



AquaScat S mobile -

Self-sufficient turbidity measuring system



Applications

- Monitoring turbidity in the pipe network (< 1.0 FNU) in accordance with the German drinking water ordinance (TWV 2018)
- Sporadic measurements at critical points
- Mobility within the water treatment and the supply area
- Use in case of customer complaints

Industries

- Drinking water treatment
- Beverage industry
- Food industry
- Industrial water treatment

Characteristics

- Rapid use on-site
- Easy to transport
- Self-contained power supply
- Robust suitcase housing
- Measurements collected via datalogger

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Innovations with true customer benefits



Mobile measuring sensor

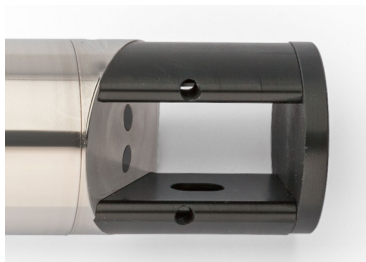
- Portable and robust suitcase suitable for every-day mobile use
- Self-contained power supply, operation time > 24 h
- Reliable control unit SICON with data storage covering more than 32 days



Measurement directly in the water

Sensorhead is sloped:

- Water flow creates self-cleaning effect of the sensorhead surface.
- Zero drift in water with turbidities up to 1 FNU (without manganese, iron or other depositing substances) is less than 2% in a six-month-operation.



The absorber

The absorber allows the use of the sensor in a multitude of process installations:

- Eliminates stray light from the environment.
- Avoids unwanted influences of the measured values by light reflections, particularly in stainless steel tubing.
- Turbidity values of few mFNU can be measured precisely.



Recalibration with secondary turbidity standard

AquaScat S is factory calibrated with formazine. For recalibration in operation, a secondary turbidity standard (solid glass body) is available:

- Precise recalibration is possible without the use of formazine.
- Purchase, storage and handling of formazine is not necessary.



Possible uses

Different options for use can be selected:

- Measurement in a sample vessel
- Measurement in an open container or channel
- Underwater measurement (e.g. in wells) with optional immersion casing or immersion pipe

Technical data

Instrument data

Measuring principle:	90° scattered light according to ISO 7027/EN27027
Light source:	LED 860 nm
Measuring span:	0 .. 4'000 FNU
Measuring ranges:	8, freely programmable
Resolution:	0,001 FNU
Sample temperature:	0 °C .. + 60 °C
Pressure:	max. 10 bar @ 20 °C
Sample flow:	max. 3,0 m/s
Ambient temperature:	0 °C .. +60 °C
Ambient humidity:	0 .. 100 % rel.
Protection:	IP68 (electrical connector IP67)
Power supply:	24 VDC +/-10 %, galv. isolated from housing
Power consumption:	max. 2 W
Materials:	stainless steel 1.4571, PPSU, sapphire
Dimensions:	Ø 40 x 200 mm

Control unit SICON

Power supply:	9 .. 30 VDCPol on GND of 24 W (with instrument)
Display:	1/4 VGA, 3.5"
Operation:	Touchscreen
Ambient temperature:	-10 .. +50 °C
Ambient humidity:	0 .. 100 % rel. h.
Protection:	IP66
Output:	4 x 0/4 .. 20 mA, galv. isolated 7 x digital
Input:	5 x digital, freely configurable
Digital interfaces:	Ethernet, microSD card, Modbus TCP
Optional modules (max. 2):	Profinet, Profibus DP, Modbus RTU, HART 4 x 0/4 .. 20 mA output, galv. isolated 4 x 0/4 .. 20 mA input



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