

BTX

TOC

DOC

UV254

# Water Quality OnLine





# Intelligent. Optical. Online.

s::can is the world technology leader for submersible online spectrometer probes, water protection systems and event detection software. Since 2020, s::can is a part of Badger Meter Inc., a global provider of industry leading water solutions encompassing flow measurement, quality and other system parameters.

Our products measure a wide range of parameters in numerous applications. From our very solid-state pH-probe to our highly innovative spectral probes, all our products are developed with the same philosophy in mind: s::can measuring instruments are intelligent, robust and require little or no maintenance. They can be seamlessly integrated with other s::can systems but are also compatible with third-party systems.

More than 10000 s::can monitoring systems are in use worldwide for drinking-, environmental-, waste-, and industrial water applications.



# spectro::lyser V3

The s::can spectro::lyser<sup>™</sup> is a fully submersible UV/Vis spectrophotometer which measures light absorbance between 190 and 750 nm.

s::can's proprietary algorithms analyze and decompose the spectral data to provide measurements for many important parameters including: nitrate, nitrite, COD, BOD, TSS, dissolved  $H_2S$  and many more. No moving parts and no reagents are used, resulting in extremely low operating costs.



# i::scan

The i::scan is a revolutionary miniature spectrometer combining innovative LED technology with state of the art optical measurement. The result is a sensor that is so cost efficient that it will revolutionize water quality monitoring. It can be mounted in-pipe under pressure, so it can be used in a wide range of applications including process optimization, highly resolved 'Smart Water Grids', coagulant control, small water treatment plants, etc.











# What do you want to measure?





# **Terminals and Software**

### con::cube V3

s::can's con::cube is a compact, powerful and versatile terminal for data acquisition and station control. Integrating the newest processor technology, the con::cube's very flexible options for interfacing to SCADA or any central database systems makes it perfect for station control. Its low power consumption in sleep mode fits the requirements for the operation in remote installations powered by solar panels.







### moni::tool

moni::tool is a revolutionary new platform for the management of measuring stations, online probes and analyzers. Whether it is installed in a large monitoring network or as a stand-alone station, moni::tool's intuitive software and state of the art features are an essential backbone for sensor and station management.



# **Data Validation**

vali::tool automatically detects, marks and corrects untrustworthy data, ensuring that only high quality data are fed into the event detection system. It also provides the user with indications on sensor maintenance requirements and automatically detects and signals possible failures of the sensors.

### **Event detection**

s::can's event detection system ana::tool continuously analyzes the spectral fingerprint to detect changes in the water composition. The system responds to deviations of parameters compared to the original fingerprint. It combines Static Alarms, Dynamic Alarms, Pattern Recognition and Spectral Alarms. ana::tool incorporates a simple to use learning system for its alarms that includes user feedback and gradual composition changes (e.g. seasonal variations).



# Your application. Our solution.

s::can monitoring systems are suitable for a wide range of applications, ranging from ultra pure water to industrial waste waters.

### Drinking water



### Vienna Water counts on s::can for more than 20 years

Compared to other world cities, the municipality of Vienna invested in the sustainable protection of its spring waters at a very early stage. Spectrometer probes from s::can GmbH have been used since 2001. Today 70 systems continuously monitor the water quality in real-time.

#### Vienna Water

Location: Vienna, Austria Project: Drinking water monitoring

Parameters monitored:

Key products installed: spectro::lyser, con::cube, i::scan, con::lyte Turbidity, UV254, UVT, NO<sub>3</sub>, TOC, DOC, Fingerprint

### Waste water



#### County of Santa Cruz effectively controls H<sub>2</sub>S in its wastewater treatment plant

s::can's spectro::lyser monitors and controls the dosing of chemicals to reduce H<sub>2</sub>S, improving the efficiency of the dosing, diminishing the odor problem, protecting the environment and lowering the operational costs.

#### County of Santa Cruz

Location: Project:

California, USA Waste water monitoring

Key products installed: spectro::lyser, moni::tool, pH::lyser Parameters monitored: NO<sub>3</sub>, dissolved H<sub>2</sub>S and pH



More than 10000 s::can systems are installed all over the world.

# **Environmental Monitoring**



### s::can sensors monitor Ganges river quality during world's largest religious gathering

s::can's stations monitor the quality of the water in the Ganges river in India. This results in a better understanding of the contamination of the river by local industry and protects the millions of pilgrims that bathe in the Ganges river.

#### Indian Central Pollution Control Board

Location: Ganges, India Project: River water monitoring Key products installed:

spectro::lyser, ammo::lyser, condu::lyser, oxi::lyser, con::cube, moni::tool Parameters monitored: COD, TSS, BOD, EC, pH,  $NH_A$ , Chloride and DO

# Industrial Monitoring



#### The Oettinger brewery continuously monitors its industrial waste water with s::can

With a total output of 245.7 million gallons per year, the Oettinger group is one of the biggest brewery companies in Germany. The s::can spectro::lyser ensures a complete monitoring of the treated waste water in the brewery's waste water treatment plant.

#### **OETTINGER Brauerei GmbH**

Oettingen in Bavaria, Germany Location: Project: Industrial Waste Water

Key products installed: spectro::lyser industrial, con::cube Parameters monitored: COD, NO<sub>3</sub>-N and TSS



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