

BlueScan UV/Vis Spectrometer System

The BlueScan UV/Vis Spectrometer System is capable of simultaneously detecting multiple parameters and offers a broad range of control functions.

The utilization of chemometric methods allows for the measurement and comprehensive analysis of a multitude of water properties, contained suspended solids, as well as dissolved substances. To achieve this, the evaluation encompasses the entire absorption spectrum ranging from the UV until the near-infrared range (200-720 nm).



Application Areas



Drinking Water

- Quality control
- Alarm systems



Wastewater

- Effluent monitoring
- Trend analysis
- Early detection of discharge (fingerprint)



Process Measurement & Control Technology

- Process monitoring in industrial facilities
- Control of process water treatment
- Process optimization



Environmental Monitoring

- River water
- Surface water

Parameters

- Ammonium
- Biochemical oxygen demand (BOD)
- Chemical oxygen demand (COD)
- Total organic carbon (TOC)
- Dissolved organic carbon (DOC)
- Total suspended solids (TSS)
- Nitrate
- Orthophosphate
- SAC 254nm

* Further parameters with application specific calibration

Main Functions & Features



Monitoring Function



Automated Cleaning



Calibration Monitoring (SQI)



ATEX Certified



Intelligent Event Handling



Cloud Data Service



Adjustable Optical Path Length



Deployable Up to +110 °C

Technical data

System	UV/Vis spectrum 200 - 720 nm
Measuring principle	Spectral analysis
Optical measuring path length	1 - 30 mm
Sampling rate	≥ 3 s
Light source	Xenon pulse light
Measuring head	
Material	Stainless steel 1.4404 / Titanium [optional]
Operation temperature range	0 °C to +110 °C
Weight	0.8 kg
Dimensions	Length approx. 150 mm; Ø 38 mm
IP protection class	IP 68
ATEX category 3 / category 2 [optional]	

Interfaces

1x RS-232, RS-485, var. protocols e.g. Modbus

1x CAN bus for connection of additional modules, sensors & actuators

1x Ethernet [TCP/IP], Modbus [TCP/IP]

1x 12V, 6W integrated power supply for sensors with RS-232/RS-485 port [optional]

Profibus [optional]

GPRS / UMTS / LTE modem [optional]

Inputs

2x Pulse-In (PNP/NPN selectable)

Outputs

2x Current output 4-20 mA

2x Relay with a switching capacity of 48 V AC/DC; 0.5 A

Product variants

The BlueScan UV/Vis Spectrometer System features an adjustable optical path length (1-30 mm), which enables an optimal adaption for the specific application. Thereby, it is possible to achieve accurate measurements ranging from wastewater to drinking water.

An additional advantage is the compact design of the measuring head, making it particularly suitable for the installation in pipes and flow-through fittings.

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[BlueBox TS - in situ]

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