Portable pH/Ion Meter - Handheld ISE and pH Meter - -2.000 to 20.000 pH - IP67 Waterproof

Model **MSBEP-M510PSWISS** | Brand **Master Science**





The Master Science Portable pH/Ion Meter takes laboratory-grade pH and ion-selective electrode measurement into the field. It reads pH from -2.000 to 20.000 with ±0.002 pH accuracy, ion concentration from 1E-9 to 9.999E9, mV/ORP and temperature.

KEY HIGHLIGHTS

- Ion analysis on site
- Waterproof
- Stable end points
- Electrode checks built in
- Sample tracking

AT A GLANCE

-2.000 to 20.000 pH PH RANGE	**-2000.00 to 2000.00 mV** MV/ORP RANGE
1E-9 to 9.999E9 ISE RANGE	**±0.002 pH** PH ACCURACY

Request a Quotation
Contact us for pricing, configuration options and delivery details.

support@themsci.com
www.themsci.com

Scan to view online

Overview

The hand-held body is IP67 waterproof, runs on a rechargeable lithium battery and is operated from a 4.3-inch colour touch screen. Up to eight calibration points are supported for pH and for ions, and more than ten ion methods are built in.

Overview

- 1 to 8 point calibration with standard recognition
- User-defined buffers and buffer groups
- Automatic electrode diagnosis

Overview

- 1 to 8 point calibration
- Units from µg/L to mol/L, pX and ppm
- More than 10 built-in methods plus user-defined methods

Key Benefits

Ion analysis on site
the Master Science Portable pH/Ion Meter carries ISE methods into the field.

Waterproof
IP67 housing.

Stable end points
auto-hold function.

Electrode checks built in
slope and offset diagnosis.

Sample tracking
barcode scanner support over USB.

The laboratory version is the Master Science benchtop pH/ion meter.

Technical Specifications

GENERAL

Brand	Master Science
Model Number	MSBEP-M510PSWISS
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Parameters	pH, ISE, mV/ORP, pX, temperature
pH Range	**-2.000 to 20.000 pH**
pH Resolution	0.1, 0.01, 0.001 pH
pH Accuracy	**±0.002 pH**
pH Calibration	Up to 8 points; USA, NIST, DIN, GB, JIS and other buffer groups; custom standards; reminder; slope limit
mV/ORP Range	**-2000.00 to 2000.00 mV**
mV Resolution / Accuracy	**0.1, 0.01 mV / ±0.1 mV or ±0.03% of reading, whichever is greater**
ORP	EH mode; 1 custom calibration point (relative mV)
pX	-2.000 to 20.000 pX; accuracy ±0.002 pX; up to 6 points
ISE Range	**1E-9 to 9.999E9**
ISE Units	mol/L, mmol/L, g/L, mg/L, µg/L, ppm, ppb
ISE Accuracy	**±0.3%; up to 4 significant digits; up to 8 calibration points**
ISE Modes	Direct reading, standard addition, sample addition, GRAN
Temperature	-10 to 135 °C (14 to 275 °F); resolution 0.1; relative accuracy ±0.1
Reading Modes	Auto read (fast, medium, slow), timed, continuous
Temperature Compensation	ATC and MTC
Inputs	pH electrode BNC (Q9); temperature probe 4-pin aviation connector
Auto Shutdown	300, 600, 1200, 1800, 3600 s, or off
IP Rating	IP67
Power	Rechargeable lithium battery; AC adapter 100-240 V AC, DC 5 V output

DISPLAY & DATA

Data Storage	1000 groups per parameter, with GLP functions
Output	USB 2.0 (flash drive, PC, scanner)
Display	4.3-inch colour LCD touch screen with backlight

DIMENSIONS & WEIGHT

Dimensions	90 × 255 × 40 mm
Weight	500 g

COMMON PROBLEMS AND HOW THIS METER HELPS

Common Problems and How This Meter Helps	How the Master Science Portable pH/Ion Meter supports field ion analysis:
Samples changing on the way to the lab	measurement at the sampling point.
Wet working conditions	IP67 protection.
Complex sample matrices	standard addition and GRAN modes.
Mixed-up sample IDs	barcode scanner input.

The Master Science Portable pH/Ion Meter is used in

- **Health and disease control**
- **Environmental protection**
- **Agriculture and forestry**
- **Water quality analysis**
- **Scientific research and higher education**

General

- High-contrast colour touch screen
- User, calibration, electrode, method, data and log management
- Auto power-off to save the battery
- Factory reset

Optional Accessories

- Ion-selective composite electrodes (required option, chosen by ion): fluoride, chloride, bromide, iodide, nitrate, potassium, sodium, calcium, copper, lead, ammonium, ammonia, perchlorate, fluoroborate, residual chlorine