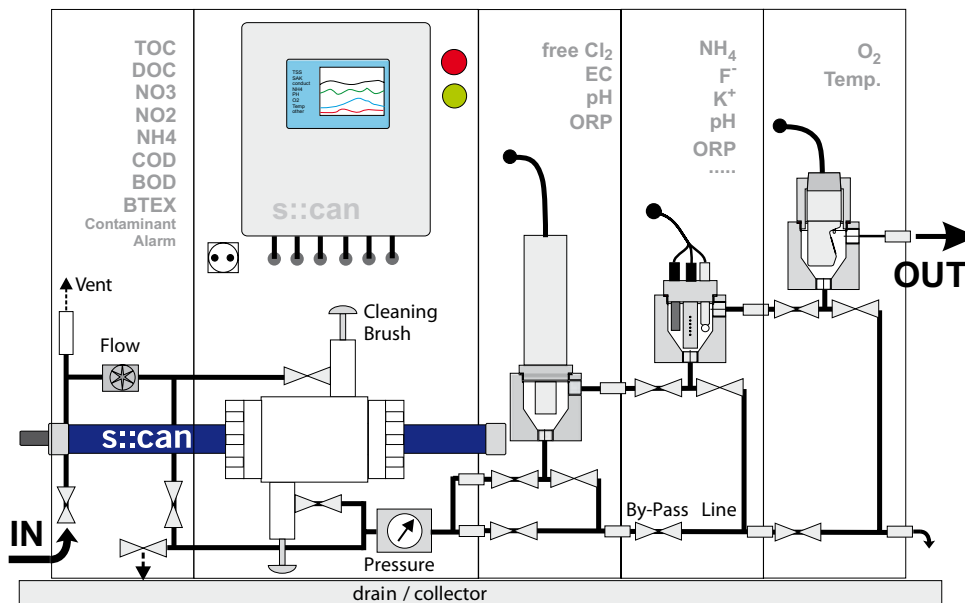


*"The full range online"*

# Water Quality Monitoring Station

... water analysis - compact and easy like never before



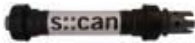
- BOD
- COD
- BTX
- TOC
- DOC
- NO<sub>3</sub>
- NO<sub>2</sub>
- NH<sub>4</sub>
- K<sup>+</sup>
- Free Cl<sub>2</sub>
- F<sup>-</sup>
- TSS
- Turbidity
- pH
- ORP
- EC
- O<sub>2</sub>
- O<sub>3</sub>
- H<sub>2</sub>S
- AOC<sub>eq</sub>
- Contaminant alarm

# Built-in Sensors



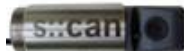
## spectro::lyser

	UV sensor	UV-Vis sensor
Contamination alarm	yes	yes
Carbon sensor	yes	yes
	UV 254/280	UV 254/280
	TOC	TOC
	COD	COD
	-	BOD
N sensor	yes	yes
	NO <sub>3</sub>	NO <sub>3</sub>
	NO <sub>2</sub>	-
Hydrocarbon sensor	yes	yes
	benzene	-
	toluene	-
	xylene	-
	phenol	-
	-	BTX alarm
Colour sensor	no	yes
Turbidity	turbidity estimator	turbidity sensor
Measuring range	220 to 390 nm	220 to 720 nm
Accuracy	1% of reading	1% of reading
Response time	30 seconds	30 seconds
Cleaning	manual/brushes; automatic/air (optional)	
Maintenance	none, except initial matrix adjustment	



## ammo::lyser, fluor::lyser

Measuring range, NH <sub>4</sub> -N	0.1 to 1000 mg/L
Measuring range F <sup>-</sup>	0.05 to 2.0 mg/L
Measuring range K <sup>+</sup>	ion selective, 0.1 to 1000 mg/L
pH sensor	glass electrode, pH 2-12
Temperature sensor	-10°C up to 100°C
Accuracy	3% of reading, +/- 0.1 mg/L
Response time	30 seconds
Cleaning	automatic/air (optional)
Maintenance	none, except matrix adjustment



## oxi::lyser

Measuring range	0 to 25 DO ppm
Temperature sensor	available 0-60°C
Accuracy	1% of reading, +/- 0.05 ppm
Response time	1 minute
Cleaning	automatic/air (optional)
Maintenance	maintenance free



## free chlorine sensor

Several brands of sensors are available for measuring free chlorine. The standard model is the popular YSI 600DW-B sensor integrated via a digital protocol.

Measured variable	free Cl <sub>2</sub>
Measuring range	0 to 3 mg/L
Resolution	0.01 mg/L
Accuracy	+/- 15% of reading
pH compensation	optional



## con::stat

This well proven industrial grade terminal is the electronic brain and heart of the station. One terminal can operate all types of s::can probes as well as other sensor and analyser models. A wide range of options exists for visualisation and interfaces, as well as real-time exchange of monitoring results with a central database.

