edge®

Single Parameter Meters

Lightweight and versatile pH, EC and DO meters that can be used in portable, wall-mount and benchtop configurations

HANNA® instruments

edge® dedicated

Innovation dedicated to a single parameter

edge® dedicated meters are designed to measure a single parameter. This dedicated series is thin and lightweight, measuring just 1/2" (12 mm) thick and weighing less than 9 ounces (250 g). Each edge® dedicated meter has an incredibly wide viewing angle, 5.5" (14 cm) LCD and a sensitive capacitive touch keypad.

Digital electrodes

edge® performs measurements 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 3.5 mm connector.

edge®pH features Hanna's exclusive CAL Check™ to warn you if the electrode in use is not clean or if your buffers are contaminated during calibration. We have added Sensor Check™ for pH sensors with a matching pin. Our Sensor Check™ feature warns you if the pH bulb is cracked and/or the junction of the electrode is compromised. In addition to these features, edge®pH also measures ORP with edge® compatible ORP probes.

3	0	0.5	8.8	8	5.5	2
models–pH, EC and DO	footprint	inch thick (12.7 mm)	oz. weight (250 g)	hours battery life	inch display (14 cm)	USB ports

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 be easily slipped into a backpack or messenger bag. Up to 8 hours of battery life when used as a portable device

- Wall mount cradle
  - The included wall mount cradle makes it easy to conserve space on the benchtop and can charge edge® with the AC adapter. Ideal for continuous monitoring applications

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

edge® technical features

- 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 charging edge® 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 buffer/standards. When a compatible sensor is connected to edge®, GLP data is automatically transferred.

- Basic mode (HI2002 and HI2003 only)

You can use edge®pH and edge®EC in Basic Mode–ideal for routine measurements by displaying a simplified screen and features.

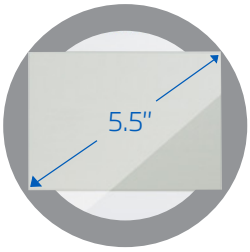
- CAL Check™ (HI2002 only)

edge®pH features Hanna's exclusive CAL Check™ technology to warn you if the electrode bulb is not clean or if the buffers are contaminated during calibration.

edge® design features

- Capacitive touch keypad

edge® features a capacitive touch keypad that gives a distinctive, modern look. Since the keypad is part of the screen, your 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 edge® and charge its batteries.

- 3.5 mm probe input

Plugging an electrode in has never been simpler; no alignments or broken pins, simply connect the 3.5 mm plug and begin. Digital electrodes are automatically recognized.

- Sleek design

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

Model Specific Features

Accepts edge®pH compatible pH and ORP probes

- Resolution selectable from 0.01 and 0.001 pH
- Range -2.000 to 16.000 pH
- Accuracy ±0.002 pH for 0.001 pH resolution; ±0.01 for 0.01 resolution
- Data logging
  - Manual log-on-demand
  - Manual log-on-stability
  - Interval logging
- Temperature readout (°C or °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

Accepts edge®EC compatible conductivity probe

- Digital four-ring conductivity probe
  - Covers all ranges from 0.00 µS/cm to 500 mS/cm (absolute EC)
- Accuracy
  - ± 1% of the reading (±0.05 µS/cm or 1 digit, whichever is greater)
- Calibration
  - Offset (0 µS/cm) and cell factor calibration
  - Choice of 5 standards (auto-recognition)
- Data logging
  - Manual log-on-demand
  - Manual log-on-stability
  - Interval logging
- Auto-ranging or manual range selection
- EC, TDS and salinity reading modes
- Temperature compensation
  - Automatic
  - NoTC (absolute)
- GLP data
  - Records date, time, offset and cell factor
  - Data of the last performed calibration is stored in the probe: date, time, cell constant, temperature coefficient, reference temperature and battery status. When the probe is connected to edge®EC , GLP data is automatically transferred
- Adjustable EC to TDS conversion factor
- Adjustable temperature correction coefficient
- Seawater salinity units
  - % NaCl
  - PSU
  - g/L

