

Product Information ITM-51 | ITM-51R

FOOD

Relative Turbidity Meter ITM-51



Application / Specified Usage

- Relative turbidity measurement of liquid media for mid to high turbidity range (200...300,000 NTU equivalent)

Application Examples

- Phase separation of products (for example whey – cream – milk)
- CIP-return line (monitoring of pre-rinse water to product leftovers)
- Yeast harvest in breweries
- Quality control
- Leakage control of filter and gaskets

Hygienic Design / Process Connection

- Hygienic process connection with CLEANadapt
- Conforming to 3-A Sanitary Standard for versions with DIRECTadapt
- All wetted materials are FDA-conform
- Sensor completely made of stainless steel
- Complete overview of process connections: see order code
- The Anderson-Negele CLEANadapt system offers a flow-optimized, hygienic and easily sterilizable installation solution for sensors.

Features / Advantages

- CIP-/SIP-cleaning up to 140 °C / maximum 120 minutes
- Front flush or extended sensor stem
- Optics made of high resistant sapphire
- Integrated leakage detection in the sensor
- Independent to reflexions at small diameters or electro-polished surfaces
- No color dependency (wave length 860 nm)
- Smallest pipe diameter: DN 25
- High reproducibility: $\leq 1\%$ of full scale
- Switching output (switchpoint and hysteresis freely adjustable)
- Analog output 4...20 mA freely adjustable
- External range switching between two measurement ranges

Options / Accessories

- Electrical connection with M12 plug-in connector
- Preassembled cable for M12 plug-in connector
- Display module Simple User Interface (SUI) and Large User Interface (LUI)
- Remote version with cable length up to 30 m

Measuring Principle of the Relative Turbidity Meter

An infrared diode irradiates infrared light into the media. Particles in the media reflecting the irradiated light which is detected by the receiver diode (backscatter principle). The electronics calculates the relative turbidity of the media according to the received signal.

The relative turbidity is based on the Negele calibration standard and is displayed in "%TU".

Communication

 IO-Link
  4...20 mA

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Measurement Principle