# Fields of Applications

## Waste Water

### Applications

- Industrial emission monitoring
- Industrial discharge quantification
- WWTP compliance monitoring
- WWTP influent monitoring
- Sewage monitoring stations

### Parameters

- TSS/TS/MLSS
- UV-254/SAC
- Colour
- COD
- COD\_dissolved
- BOD
- NO<sub>3</sub>
- NO<sub>2</sub>
- H<sub>2</sub>S
- NH<sub>4</sub>
- K<sup>+</sup>
- pH
- ORP
- O<sub>2</sub>
- Conductivity
- Temperature
- Hydrocarbon alarm
- Industrial emission alarm



## Environmental Water

### Applications

- River monitoring stations
- River monitoring networks
- Lake monitoring pontoons
- Sea & brackish monitoring vessel
- Source water protection

### Parameters

- FTU/NTU
- UV-254/SAC
- Colour
- TOC
- DOC
- NO<sub>3</sub>
- NO<sub>2</sub>
- NH<sub>4</sub>
- pH
- K<sup>+</sup>
- ORP
- O<sub>2</sub>
- BTX
- Conductivity
- Temperature
- Contaminant alarm



## Drinking Water

### Applications

- Water security stations
- Event detection
- Intake protection
- Distribution network monitoring
- Source to tap monitoring networks

### Parameters

- FTU/NTU
- UV-254/SAC
- Colour
- TOC
- DOC
- NO<sub>3</sub>
- NO<sub>2</sub>
- NH<sub>4</sub>
- F<sup>-</sup>
- K<sup>+</sup>
- Cl<sub>2</sub>
- O<sub>3</sub>
- BTX
- pH
- ORP
- O<sub>2</sub>
- Conductivity
- Temperature
- Contaminant alarm



## STANDARD MODULES

### MODULE 1

con::stat or con::lyte + spectro::lyser or any other sensor

### MODULE 2

ammo::lyser, fluor::lyser, other ISE, pH

### MODULE 3

oxi::lyser

### MODULE 4

condu::lyser, pH::lyser, redo::lyser

### MODULE 5

free chlorine, pH, ORP, conductivity and other sensor options

## OPTIONAL MODULES

### MODULE "PREPARE"

Pre-treatment - sedimentation and filter options to remove unwanted solids and gases.

### MODULE "PUMP"

A range of pumps for use in all kinds of water.

### MODULE "SAMPLE"

For taking and storing a sample, triggered by thresholds or alarms on the con::stat.

### MODULE "ZERO"

For automatic zeroing, triggered by the terminal.

### MODULE "ALARM"

Warning light, siren, GSM modem alarm activated.

# s::can Monitoring Station – Features

## Main Features of the s::can Monitoring Station

### Integrated

One terminal for all sensors and interfaces.

### Most Comprehensive Contamination Warning System

In line with EPA Guidance on Planning for Contamination Warning System Deployment, May 2007.

### Reduces complexity to an absolute minimum

One software, one user interface, one data format, one remote access tool for an unbelievable range of parameters.

### Minimises the need for local infrastructure

No need anymore to build houses, chambers or containers. Just put your modules into a waterproof cabinet. Requires only 10% of the space of conventional analyser stations.

### Plug & Measure

Just connect the local water pipe, switch on the power, and start to measure.

### Modular

Select any modules / parameter combination you need. A solution for every budget. Simply add more modules whenever you need to.

### Compact

The most compact station for analytical parameters in the world.

### Flexible

Attach the modules on a flat wall, round the corner, put them in a cabinet or install them in a field enclosure.

### Cost Efficient

No reagents. No replacement parts except membranes of the ISEs. Manual or automatic cleaning. Minimum maintenance hours.

### Minimal Maintenance

The maintenance interval of a station is dependent on its weakest link. We just do not allow any weak link. Remote maintenance reduces field visits to a minimum. 1 visit/month is sufficient for many applications.

### Bypass Line

Service any sensor without interrupting the flow.

### Uniform Flow-Through Cells

Allows simple and fast ordering, exchange and maintenance of sensors.

## Specifications of the s::can Monitoring Station

<b>Module 1</b>	31.5 x 15.8" (80 x 40 cm) ~ 7 kg/15.4 lbs
<b>All other modules</b>	31.5 x 7.9" (80 x 20 cm) ~ 3 kg/6.6 lbs
<b>Water Connection</b>	Waste Water ½" threaded, 0.5 to 8 bar; Clean Water ¼" threaded, 0.5 to 8 bar Connection pipe diameter ½" 2 pressure zones: full pressure for spectro:lyser to keep fouling at minimum, reduced pressure for all other sensors
<b>Materials</b>	pipe - PE, measuring cells - POM, valves - stainless steel and polyamide
<b>Flow</b>	> 500 ml/min min flow for Cl <sub>2</sub> module; > 100 ml/min. minimum flow for all other modules Flow controller keeps flow constant. Rotameter flow indicator (optional no-flo-alarm)
<b>Electrical</b>	100 - 250 V; optional 12 V or 24 V; 100 W max.
<b>Environment</b>	5 to 40°C water temperature. No chemicals. No reagents.
<b>Costs involved</b>	Infrastructure costs: typically 10% of the more traditional stations (houses, containers). Purchase costs: please contact your local s::can dealer. Yearly consumables and replacement costs < 1,000 USD typical for a complete system. Yearly in-house maintenance < 50 hours typical for a complete system. Yearly external service < 2 visits typical for a complete system. Thus, yearly operational costs are 3,000–5,000 USD for a complete analytical measuring station.

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