



## The world's most innovative pH, EC and DO meter

edge's groundbreaking design is the culmination of Hanna's vision, design capabilities, integrated production and world class R&D. The edge is rich in features to accommodate the needs of a vast amount of customers. For those that prefer very simplistic operation there is a basic mode operation with simplified menu and options while for those who require advanced features there is the full featured standard operating mode. edge is available as a pH, conductivity or dissolved oxygen kit and any edge kit can be upgraded with additional probes to measure pH, conductivity and dissolved oxygen.

# edge® technical features

## Rechargeable Battery

edge has a built in rechargeable battery that is charged when the meter is in the plugged in benchtop or wall mount cradle. The battery can also be recharged through the micro USB port with either a USB port from a computer or directly to the power supply.



## Two USB ports

edge includes one standard USB for exporting data to a flash drive. edge also includes one micro USB port for exporting files to your computer as well as for charging when the cradle is not available.



## Clear, full text readout

edge features clear, full text guides displayed on the bottom of the screen. There is no need to decipher scrambled abbreviations or symbols; these helpful messages guide you through every process quickly and easily.



## Data logging

edge allows you to store up to 1000 log records of data. Data sets include readings, GLP data, date and time.



## GLP

Data of the last calibration you perform is stored in the sensor including the date, time, and buffers used. When the sensor is connected to edge, GLP data is automatically transferred.

## Two Operating Modes

edge can be used in Extended or Basic Operating Modes. Extended Mode enables all edge features while Basic Mode reduces features—ideal for routine measurements by displaying a simplified screen and features.



## CAL Check™

Hanna's exclusive CAL Check feature analyzes the pH electrode response in the pH buffers during the calibration process to alert the user of potential problems such as a contaminated buffer or dirty electrode. After calibration, indicators for probe condition are displayed on the measurement screen. The probe condition is based on offset and slope characteristics of the pH electrode.

## Sensor Check™ (pH only)

When used with Hanna's electrodes equipped with a matching pin, edge constantly checks the impedance of the pH measuring electrode to notify you in real time in the event of glass breakage. During calibration, Sensor Check checks the state of the junction. The reference junction is also evaluated and reported on the display.

## ORP Measurement

edge measures ORP with edge compatible ORP probes.

# edge design features



## Capacitive touch keypad

edge features sensitive capacitive touch buttons for accurate keystrokes when navigating edge's menus and screens. Since they are part of the screen, the buttons can never get clogged with sample residue.



## Easy to read LCD

edge features a 5.5" (14 cm) LCD display that you can clearly view from over 5 m (16.4'). The large display, with its wide 150° viewing angle, provides one of the easiest to read LCDs in the industry.



## Zero footprint

Using the wall mount cradle (included), edge can be placed on a wall, leaving zero footprint on the benchtop space. The cradle has a built-in connector to power and charge the batteries.



## Hybrid meters that can be used in portable, wall-mount and benchtop configurations

The versatile design of edge® enables it to be used as a portable, wall-mount or benchtop meter. edge simplifies measurement, configuration, calibration, diagnostics, logging and transferring data directly to a computer or USB drive.



### Portable field unit

edge is ideal for field use due to its light weight, large screen, and thin design. It can easily be slipped into a backpack or messenger bag. The battery life lasts up to 8 hours when used as a portable device.



### Wall-mount cradle

The included wall-mount cradle makes it easy to conserve space on the benchtop while also charging edge with the AC adapter. The cradle is ideal for continuous monitoring applications.



### Electrode holder with built-in cradle

The electrode holder features a swivel, adjustable arm with a built-in cradle to hold edge securely in place at the optimum viewing angle.



## Digital electrodes

edge® measures pH, conductivity and dissolved oxygen through its unique digital electrodes. These digital electrodes are auto-recognized, providing sensor type, calibration data and a serial number when connected to edge by an easy to plug-in 3.5mm connector.

