

How does it works?

Turbidity is defined as an "expression of optical property that causes light to be scattered and absorbed rather than transmitted in straight lines through the sample." Simply stated, turbidity is the measure of relative sample clarity. High turbidity makes it difficult to treat water for microbial contaminants, and therefore is regulated in drinking water supplies by the EPA. The turbidimeter measures the light transmittance of a sample in NTU's (Nephelometric Turbidity Units, a standard measure). Because the units of turbidity are quite arbitrary, it's absolutely essential that turbidimeters be calibrated against standards with known scattering properties. Basically, these are solutions of very special substances that scatter light in a predictable and repeatable fashion.

Connections:

Transmitting Diode: TX-Blue ; TX-Brown ; Receiving Diode: RX-Black ; RX-White ; RX-Green.

Technical Features

Scale	0 ÷ 40 NTU
Resolution	0.1 NTU
Repeatability	± 1% at 25°C
Linearity	better than 1%
Zero offset	± 3mV (5 a 50°C)
Calibration	on field
Working Temperature	from 5°C to 50°C
Stocking Temperature	from -20°C to 50°C
Flow min/max	from 1 l/h to 50 l/h
Pressure	0.5 bar



A Emitter Photodiode

B Sampled liquid output

C Sampled liquid input

D Receiver Photodiode

Calibration procedure (ref. LDTORB instrument)

Injection Mode.

As shown on "Fig.A" disconnect hoses from "IN" and "OUT" connectors. Use a syringe to inject the buffer solution from "IN" connector until it leaks from "OUT" connector (about 35cc of solution are needed). Proceed to calibration mode. At the end of procedure open the probe using a "4mm" key on cover screws ("Fig.A") and dry inside using a towel. Reassemble it and reconnect hoses.

Direct Mode.

As shown on "Fig.A" disconnect hoses from "IN" and "OUT" connectors. Open the probe using a "4mm" key on cover screws ("Fig.A"). Remove glass hose inside the probe, clean it and put in the buffer solution as shown on "Fig. B". Use the protection cap on probe (to be ordered separately, code 00100660) as shown on "Fig. C". Proceed to calibration mode. At the end remove the buffer solution and put it back the cleaned glass hose. Reassemble the probe and re-connect hoses.

Maintenance

Disconnect or stop flow to hosesi "IN" and "OUT" of turbidity probe as shown in fig. A. Open the probe using a "4mm" key on cover screws ("Fig.A"). Remove glass hose inside the probe, remove oring on probe's bottom and clean chamber. Dry it.

Wash glass hose gently with water and dry with a soft towel. Do not scratch glass! Reassemble the probe and re-connect hoses. Repeat calibration procedure.



