VIKING-M310FA

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

VIKING-M310FA Portable Multi-parameter Water Analyzer is a compact field-ready electrochemistry instrument for pH, ion-selective electrodes, conductivity and temperature. It also supports **mV, pX, resistivity, TDS and salinity**. 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 | 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-M310FA** · Product number / SKU: **PRO6094**
Product page: **to be assigned on colo.si**
Format: **A4 landscape · COLO.Science TechSpec template with navigation links**

VIKING-M310FA · portable pH / EC / ISE water analyzer · main unit

MODEL / SKU
VIKING-M310FA
PRO6094

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VIKING-M310FA · technical specification

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

PH -2.00 TO 20.00 | EC UP TO 500 MS/CM | ISE 1.000E-9 TO 9.999E+9 | 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, 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.

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

DISPLAY	STORAGE	PROTECTION	WEIGHT
3.5" LCD with backlight	500 results per parameter	IP65 portable housing	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 µS/cm, 1413 µS/cm and 12.88 mS/cm.

Temperature and workflow: ATC / MTC compensation, auto-read, timed-read and continuous-read modes for routine testing.

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	ISE CALIBRATION	PX CALIBRATION
1-5 points	**1-5 points**	**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 / Temperature / System Specifications

Conductivity-related parameters

Parameter	Range / resolution / accuracy	Calibration / notes
Conductivity	0.000 µS/cm to 500 mS/cm	Up to 3-point calibration
EC resolution	Minimum 0.001 µS/cm; varies by range	Auto-ranging display
EC accuracy	±1.0% FS	Full-scale accuracy
EC standards	84 µS/cm, 1413 µS/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 MΩ·cm	Min. 0.01 Ω·cm; ±1.0% FS
TDS	0.00 ppm to 300 ppt	Min. 0.01 ppm; ±1.0% FS
Salinity	0.0 to 80.0 ppt	0.1 ppt resolution; ±2 ppt accuracy

Temperature and measurement modes

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

Measurement workflow and data handling

Parameter	Specification
Reading modes	Auto-Read, Timed Read and Continuous Read
Auto-Read speed	Fast / Medium / Slow
Endpoint handling	Auto-hold endpoint lock with Reading / Stable / Locked prompts
Temperature compensation	Automatic / Manual temperature compensation (ATC / MTC)
Data storage	Up to 500 results per parameter
GLP	GLP-oriented data handling supported
System functions	USB communication, auto power-off and factory reset
Field design	IP65 waterproof portable design for field and outdoor measurements

System, power and dimensions

Parameter	Specification
Data and GLP	Up to 500 results per parameter; GLP features: Yes
Inputs	pH electrode: BNC (Q9); Conductivity + temperature probe: 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

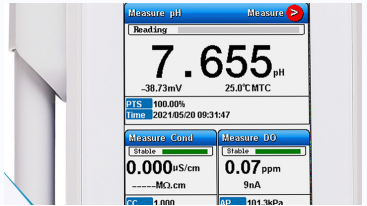
Typical standard delivery

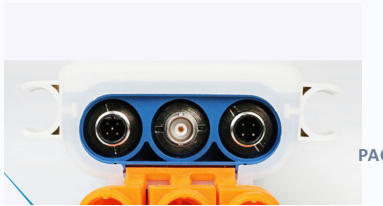
Electrodes: E-301-QC 3-in-1 pH composite electrode and DJS-1VTC conductivity electrode.

Standards: NIST pH buffers 4.01 / 7.00 / 10.01, 50 mL each, plus 1413 µS/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 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-M310FA configuration and accessory set for your pH, EC and ISE measurement workflow.

QUICK CONTACT

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Category: Portable multi-parameter analyzers

COLO.SCIENCE · VIKING-M310FA PORTABLE MULTI-PARAMETER ANALYZER SUPPORT

Need help selecting the correct pH, EC and ISE 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-M310FA.

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.