

HI 2211 • HI 2210

Benchtop pH Meters
with Large Display



ISO 9001:2000 Certified

 **HANNA**[®]
instruments
With Great Products, Come Great Results™
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Benchtop pH Meters

with Large Display

- *New Benchtop Design*
- *Extra Wide LCD (6.25" x 1.5")*
- *Automatic Calibration*
- *5 Standard Buffers*
- *Simultaneous display of pH and Temperature*
- *Automatic Temperature Compensation*
- *Extended mV Range (HI 2211)*

Simplicity in Design

The new HI 2211 and HI 2210 benchtop pH meters from HANNA are an affordable solution for laboratory testing without compromising accuracy.

These instruments feature an extra large (6.5" x 1.5") LCD which displays pH and temperature readings simultaneously. The large LCD also features a number of prompts and symbols that guide the user during the calibration operation, as well as during measurements.

These microprocessor based instruments provide pH readings that can be automatically temperatures compensated, as well as a stability indicator and a comprehensive step-by-step calibration procedure. Calibration can be performed at 1 or 2 points with 5 standard buffers.

HI 2210 and HI 2211 are supplied ready to use with a glass body pH electrode, temperature probe, electrode holder and a startup set of buffer solutions.

These units are compatible with a wide range of pH electrodes with BNC connectors.



HI 2211

HANNA's new HI 2211 is a microprocessor based pH, mV and temperature benchtop meter. It features an extra large LCD that displays pH or mV and temperature simultaneously. The extra large LCD (6.25" x 1.5") can be viewed from a distance in a lab.

This instrument can measure pH from -2.00 to 16.00 and can be calibrated at 1 or 2 points using 5 standard buffers. During calibration, prompts on the LCD guide the user through the process. Temperature compensation of the pH measurement can be automatic or manual between -9.9 to 120°C.

HI 2211 features a dual mV range (± 399.9 or ± 2000 mV) which can be used for ISE measurements, ORP measurements or to check the offset and slope of the pH electrode. Other features include a measurement memory function and a reading stability indicator.

The HI 2211 is supplied with an HI 1131B glass body combination pH electrode, HI 7662 temperature probe, electrode holder, power adapter and buffer solutions to get you started.

HI 2210

For less demanding applications, HANNA's HI 2210 includes all of the features of the HI 2211 with the exception of mV mode.



Calibration Operations



First Calibration Point

When entering calibration mode with the CAL button, the instrument prompts the user to immerse the electrode into the first buffer (offset). A different buffer can be selected if desired.

The instrument will ask the user to confirm the first calibration point before prompting the second point. To perform a one point calibration, press CAL after the first point has been confirmed.



Second Calibration Point

After confirming the first calibration point, the instrument prompts the user to immerse the electrode in the second buffer (slope). The instrument will ask you to confirm the reading.



Wrong Buffer Warning

In the event a pH electrode is immersed into the wrong calibration buffer, the HI 2211 and HI 2210 will display "WRONG" on the LCD and will not allow confirmation of the buffer.

During this step, the memorized buffer may be changed to match the calibration buffer.

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SPECIFICATIONS

| | | HI 2210 | HI 2211 |
|--------------------------|-------------|---|---|
| Range | pH | | -2.00 to 16.00 pH |
| | mV | — | ±399.9 mV ; ±2000 mV |
| | Temperature | | -9.9 to 120.0°C |
| Resolution | pH | | 0.01 pH |
| | mV | — | 0.1 mV; 1 mV |
| | Temperature | | 0.1°C |
| Accuracy (@20°C) | pH | | ±0.01 pH |
| | mV | — | ±0.2 mV (±399.9 mV); ±1 mV (±2000 mV) |
| | Temperature | | ±0.5 °C (0.0 – 100.0 °C); ±1 °C (outside) (excluding probe error) |
| pH Calibration | | automatic, 1 or 2 points with 5 automatically recognized buffers (pH 4.01, 6.86, 7.01, 9.18, 10.01) | |
| Temperature Compensation | | automatic (with HI 7669/2W probe) or manual from -9.9 to 120°C | |
| pH Electrode | | HI 1131B, glass-body, single junction, refillable, BNC connector, 1 m cable (included) | |
| Temperature Probe | | HI 7662 with 1 m (3.3') cable (included) | |
| Input Impedance | | 10 ¹² Ohm | |
| Power Supply | | 12 Vdc adapter (included) | |
| Environment | | 0 to 50°C (32 to 122°F); RH max 95% | |
| Dimensions | | 240 x 182 x 74 mm (9.4 x 7.1 x 2.9") | |
| Weight | | 1.1 Kg (2.5 lb); kit with holder 2.5 Kg (5.5 lb) | |

ORDERING INFORMATION

HI 2210-01 (115V) and HI 2210-02 (230V), HI 2211-01 (115V) and HI 2211-02 (230V) are supplied with HI 1131B glass-body combination pH electrode with 1 m (3.3') cable, HI 7662 temperature probe, electrode holder, pH 4.01 & 7.01 buffer solutions (20 mL ea.), HI 70715 electrolyte solution, 12 Vdc power adapter and instruction manual.

ELECTRODES

- HI 1131B** Refillable pH electrode with BNC connector and 1 m (3.3') cable
HI 7662 Temperature probe

SOLUTIONS

- HI 5004** pH 4.01 buffer solution, 500 mL
HI 5007 pH 7.01 buffer solution, 500 mL
HI 5010 pH 10.01 buffer solution, 500 mL
HI 54710 pH 4.01, pH 7.01 and pH 10.01 buffer solution, 500 mL ea.
HI 70300L Electrode storage solution, 500 mL

HI 50XX buffers are technical buffers with ±.01 accuracy and are provided with certificate

ACCESSORIES

- HI 8427** pH/mV electrode simulator
HI 931001 pH/mV electrode simulator with display
HI 76404 Electrode holder

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