

# AquaScat S

In-line turbidity measurement for the water treatment



## Certificates



ACS (Attestation Conformité Sanitaire)

## Applications

- Turbidity measurement in raw water
- Monitoring of flucculation and dosage of flocculants
- Filtration monitoring
- Turbidity measurement in treated water
- Turbidity monitoring of water in storage and distribution networks
- Turbidity measurement in process water

- Additional temperature measurement with submerge version
- Web interface

## Industries

- Potable water treatment
- Beverage industry
- Food production industry
- Industrial water treatment

## Characteristics

- Re-calibration with secondary standard
- Lowest stray light level, also in heavily reflecting stainless steel tubing
- Very low maintenance needs
- Various process connections
- Various options to present and to transfer the measured data to PLC/SCADA

## Innovations with true customer benefits



### Measurement directly in the water

Sensorhead is sloped:

- Water flow creates self-cleaning effect of the sensorhead surface.
- Zero drift in water with turbidities of max. 1 FNU (without manganese, iron or any other sticking substances) is less than 2% per six months of operation



### The absorber

The absorber allows the application of the sensor in all possible process installations:

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



### Re-calibration with secondary standard (Solid glass body)

Formazine is used in the factory to calibrate the AquaScat S after assembly. For re-calibration, a secondary standard is available:

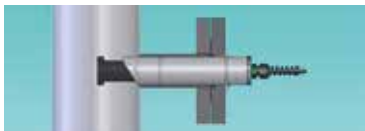
- Precise re-calibration is possible without the use of Formazine.
- Purchase and storage of Formazine is not needed.



### System integration

Various options to visualize and to transfer the data to PLC/SCADA are available:

- 8-wire cable
- Conn-R and SICON-C
- SICON/SICON-M
- WLAN
- Most of the customer requirements can be covered.



### Process connections

Various options for process integration are available. There is a solution for almost every customer requirement.



### Submerge version

The variant with stainless steel sleeve also enables temperature measurements.



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# AquaScat S

## 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
Temperature measurement:	0 °C .. +60 °C (immersion vers.)

Resolution temp. measurement:	0.1 °C
Pressure:	max. 10 bar @ 20 °C
Sample flow:	max. 3.0 m/s
Ambient temperature:	0 °C .. +60 °C
Humidity:	0 .. 100 % rel.
Protection:	IP68 (Electrical connector IP67)

Power supply:	24 VDC +/-10%, galv. isolated from housing of sensor
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Power consumption:	max. 2 W
Materials:	Stainless steel 1.4571, PPSU, sapphire

Dimensions:	Ø 40 x 200 mm
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8-wire cable:	System integration 1 x 0/4 .. 20 mA Output (Minus Pole on GND of 24 V supply) 2 x digital outputs (24 V, high-side, max. 25 mA)
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Option Connection box Conn-R:	1 x 0/4 .. 20 mA Output (Minus Pole on GND of 24 V supply) 2 x Relays Outputs 230 VAC, 4A Push-button for re-calibration LED info of re-calibration Connector for SICON-C Dimensions: 110 x 151 x 61 mm
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Option SICON – SICON-M:	Max. 8 x 0/4 .. 20 mA Outputs Max. 7 x digital Outputs Max. 5 digital Inputs Modbus TCP Modbus RTU Profibus DP HART Conn-A for max. 8 Sensors Powerbox for max. 12 Relays Dimensions: 130 x 160 x 60 mm
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Option WLAN:	IEEE 802.11b/g/n access with web server
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Process connections Options:	<ul style="list-style-type: none"> <li>– PE tubing welded</li> <li>– Stainless steel tubing with flanges welded</li> <li>– Kit to install directly in basins</li> <li>– Device to extract the sensor under pressure</li> <li>– Varivent® clamp connection</li> </ul>
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