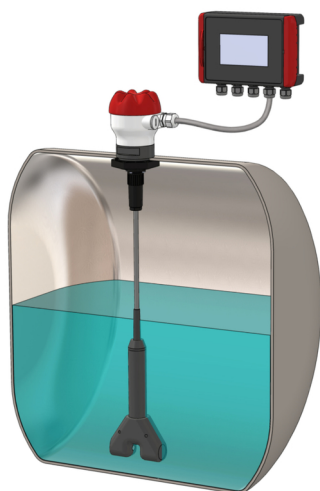


Compact turbidimeter for immersion measurement

TURBISENS 2



BAMOWIZ displayer
(Optional)



- Compact transmitter with 4...20mA output
- PVC or PP plastic version with scratch-resistant sapphire glass
- Measurement according to DIN EN ISO 7027
- Adjustable measurement ranges up to 2000 FTU
- Immersion depth: max. 10 meters

APPLICATION

Control and monitoring of :

- Wastewater treatment plant outlets
- Sedimentation and settling processes
- Water tanks
- Cooling water basin

DESCRIPTION

The TURBISENS probe is used to measure the turbidity of a liquid. It is designed for measurement in immersion, in tanks or open channels.

Turbidity expresses the clarity or transparency of a liquid, such as water, based on the presence of suspended particles that scatter and absorb light. The more turbid a liquid is, the less transparent it becomes.

The measuring principle is based on a combined transmitted light / scattered light measurement according to DIN EN ISO 7027. One receiver is facing the transmitter at 180° for transmitted light measurement. A second receiver is positioned at an angle of 90° for scattered light measurement. Transmitted light measurement is used for high turbidity values, it is usually referred to with the unit FAU.

Scattered light measurement is used for low turbidity values, it is usually referred to with the unit FNU or NTU.

A measuring range 0-100g/l SiO₂ solids concentration can be selected, which works only by means of transmitted light measurement.

TECHNICAL DATA

Output signal	4...20mA calibrated on selected turbidity range, for use with our BAMOWIZ or an analog PLC input
Supply voltage	10...30V DC, galvanically isolated from the measuring circuit
Power consumption	< 1 W

Note:

if the 4...20mA measuring signal is supplied by the connected measuring amplifier, the connected power increases by 24V DCx20mA=0.48W

Probe immersion depth	max. 10m
Protection rating	IP68 (max. 10 m / 1 bar) according to EN 60 529
Probe material	PVC / PP
Media temperature	0°C...60°C (PVC) or 0°...+80°C (PP)
Cable	TPK, length 6m (standard, special lengths on request), resistant to diluted acids and alkalis
Cable output	Cable gland IP67 (the upper part of the probe is not intended to be immersed permanently)
Sensor glasses	Sapphire glass
Seals	EPDM (standard) - others on request

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Compact turbidimeter for
immersion measurement

TURBISENS 2

11-02-2025

D-443.02-EN-AD

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TECHNICAL DATA (continued)

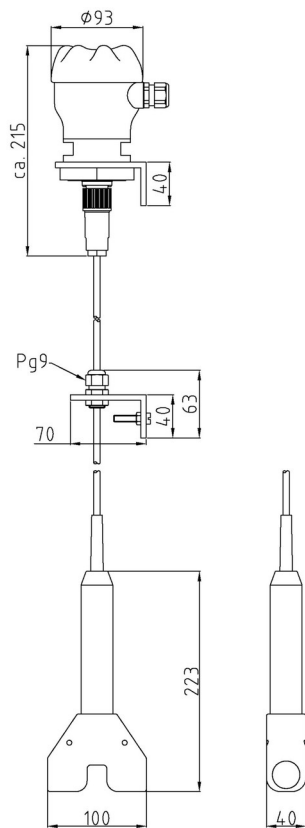
Housing	Plastic PBT, IP65 to EN 60 529 with 2 "MG connection Locknut and mounting bracket
Ambient temperature	0° ... +45° C
Display	Digital display in connection head for displaying current turbidity value and for setting operating values Status LED in terminal head for displaying operating and alarm signals
Setting mode	Combined rotary knob and pushbutton for setting operating values via the operating menu
Measurement scale	Adjustable via the connection head
Precision	Up to 2000 NTU/FNU ±5% of measured value and ±1% of selected full scale. From 1000 to 4000 FAU ±10% of measured value ±3% of selected full scale. Over 4000 FAU : uncalibrated (for indication only) Measurement of 0 to 100g/l silica (SiO ₂) ±10% of measured value ±5% of full scale in pure transmitted light mode (FAU), only measured values above 100 FAU are valid
Resolution	0.01...1NTU/FNU/FAU, depending on the selected measuring range 0.1g/l SiO ₂ Solids concentration

CE mark: The appliance complies with the legal requirements of the applicable EU directives.

CODE NUMBERS AND REFERENCES

Code	Reference	Description
443 150	TURBISENS 2 PVC	Turbidity sensor TURBISENS 2 PVC version
443 160	TURBISENS 2 PP	Turbidity sensor TURBISENS 2 Version PP
443 170	Testing part	Piece of known turbidity for comparative measurement
217 213	BAMOWIZ 213	Option: Digital display (see data sheet 217-01)

DIMENSIONS



Testing part

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