4-Beam-Turbidity Meter TTM-4

Application / Specification

- Turbidity measurement according to DIN EN ISO 7027-1 (ISO 7027-1:2016)
- Measuring range 0 ... 4000 FNU
- Measuring principle: 4-Beam-Turbidity-Meter

Application Examples

- Process control of flocculation
- Backwash control in the filtration process
- Water / wastewater control in e.g. the Basin
- Stability of flocs
- Sludge level detection

Design & Design / Pressure Connection

- 316 L / 1.4404 (wetted parts), PEEK
- Measuring chamber made of transparent quartz glass (optical path 10 mm), glass thickness 2 mm, pressure resistant up to 6 bar
- Process connection: Clamp 2" (DN 50) acc. ISO 2852 or Varivent (Tri-Clamp 2" DN 50 acc. ISO 2852)

Electronics / Advantages

- Detection of the 4 measurement beams via photodiodes
- Analog output 4 ... 20 mA, 3-wire, max. load 500 Ω, galvanically isolated
- Digital RS485 output, Modbus RTU protocol
- Software update via USB interface
- Display: 128 x 64 pixel graphic display, 4 keys for operation
- Power supply: 24 V DC ± 10 %, max. 3 W
- Ambient temperature range: 0 ... 40 °C (32 ... 104 °F)
- Protection class IP65 / NEMA 4X
- Cable length: 3 m (9.8 ft), 5 m (16.4 ft), 10 m (32.8 ft)

Options / Accessories

- Mounting set for pipe installation
- Programmable relay board for 2 relay outputs

Measuring Principle of Micro-Beam-Scattering Meter

The TTM-4 measures turbidity using the infrared scattered light method. The measuring principle is based on the 90° scattered light method according to DIN EN ISO 7027-1. The measuring chamber is made of transparent quartz glass. The 4 measuring beams are detected by photodiodes. The evaluation of the 4 measuring beams ensures a high measuring accuracy. Even with strong fluctuations in the turbidity, the measuring signal is stable and reproducible. Deposits on the measuring chamber wall are detected by the 4-beam technology and do not affect the measuring result.

Standards and Approvals

FDA

Wetted Materials

Measurement Principle