- Simply connect each probe via the 3.5 mm jack, Digital Smart Electrodes are automatically recognized

- Resolution selectable from 0.01 and 0.001 pH
- Range -2.000 to 16.000 pH
- Accuracy  $\pm 0.002$  pH for 0.001 pH resolution;  $\pm 0.01$  for 0.01 resolution
- Data logging
  - Manual log-on-demand
  - Manual log-on-stability
  - Interval logging
- Temperature readout ( $^{\circ}\text{C}$  or  $^{\circ}\text{F}$ )
- Automatic Temperature Compensation (ATC)
- CAL Check™ Indicators:
  - Probe condition
  - Response time
  - Check buffer
  - Clean electrode
- Sensor Check™ Indicators:
  - Broken electrode
  - Clogged junction

- GLP data
  - Records date, time, offset, slope and buffers used during calibration
- Five-point calibration
  - A choice of seven pre-programmed buffers plus two selectable custom buffers
- Calibration tag on screen
  - Identifies buffers used for current calibration
- Calibration expiration warning



### Sleek design

Incredibly thin and lightweight, edge measures just 1/2" (12 mm) thick and weighs just 8.8 ounces (250 g).

All edge compatible pH, EC and dissolved oxygen digital probes are interchangeable with edge.

Specifications	HI2020	
pH	Range*	-2.00 to 16.00 pH; -2.000 to 16.000 pH <sup>†</sup>
	Resolution	0.01 pH; 0.001 pH <sup>†</sup>
	Accuracy (@25°C/77°F)	$\pm 0.01$ pH; $\pm 0.002$ pH <sup>†</sup>
	Calibration	automatic, up to three points (five points <sup>†</sup> ) calibration, 5 standard (7 standard <sup>†</sup> ) buffers available (1.68 <sup>†</sup> , 4.01 or 3.00, 6.86, 7.01, 9.18, 10.01, 12.45 <sup>†</sup> ) and two custom buffers <sup>†</sup>
	Temperature Compensation*	automatic, -5.0 to 100.0°C (23.0 to 212.0°F) (using integral temperature sensor)
	Electrode Diagnostics	standard mode: probe condition, response time and out of calibration range
mV pH	Range	$\pm 1000$ mV
	Resolution	0.1 mV
	Accuracy (@25°C/77°F)	$\pm 0.2$ mV
Temperature	Range*	-20.0 to 120.0°C; -4.0 to 248.0°F
	Resolution	0.1°C; 0.1°F
	Accuracy	$\pm 0.5$ °C; $\pm 0.9$ °F
Additional Specifications	Probe (included in pH kit)	HI11310 digital glass body pH electrode with 3.5 mm (1/8") connector and 1 m (3.3') cable
	Logging	up to 1000 <sup>†</sup> (400 for basic mode) records organized in: manual log-on-demand (max. 200 logs), manual log-on-stability (max. 200 logs), interval logging <sup>†</sup> (max. 600 samples; 100 lots)
	Connectivity	1 USB port for storage; 1 micro USB port for charging and PC connectivity
	Environment	0 to 50°C (32 to 122°F); RH max 95% non-condensing
	Power Supply	5 VDC adapter (included)
	Dimensions / Weight	202 x 140 x 12 mm (7.9" x 5.5" x 0.5") / 250 g (8.82 oz.)
Ordering Information	<b>HI2020-01</b> (USA plug) and <b>HI2020-02</b> (European plug) pH kit includes: HI11310 glass body, refillable pH electrode, pH 4 buffer solution sachets (4), pH 7 buffer solution sachets (2), pH 10 buffer solution sachets (2), and electrode cleaning solution sachets (2), benchtop docking station with electrode holder, wall-mount cradle, USB cable, 5 VDC power adapter, quality certificates and instruction manual.	
	<b>HI2020-03</b> includes the above without electrode. All edge compatible pH, EC and DO digital probes are interchangeable with HI2020 and can be ordered separately.	

\* limits will be reduced to actual probe limits  
<sup>†</sup> standard mode only