



AquaScat

On-line turbidity measurement for water treatment



Applications

- Turbidity measurement in raw water
- Monitoring of flocculation and dosage of flocculants
- Filtration monitoring of filter performance and back-wash control
- Turbidity measurement in treated and final waters
- Turbidity monitoring of water in storage and distribution networks
- Turbidity measurement in process and waste waters

Advantages

- Non-contact measurement in free-fall stream (models WTM, WTM A, HT)
- Dual beam measurement in optimized flow cell (model P) with integrated fouling compensation
- Re-calibration with secondary standard (fully automatic at model WTM A)
- Lowest stray light levels

- Virtually maintenance free

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- Convenient operation via touch screen
- Graphical display of trends and/or values
- Visualization of measured values over the past month

Industries

- Drinking Water Treatment Works
- Waste water treatment
- Industrial water production











Main technical details Measuring principle: Measuring span:

Resolution:

Sample temperature: Protection: Sample flow:

Innovations with true customer benefits

Non-contact free-fall concept

Water passes through the AquaScat models WTM, WTM A and HT without touching the optics.

- No window fouling and hence, the measured values are not falsified
- Very low and high turbidity values can be measured precisely
- The entire sample beam is measured which leads to true representative results
- Extremely low maintenance is the result

Dual beam concept

In the AquaScat P, transmitted light and scattered light are measured and taken into consideration.

- The influence of the cell contamination is reduced substantially
- Possible interference by colour is completely eliminated
- Cell cleaning is minimised

Very low quantity of stray light

The design of the AquaScat in combination with high quality optical components minimizes the quantity of stray light inside.

- A stable measurement of a few mFNU turbidity is therefore possible
- Very low zero drift provides excellent long term stability

Re-calibration with secondary standard

Formazine is used in the factory to calibrate the AquaScat after assembly. For re-calibration, a secondary standard (Zerodur[®] glass body) is available.

- Precise re-calibration is possible without the use of Formazine
- In the AquaScat WTM A, this re-calibration is done automatically without stopping the waterflow

Integrated control unit

The control unit of all the AquaScat family is an integrated colour touch screen.

- Values, graphs, alarm- and status messages can be presented
- An internal data logger allows recalling and displaying measured data of the last 32 days

90° Scattered light according to ISO 7027/EN27027 0 ... 4'000 FNU (WTM, WTM A, HT) 0 ... 100 FNU (P) 0.001 FNU (WTM, WTM A, P); 0.1 FNU (HT) 0 ... +40 °C IP 54 (WTM, WTM A, HT); IP 65 (P) min. 1.3 L/min (WTM, WTM A, HT) 0.2 ... 2 L/min (P)



Full details and technical data:

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AquaScat Technical data

Instrument data Measuring principle:

Light source: Measuring span:

Measuring ranges: Resolution:

Sample temperature: Ambient temperature: Humidity: Protection:

90° Scattered light according to ISO 7027/EN27027 LED 860 nm 0 ... 4'000 FNU ~ 0 ... 5'000 mg/L TSS* (WTM, WTM A, HT) 0 ... 100 FNU (P) 8, freely programmable 0.001 FNU (WTM, WTM A, P); 0.1 FNU (HT) 0...+40 °C -10 ... +50 °C 0 ... 100% rel. IP 54 (WTM, WTM A, HT); IP 65 (P) 18 ... 30 VDC, optional: 100 ... 240 VAC, 47 ... 63Hz

Hoses of inner ø 12/25mm

Hoses of inner ø 16/16mm

atmospheric pressure

min. 1.3 l/min

SS 316L/PVC

Power supply:

Power consumption max.: 8 W

Installation models WTM/HT

Sample inlet/outlet: Sample flow:

Material inlet/outlet:

Installation model P Sample inlet/outlet:

> or GF-System G¾″ min. 0.2 l/min max. 10 bar @ 20 °C Cell/inlet&outlet: POM/PVC

Control Unit Display:

Sample flow:

Pressure:

Material:

Operation: Outputs:

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1/4 VGA, 3.5" Touchscreen 2 x 0/4 ... 20 mA, galv. isolated 2 x Relays 250 VAC, 4A

TSS value based on measurement with Kieselgur mg/L TSS \sim 1.3xFNU. Calibration is substance-dependent.

Inputs:

Digital interfaces:

Optional:

1 x for optional flow meter 2 x 0/4 ... 20 mA Ethernet, Modbus TCP, SD-card

- Profibus DP, Profinet IO, Modbus RTU
- analogue module





Authorised Distributor:



167.5

67.5

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