

### Flocculation testers

For flocculation tests of water and waste water.

- choice of 2- or 6-bank models
- digital speed display
- two adjustable speed presets
- accurate and reproducible speeds
- diffused base illumination with black background
- accepts beakers up to 1000ml.

Adjustable speed range 25 to 250rpm.

Dimensions (H x W x D): 460 x 320 x 220mm (two-bank model) 460 x 750 x 220mm (six-bank model).

For 230 V 50 Hz, single phase supplies. Supplied with rotor blades but without beakers.

With BioCote silver based antimicrobial protection.

Stuart



9.951 491

Type	Description	PK	Cat. No.
SW5	Flocculation tester, 2-bank	1	9.951 491 1
SW6	Flocculation tester, 6-bank	1	9.951 492

### 2 Turbidity meter TB 211 IR

The compact infrared turbidity meter TB 211 IR is designed to allow fast, precise on-site testing. The unit measures the scattered light at an angle of 90°, as stipulated in EN ISO 7027. The wide measuring range from 0.01 to 1100 TE/F = NTU = FNU permits use of the unit for various media, ranging from drinking water to waste water. As infrared light is used for measurement, the unit can be used to test both coloured and colourless liquids. The standards required for calibration of the unit are also supplied. A second adjustment mode allows alternative adjustment with user-defined turbidity standards.

- measuring ranges from 0.01 to 1100NTU (autorange)
- measurement with infrared light at an angle of 90°
- easy operation
- 600 tests between battery charges

**Scope of supply:** Turbidity meter, 4 turbidity standards <0.1, 20, 200 and 800NTU, battery, USB cable (1.5 m), test vial, manual, warranty statement, case

Lovibond®



**Specifications:**

Measurement cycle:	approx. 9 seconds
Display/Function:	LCD
Optics:	temperature-compensated LED and photosensor amplifier in waterproof sample chamber
Keypad:	4 key polycarbonate membrane
Measuring range:	0.01 to 1100 NTU (autorange)
Resolution:	0.01 to 9.99 NTU = 0.01 NTU 10.0 to 99.9 NTU = 0.1 NTU 100 to 1100 NTU = 1 NTU
Accuracy:	±2.5 % of measuring value or ±0.01 NTU (0 to 500 NTU) ±5 % (500 to 1100 NTU)
Interface:	Micro USB
Housing:	ABS
Dimensions (L x W x H):	190 x 110 x 55 mm
Weight (Basis unit):	approx. 0.4 kg
Temperature:	0 to 40 °C
Humidity (rel.):	30 to 90 % R.H.
CE-conformity:	DIN EN 50081-1, VDE 0839 part 81-1:1993-03, DIN EN 50082-2, VDE 0839 part 82-02:1996-02

Type	PK	Cat. No.
TB 211 IR	1	9.920 203

## Sample analysis/Turbidity

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### 1 2 Turbidity meter Eutech™ TN-100

Thermo Scientific

The microprocessor-based waterproof Infra-Red Turbidity meter TN-100 is easy-to-use and meets all rigor of rugged field applications. Using an Infrared light source, it delivers laboratory accuracy with a resolution of 0.01 NTU across an extended range of up to 20 NTU (Nephelometric Turbidity Units).

- IP67 Waterproof and Dustproof, easy cleaning and maintenance
- Automatic Push-Button Calibration (4 points) for unprecedented full-range accuracy
- Power-saving feature allows over 1200 measurements
- Large Easy-to-Read Display for optimum viewing of measurements with user-friendly message codes for easy troubleshooting
- Meets Performance Criteria as specified by ISO 7027 (DIN EN 27027) method

**Scope of supply:** Turbidity meter with 4 calibration standards, 3 empty cuvettes, sturdy carrying case, batteries and instruction manual

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#### Specifications

Turbidity range:	0 to 2000 NTU
Resolution:	0.01 NTU (0 to 19.9 NTU) 0.1 NTU (20.0 to 99.9 NTU) 1 NTU (100 to 2000 NTU)
Accuracy:	±2 % of reading ±1 LSD ( 0 to 500 NTU) ±3 % of reading ±1 LSD (501 to 2000 NTU)
Repeatability:	±1 % of reading or ±0.01 NTU
Calibration Points:	4 points (automatic)
Response Time:	< 6 seconds for full step change
Calibration Standards:	0.02 NTU; 20.0 NTU; 100 NTU; 800 NTU
Light Source:	Infrared-emitting diode (850 nm)
Light Source Life:	> 1.000.000 tests
Power supply:	4 x 1.4 V batteries, > 200 h

Type	PK	Cat. No.
Trübungsmessgerät TN-100	1	6.205 327

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9.923 604

### Turbidity meters Turb® 430

WTW®

The turbidity meters Turb® 430 IR acc. to DIN ISO 27027 and Turb® 430 T acc. to US EPA 180.1 meet the requirements of the nephelometric measurement at 90° stray light for drinking water with highest precision, especially in the range < 1 NTU. The measuring range comprises 0-1100 NTU/FNU with automatic measuring range switching and is therefore suitable for water analysis as well as quality control, such as gasoline, cell cultures, as well as in the food and beverage industries. The measurement and automatic 3-point calibration runs self-explanatory and menu-controlled. The calibration takes place via an AMCO Clear® standard set (0.02-10-1000 NTU). Up to 1000 data sets including sample ID numbers can be stored and later put out GLP-compliant via the PC software LSdata. The quality assurance of the measured results is supported by calibration interval setting with documentation.

