

VIKING-M310F

Portable Multi-parameter Water Analyzer · pH / EC / ISE / DO / Temperature

VIKING-M310F Portable Multi-parameter Water Analyzer is a compact field-ready electrochemistry instrument for pH, ion-selective electrodes, conductivity, dissolved oxygen and temperature. It also supports **mV, pX, resistivity, TDS, salinity and DO saturation**. The instrument combines a 3.5" LCD, IP65 portable housing, rechargeable battery, USB communication and GLP-oriented data storage in a single portable water-quality platform.

PORTABLE ANALYZER

PH / MV / PX

ION ISE

EC CONDUCTIVITY

DO OXYGEN

TDS / SALINITY

RESISTIVITY

TEMPERATURE

3.5" LCD

USB

IP65

GLP 500 SETS

Document type: **Technical Specification Sheet**

Product family: **Portable Electrochemistry / Water Quality Multi-parameter Analyzer**

Model: **VIKING-M310F** · Product number / SKU: **PRO6093**

Product page: **to be assigned on colo.si**

Format: **A4 landscape** · **COLO.Science TechSpec template with navigation links**



VIKING-M310F · portable pH / EC / ISE / DO water analyzer · main unit

MODEL / SKU

VIKING-M310F
PRO6093

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COLO.SCIENCE HOME

REQUEST QUOTE

ANALYZER CATEGORY

WATER QUALITY KNOWLEDGE

VIKING-M310F · technical specification

Portable analyzer for pH, ISE, EC, dissolved oxygen, TDS, salinity, resistivity and temperature

PH -2.00 TO 20.00

EC UP TO 500 MS/CM

DO 0.00 TO 50.00 PPM

TEMP. -5 TO 110°C

- Compact field workflow for laboratory, plant and outdoor water testing

Product Overview

Application profile

Water quality: designed for pH, EC, ISE, dissolved oxygen, TDS, salinity, resistivity and temperature checks.

Field operation: IP65 portable housing, rechargeable battery and carrying case support outdoor and on-site measurements.

Ion measurement: ISE workflow includes direct, standard addition, sample addition and GRAN methods.

Routine testing: suitable for water-quality labs, environmental monitoring, industrial process control and inspections.

Design and handling advantage

3.5" LCD: backlit display supports faster setup, status review and routine measurement control.

Endpoint handling: auto-hold endpoint lock with Reading / Stable / Locked prompts helps reduce operator uncertainty.

Traceability: up to 500 data sets per parameter with GLP-compliant data handling.

Data transfer: USB communication supports PC or printer workflows for reporting and documentation.

Key features

Multi-reading: Auto-Read, Timed Read and Continuous Read measurement modes.

Temperature handling: automatic or manual temperature compensation (ATC / MTC).

Calibration support: pH and ISE up to 5 points; conductivity up to 3 points.

Conductivity setup: selectable cell constant, temperature coefficient and TDS factor.

DO correction: automatic barometric pressure compensation and manual salinity correction.

DISPLAY

3.5" LCD with backlight

STORAGE

500 results per parameter

PROTECTION

IP65 portable housing

WEIGHT

400 g

Measurement modules

pH / mV / pX / ISE: pH electrode diagnostics, ISE concentration units and built-in ion methods.

Conductivity / TDS / Salinity / Resistivity: standard recognition for 84 μ S/cm, 1413 μ S/cm and 12.88 mS/cm.

Dissolved oxygen: polarographic DO electrode with air-saturated water or zero oxygen calibration.

pH / mV / pX / ISE Specifications

pH, mV and pX

Parameter	Specification	Calibration / notes
pH range	-2.00 to 20.00 pH	Routine pH and field water testing
pH resolution	0.1 / 0.01 pH	Selectable display resolution
pH accuracy	±0.01 pH	Electrode and calibration dependent
pH calibration	1-5 points	Standard recognition
pH buffer groups	NIST, GB, USA, DIN	Slope limit and recognition supported
pH diagnostics	Slope and offset	Supports electrode condition review
mV range	-2000.0 to 2000.0 mV	Resolution 0.1 mV
mV accuracy	±0.3 mV or ±0.1%	Use according to method requirement
pX range	-2.00 to 20.00 pX	0.1 / 0.01 pX resolution
pX accuracy	±0.01 pX	Calibration up to 5 points

pH method note

Calibration quality: select fresh buffers, correct electrode condition and the appropriate temperature compensation mode before routine measurement.

Field measurements: rinse electrodes, stabilize readings and use endpoint lock where repeatability is required.

Ion-selective electrode (ISE)

Parameter	Specification	Calibration / notes
ISE range	1.000e-9 to 9.999e+9	Method and electrode dependent
Units	mol/L, mmol/L, g/L, mg/L, µg/L, ppm, ppb	pX display supported
Resolution	Up to 4 significant digits	Depends on concentration range
ISE accuracy	±0.5%	Electrode, matrix and calibration dependent
ISE calibration	1-5 points	Supports calibration curves
Methods	Direct, Standard Addition, Sample Addition, GRAN	Use according to sample matrix
Built-in ions	F-, Cl-, Br-, I-, NO3-, BF4-, NH4+, K+, Na+, Ca2+, Cu2+, Pb2+, Ag+; user-defined method supported.	

ISE method note

Matrix control: define the target ion, ionic strength adjustment and sample preparation before selecting electrode accessories.

Method selection: direct measurement is efficient for routine samples, while addition methods may be preferred for complex matrices.

