintenance solution	HI70300 (storage solution)	HI70300 (storage solution)	HI7042S (DO electrolyte)
Dimensions	118 x 15 mm	118 x 15 mm	99 x 17 mm
Depth	20 m (65')	20 m (65')	20 m (65')



Specifications	HI98196	
pH / mV	Range	0.00 to 14.00 pH / $\pm 600.0$ mV
	Resolution	0.01 pH / 0.1 mV
	Accuracy	$\pm 0.02$ pH / $\pm 0.5$ mV
	Calibration	automatic one, two, or three points with automatic recognition of five standard buffers (pH 4.01, 6.86, 7.01, 9.18, 10.01) or one custom buffer
ORP	Range	$\pm 2000.0$ mV
	Resolution	0.1 mV
	Accuracy	$\pm 1.0$ mV
	Calibration	automatic at one custom point (relative mV)
Dissolved Oxygen	Range	0.0 to 500.0%; 0.00 to 50.00 ppm (mg/L)
	Resolution	0.1%; 0.01 ppm (mg/L)
	Accuracy	0.0 to 300.0%: $\pm 1.5\%$ of reading or $\pm 1.0\%$ whichever is greater; 300.0 to 500.0%: $\pm 3\%$ of reading; 0.00 to 30.00 ppm (mg/L): $\pm 1.5\%$ of reading or $\pm 0.10$ ppm (mg/L), whichever is greater; 30.00 ppm (mg/L) to 50.00 ppm (mg/L): $\pm 3\%$ of reading
Atmospheric Pressure	Range	450 to 850 mm Hg; 17.72 to 33.46 in Hg; 600.0 to 1133.2 mbar; 8.702 to 16.436 psi; 0.5921 to 1.1184 atm; 60.00 to 113.32 kPa
	Resolution	0.1 mm Hg; 0.01 in Hg; 0.1 mbar; 0.001 psi; 0.0001 atm; 0.01 kPa
	Accuracy	$\pm 3$ mm Hg within $\pm 15^\circ\text{C}$ from the temperature during calibration
	Calibration	automatic at one custom point
Temperature	Range	$-5.00$ to $55.00^\circ\text{C}$ ; $23.00$ to $131.00^\circ\text{F}$ ; 268.15 to 328.15K
	Resolution	$0.01^\circ\text{C}$ ; $0.01^\circ\text{F}$ ; 0.01K
	Accuracy	$\pm 0.15^\circ\text{C}$ ; $\pm 0.27^\circ\text{F}$ ; $\pm 0.15$ K
	Calibration	Automatic at one custom point
Additional Specifications	Temperature Compensation	automatic from $-5$ to $55^\circ\text{C}$ ( $23$ to $131^\circ\text{F}$ )
	Logging Memory	45,000 records (continuous logging or log-on-demand of all parameters)
	Logging Interval	one second to three hours
	PC Connectivity	via USB (with Hanna PC software)
	Environment	$0$ to $50^\circ\text{C}$ ( $32$ to $122^\circ\text{F}$ ); RH 100% IP67
	Battery Type / Life	1.5V AA batteries (4) / approximately 360 hours of continuous use without backlight (50 hours with backlight)
Dimensions / Weight	$185 \times 93 \times 35.2$ mm ( $7.3 \times 3.6 \times 1.4$ ") / 400 g (14.2 oz.)	
Ordering Information	HI98196 is supplied with HI7698196 probe, HI7698194-0 pH sensor, HI7698194-2 DO sensor, Hanna PC software, HI920015 micro USB cable, 1.5V AA batteries (4), instruction manual, quick start guide, quality certificate and rugged carrying case with custom thermoformed insert.	