#### Scope of delivery:

**Turb® 430 IR/Turb® 430 T:** Turbidity meter with calibration set 0.02-10.0-100 NTU

**Turb® 430 IR/SET/Turb® 430 T/SET:** Turbidity meter in case with table insert, calibration set 0.02-10.0-100 NTU, PC software LSdata, accessories

#### Specifications

Measuring range:	NTU 0 to 1100 FNU 0 to 1100
Resolution:	0.01 in the range 0.00 to 9.99 0.1 in the range 10 to 99.90 1 in the range 100 to 1100
Accuracy:	±0.01 NTU or ±2 % of measured value
Reproducibility:	0.01 NTU or < 0.5 % of measured value
Cell size:	28 x 60 mm, 20 ml sample volume
Power supply:	4 x AA batteries for approx. 3000 measurements

Type	Description	PK	Cat. No.
Turb® 430 IR	with infra red LED	1	6.223 101
Turb® 430 T	with tungsten lamp	1	7.650 036
Turb® 430 IR/SET	with infrared LED	1	9.923 603
Turb® 430 T/SET	with tungsten lamp	1	9.923 604 3

### Turbidity Sensor VisoTurb® 900-P for Meters MultiLine® IDS

Accessories for measuring instruments MultiLine® IDS from WTW® for measuring turbidity parameters. Please order measuring instruments separately.

WTW®

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6.267 682

Type	Description	PK	Cat. No.
VisoTurb® 900-P	IDS IR turbidity sensor	1	6.267 682 1
Cal-Kit VT900	Kit incl. 1 x 250 ml 124 FNU / 1010 FNU each, zero point calibration bottle	1	7.661 827
SB VT900	Sample bottle, 500 ml	1	7.661 828
AS/IDS-1.5	Cable with plug head, 1.5 m	1	7.642 673

### 2 Turbidity meter Turb® 355

Battery-operated portable turbidity meter with infrared LED for nephelometric measurements as per ISO 7027/DIN EN 27027 (EN ISO 7027) or as a white light model with tungsten lamp as per US EPA. It is handy, light and simple to operate and is suitable, primarily for applications to monitor > 1 NTU. With smaller samples of 15 ml, it is also very suited for applications in fermenters and cell cultures at good precision.

WTW®

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**Scope of delivery:** Turbidity meter in a handy small case with quick instructions, calibration standards 0.02-10.0-1000 NTU, empty cuvettes and batteries.

**Specifications**

Measuring range: NTU 0 to 1100  
FNU 0 to 1100

Resolution: 0.01 NTU in the range 1 to 9.99  
0.1 NTU in the range 10.0 to 99.9  
1 NTU in the range 100 to 1000

Accuracy: 0 to 500 NTU/FNU: ±0.1 NTU/FNU or ±2 % of measured value  
500 to 1100 NTU/FNU: ±3 % of measured value

Reproducibility: 0.05 NTU or ±1% of measured value

Cell size: 25 x 45 mm, 15 ml sample volume

Power supply: 4 x AAA batteries for approx. 1500 measurements

Type	Description	PK	Cat. No.
Turb® 355 IR	with infra red LED	1	6.902 303
Turb® 355	with tungsten lamp	1	6.236 840

### 3 Turbidity Standards

Highly accurate turbidity standards composed of suspended microspheres, suitable for Instrument calibration and control of all turbidity meters. Stable, shelf life of 2 years (from Date of Manufacturing). NIST traceable, US EPA approved and tested in compliance with ISO 7027. HDPE bottles of 100 ml.

Reagecon

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Two ranges available:

- Ratio range for Ratio Turbidity Measuring instruments (measure of the scattered light from the sample at a 90° angle from the incident light, plus at additional angles (several detectors))
- Non Ratio for Non Ratio Turbidity Measuring instruments will measure the scattered light from the sample at a 90° angle from the incident light (one detector)

Description	Volume ml	PK	Cat. No.
Non Ratio 0.0 NTU	100	1	6.233 961
Non Ratio 0.1 NTU	100	1	6.075 473
Non Ratio 20 NTU	100	1	6.233 962
Non Ratio 200 NTU	100	1	4.012 096
Non Ratio 800 NTU	100	1	4.012 099
Ratio 0.0 NTU	100	1	4.012 057
Ratio 0.1 NTU	100	1	6.233 012
Ratio 15 NTU	100	1	6.286 185
Ratio 100 NTU	100	1	4.012 076

➡ For the MultiLine® IDS meters please see page 350