Document ID: COL-TEC-VIK256-EN
Format: A4 landscape · EN
Document type: technical specification

LABORATORY TURBIDITY METER · VIKING256

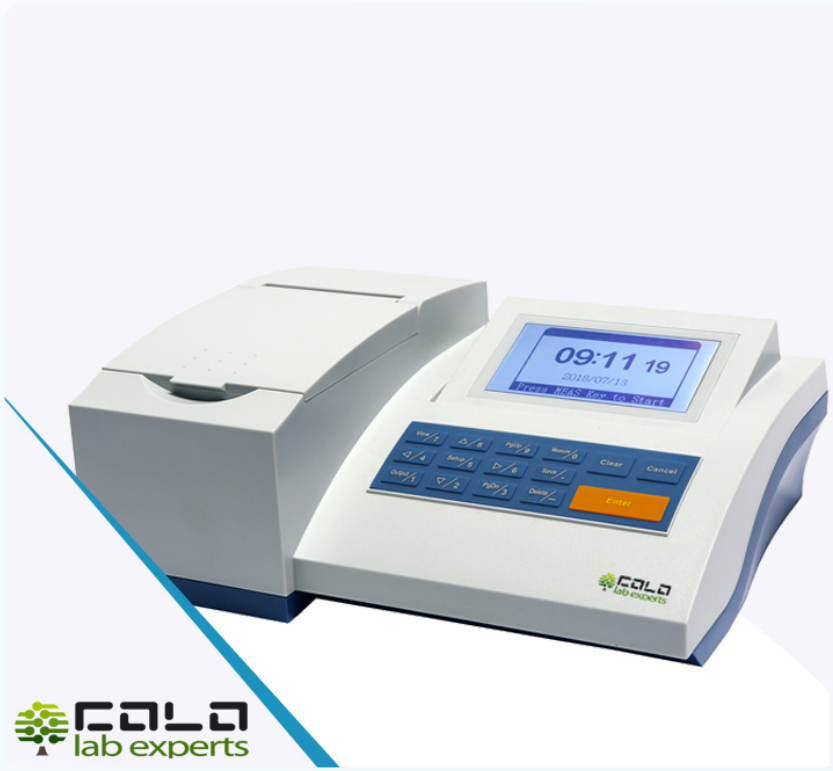
VIKING256

Laboratory Turbidity Meter · 0–1000 NTU · 0.01 NTU basic readout

VIKING256 is a benchtop laboratory turbidity meter for routine and wide-range turbidity measurement in drinking water, wastewater, environmental, industrial and research laboratory workflows.

The instrument is positioned as the wide-range model within the VIKING250 platform, using an 850 nm LED light source, 90° nephelometric detection, selectable NTU / FNU / EBC units, Formazin calibration, GLP-oriented data storage and USB / RS-232 communication.

0–1000 NTU | 0.01 NTU basic readout | 850 nm LED | 90° detection | NTU / FNU / EBC | USB / RS-232 | SKU PRO3321



Primary use
Wide-range routine turbidity measurement up to 1000 NTU

Optical principle
Near-infrared 850 nm LED with 90° scattered-light detection

Data handling
Up to 2000 calibration curves / measurement data sets

COLO.Science support
Model selection, standards, cuvettes and quotation configuration

VIKING256 wide-range measurement platform

Measurement concept: VIKING256 uses a cold 850 nm LED light source and 90° nephelometric scattered-light detection. The configuration is suitable for routine samples where turbidity can vary from low values to higher process-water or wastewater ranges.

Common technical data

Model	**VIKING256**
Instrument type	Benchtop laboratory turbidity meter
Measurement parameter	Turbidity
Units	NTU, FNU and EBC selectable
Measurement principle	Nephelometric principle with 90° scattered-light detection
Light source	850 nm LED, cold light source, narrowband interference optical design
Detector	2 high-precision photodiodes: reference and 90° scattered-light measurement
Display	4.3” color LCD, backlit, user-friendly interface
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

Why VIKING256?

- Dedicated wide-range VIKING250 platform model for 0–1000 NTU measurement.
- Range-dependent resolution supports routine work across low, medium and high turbidity samples.
- 850 nm LED and 90° nephelometric detection support ISO 7027-style near-infrared turbidity workflows.
- GLP-oriented storage, user ID/date/time fields and PC communication support documentation.

