

AquaScat S Mobile

Self-sufficient, portable turbidity measuring system



Certificates and compliance



ACS (Attestation Conformité Sanitaire)

DWI (Drinking Water Inspectorate)

The AquaScat S Mobile combines high-precision, continuous turbidity measurement with maximum mobility. The system thus provides reliable information on the condition of the sample water at all times throughout the entire water treatment and distribution process. As a mobile field instrument, the AquaScat S Mobile sets new standards: it offers the highest accuracy and sensitivity on the market for turbidity measurements in the mFNU range.

Applications

- Monitoring turbidity in the distribution network
- Occasional measurements at critical points
- Mobility within the treatment plant and the supply area
- Use in response to customer complaints
- Verification of online measuring instruments

Characteristics

- Ready for use in no time
- Easy to transport
- Compact design with a robust case
- Quick calibration using the control unit
- Precise measurement with display
- Data logging also via USB interface
- Battery-powered operation
- Additional temperature measurement with immersion probe

Industries

- Drinking water treatment and distribution
- Wastewater and process water treatment
- Beverage and food industry

Innovations with true customer benefits



Complete mobile solution – ready for immediate use

- Robust, portable case for daily field use
- Power supply via a rechargeable power bank
- Ample freedom of movement thanks to a robust connection cable (IP68 protection)
- No water loss, no sampling required



Maximum precision, even in mobile applications

- The absorber features a light trap: stray light effects are minimised. Precise measurements down to a few mFNU are possible
- Very low drift: precise and comparable readings, even after months of operation
- Integrated temperature measurement for stable results



Reliable data acquisition & simple analysis

- Tried-and-tested SICON control unit with a clear display (parameterisation and calibration)
- Real-time display of measured values and measurement trends
- Data storage for up to 32 days
- Simple data transfer via USB interface



Low-maintenance & safe to operate

- A secondary turbidity standard (solid reference) is available for recalibration during operation. No toxic formazin required
- Factory-set 7-point calibration across the entire measuring range of the sensor (0 – 4000 FNU)
- No moving parts
- High operational reliability in daily use



Versatile for use in a wide range of applications

- Measurements in open tanks and channels
- Use in sampling vessels, well shafts and spring shafts
- Suitable for open bodies of water such as reservoirs
- Ideal for flexible measurements at varying measurement points

Accessories

- Checking unit
- Additional battery

Main technical details

Measurement principle:	90° scattered light in accordance with standard ISO 7027/EN 27027
Measurement range:	0 ... 4,000 FNU / ~0 ... 5,000 mg/L TSS*
Accuracy:	0 – 50 FNU: ± 0.002 FNU or $\pm 1\%$ / 50 – 4,000 FNU: $\pm 2\%^{**}$
Resolution:	0.001 FNU
Sample temperature:	0 °C ... +60 °C
Protection class:	IP68
Battery life:	max. 20 h

* TSS value based on measurement with diatomaceous earth; mg/L TSS $\sim 1.3 \times$ FNU. Calibration depends on the substance.

** Relative to factory standard.

Full details and
technical data:



AquaScat S Mobile

Technical data

AquaScat S

Measurement principle:	90° scattered light in accordance with standard ISO 7027/EN 27027
Light source:	860 nm LED
Measurement range:	0 ... 4,000 FNU / ~0 ... 5,000 mg/L TSS*
Resolution:	0.001 FNU
Sample temperature:	0 °C ... +60 °C

Resolution

Temperature measurement:	0.1 °C
Pressure:	max. 10 bar @ 20 °C
Sample flow rate:	max. 3.0 m/s
Ambient humidity:	0 ... 100 % rel.
Protection class:	IP68
Power supply:	24 VDC ±10 %, galvanically isolated from the housing
Power consumption:	max. 2 W
Materials used:	Stainless steel 1.4571, PPSU, sapphire
Dimensions:	Ø 40 × 200 mm
Cable length to SICON:	10 m

Control unit SICON

Power supply:	9 ... 30 VDC 8 W (with instrument)
Display:	1/4 VGA, 3.5"
Operation:	Touchscreen
Ambient humidity:	0 ... 100 % rel. H.
Protection class:	IP66
Outputs:	4 × 0/4 ... 20 mA, galvanically isolated 7 × digital
Inputs:	5 × digital, freely configurable
Digital interfaces:	Ethernet, microSD card, USB A, Modbus TCP

Power bank

Battery capacity:	20 Ah
Battery operating time:	max. 20 h

