SPXFLOU

ISA – UV/VIS Spectrometer System

As a compact UV/VIS spectrometer, the ISA - UV/VIS spectrometer allows the simultaneous acquisition of a large number of parameters with only one optical sensor using chemometric methods.

By evaluating the complete absorption spectrum from UV to the near-infrared range (200-708 nm), the properties of the water, suspended solids contained and dissolved ingredients can be comprehensively characterized.

Applications

Drinking water

Quality control

> Alarm systems



Sewage

- Waste monitoring
- Trend analysis
- Early detection of discharges (fingerprint)



Process & Control Technology

- Process monitoring in industrial plants
- > Control of process water treatment
- Process optimization



Environmental monitoring

- > River water
- > Surface water
- > Seawater

Parameter > **Biochemical oxygen demand (BOD)**

Chemical oxygen demand (COD)

COD

2350.15 mg/l

- Total organic carbon (TOC) >
- > **Dissolved organic carbon (DOC)**
- > Total suspended solids (TSS)
- > Nitrate (NO₃)
- > SAC 254pm
- Ammonium (NH₄)*
- > Total nitrogen (N_{ges})*
- > Ortho phosphate (PO₄)*
- > Total phosphorous (P_{ges})*

*Correlation-based calibration, restrictions apply.



Monitoring function



Automatic cleaning





Calibration monitoring (SQI)









>Bran+Luebbe[®]



Cloud Data Service

CONTINUOUSLY AND FULLY AUTO-

SPXFLOW

Specifications

Controller

Power supply	24 V DC
Power consumption (typical)	10 W
Dimensions (WxHxD)	330 x 220 x 93 mm
Weight	approx. 3.3 kg
IP protection grade	IP 65
Memory	8 GB
Color touch display	7 inch
Ambient temperature	-20 to +45 °C

Measuring head

Material	stainless steel 1.4404 / Titan [optional]
Operating temperatur	e range 0 °C to +110 °C
Weight	approx. 1.5 kg
Dimensions	length approx. 230 mm; Ø 44 mm
IP protection class	IP 68
ATEX category 3; Category 2 optional	
Measuring path lengt	n 0,5 – 20 mm
Measuring principle	Spectral analysis (200 – 708 nm)
Sampling rate	≥ 3 sec
Light source	Xenon pulse light

Interfaces

1x RS-232/RS-485 (with 12 V, 6 W power supply) as interface or for connecting sensors with RS-232/RS-485 port

1x CAN bus for connecting additional modules

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

1x Pulse Input (PNP/NPN selectable)

1x slot for freely selectable BlueConnect sensor or I/O card

(e.g., analog pH or 2x 4 - 20 mA output)

1x plug connection (4 mm) for compressed air cleaning

GPRS / UMTS / LTE / 4G modem [optional]

W-LAN [optional]

Product designs

The ISA - UV/VIS spectrometer system consists of the Blue-Box RS Controller and the ISA measuring head. The BlueBox RS houses all electronic components including the spectrometer and the valve for automated compressed air purification. The ISA measuring head is connected to the BlueBox RS Controller by a combined cable consisting of the optical fibers and the compressed air line.

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In addition, an ISA - UV/VIS spectrometer module is also available, which can be connected to any controller of the BlueBox system that has a CAN bus interface. With the module version, existing systems can be easily expanded.

ISA – UV/VIS Spektrometer System



ISA - UV/VIS Spectrometer System, item. no. BL48600RS

ISA – UV/VIS Spectrometer Module



ISA - UV/VIS Spectrometer module, item no. BL4866004

Distribuidor local:

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