

Combination pH/mV and EC/TDS/NaCl Meter for Laboratories

This meter is a high performance precision instrument that measures a multitude of parameters, each over a wide range. With this single laboratory bench meter you can measure pH, ORP, conductivity, TDS, NaCl percentage and temperature.

Utilizing an external temperature probe, pH readings are automatically temperature compensated. pH calibrations are customizable - up to 3 reference points, chosen from the 5 available memorized buffers - to ensure a higher level of precision. EC measurements can be compensated relative to a selected reference temperature of 20 or 25°C. The EC calibration mode allows you to choose from among 6 memorized buffers and performed at single-point calibration. The most suitable EC and TDS range for your application is automatically selected.

With a built-in logging function, measurements are stored in non volatile memory, and can be downloaded to a PC through the RS232 serial port. In addition to these features, HI 255 contains GLP features that store the calibration and measurement data of any sample, to be displayed upon request.



Optional accessories

- Laboratory Combination pH and ORP Electrodes
- 4-Ring Potentiometric Probes
- Temperature Probe
- Electrode Holder
- 4.01 pH Buffer Solution: 1 x 500 mL bottle
- 7.01 pH Buffer Solution: 1 x 500 mL bottle
- 10.01 pH Buffer Solution: 1 x 500 mL bottle
- Combination pH Buffer Kit 4.01 & 7.01 pH
- Electrolyte Solution, 3.5M KCl + AgCl: 4 x 30 mL bottles
- Electrode Storage Solution: 1 x 500 mL bottle
- 12880 $\mu\text{S/cm}$ ($\mu\text{mho/cm}$): 1 x 500 mL bottle
- 1413 $\mu\text{S/cm}$ ($\mu\text{mho/cm}$): 1 x 500 mL bottle
- 84 $\mu\text{S/cm}$ ($\mu\text{mho/cm}$): 1 x 500 mL bottle
- 80000 $\mu\text{S/cm}$ ($\mu\text{mho/cm}$): 1 x 500 mL bottle
- 111800 $\mu\text{S/cm}$ ($\mu\text{mho/cm}$): 1 x 500 mL bottle
- Calibration solution for % Readings (100% NaCl): 1 x 500 mL bottle
- Voltage adapter from 115V to 12 Vdc (USA plug)
- Voltage adapter from 230V to 12 Vdc (European plug)
- Cable for PC Connection, 9 to 9-pin
- Windows® Compatible Software for Logging Instruments, Photometers and Turbidity Meters

Technical specifications

Range pH/ORP

-2.00 to 16.00 pH; -2.000 to 16.000 pH / ± 699.9 mV; ± 2000 mV

Range EC

0.00 to 29.99 $\mu\text{S/cm}$; 30.0 to 299.9 $\mu\text{S/cm}$; 300 to 2999 mS/cm

3.00 to 29.99 mS/cm; 30.0 to 200.0 mS/cm; up to 500.0 mS/cm actual EC*

Range TDS

0.00 to 14.99 ppm; 15.0 to 149.9 ppm; 150 to 1499 ppm;

1.50 to 14.99 g/L; 15.0 to 100.0 g/L; up to 400.0 g/L actual TDS*

Range NaCl

0.0 to 400.0% NaCl

Range Temperature

-10 to 120.0°C (pH); 0.0 to 60.0°C (EC)

Resolution pH/ORP

0.01 pH; 0.001 pH / 0.1 mV (± 699.9 mV); 1 mV (± 2000 mV)

Resolution EC

0.01 $\mu\text{S/cm}$; 0.1 $\mu\text{S/cm}$; 1 $\mu\text{S/cm}$; 0.01 mS/cm; 0.1 mS/cm

Resolution TDS

0.01 ppm; 0.1 ppm; 1 ppm; 0.01 g/L; 0.1 g/L

Resolution NaCl

0.1% NaCl

Resolution Temperature

0.1°C

Accuracy pH/ORP

± 0.01 pH; ± 0.002 pH / ± 0.2 mV (± 699.9 mV); ± 1 mV (± 2000 mV)

Accuracy EC

$\pm 1\%$ of reading $\pm (0.05 \mu\text{S/cm}$ or 1 digit)

Accuracy TDS

$\pm 1\%$ of reading $\pm (0.03$ ppm or 1 digit)

Accuracy NaCl

$\pm 1\%$ of reading

Accuracy Temperature

$\pm 0.4^\circ\text{C}$ (excluding probe error)

Relative mV Offset Range

± 2000 mV

Calibration pH

automatic, at 1, 2 or 3 points, with 5 memorized buffers (4.01, 6.86, 7.01, 9.18, 10.01)

Calibration EC

automatic, 1 point, with 6 memorized values

(84.0 and 1413 $\mu\text{S/cm}$; 5.00, 12.88, 80.0 and 111.8 mS/cm)

Calibration NaCl

automatic, 1 point, with HI 7037L calibration solutions

Temperature Compensation

manual or automatic, -10.0 to 120.0°C (14 to 248°F) for pH; 0.0 to 60.0°C (32 to 140°F) for EC;

(can be disabled for measuring actual EC and TDS values)

Temperature Coefficient

0.00 to $6.00\%/^\circ\text{C}$ (EC and TDS only); default value: $1.90\%/^\circ\text{C}$

TDS Conversion Factor

0.40 to 0.80 ; default value: 0.50

pH Electrode

HI 1131B (included)

EC Probe

HI 76310 (included)

Temperature Probe

HI 7662 (included)

PC Connection

RS232 opto-isolated serial port

Data Logging

200 samples

Input Impedance

1012Ω

Power Supply

12 Vdc adapter (included)

Environment

0 to 50°C (32 to 122°F); RH max 95%

Dimensions

$240 \times 182 \times 74 \text{ mm}$ ($9.4 \times 7.2 \times 2.9$ ")

Weight

1.1 kg (2.4 lb.)

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