

VIKING-M510 Portable pH/Conductometer Multi-parameter Water Analyzer

Product Details

Product Number

PRO5918



Technical Specification:

Overview — VIKING-M510 portable multi-parameter meter

VIKING-M510 from [COLO.Science](https://www.coloscientific.com) is a rugged IP65 portable instrument for **pH, mV/ORP, conductivity, resistivity, TDS, salinity, ISE, dissolved oxygen** and temperature. It features a bright **4.3"** **color touchscreen**, an intelligent OS with user/calibration/electrode/method/data management, and **GLP-compliant memory (1000 groups per parameter)** for traceable results. Multi-reading modes (Auto-Read, Timed-Read, Continuous) and automatic/manual temperature compensation ensure reliable measurements in the lab or in the field.

Measurement modes & calibration

- **Reading modes:** Auto Read (Fast/Medium/Slow), Timed, Continuous
- **pH:** up to 8 points; USA/NIST/DIN/GB/MERK/JIS buffers; user-defined buffers; auto slope/offset diagnostics
- **Conductivity:** up to 5 points; ref. temp 5/10/15/18/20/25 °C; 10 µS/cm–12.88 mS/cm (and equivalents) standard recognition
- **ISE:** Direct, Standard Addition, Sample Addition, GRAN; >10 built-in methods (e.g., F⁻, Cl⁻, NO₃⁻, NH₄⁺, K⁺, Na⁺, Ca²⁺, Cu²⁺, Pb²⁺, Ag⁺); up to 8 points
- **DO:** polarographic sensor; air-saturated water or zero O₂ calibration; auto barometric compensation; manual salinity correction

Key features

- 4.3" high-contrast color touchscreen; backlight
- Intelligent OS: user / calibration / electrode / method / data / log management
- Auto-Hold endpoint detection; ATC/MTC
- USB 2.0 (flash drive / PC / printer-scanner)
- Reset to factory defaults; auto power-off (300–3600 s)
- IP65 enclosure for field and outdoor measurements

Inputs & outputs

- **Inputs:** pH electrode BNC (Q9); DO probe 4-pin aviation; Conductivity probe 5-pin aviation
- **Outputs:** USB 2.0 (flash drive, PC, scanner/printer)

Models & dimensions

Model	Name	Display	IP Rating	Dimensions (W×L×H)	Weight
VIKING-M510	Portable multi-parameter meter	4.3" color touchscreen	IP65	90 × 255 × 40 mm	≈ 500 g

Technical specifications

Technical specifications — VIKING-M510 (Model M510T)

Model M510T

Parameters pH / EC / ISE / DO / Temp. (mV / ORP / pX / Resistivity / TDS / Salinity / DO Saturation)

pH

Range	−2.000 to 20.000 pH
Resolution	0.1, 0.01, 0.001 pH
Accuracy	±0.002 pH
Calibration Points	Up to 8
Standard Customization	Yes
Calibration Reminder	Yes
Standard Recognition	USA, NIST, MERK, JIS, GB, DIN buffers
Slope Limit	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 Points	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 Points Up to 6

ISE

Range 1.000e-9 to 9.999e+9
Units mol/L, mmol/L, g/L, mg/L, $\mu\text{g/L}$, ppm, ppb, pX
Resolution Up to 4 significant digits
Accuracy $\pm 0.3\%$
Calibration Points Up to 8

Conductivity

Range 0.000 $\mu\text{S/cm}$ to 3000 mS/cm
Resolution 0.001 $\mu\text{S/cm}$ minimum (varies with range selection)
Accuracy $\pm 0.5\%$ FS
Reference Temperature 5, 10, 15, 18, 20, 25 °C
Calibration Points Up to 5
Calibration Reminder Yes
Standard Recognition 10 $\mu\text{S/cm}$, 84 $\mu\text{S/cm}$, 500 $\mu\text{S/cm}$, 1413 $\mu\text{S/cm}$, 12.88 mS/cm; 146.5 $\mu\text{S/cm}$, 1408 $\mu\text{S/cm}$, 12.85 mS/cm, 111.3 mS/cm

Resistivity

Range 5.00 $\Omega\cdot\text{cm}$ ~ 100.0 $\text{M}\Omega\cdot\text{cm}$
Resolution 0.01 $\Omega\cdot\text{cm}$ minimum
Accuracy $\pm 0.5\%$ FS

TDS

Range 0.000 ppm ~ 1000 ppt
Resolution 0.001 ppm minimum (changes with range)
Accuracy $\pm 0.5\%$ FS

Salinity

Range 0.0 ~ 80.0 ppt
Resolution 0.1 ppt
Accuracy ± 1 ppt

Dissolved Oxygen — Concentration

Sensor Type Polarographic

Range	0.00 to 99.99 ppm
Resolution	0.01 ppm
Accuracy	±0.10 ppm (0.00–50.00), ±0.50 ppm (50.0–99.99)
Calibration Reminder	Yes
Calibration Points	Air-saturated water or zero point
Barometric Compensation	Yes
Manual Salinity Factor Correction	Yes

Dissolved Oxygen — Saturation

Range	0.0 to 600.0 %
Resolution	0.10 %
Accuracy	±2.0 %

Temperature

Range	–10 to 135 °C, 14 to 275 °F
Unit	°C, °F
Resolution	0.1
Relative Accuracy	±0.1

Measurement

Reading Mode	Auto Read (Fast, Medium, Slow), Timed, Continuous
Reading Prompts	Reading, Stable, Locked
Temp. Compensation	ATC, MTC

Data management

Data Storage	1000 Groups
GLP Features	Yes

Inputs & outputs

pH Electrode	BNC (Q9)
DO with Temp. Probe	4-pin aviation connector
Conductivity with Temp. Probe	5-pin aviation connector
Outputs	USB 2.0 flash memory device, PC, scanner

Display & power

Backlight Yes

Auto Shutdown 300, 600, 1200, 1800, 3600 s; Off

Date & Time Yes

IP Rating IP65

General

Power Rechargeable Lithium battery; AC Adapter 100–240 V AC input, DC 5 V output

Dimensions 90 × 255 × 40 mm

Weight 500 g

SKU: PRO5918 Category: [Portable Multi-Parameter Analyzer](#)

Accessories: