

in-line Turbidity Sensor Nephelometric measuring setup

Working principle:

The in-line turbidity sensor works as a 90 degree scatter nephelometer. A focused beam at 850 nm, which is invisible for the human eye, is directed into the monitored water. The light beam reflects off particles in the water, and the resultant light intensity is measured by the turbidity sensor's photodetector positioned at 90 degrees to the light beam. The light intensity detected by the photodetector is directly proportional to the turbidity of the water. The intensity of the light source is regulated to give temperature stability.

The turbidity sensor works as a flow sensor i.e. inline measurements without taking samples or stopping the running process is possible.

Typical applications:

- In-line real time process monitoring
- Water quality monitoring
- Water and wastewater treatment
- Industrial control

Technical data:

Turbidity Sensor	
Type	Nephelometer with correction
Measuring range	1-10 NTU (other ranges on request)
Operating Voltage	24 VDC
Operating temperature	0 to 60°C
Warm-up Time	min. 5 seconds
Output	4-20 mA
Box size (l x w x h)	124 x 79 x 57 mm
Light source	
Type	laser diode
Wavelength	850 nm NIR
Light output	30 mW