Accepts edge®DO compatible dissolved oxygen probe

- Clark type digital polarographic probe with easy-to-replace membrane cap
  - Covers all ranges from 0.00 to 45.00 mg/L (ppm); 0.0 to 300% saturation
- Accuracy ±1.5% full scale
- One or two-point calibration (HI7040), 0% (solution) and 100% (air)
- Data logging
  - Manual log-on-demand
  - Manual log-on-stability
  - Interval logging
- Automatic Temperature Compensation from 0 to 50 °C
- GLP data
  - Records date, time, calibration standards, altitude value and salinity value
- Altitude compensation from -500 to 4000 meters (-1640 to 13,123')
- Salinity compensation from 0 to 40g/L

Specifications

Specifications

edge®pH	pH	Range*	-2.00 to 16.00 pH; -2.000 to 16.000 pH†
		Resolution	0.01 pH; 0.001 pH†
		Accuracy (@25°C/77°F)	±0.01 pH; ±0.002 pH†
		Calibration	automatic, up to three points (five points†) calibration, 5 standard (7 standard†) buffers available (1.68†, 4.01 or 3.00, 6.86, 7.01, 9.18, 10.01, 12.45†) and two custom buffers†
		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	±1000 mV
		Resolution	0.1 mV
		Accuracy (@25°C/77°F)	±0.2 mV
	ORP	Range	±2000 mV
		Resolution	0.1 mV
		Accuracy (@25°C/77°F)	±0.2 mV (±999.9 mV); ±1 mV (±2000 mV)
		Calibration	one-point calibration
	Additional Specifications	Probe	HI11310 digital glass body pH electrode with 3.5 mm (1/8") connector and 1 m (3.3') cable
		Logging	up to 1000† (400 for basic mode) records organized in: manual log-on-demand (max. 200 logs), manual log-on-stability (max. 200 logs), interval logging† (max. 600 samples; 100 lots)
edge®EC	EC	Range	0.00 to 29.99 µS/cm; 30.0 to 299.9 µS/cm; 300 to 2999 µS/cm; 3.00 to 29.99 mS/cm; 30.0 to 200.0 mS/cm; up to 500.0 mS/cm absolute EC**
		Resolution	0.01 µS/cm; 0.1 µS/cm; 1 µS/cm; 0.01 mS/cm; 0.1 mS/cm
		Accuracy (@25°C/77°F)	±1% of reading (±0.5 µS or 1 digit, whichever is greater)
		Calibration	single cell factor calibration; six standards available: 84 µS/cm, 1413 µS/cm, 5.00 mS/cm, 12.88 mS/cm, 80.0 mS/cm, 118.8 mS/cm, one point offset: 0.00 µS/cm
		Temperature Coefficient	0.00 to 6.00%/°C (for EC and TDS only), default value is 1.90%/°C
	TDS	Range	0.00 to 14.99 mg/L (ppm); 15.0 to 149.9 mg/L (ppm); 150 to 1499 mg/L (ppm); 1.50 to 14.99 g/L; 15.0 to 100.0 g/L; up to 400.0 g/L absolute TDS using 0.80 conversion factor**
		Resolution	0.01 mg/L (ppm); 0.1 mg/L (ppm); 1 (ppm); 0.01 g/L; 0.1 g/L
		Accuracy (@25°C/77°F)	±1% of reading (±0.03 ppm or 1 digit, whichever is greater)
		Calibration	through EC calibration
		TDS Factor	0.40 to 0.80 (default value is 0.50)
	Salinity†	Range	0.0 to 400.0 % NaCl; 2.00 to 42.00 PSU; 0.0 to 80.0 g/L
		Resolution	0.1 % NaCl; 0.01 PSU; 0.01 g/L
		Accuracy (@25°C/77°F)	±1% of reading
		Calibration	PSU and g/L through EC calibration; % NaCl – one-point with HI7037 sea water standard
	Additional Specifications	Probe	HI763100 digital four-ring conductivity probe with 3.5 mm (1/8") connector and 1 m (3.3') cable
		Logging	up to 1000† (400 for basic mode) records organized in: manual log-on-demand (max. 200 logs), manual log-on-stability (max. 200 logs), interval logging† (max. 600 samples; 100 lots)
edge®DO	DO	Range	0.00 to 45.00 ppm (mg/L); 0.0 to 300.0 % saturation
		Resolution	0.01 ppm (mg/L); 0.1 % saturation
		Accuracy	± 1.5% of reading ±1 digit
		Calibration	one or two-point at 0% (HI7040 solution) and 100% (in air)
		Temperature Compensation	ATC (0 to 50°C; 32.0 to 122.0°F)*
		Salinity Compensation	0 to 40 g/L (with 1 g/L resolution)
		Altitude Compensation	-500 to 4000 m (-1640 to 13120') (with 100 m (328') resolution)
	Additional Specifications	Probe	HI764080 digital dissolved oxygen electrode with 3.5 mm (1/8") connector and 1 m (3.3') cable (included)
		Logging	up to 1000 records organized in: manual log-on-demand (max. 200 logs), manual log-on-stability (max. 200 logs), interval logging (max. 600 samples; 100 lots)
All Models	Temperature	Range*	-20.0 to 120.0°C; -4.0 to 248.0°F
		Resolution	0.1°C; 0.1°F
		Accuracy	±0.5°C; ±0.9°F
	Additional Specifications	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	202 x 140 x 12 mm (7.9" x 5.5" x 0.5")
		Weight	250 g (8.82 oz.)

