



# AquaScat S

In-line turbidity measurement for the water treatment

#### **Certificates and Conformities**



DVGW CERT UBA Konformität Hygiene

ACS (Attestation Conformité Sanitaire) DWI (Drinking Water Inspectorate)

#### 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

#### Characteristics

- Measurement of turbidity and temperature directly in the water
- 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
- Additional temperature measurement with submerge version
- Web interface

#### Industries

- Potable water treatment
- Food and beverage
- Industrial water treatment

### sigrist.com











#### Innovations with true customer benefits

#### Measurement directly in the water

Sensorhead is sloped:

- Water flow creates self-cleaning effect of the sensorhead surface.
- Low Zero drift (less than 2% per six months of operation) in absence of fogging substances
- Integrated temperatur sensor in the sensor head

#### The absorber

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

- Eliminates stray light form 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 oft the customer requirements can be covered

#### **Process connections**

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

Main technical details

Measuring principle: Measuring span: Measuring ranges: Resolution: Sample temperature: Sample flow: Protection : 90° Scattered light according to ISO 7027/EN27027 0 ... 4'000 FNU 8, freely programmable 0.001 FNU 0 °C ... +60 °C max. 3.0 m/s IP68



Full details and technical data:

+41 41 624 54 54 info@sigrist.com





# AquaScat S **Technical Data**

Instrument data

Measuring principle:

Light source: Measuring span:

Measuring ranges: **Resolution:** Sample temperature: Temperature measurement: 0 °C .. +60 °C (immersion

Resolution temp. measurement: Pressure: Sample flow: Ambient temperature: Humidity: Protection: Power supply:

Power consumption: Materials:

Dimensions:

8-wire cable:

Conn-R:

to ISO 7027/EN27027 LED 860 nm 0...4'000 FNU ~0..5'000 mg/L TSS\* 8, freely programmable 0.001 FNU 0°C..+60°C vers.) 0.1°C max. 10 bar @ 20 °C max. 3.0 m/s 0°C..+60°C

90° Scattered light according

0..100% rel. IP68 24 VDC +/-10%, galv. isolated from housing of sensor max. 2 W Stainless steel 1.4571, PPSU, sapphire Ø 40 × 200 mm System integration 1×0/4..20 mA Output (Minus Pole on GND of 24 V supply) 2 × digital outputs (24 V, high-side, max. 25 mA) **Option Connection box** 1 × 0/4 .. 20 mA Output (Minus Pole on GND of 24 V supply) 2 × Relays Outputs 230 VAC, 4A Push-button for recalibration LED info of re-calibration



#### 110 × 151 × 61 mm Max. 8 × 0/4 .. 20 mA Outputs Max. 7 × digital Outputs Max. 5 digital Inputs Modbus TCP Modbus RTU Profibus DP Profinet IO Conn-A for max. 8 Sensors Powerbox for max. 12 Relays 130 × 160 × 60 mm

#### - PE tubing welded

- Stainless steel tubing with flanges welded
- Kit to install directly in basins
- Device to extract the sensor

**CE** he

under pressure - Varivent<sup>®</sup> clamp connection



Authorised Distributor:



46, Jalan SS 22/21, Damansara Jaya, 47400 Petaling Jaya, Selangor Darul Ehsan, Malaysia. Email: nog@nog.com.my Website: www.nog.com.my

TSS value based on measurement with Kieselgur

mg/L TSS ~ 1.3xFNU. Calibration is substance-dependent.

## sigrist.com