



APPROVED MEASURING DEVICE SWIMMING POOLS TURBIDIMETER

Designed specifically for water quality measurements, it provides accurate and reliable readings, even in low turbidity ranges. It uses an advanced optical system that guarantees accurate results, ensures long-term stability and minimises light deflection and colour interference. Regular calibration with the supplied standards compensates for any variation in tungsten lamp intensity. In addition, special 25 mm optical glass cuvettes ensure repeatability in turbidity measurements.

- Up to three-point calibration.
- Bucket safety system.
- Waterproof keyboard.

Turbidity is essential for assessing drinking water quality and is a key indicator for protection against pathogens. In natural waters, turbidity is measured to assess overall quality and its suitability for aquatic environments. Wastewater control has historically relied on turbidity management. Today, end-of-treatment measurement ensures compliance with regulations. The requirements of an optical turbidimeter for low-interval diffuse radiation measurements, as applied in drinking water according to ISO 7027:1999, include:

- Diffuse radiation measurement for water with low turbidity (0 FNU to 40 FNU).
- The wavelength of the incident radiation will be 860 nm.
- The spectral bandwidth of the incident radiation shall be less than or equal to 60 nm.
- There shall be no divergence from the parallelism of the incident radiation and any convergence shall not exceed 1.5°.
- The angle of measurement, between the optical axis of the incident radiation and that of the diffuse radiation shall be 90 or +/- 2.5°.
- The opening angle should be between 20° and 30° in the water sample.

Range	0.00 to 1000 FTU
Resolution	0.01 (0.00 to 50.00 FTU); 1 (50 to 1000 FTU)
Accuracy	± 0.5 FTU o ± 5% of reading (whichever is higher)
Calibration	Three points (0 FTU, 10 FTU and 500 FTU)
Light detector	Silicon photocell
Light Source	Infrared LED
Battery type / life	1.5V AA (4) / approx. 60 h continuous use or 900 measurements; automatic switch-off after 5 mn of inactivity
Environmental conditions	0 to 50°C ; HR max. 95% (non-condensing)

OPERATING PRINCIPLE:

The HI-93703 uses a beam of light that is scattered in all directions as it passes through the sample. Its optical system minimises stray light, ensuring accuracy in low turbidity samples.

GENERAL CHARACTERISTICS:

- **Single beam design:** Measures turbidity in the range of 0.00 to 1000 FTU with 90° scattered light detection.
- **ISO compliance:** It follows the ISO 7027 method and shows results in FTU.
- **Complies with the R.D. of Swimming Pools:** 742/2013 establishing the technical-sanitary criteria for swimming pools.
- **Powerful calibration:** Compensates for variations in light intensity with two or three-point calibration.
- **Primary standard AMCO AEPA-1:** Uses USEPA-recognised standards, made of non-toxic polymer spheres.
- **Last calibration date:** Allows the date of the last calibration to be stored for reference.
- **Low battery indicator:** Warns when the batteries are low, allowing up to 50 measurements before replacing them. The meter automatically shuts off when the battery does not allow reliable measurements.

CODE	MODEL	FAM.
HI-93703	Turbidimeter with glass cuvette without case and standards	C
HI-93703-0	Pattern 1	C
HI-93703-10	Pattern 2	C
HS-93703LEG	Turbidimeter + Cuvette +Briefcase + Pattern 1 + Pattern 2	C