* temperature limits will be reduced to actual probe limits
** with temperature compensation function disabled
† standard mode only

All edge® single parameter meters are supplied with:

benchtop docking station with electrode holder

wall-mount cradle

USB cable

5 VDC power adapter

edge® and electrode quality certificates

instruction manual

In addition to these components, the following meter-specific items are also included:

edge®pH: **HI2002-01** (115V) and **HI2002-02** (230V) also includes:

HI11310 glass body, refillable pH electrode

4 sachets of pH 7 buffer solutions

2 sachets of pH 4 buffer solutions

2 sachets of pH 10 buffer solutions

2 sachets of electrode cleaning solutions

edge®EC: **HI2003-01** (115V) and **HI2003-02** (230V) also includes:

HI763100 conductivity probe

4 sachets of 1413 µS/cm conductivity standard

2 sachets of 12880 µS/cm conductivity standard

2 sachets of 5000 µS/cm conductivity standard

2 sachets of electrode rinse solution

edge®DO: **HI2004-01** (115V) and **HI2004-02** (230V) also includes:

HI764080 dissolved oxygen electrode

HI7041S refill electrolyte solution

2 DO membrane caps

2 DO membrane cap o-rings

pH electrodes

(for HI2002 only)

Sensor Check™

HI11310

Single ceramic, double junction, glass body, refillable pH electrode with temperature sensor

Recommended for laboratory and general purpose

HI11311

Single ceramic, double junction, glass body, refillable pH electrode with temperature sensor and matching pin

Recommended for laboratory and general purpose

Sensor Check™

HI12300

Single ceramic, double junction, gel filled, PEI body, pH electrode with temperature sensor

Recommended for field applications

HI12301

Single ceramic, double junction, gel filled, PEI body, pH electrode with temperature sensor and matching pin

Recommended for field applications

HI10530

Triple ceramic, double junction, glass body, refillable pH electrode with conical tip and temperature sensor

Recommended for fats, creams, soil and low conductivity samples

HI10430

Triple ceramic, double junction, glass body, refillable pH electrode with temperature sensor

Recommended for low conductivity samples

HI10480

PTFE reference, double junction, Clogging Prevention System (CPS), glass body pH electrode with temperature sensor

Recommended for wine analysis and solutions with a high concentration of suspended solids

FC2320

Open viscolene reference electrolyte, double junction, PVDF body pH electrode with conical tip and temperature sensor

Recommended for meat applications with use of optional FC098 20 mm (0.8") or FC099 35 mm (1.4") stainless steel blade

FC2100

Open viscolene reference electrolyte, double junction, glass body pH electrode with conical tip and temperature sensor

Recommended for dairy analysis including milk

FC2020

Open viscolene reference electrolyte, double junction, PVDF body pH electrode with conical tip and temperature sensor

Recommended for dairy analysis including cheese, yogurt, and other semi-solids

ORP probes

(for HI2002 only)

HI36180

Single ceramic, double junction, glass body, refillable ORP probe with temperature sensor

Recommended for laboratory and general purpose

HI36200

Single ceramic, single junction, gel filed, PEI body, ORP probe with temperature sensor

Recommended for field applications

Conductivity probe

(for HI2003 only)

HI763100

Conductivity probe with temperature sensor

Recommended for general purpose

Dissolved oxygen electrode

(for HI2004 only)

HI764080

Dissolved oxygen electrode with temperature sensor

Recommended for general purpose

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