



HALO®

Wireless pH Meters

Take lab grade measurements using a smart phone or tablet

HALO is the world's first professional pH probe with Bluetooth® Smart technology (Bluetooth® 4.0). This technology is energy efficient, allowing for low power consumption to maximize the life of the replaceable battery used in the pH electrode. HALO pH probes can be used virtually anywhere: in the field, laboratory, or classroom. Their versatility and ease of use revolutionizes the way pH is measured.

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One Press Connect

Connect to the Hanna Lab App at the press of a button via Bluetooth® wireless technology (10 m (33') range). The LED halo light indicates that the probe is active and transmitting.



One Button Sample Tagging

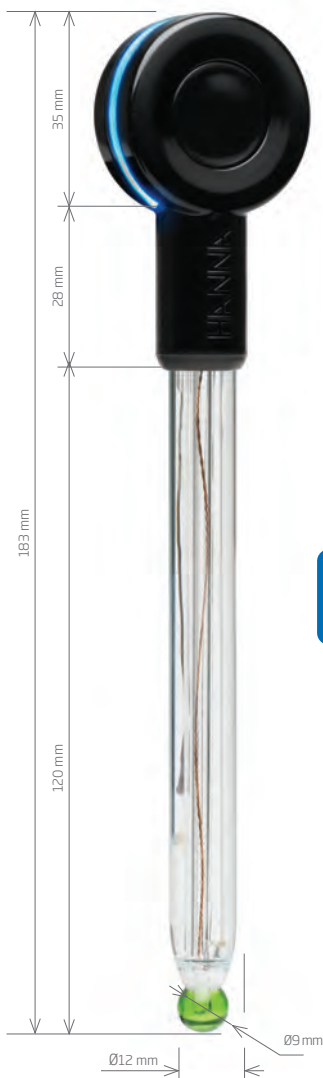
Pressing the button on the HALO pH probe or the probe icon in the Hanna Lab App will tag sample data for easy reference.



Easy to Replace Battery

The HALO's CR2032 lithium ion battery is easily replaced and lasts for approximately 500 hours.

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Also included with edge®blu

HI1102

HALO®

Compatible with:
iOS
Android™
edge®blu

Ideal for lab applications

HI1102 HALO is an innovative, pH electrode with Bluetooth® Smart technology that allows a compatible Apple or Android smart device to be used as a pH meter. This general purpose, glass body pH electrode is ideal for users that would prefer a laboratory pH electrode without the refill solution maintenance.

- Glass body
 - Non-porous surface that withstands harsh chemicals
- Double junction
 - Silver free outer reference that is compatible with most samples
- Built-in temperature sensor
 - High accuracy temperature compensated measurements
- Gel-filled reference
 - Maintenance free with no fill solutions required

Glass Body

The glass body of the HI1102 is ideal for laboratory use and for users that prefer to have a traditional laboratory pH electrode without having to maintain the proper fill solution level. The glass is resistant to many harsh chemicals and is easy to clean.

Double Junction

HI1102 is a double junction pH electrode in which the Ag/AgCl necessary for the reference cell is located behind an inner ceramic junction. The gel electrolyte between the inner and outer junction is silver free. This is important to prevent the precipitation of silver by Tris buffer, metals, and sulfides that would clog the junction leading to erratic readings.

Built-in Temperature Sensor

HI1102 has a thermistor temperature sensor built into the tip of the pH electrode. A thermistor based temperature sensor provides for a high accuracy temperature reading while being in the tip of the electrode allows for a rapid determination of the temperature as it impacts the effect on the glass membrane potential.

Maintenance Free Gel-filled Reference

HI1102 contains a silver free gel in the outer reference cell. There is no fill solution to replenish as the probe is used. Other than routine calibration and cleaning, this probe is maintenance free.

HALO Specifications	HI1102
Measurement Range	0.00 to 12.00 pH
Reference Cell Type	double, Ag/AgCl
Junction Type	ceramic
Electrolyte	gel
Body Material	glass
Tip / Shape	spheric
Temperature Operating Range	-5 to 80°C (23 to 176°F)
Glass Type	LT (low temperature)
Body Length/Overall Length	120 mm /183 mm
Temperature Sensor	integrated
Outer Diameter	12 mm (glass)
Connector Type	Bluetooth Smart (Bluetooth 4.0), 10 m (33') range
Battery Type/Life	CR2032 3V lithium ion / approximately 500 hours
Environment	0 to 50°C (32 to 122°F); electronic module is not waterproof

Ordering Information

HI1102 (HALO) is supplied with storage solution, cleaning solution, pH 7.01 buffer solution, pH 4.01 buffer solution, battery, quality certificate, and instruction sheet.

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