PH CALIBRATION
1-5 points

ISE CALIBRATION
1-5 points

PX CALIBRATION
Up to 5 points

Technical values are provided for product selection and orientation. Final electrode type, calibration method, ion method and accessory configuration should be confirmed through the official COLO.Science quotation or manufacturer-confirmed offer.

Conductivity / DO / Temperature / System Specifications

Conductivity-related parameters

Parameter	Range / resolution / accuracy	Calibration / notes
Conductivity	0.000 μ S/cm to 500 mS/cm	Up to 3-point calibration
EC resolution	Minimum 0.001 μ S/cm; varies by range	Auto-ranging display
EC accuracy	\pm 1.0% FS	Full-scale accuracy
EC standards	84 μ S/cm, 1413 μ S/cm, 12.88 mS/cm.	
Reference temperature	20 / 25°C	Selectable reference temperature
Temperature compensation	None / linear / pure water	For conductivity-related calculations
Configurable factors	Cell constant, temperature coefficient, TDS factor	Set according to method
Resistivity	5.00 Ω -cm to 20.00 M Ω -cm	Min. 0.01 Ω -cm; \pm 1.0% FS
TDS	0.00 ppm to 300 ppt	Min. 0.01 ppm; \pm 1.0% FS
Salinity	0.0 to 80.0 ppt	0.1 ppt resolution; \pm 2 ppt accuracy

Temperature and measurement modes

Parameter	Specification
Temperature range	-5 to 110°C / 23 to 230°F
Temperature resolution / accuracy	0.1 \cdot \pm 0.2°C
Temperature units	°C / °F
Measurement modes	Auto-Read Fast / Medium / Slow, Timed, Continuous
Prompts	Reading / Stable / Locked
Compensation	ATC / MTC

Dissolved oxygen (DO)

Parameter	Specification
DO sensor	Polarographic DO electrode
DO concentration range	0.00 to 50.00 ppm
DO concentration resolution / accuracy	0.01 ppm \cdot \pm 0.10 ppm
DO calibration	Air-saturated water or zero oxygen point
Barometric compensation	Automatic
Salinity correction	Manual, as required
DO saturation range	0.0 to 300.0%
DO saturation resolution / accuracy	0.10% \cdot \pm 2.0%

System, power and dimensions

Parameter	Specification
Data and GLP	Up to 500 results per parameter; GLP features: Yes
Inputs	pH BNC (Q9); DO + Temp 4-pin aviation; Conductivity + Temp 5-pin aviation
Output	USB (PC / printer)
Display	3.5" LCD; backlight; date and time
Auto shutdown	300 / 600 / 1200 / 1800 / 3600 s or Off
Protection	IP65
Power	Rechargeable Li battery; AC adapter 100-240 V input, DC 5 V output
Dimensions / weight	80 x 225 x 35 mm; 400 g (0.88 lb)
Carton / gross weight	490 x 410 x 220 mm; 5.5 kg



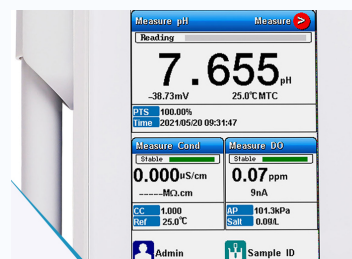
Typical standard delivery

Electrodes: 3-in-1 pH composite electrode, EC electrode and polarographic DO electrode.

Standards: NIST pH buffers 4.01 / 7.00 / 10.01, 50 mL each, plus 1413 μ S/cm EC standard solution, 50 mL.

Accessories: electrode holder, silicone rubber case, wristbands and carrying case.

Final scope: exact delivered contents should be confirmed in the official quotation.



Selection and Use Notes

For water quality

Routine pH / EC: define sample range, calibration buffers, EC standards and reporting units before purchase.

Salinity / TDS: confirm conversion factor, reference temperature and temperature compensation approach.

For ISE work

Ion method: choose direct, standard addition, sample addition or GRAN according to sample matrix.

Electrode set: select the correct ion-selective electrode and ionic strength adjustment procedure.

For field workflows

Portability: IP65 housing, carrying case and rechargeable battery support plant and outdoor measurements.

Traceability: use GLP storage and data review for routine QC records.

Configuration notice

Portable multi-parameter analyzers may be delivered in different configurations depending on selected pH, EC, DO and ISE probes, calibration standards, carrying case, holders and accessories. The official quotation defines the final scope of supply. Website and technical-sheet content is provided for general product presentation and may not represent the exact delivered configuration. Specifications may change without notice.

MANUFACTURER AND SUPPORT

COLO Lab Experts

Polje ob Sotli 4, SI-3255, Slovenia

Selection guidance: Send required parameters, sample matrix, expected measuring range, calibration method, electrode type and field/laboratory use case. COLO.Science can help confirm the correct VIKING-M310F configuration and accessory set for your measurement workflow.

QUICK CONTACT

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Category: Portable multi-parameter analyzers

COLO.SCIENCE · VIKING-M310F PORTABLE MULTI-PARAMETER ANALYZER SUPPORT

Need help selecting the correct pH, EC, ISE and DO configuration?

Send the sample matrix, required parameters, expected ranges, electrode configuration and calibration standards. COLO.Science can support product selection, accessory matching and quotation preparation for VIKING-M310F.

Request quote

Visit COLO.Science

Water quality resources

This technical sheet is an informational product-selection document. Final configuration and official technical values should be verified in the manufacturer-confirmed quotation.