

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)
- 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

- Potable Water Treatment Works
- Waste water treatment
- ndustrial water production

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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

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.





Galileilaan 33J | 6716 BP Ede Postbus 234 | 6710 BE Ede T. +31 88 278 28 28 info@apt.nl | www.apt.nl 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.

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:

0 ... 4'000 FNU (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

90° Scattered light according

to ISO 7027/EN27027

LED 860 nm

Power supply:

Power consumption max.: 8 W

Installation models WTM/HT

Sample inlet/outlet: Hoses of inner ø 12/25mm Sample flow: min. 1.3 l/min, atmospheric pressure SS 316L/PVC

Material inlet/outlet:

Installation model P

Sample inlet/outlet: Sample flow:

Hoses of inner ø 16/16mm or GF-System G¾" 0.2 ... 2 l/min max. 10 bar @ 20 °C Material: Cell/inlet&outlet: POM/PVC

Control Unit

Pressure:

Display: Operation: Outputs:

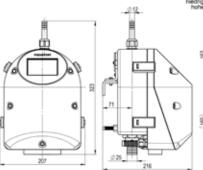
1/4 VGA, 3.5" Touchscreen 2 x 0/4 ... 20 mA, galv. isolated 2 x Relays 250 VAC, 4A

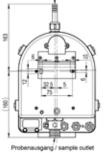
Inputs:

Digital interfaces:

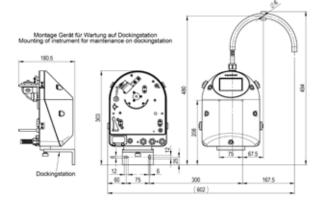
Optional:

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





ty: 2.5-3.5 Vmin



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