

LOW & MEDIUM RANGE TURBIDITY METER

TURBILIGHT II, THE LATEST GENERATION OF TURBIDITY METER DEDICATED TO :

- automatic, online measurement
- of low & medium loads in water

Benefits of TURBILIGHT II :

- ✓ Ergonomic & user-friendly
- ✓ Easy to install, operate & service
- ✓ Simple & reliable
- ✓ Efficient auto-cleaning

SERES environnement new turbidity meter, TURBILIGHT II, combines metrological excellence & convenient operation



CONCEPT & APPLICATIONS

SERES KNOWHOW in the field of water monitoring :

Automatic follow up of low & medium turbidity :

- Measurement method : nephelometry using IR light source
- **Pressurized vessel** to prevent interference of occasional air bubbles
- **Automatic cleaning of cell walls by electrical piston operated wiper** at adjustable frequency
- **Ranges : 0-2 to 0-1000 NTU** user configurable
- **Resolution** : 0.001 NTU on range 0-2 NTU

TYPICAL APPLICATIONS :

- Inlet & outlet of drinking water treatment station
- Surface water

KEY FEATURES

Conforms to ISO 7027 / NF EN 27027 standards : nephelometric measurement

Compact & sturdy equipment

Ergonomy : Intuitive user interface, touchscreen LCD, realtime display of measure & curve, USB port

Continuous operation, attendance-free

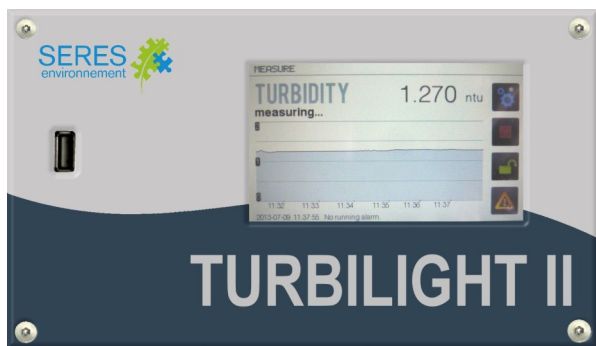
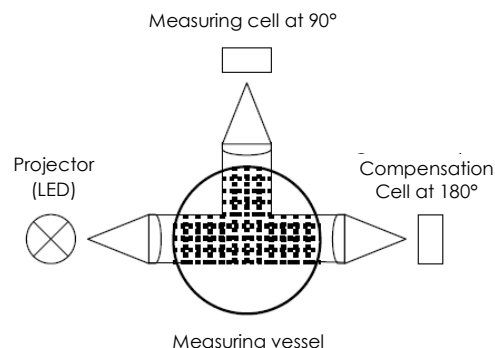
Factory calibrated for quick & easy start-up

Annual predictive maintenance

ANALYTICAL METHOD

TURBILIGHT II measures turbidity by IR nephelometry :

- Measuring light diffused at an angle of 90° to that of a collimated incident beam (projector).
- The resulting signal detected by the measuring cell is strictly proportional to the concentration of diffusing particles and thus to water turbidity.
- Compensation of water colour and diode aging achieved via a measurement at 180°.



Advanced user benefits :

- ✓ **User-friendly interface** : large graphic touch-screen, multilingual (Chinese & Russian incl.), intuitive scrolling menus, realtime display of turbidity value and curve with configurable time scale
- ✓ **Improved connectivity** : Data storage and transfer by USB / Historic available from menu / Output signal: 4 – 20 mA / Communication: RS232 / JBUS (support RS485)

TECHNICAL SPECIFICATIONS

CONSTRUCTION & ENVIRONMENT

Control box	Dimensions : 215 x 185 x 120 mm (W x H x D)
Weight & Material	2 kg ≈ - Enclosure ABS, RAL 7035 - Transparent cover
Installation	Wall mounting assembly of control box & measuring vessel on PS board. Dimensions : 400 x 280 x 130 mm (W x H x D) 4 kg approx.
Environment & Protection	Installation in safe area, away from corrosive atmospheres. Enclosure IP65.

POWER SUPPLY

Supply	110 - 230 VAC 50 - 60 Hz - 24 V DC (on request)
Consumption	25 W max

ANALYSIS

Method	Nephelometry & IR light source
Parameter & Unit	Water turbidity, result in NTU (other units on request)
Measurement & Response time	Continuous, online Initial response in few sec / 90% of value ≤ 30 sec
Ranges	0 - 2 to 0 - 1000 NTU, user configurable
Resolution	0.001 NTU on range 2 NTU
Integration time	0 to 10s , user controlled
Repeatability & Accuracy	± 2% of full range

CONNECTIVITY, ALARMS & COMMUNICATION

User interface	Colour LCD display 4.3", touch screen Multilingual display (Russian & Chinese - pending)
Data storage & Retrieval	Data storage in built-in memory Transfer of memory via USB port
Output Signal & Communication	1 output 4 - 20 mA + 1 output RS232 Option Jbus (support RS485)
Alarms / Relays	2 programmable thresholds / 1 analyser failure

SAMPLING & OPERATION

Sample supply	Flow : 50 l/h mini / Pressure : 0.1 to 3 bar / T° : 4 to 40°C
Hydraulic connections	Sample inlet : tubing 6 x 8 mm, semi-rigid Sample outlet : tubing 12 x 14 mm, flexible
Vessel cleaning	Automatic cleaning system (electrical) using a piston operated wiper . User configurable frequency
Calibration	Factory calibrated.
Maintenance	Routine calibration recommended every 6 months Predictive replacement of wiper & dessicant each year

CONFORMITY & OPTION

Conformity	Nephelometry according to ISO 7027 / NF EN 27027
Option	Debubbling device in case of low sample pressure