VIKING250 Series

Table Top Laboratory Turbidity Meters · VIKING255 / VIKING256 / VIKING257

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VIKING250 Series is a family of benchtop laboratory turbidity meters for drinking water, environmental, wastewater, industrial and research workflows where turbidity must be measured with traceable calibration and stable optical performance.

The series combines **850 nm LED nephelometric 90° detection**, dual photodiodes, selectable **NTU / FNU / EBC** units, **1–6 point Formazin calibration**, GLP-oriented storage and USB / RS-232 communication.

- 0.001 NTU resolution
- 0–100 / 0–1000 NTU
- 850 nm LED
- 90° detection
- 2 photodiodes
- 2000 GLP curves
- USB / RS-232
- 4.3” color LCD

VIKING255
Drinking water / low turbidity model, 0–100 NTU, 0.001 NTU basic readout.

VIKING256
High precision wide-range model, 0–1000 NTU, 0.01 NTU basic readout.

VIKING257
Smart multi-range model, 0–1000 NTU, 0.001 / 0.01 NTU auto-ranging readout.

COLO.Science support
Model selection, calibration standards, cuvettes and quotation-based final configuration.

Common measurement platform

Measurement principle: VIKING250 series instruments use a cold 850 nm LED light source with narrowband interference and 90° scattered-light detection. Dual photodiodes are used for reference and nephelometric measurement stability.

Common technical data

Display	4.3” color LCD, backlit, user-friendly interface
Light source	850 nm LED, cold light source, narrowband interference, lifetime up to 100 000 h
Detector	2 high-precision photodiodes: reference and 90° scattered light
Calibration	1–6 points using Formazin standards or zero water; user-defined piecewise curves
Data storage	Up to 2000 calibration curves / measurement data sets; GLP-oriented review
Communication	USB 2.0 and RS-232 interface for PC data transfer
Units	NTU, FNU and EBC selectable
Ambient temperature	5 °C … 40 °C
Power supply	220 V ±10%, 50 Hz
Weight	Approx. 3.5 kg net / 4.5 kg gross

Optical design

- Nephelometric 90° detection for routine turbidity measurement.
- 850 nm LED supports stable near-infrared measurement workflows.
- Dual-photodiode optical system supports long-term repeatability.
- High precision filter system supports robust measurements across ranges.

Calibration and GLP data

- 1–6 calibration points using Formazin or zero water.
- User-defined curves and coefficients for specific measurement ranges.
- Up to 2000 stored curves/data sets with user ID and date/time fields.
- USB / RS-232 communication for reporting and documentation.

VIKING255 · VIKING256 · VIKING257

Selection logic: choose VIKING255 for low-turbidity drinking-water work, VIKING256 for wide-range high precision measurement, and VIKING257 for smart multi-range work where low and higher turbidity samples are both expected.

Parameter	VIKING255 Drinking water	VIKING256 High precision	VIKING257 Smart
Application	Drinking water turbidity and low-turbidity samples	High precision turbidity across a wide range	Smart turbidity measurement with variable sample levels
Measuring range	0 … 100 NTU	0 … 1000 NTU	0 … 1000 NTU
Basic readout	0.001 NTU	0.01 NTU	0.001 / 0.01 NTU auto-ranging
Range / resolution details	0–10 NTU: 0.001 NTU 0–100 NTU: 0.1 NTU	0–20.00 NTU: 0.01 NTU 20.0–200.0 NTU: 0.1 NTU 200–1000 NTU: 1 NTU	0–10 NTU: 0.001 NTU 0–100 NTU: 0.01 NTU 0–1000 NTU: 0.1 NTU
Accuracy	±2% + 0.01 NTU (0–100 NTU)	±2% + 0.01 NTU (0–1000 NTU)	±1% + 0.01 NTU (0–1000 NTU)
Repeatability	±1% of reading or ±0.01 NTU, whichever is greater, under stable reference conditions		
Allowed error	±2% of reading		
Shared platform	4.3” color LCD · 850 nm LED · 90° nephelometric detection · 2 photodiodes · USB / RS-232 · NTU / FNU / EBC · 1–6 point calibration		

Best for low turbidity

VIKING255 is the strongest fit when the expected turbidity is low and fine resolution around drinking-water ranges is important.

Best for wide range

VIKING256 covers samples up to 1000 NTU with range-dependent resolution for routine laboratory workflows.

Best for variable samples

VIKING257 offers the strongest listed accuracy and smart multi-range behavior for mixed sample conditions.

Applications, included kit and configuration notes

Drinking water

Low turbidity monitoring, water treatment quality control and routine verification where stable calibration and traceable measurements are required.

Wastewater and effluent

Routine turbidity checks in wastewater, effluent and process water workflows with range coverage up to 1000 NTU depending on the model.

Environmental analysis

Surface water, rivers, lakes and environmental monitoring applications where NTU / FNU reporting and robust optics are useful.

Food and beverage

Process water and clarity-related checks where turbidity can indicate filtration performance, suspended matter or production consistency.

Industrial cooling water

Industrial utilities and cooling loops where turbidity may indicate particulate load, contamination or treatment performance.

Teaching and research

Laboratory teaching and research settings that require a clear benchtop instrument with calibration standards and repeatable operation.

Standard delivery package

Instrument
VIKING255 / VIKING256 / VIKING257 main unit

Standards
0.02 NTU, 10 NTU and 1000 NTU calibration standard set

Cuvettes
5 high-precision glass cuvettes

Protection
Dust cover and light-tight measuring slot

Power
Power cord, 220 V / 50 Hz

Documentation
Instruction manual; USB cable, RS-232 optional on request

Optional accessories and checks

- Additional calibration standards for application-specific ranges.
- Different calibration standard sets depending on workflow and regulation.
- Replacement cuvettes and cuvette handling accessories.
- Bluetooth module and additional communication options where available.
- Final supplied kit should be confirmed through the official quotation.

Quotation, document links and technical notice

Configure the correct turbidity meter for your sample range

COLO.Science can support selection of the correct VIKING250 model, calibration standard set, cuvette configuration and data-transfer workflow for drinking water, wastewater, industrial and research laboratory applications.

Request quotation | Product page | Current HTML spec | PDF soon

COLO.Science

Laboratory equipment, technical specification support and product configuration.

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Recommended document links

- **Product page:** VIKING255 / VIKING250 series on colo.si
- **HTML path:** /wp-content/images/TechSpec/pHP/VIKING250.html
- **New A4 path suggestion:** /wp-content/images/TechSpec/pHP/VIKING250_A4_Landscape.html
- **Image asset:** /wp-content/uploads/2021/09/VIKING255-E-1-600x550.jpg

Suggested short product line

VIKING250 Series is a family of benchtop laboratory turbidity meters for NTU / FNU / EBC measurement with 850 nm LED optics, 90° nephelometric detection, 1–6 point calibration, GLP data storage and USB / RS-232 communication.