Typical operator workflow

- Select units: NTU, FNU or EBC.
- Calibrate with appropriate Formazin standards or zero water.
- Prepare and clean the cuvette carefully to reduce handling errors.
- Measure sample and store / transfer data for reporting.

VIKING256 detailed specification

VIKING256 measurement range and readout

Measuring range	**0 … 1000 NTU**
Basic readout	**0.01 NTU**
Resolution — low range	0 … 20.00 NTU: 0.01 NTU
Resolution — mid range	20.0 … 200.0 NTU: 0.1 NTU
Resolution — high range	200 … 1000 NTU: 1 NTU
Listed accuracy in VIKING250 global spec	±2% + 0.01 NTU
Repeatability	±1% of reading or ±0.01 NTU, whichever is greater, under stable reference conditions
Allowed error	±2% of reading

Operating and system data

Display	4.3” color LCD with backlight
Light source	850 nm LED; cold light source; lifetime up to 100 000 h listed in platform spec
Optical detector	Reference photodiode and 90° scattered-light photodiode
Calibration	Formazin standards / zero water; 1–6 point platform calibration
Data capacity	Up to 2000 calibration curves / measurement records
Interfaces	USB 2.0 and RS-232
Ambient temperature	5 °C … 40 °C
Power supply	220 V ±10%, 50 Hz
Weight	Approx. 3.5 kg net / 4.5 kg gross

Model context: VIKING256 is the wide-range VIKING250 model. It is selected when samples may exceed the low-turbidity range and coverage up to 1000 NTU is required.

Parameter	VIKING255	VIKING256 · Focus model	VIKING257
Application	Low-turbidity / drinking-water work	**Wide-range routine laboratory turbidity measurement**	Smart multi-range measurement
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
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

Technical verification note: the existing VIKING250 technical specification lists VIKING256 accuracy as ±2% + 0.01 NTU. The current product page contains an older/alternate line with Accuracy ±6% and RSD ≤0.5%. The final quotation should confirm which accuracy line is manufacturer-approved for the supplied configuration.

Applications, delivery package and configuration notes

Drinking water

Routine turbidity verification where stable calibration and traceable measurement documentation are required.

Wastewater and effluent

Wide-range turbidity checks in wastewater, effluent and treatment-process workflows up to 1000 NTU.

Environmental analysis

Surface water, rivers, lakes and environmental monitoring where NTU / FNU reporting is required.

Food and beverage

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

Industrial utilities

Cooling water, process water and utility loops where increased turbidity may indicate particulate load or contamination.

Teaching and research

Benchtop turbidity measurement for laboratory teaching, method demonstration and research sample screening.

Typical delivery package

Instrument
VIKING256 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 Formazin calibration standards for application-specific ranges.
- Replacement cuvettes and cuvette handling accessories.
- Different standard sets depending on regulation and laboratory workflow.
- Bluetooth or additional communication modules where available.
- Final supplied kit should always be confirmed through the official quotation.

Quotation, document links and technical notice

Configure VIKING256 for wide-range turbidity measurement

COLO.Science can support selection of the correct calibration standard set, cuvette package and data-transfer workflow for drinking water, wastewater, industrial and research laboratory applications where turbidity measurement up to 1000 NTU is required.

Request quotation | Product page | Current series spec | PDF version

COLO.Science

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Recommended document links

- **Product page:** /product/viking256-laboratory-turbidity-meter-001ntu/
- **Suggested HTML path:** /wp-content/images/TechSpec/WaterQualityP/VIKING256.html
- **Suggested PDF path:** /wp-content/images/TechSpec/WaterQualityP/VIKING256.pdf
- **Image asset:** /wp-content/uploads/2022/01/VIKING255-E.jpg
- **SKU:** PRO3321

Suggested short product line

VIKING256 is a benchtop laboratory turbidity meter for NTU / FNU / EBC measurement up to 1000 NTU, with 850 nm LED optics, 90° nephelometric detection, GLP data storage and USB / RS-232 communication.

Technical disclaimer: This COLO.Science technical specification is prepared for product orientation, quotation preparation and preliminary comparison only. Technical characteristics, supplied accessories and configuration options may vary depending on the confirmed offer, manufacturer documentation and selected model. Only the official quotation, order confirmation and manufacturer-approved specification should be treated as definitive for procurement, tender or contractual use.