

VIKING-M510A Portable pH/Conductometer Multi-parameter Water Analyzer

Product Details

Product Number

PRO5383



Technical Specification:

Overview

VIKING-M510A by **COLO.Science** measures pH, ion-selective electrodes (ISE), conductivity (EC) and temperature. It also supports mV/ORP and pX, and it calculates resistivity, TDS and salinity. **In short**, it is easy to use, fast and highly precise.

Moreover, the 4.3" color touchscreen speeds up configuration and daily work. **Therefore**, routine testing becomes quicker and more consistent. **In addition**, the IP65 housing enables reliable field operation.

General Features

- Multi-reading: auto-read, timed-read, continuous-read.
- Automatic/Manual temperature compensation (ATC/MTC).
- Auto-hold endpoint lock; clear Reading / Stable / Locked prompts.
- GLP data: up to **1000 sets per parameter**, with data review/compare/recalculate.
- User, calibration, electrode, method and log management.
- USB communication; auto power-off; factory reset.
- IP65 portable design for field/outdoor measurements.

Measurement Modules

pH / mV / ORP / pX / ISE

pH: 1–8 point calibration with standard recognition; buffer groups USA, NIST, DIN, GB, MERK, JIS; user-defined buffers supported; electrode diagnostics (slope & offset). **ORP:** EH mode, 1 custom calibration point (relative mV).

ISE: 1–8 points, units $\mu\text{g/L}$ to ppb and pX; modes Direct, Standard Addition, Sample Addition and GRAN; built-in methods for F^- , Cl^- , Br^- , I^- , NO_3^- , BF_4^- , NH_4^+ , K^+ , Na^+ , Ca^{2+} , Cu^{2+} , Pb^{2+} , Ag^+ ; user-defined method supported.

Conductivity / TDS / Salinity / Resistivity

1–5 point calibration with automatic standard recognition. Set cell constant, reference temperature (5/10/15/18/20/25 °C), temperature coefficient and TDS factor. Temperature compensation: none, linear or pure water.

Applications

Designed for water quality labs, environmental monitoring, industrial process control and on-site inspections. **As a result**, teams complete routine testing faster and with fewer errors.

Included in the Kit

- 3-in-1 pH composite electrode
- EC electrode
- NIST pH buffers 4.01 / 7.00 / 10.01 (50 mL each)
- 1413 µS/cm EC standard solution (50 mL)
- Electrode holder, silicone rubber case, wristbands
- Touch pen
- Carrying case

Specifications

Model & Parameters

Parameter	Details
Model	VIKING-M510A — pH/EC/ISE/Temp (mV/ORP/pX/Resistivity/TDS/Salinity)

pH / mV / ORP / pX / ISE

Parameter	Details
pH	Range: -2.000 to 20.000 pH; Resolution: 0.1 / 0.01 / 0.001 pH; Accuracy: ±0.002 pH; Calibration: up to 8 points; Buffer groups: USA, NIST, MERK, JIS, GB, DIN; Slope limit & reminder: Yes; User-defined buffer: Yes.
mV / ORP	Range: -2000.00 to 2000.00 mV; Resolution: 0.1 / 0.01 mV; Accuracy: ±0.1 mV or ±0.03%; EH ORP mode: Yes; ORP calibration: 1 custom point (relative mV).
pX	Range: -2.000 to 20.000 pX; Resolution: 0.1 / 0.01 / 0.001 pX; Accuracy: ±0.002 pX; Calibration: up to 6 points.
ISE	Range: 1.000e-9 to 9.999e+9; Units: mol/L, mmol/L, g/L, mg/L, µg/L, ppm, ppb; Resolution: up to 4 significant digits; Accuracy: ±0.3%; Calibration: up to 8 points.

Conductivity / Resistivity / TDS / Salinity

Parameter	Details
Conductivity (EC)	Range: 0.000 µS/cm to 3000 mS/cm; Resolution: min 0.001 µS/cm (varies by range); Accuracy: ±0.5% FS; Reference temp: 5 / 10 / 15 / 18 / 20 / 25 °C; Calibration: up to 5 points; Reminder: Yes; Standards: 10 µS/cm, 84 µS/cm, 500 µS/cm, 1413 µS/cm, 12.88 mS/cm, 146.5 µS/cm, 1408 µS/cm, 12.85 mS/cm, 111.3 mS/cm; Temp. comp.: none / linear / pure water; Settable: cell constant, temp. coeff., TDS factor.
Resistivity	Range: 5.00 Ω·cm to 100.0 MΩ·cm; Resolution: min 0.01 Ω·cm; Accuracy: ±0.5% FS.

Parameter	Details
TDS	Range: 0.000 ppm to 1000 ppt; Resolution: min 0.001 ppm (varies by range); Accuracy: ±0.5% FS.
Salinity	Range: 0.0 to 80.0 ppt; Resolution: 0.1 ppt; Accuracy: ±1 ppt.

Temperature & Measurement

Parameter	Details
Temperature	Range: −10 to 135 °C (14 to 275 °F); Units: °C / °F; Resolution: 0.1; Accuracy: ±0.1 °C.
Measurement modes	Auto-Read (Fast / Medium / Slow), Timed, Continuous; Prompts: Reading / Stable / Locked.
Compensation	ATC / MTC.

Data, I/O & System

Parameter	Details
Data & GLP	Storage: 1000 groups; GLP features: Yes; Data analysis: review / compare / recalc.
Inputs	pH electrode: BNC (Q9); DO + Temp probe: 4-pin aviation; EC + Temp probe: 5-pin aviation.
Outputs	USB 2.0 (flash drive, PC, scanner).
Display	4.3" color high-contrast LCD touchscreen; Backlight: Yes; Auto shutdown: 300 / 600 / 1200 / 1800 / 3600 s or Off; Date & Time: Yes.
Protection	IP65.
Power	Rechargeable Li battery; AC adapter 100–240 V in, DC 5 V out.

Dimensions / Weight 90 × 255 × 40 mm; 500 g (1.1 lb).

Specifications subject to change without notice.

Why VIKING-M510A

- All-in-one portability: pH / ISE / EC / ORP / Temp.
- GLP traceability with up to 1000 data sets per parameter.
- Rugged IP65 design for field work.
- Fast workflows: auto-read, auto-hold, smart calibration & diagnostics.

Therefore, routine water tests finish faster and more reliably.

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Accessories: