

An underwater photograph of a goldfish swimming towards the camera. The water is clear and blue. At the top of the frame, there is a white, foamy surface, likely representing the water's surface. The goldfish is bright orange with a white belly and a white stripe along its side. Its fins are visible, and it has large, dark eyes.

Clear view.

Turbiquant® 1000/1500/3000



Clean, clear water!

»It's what the world needs and it's our job as specialists in environmental analysis to help you provide it.«

“Turbidity is the reduction of transparency of a liquid caused by the presence of undissolved matter” according to EN ISO 7027. But to most of those who drink the water it is simply: *“Does it look clean?”* So the turbidity value is an important parameter of quality because it is judged by every user.

However turbidity is not just an important factor in drinking water control. It also needs to be measured in waste, surface and industrial water. In fact everywhere that water is used or produced. Measurement can be in a laboratory but increasingly the need for instant response means that measurements need to be made “on the spot”.

Merck's range of instruments for turbidity measurements offer you reliable and highly reproducible results:

- GLP functions, data output
- Fulfilment of norms
- Broad range of ready-to-use standards
- Easy handling and calibration
- Full product packages
- On-site measurement
- Excellent price /performance relationship



Turbiquant® 1000 IR

» *The pocket sized professional.*«



Turbiquant® 1000 IR is a true portable turbidimeter with high accuracy and an outstanding price/performance ratio.

It is designed for your convenience as it includes everything you need for the measurement from batteries to calibration standards and empty cuvettes. Its low total weight and battery operation make it ideally suited for measurement in the field.

A rugged carrying case and water proof housing ensure durability and the ability to measure everywhere. High accuracy as the Turbiquant® 1000 IR is a micro-processor-controlled nephelometer with an IR-LED acc. ISO EN 7027. It has a comprehensive measuring range 0.01–1100 NTU with a measuring accuracy of 0.01 NTU. The instrument also senses the turbidity level of the sample and automatically adjusts to the appropriate measuring range.

It helps you to save time with its user-friendly calibration that is initiated with a single push on the CAL-button, followed by insertion of the calibration standards in descending order.

Turbiquant® 1500 IR/T

»Perfect for routine analytical demands.«

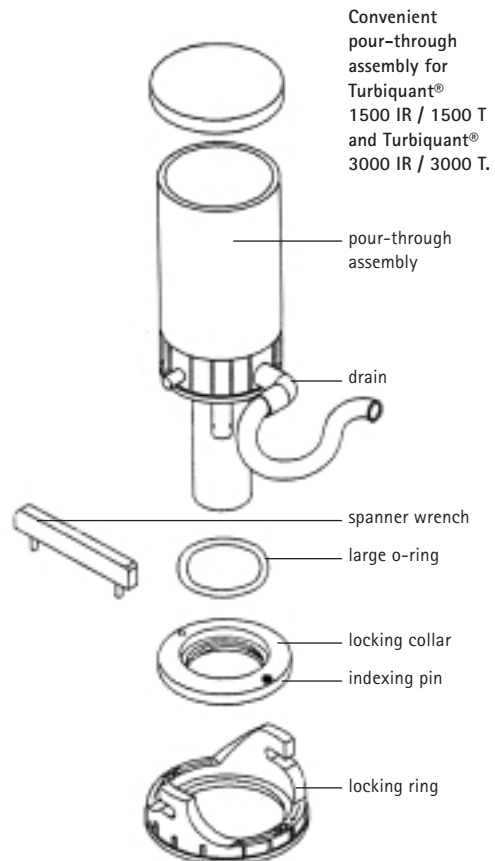
Die Turbiquant® 1500 instruments are ideal for routine work as they are easy to use, allow a high sample throughput but also give you confidence in your results. All the basics in an outstanding quality.

The Turbiquant® 1500 IR or 1500 T instruments are easy to operate, simple to calibrate and the large, clear displays provide state of the art user-guidance. They follow the recommendations of ISO EN 7027 and the US EPA.

Over the whole range of 0.01–1000 NTU the instrument automatically selects the relevant resolution of the measured value for the respective measurement range. Automatic 1 to 3 point calibration ensures accuracy by prompting the operator when calibration of the instrument is needed. The Auto Ranging function simplifies the operation by automatically sensing the appropriate and optimal NTU range for measurements.

“Analytical Quality Assurance” is guaranteed as all activities like date, time and NTU reading can be easily exported.

It helps you to increase productivity as several samples can be quickly and easily measured, one after another, by means of a pour-through assembly which allows a high sample throughput.



Turbiquant® 3000 IR/T

»Affordable Excellence.«

Turbiquant® 3000 IR and T allow you to measure any kind of turbidity – rapidly, easily and precisely.

The Turbiquant® 3000 T/3000 IR instruments are high precision laboratory turbidity meters of the reference class.

You can use them in all applications of turbidity measurements ranging from purest water and drinking water inspection through quality assurance in the beverage industry up to wastewater control as the instruments have a measuring range of 0.0001 to 10000 NTU.

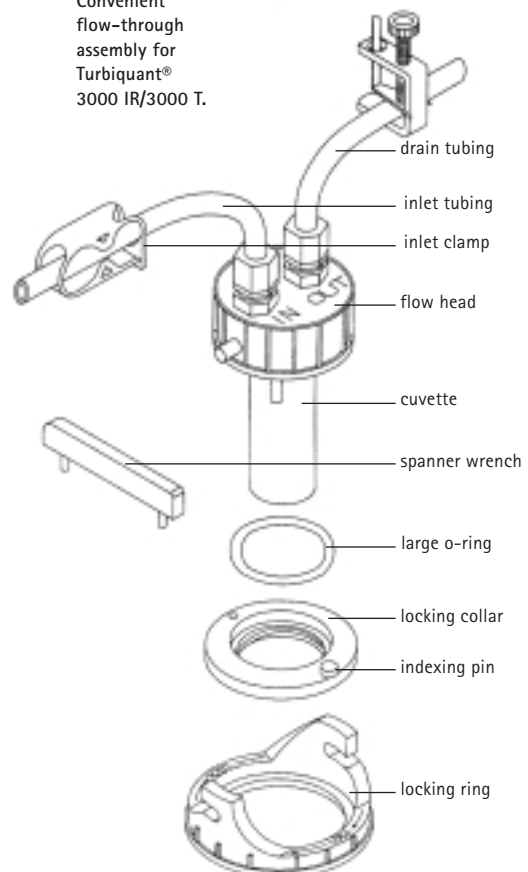
The measuring system with its 4 detectors enables not only nephelometric (90° scattered light) measurements (NTU) but also ratio measurements (ratio method) that reduce the effects of scattered light and sample coloration. Furthermore, the Turbiquant® 3000 IR is also capable of a transmission measurement (FAU = Formazine Attenuation Units, that means ISO EN 7027 measurement above 40 FNU). Optionally, the measured values can also be specified in EBC (European Brewery Commission units) thereby simplifying the measurement of turbidity in the brewing industry.

The measured values are shown on an illuminated display ensuring that they can be read from any angle.

Comprehensive Analytical Quality Assurance (AQA) functions such as calibration, interval monitoring or password-protected access to calibration and instrument configuration help to ensure the quality of the measured values.

Continuous monitoring of turbidity is possible with the flow-through measuring assembly in conjunction with the time-controlled output.

Convenient flow-through assembly for Turbiquant® 3000 IR/3000 T.



Accessories

Pour-through assembly / Flow-through assembly

Both the Turbiquant® 1500 IR/1500 T and the Turbiquant® 3000 IR/3000 T can be used with a convenient pour-through assembly. This accessory simplifies measurement by providing a single one-time cuvette alignment, simplified rinsing and the avoidance of gas bubbles.

Real continuous flow-through measurement up to 4 bar (60 psi) with the Turbiquant® 3000 T/3000 IR is possible by using the flow-through assembly together with the time-controlled data output.

Dry air or nitrogen can be connected to the instrument via a pressure-reducing valve with adjustable flow. The instruments provides a connection for air rinsing as, without this, condensation effects can distort the measured value.

Validated quality standards

To minimise your workload, Merck offers you ready-to-use, non-toxic calibration standards.

AMCO-AEPA-1® Microspheres are cited as Primary Calibration Standards in compliance with US EPA Method 180.1. The standards are also accepted as “Alternative Use Secondary Standards” equivalent to freshly prepared Formazin suspension. Ref. EN ISO 7027.

It helps you to reduce they do not have to be mixed each time calibration is required. Thus they promote frequent calibration checks to ensure accuracy is being maintained.

They are safe to use as they are non-toxic, durable as their lifetime is independent of the turbidity value, simple to handle and store.

Our calibration standards are delivered with the instrument.

Order List

Cat. number Product Name

Instruments

1.18330.0001	Turbiquant® 1500 IR Turbidimeter, universal power supply/plug, 3 calibration standards 0.02 – 10.00 – 1000.00 NTU, 2 empty cuvettes, manual, handy hints
1.18331.0001	Turbiquant® 1500 T Turbidimeter, universal power supply/plug, 3 calibration standards 0.02 – 10.00 – 1000.00 NTU, 2 empty cuvettes, manual, handy hints
1.18332.0001	Turbiquant® 3000 IR turbidimeter, universal power supply/plugs, 4 calibration standards 0.02 – 10.00 – 100.0 – 1750 NTU, 3 empty cuvettes, manuals, handy hints
1.18333.0001	Turbiquant® 3000 T turbidimeter, universal power supply/plugs, 4 calibration standards 0.02 – 10.00 – 100.0 – 1750 NTU, 3 empty cuvettes manuals, handy hints
1.18334.0001	Turbiquant® 1000 IR turbidimeter portable, with batteries, 4 calibration standards 0.02 – 10.0 – 100.0 – 1000 NTU, 2 empty cuvettes, manuals, handy hints

Calibration standards

1.18327.0001	Turbiquant® 1000 IR Calibration standard set, 4 calibration standards 0.02 – 10.0 – 100.0 – 1000 NTU
1.18328.0001	Turbiquant® 1500 IR / 1500 T Calibration standard set, 3 standards 0.02 – 10.00 – 1000.00 NTU
1.18329.0001	Turbiquant® 3000 IR Calibration standard set, 4 standards 0.02 – 10.00 – 100.0 – 1750 NTU
1.18349.0001	Turbiquant® 3000 T Calibration standard set, 4 standards 0.02 – 10.00 – 100.0 – 1750 NTU
1.18342.0001	Turbiquant® 3000 IR Calibration standard, 10.000 NTU
1.18343.0001	Turbiquant® 3000 T Calibration standard, 10.000 NTU

Accessories

1.18336.0001	Turbiquant® 1500 / 3000 Cuvettes (3 cuvettes)
1.18320.0001	Turbiquant® 1000 Cuvettes (3 cuvettes)
1.18337.0001	Turbiquant® 1500 / 3000 IR Lamp
1.18338.0001	Turbiquant® 1500 / 3000 T Lamp
1.18339.0001	Turbiquant® 1500 / 3000 Cuvette stand
1.18340.0001	Turbiquant® 1500 / 3000 Pour-through assembly
1.18341.0001	Turbiquant® 3000 Flow-through assembly



	Turbiquant® 1000 IR (portable)	Turbiquant® 1500 IR	Turbiquant® 1500 T	Turbiquant® 3000 IR	Turbiquant® 3000 T
Measurement modes	Nephelometric acc. to EN ISO 7027	Nephelometric (non ratio) acc. to EN ISO 7027	Nephelometric (non ratio) acc. to US EPA recomm.	Nephelometric (ratio – non ratio selectable) acc. to EN ISO 7027	Nephelometric (ratio – non ratio selectable) acc. to US EPA recomm.
Light source (lamp) Indication of units	IR LED NTU	IR LED NTU	Tungsten lamp NTU	IR LED NTU FNU FAU EBC	Tungsten lamp NTU EBC Nephelos
Measuring range	0.01–1100 NTU	0–1000 NTU	0–1000 NTU	0–10 000 NTU 0–10 000 FNU 0–10 000 FAU 0–2450 EBC	0–10000 NTU 0–2450 EBC 0–67000 Nephelos
Resolution	Max. 0.01 NTU within the range 0.01–9.99 NTU Max. 0.01 NTU within the range 10.0–99.99 NTU Max. 0.1 NTU within the range 100 – 1100 NTU	Max. 0.01 within the range $0 < x < 10$ Max. 0.1 within the range $10 < x < 100$ Max. 1 within the range $100 < x < 1000$	Max. 0.01 within the range $0 < x < 10$ Max. 0.1 within the range $10 < x < 100$ Max. 1 within the range $100 < x < 1000$	Selectable 0.1–0.0001 NTU Max. 0.0001 within the range $0 < x < 10$ Max. 0.001 within the range $10 < x < 100$ Max. 0.01 within the range $100 < x < 1000$ Max. 0.1 within the range $1000 < x < 10000$	Select. 0.1–0.0001 NTU Max. 0.0001 within the range $0 < x < 10$ Max. 0.001 within the range $10 < x < 100$ Max. 0.01 within the range $100 < x < 1000$ Max. 0.1 within the range $1000 < x < 10000$
Accuracy	± 2% of reading or ± last decimal place within the range 0–500 NTU ± 3% of reading within the range 500 – 1100 NTU	± 2% of reading or ± 0,01 NTU whichever is greater for range 0.00–1000 NTU	± 2% of reading or ± 0,01 NTU whichever is greater for range 0.00–1000 NTU	± 2% of reading or ± 0,01 NTU whichever is greater for range 0.00–1000 NTU ± 5% of reading for range 1000–4000 NTU ± 10% of reading for range 4000–10000 NTU	± 2% of reading or ± 0,01 NTU whichever is greater for range 0.00–1000 NTU ± 5% of reading for range 1000–4000 NTU ± 10% of reading for range 4000–10000 NTU
Repeatability	–	< ± 1% of reading or ± 0.01 NTU whichever is greater	< ± 1% of reading or ± 0.01 NTU whichever is greater	< ± 1% of reading or ± 0.01 NTU whichever is greater	< ± 1% of reading or ± 0.01 NTU whichever is greater
Calibration	Automatic 1–4–Points	Automatic 1–3–Points	Automatic 1–3–Points	Automatic 1–4–Points (to 1750 NTU) 10000 NTU selectable	Automatic 1–4–Points (to 1750 NTU) 10000 NTU selectable
Serial input/output	no	RS 232-output	RS 232-output	RS232 bidirectional	RS232 bidirectional
GLP-Functions	Control of calibration intervals, Self test	Control of calibration intervals, Self test	Control of calibration intervals, Self test	Control of calibration intervals, Self test Calibration and instrument configuration are Access Code Protected	Control of calibration intervals, Self test Calibration and instrument configuration are Access Code Protected
Power requirements	4 alkali manganese AAA/Micro	Universal charger/plug	Universal charger/plug	Universal charger/plug	Universal charger/plug
Registration	CE, TÜV / GS	CE, UL, CSA; TÜV / GS	CE, UL, CSA; TÜV / GS	CE, UL, CSA; TÜV / GS	CE, UL, CSA; TÜV / GS



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Merck KGaA
64271 Darmstadt, Germany
Fax: +49-(0)6151-72-33 80
E-mail: environmental.analysis@merck.de
www.merck.de