

# VIKING-M310F Portable Multi-parameter Water Analyzer

Product Details

Product Number	PRO6093
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## Technical Specification:

### Overview

**VIKING-M310F** by **COLO.Science** is a portable analyzer for pH, ion-selective electrodes (ISE), conductivity, dissolved oxygen, and temperature. It also supports mV, pX, resistivity, TDS, salinity, and DO saturation. The instrument is easy to use and highly precise.

**Moreover**, the 3.5" LCD speeds up navigation and setup. **Therefore**, routine work becomes faster and more consistent. **In addition**, the IP65 housing supports 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.
- Up to **500 data sets per parameter** (GLP-compliant).
- USB communication; auto power-off; factory reset.
- IP65 waterproof portable design for field/outdoor measurements.

### Measurement Modules

#### pH / mV / pX / ISE

pH: 1–5 point calibration with standard recognition; buffer groups NIST, DIN, GB; electrode diagnostics (slope & offset).

ISE: 1–5 points, units from  $\mu\text{g/L}$  to ppb and pX; modes Direct, Standard Addition, Sample Addition, and GRAN; built-in methods for F<sup>-</sup>, Cl<sup>-</sup>, Br<sup>-</sup>, I<sup>-</sup>, NO<sub>3</sub><sup>-</sup>, BF<sub>4</sub><sup>-</sup>, NH<sub>4</sub><sup>+</sup>, K<sup>+</sup>, Na<sup>+</sup>, Ca<sup>2+</sup>, Cu<sup>2+</sup>, Pb<sup>2+</sup>, Ag<sup>+</sup>; user-defined method supported.

## Conductivity / TDS / Salinity / Resistivity

1–3 point calibration with standard recognition (84 µS/cm, 1413 µS/cm, 12.88 mS/cm). Set cell constant, temperature coefficient, and TDS factor. Temperature compensation: none, linear, or pure water.

## Dissolved Oxygen (DO)

Calibration in air-saturated water or at zero oxygen. **Moreover**, barometric pressure compensation is automatic; salinity factor correction is manual as required.

## 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
- Polarographic DO 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
- Carrying case

## Specifications

Parameter	Details
Model	VIKING-M310F — pH/EC/ISE/DO/Temp (mV, pX, Resistivity, TDS, Salinity, DO Saturation)
pH	Range: –2.00 to 20.00 pH; Resolution: 0.1 / 0.01 pH; Accuracy: ±0.01 pH; Calibration: up to 5 points; Buffer groups: NIST, GB, USA, DIN; Slope limit & recognition: Yes.
mV	Range: –2000.0 to 2000.0 mV; Resolution: 0.1 mV; Accuracy: ±0.3 mV or ±0.1%.
pX	Range: –2.00 to 20.00 pX; Resolution: 0.1 / 0.01 pX; Accuracy: ±0.01 pX; Calibration: up to 5 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: ±0.5%; Calibration: up to 5 points.
Conductivity	Range: 0.000 µS/cm to 500 mS/cm; Resolution: min 0.001 µS/cm (varies by range); Accuracy: ±1.0% FS; Reference temp.: 20 / 25 °C; Calibration: up to 3 points; Standards: 84 µS/cm, 1413 µS/cm, 12.88 mS/cm.
Resistivity	Range: 5.00 Ω·cm to 20.00 MΩ·cm; Resolution: min 0.01 Ω·cm; Accuracy: ±1.0% FS.
TDS	Range: 0.00 ppm to 300 ppt; Resolution: min 0.01 ppm (varies by range); Accuracy: ±1.0% FS.
Salinity	Range: 0.0 to 80.0 ppt; Resolution: 0.1 ppt; Accuracy: ±2 ppt.
DO (Concentration)	Range: 0.00 to 50.00 ppm; Resolution: 0.01 ppm; Accuracy: ±0.10 ppm; Calibration: air-saturated water or zero point; Barometric compensation: Auto; Salinity correction: Manual.
DO (Saturation)	Range: 0.0 to 300.0 %; Resolution: 0.10 %; Accuracy: ±2.0 %.
Temperature	Range: –5 to 110 °C (23 to 230 °F); Units: °C / °F; Resolution: 0.1; Accuracy: ±0.2 °C.
Measurement Modes	Auto-Read (Fast/Medium/Slow), Timed, Continuous; Prompts: Reading / Stable / Locked.
Compensation	ATC / MTC; Conductivity temp. compensation: none, linear, pure water.

Parameter	Details
<b>Data &amp; GLP</b>	Data storage: up to 500 results per parameter; GLP features: Yes.
<b>Inputs</b>	pH electrode: BNC (Q9); DO+Temp probe: 4-pin aviation; Conductivity+Temp probe: 5-pin aviation.
<b>Outputs</b>	USB (PC / printer).
<b>Display</b>	3.5" LCD; Backlight: Yes; Auto shutdown: 300/600/1200/1800/3600 s or Off; Date & Time: Yes.
<b>Protection</b>	IP65.
<b>Power</b>	Rechargeable Li battery; AC adapter 100–240 V in, DC 5 V out.
<b>Dimensions / Weight</b>	80 × 225 × 35 mm; 400 g (0.88 lb).
<b>Carton</b>	490 × 410 × 220 mm; Gross weight: 5.5 kg.

Specifications subject to change without notice.

## Why VIKING-M310F

- All-in-one portability: pH / ISE / EC / DO / Temp.
- GLP traceability with up to 500 data sets per parameter.
- Rugged IP65 design for field work.
- Fast workflows: auto-read, auto-hold, smart calibration.

**Therefore**, teams complete routine water tests faster and more reliably.

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Accessories: