



LABORATORY



WATER



GAS



DOSING



PROCESS

ensola 
LABOR ■ WASSER ■ GAS

Ensola 2026



Ensola Current

Dear customers

Based on practical experience as well as changing conditions and new legislation, we subject our range to constant review.

With this issue of ENSOLA AKTUELL we would like to introduce you to some of our products that have proven themselves in practical endurance tests.

Since our founding, we have dealt with various aspects of water management and offer you various solutions to reduce costs, tailored to the specific conditions of your business.

Ensola is a Swiss company that has been growing since 1973. We introduce products sustainably onto the market and focus on ongoing optimization. Thanks to our many years of practical experience in needs analysis, we can provide you with specific advice on your problem.

Our new highlights includes:

- The new, hazardous-free phosphate precipitant Neo WaterFX300 improves buffer capacity, optimizes settling and reduces sludge production. In addition, the sludge precipitated with NeoWater FX300 can be dewatered significantly better.
- Sludge dewatering can be optimized with the polymer processing stations from Flocmix, as well as the necessary units such as centrate water probes and mixers.
- Our flocculants have been significantly optimized over the last two years. In conjunction with Flocmix, you can significantly reduce drainage costs.
- Process measurement technology of Bavarian quality from WTW: Robustness paired with state-of-the-art technology and a simple, modular structure that can be expanded as desired at any time.



**Thank you very much for your interest and your trust.
It is an honor for us to serve you as a customer!**

Peter Freisler
Dipl. Ing. ETH



Content highlights



WTW IQ Sensor Net

Probes, analyzers, controls

State-of-the-art technology paired with robust craftsmanship



FlocMix systems Dynamic mixing and dosing systems

Polymer dosing stations

Centrate water probes



PureAir odor filter

Filter units

Innovative media for exhaust air filtration



Neo WaterFX300 for optimized precipitation

The latest generation of precipitants

Reduced costs through massive reduction in precipitation sludge



Chemivron activated carbon

Grain activated carbon for cleaning micro-pollutants



drinking water

Panels, measuring devices and water treatment products to comply with legal requirements and regulations



Ensola TS and sludge level measurement

Innovative, highly accurate companion for all sewage treatment plants



Odor control

Software-supported sulfide balancing in the sewer network
Chemical and physical odor control



Riken Keiki gas monitors

The world's smallest, lightest and most precise gas monitor
Measures all relevant gases

WTW IQ Sensor Net

WTW devices combine robust craftsmanship and state-of-the-art technology. The systemic structure covers all needs and can be easily expanded as desired thanks to the modular design.

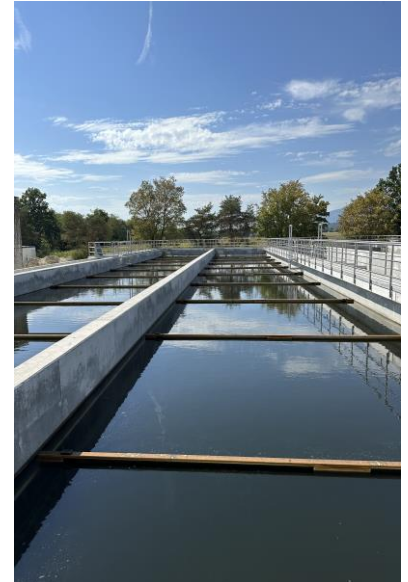
The sensors used are developed specifically for complex wastewater measurements so that they can be used for a long time.

WTW has been active in the wastewater sector for over 80 years and offers a large selection of high-quality measuring devices and probes for process monitoring.

Ensola is a service and sales partner of WTW.

**Measurement
parameters**

**O₂
pH
T.S
NH₄
Ortho
phosphate
...**



IQ Sensor Net: Sensors and controls

The IQ Sensor Net from WTW is the ideal system for small, medium and large sewage treatment plants - both for initial equipment and for system expansion or optimization. It consists of various controllers, sensors and associated analyzers. The system can be expanded as desired. The new wet chemical analyzers impress with extremely low reagent consumption and minimal maintenance effort.



Drinking water tables

For drinking water supply, we offer freely configurable, pre-installed and ready-to-use drinking water panels. The environmentally friendly chlorine and multi-parameter panels are characterized by low water consumption and high measurement accuracy. They are easy to use and enable reliable operation. The modular system can be adapted to any system and can easily be expanded at any time.



WTW IQ Sensor Net

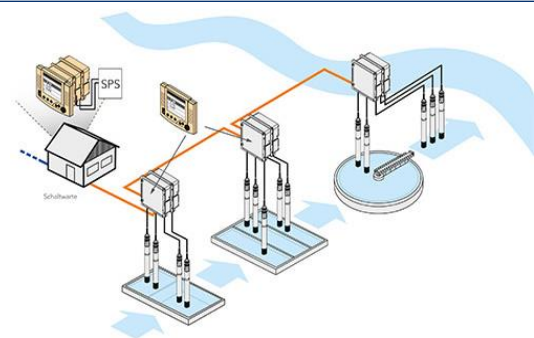
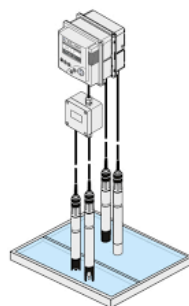
State-of-the-art technology. Robust quality. Modularly expandable.

The WTW IQ Sensor Net (IQSN) is a modular and scalable network of controllers and sensors for wastewater treatment plants that ensures continuous monitoring of water quality from inflow to wastewater. It can be freely adapted and expanded and meets the requirements of small, medium and large sewage treatment plants. WTW IQSN improves operational efficiency, reduces costs and increases performance by ensuring regulatory compliance and budget control for your water resource recovery facility.



The IQ Sensor Net system consists of three main components:

- 1) **Sensors**
- 2) **Controllers**
- 3) **Analyzers**



Together, these components form a comprehensive system for monitoring water quality, which can be expanded and adjusted as desired via plug & play. The system provides continuous, accurate data from inflow to outflow, enabling wastewater treatment plants to maintain optimal performance and control.

IQ Sensor increases operational efficiency, reduces costs and ensures regulatory compliance.

WTW IQ Sensor Net - sensors

FDO®: Optical dissolved oxygen measurement

Digital, optical, calibration-free - the FDO® sensors are the perfect solution for measuring dissolved oxygen. The optical FDO® oxygen sensors for the IQ SENSOR NET for controlling biological purification levels:

Calibration and flow-free	Insensitive to air bubbles
Green light is more stable (drift-free) than blue light and gentler on the membrane.	Slanted cap so that the sensor can be immersed vertically
Typical sensor cap lifespan: 3-5 years	Watering effect of new heads only 3-5 seconds (hours for competitors)
Auto-detection sensor cap, (calibration data and sensor number. enables easy sensor cap replacement)	Fast response time SC-FDO 700: T90<150 sec; SC-FDO 701; T90<60 sec



SensoLyt® pH measurement technology

SensoLyt® 700 IQ – Digital pH/Redox fitting with integrated preamplifier and temperature sensor as well as lightning protection for connection to the IQ SENSOR NET

Stable signals through digital signal processing	Convenient calibration in the laboratory and glass breakage detection
Automatic temperature compensation through integrated temperature sensor	
Measuring principle potentiometric. Measuring range:	
SEA 2 ... 12 pH	SEA-HP 4 ... 12 pH
DWA 0 ... 14 pH	TFA 2 ... 14 pH
ECA 2 ... 12 pH	PtA ±2000mV
PtFA ±2000 mV	
Temperature measurement	Integrated NTC, -5 ... +60 °C
Operating temperature	0 ... 60 °C
Permissible overpressure	6 ... 10 bar (depending on measuring chain)

This device is available as an Ex variant (SensoLyt® 650-7 EX)



WTW IQ Sensor Net - sensors

Conductivity measurement 4-electrode system TetraCon® 700 IQ

TetraCon® 700 IQ - Digital 4-electrode conductivity measuring cell with flow-free operation, especially at high conductivities

The measurement technology, which has been tried and tested for years, guarantees trouble-free operation, even and especially at high conductivities. The 4-electrode measuring cell is extremely insensitive to contamination. Thanks to the pressure resistance of up to 10 bar, nothing stands in the way of installation in pipes or lines.

Very large measuring range of 10
µS/cm ... 500 mS/cm

Highest linearity and extremely
insensitive to contamination thanks
to the 4-electrode system

Fast temperature compensation
through integrated temperature
sensor

Variants

TetraCon® 700-7 EX (Ex version)

In the seawater version, you get the sensor for use in special media: All components that come into contact with the media are made of titanium and plastic and are therefore extremely corrosion-resistant.



Turbidity sensor VisoTurb®

VisoTurb®: Optical turbidity sensor based on the nephelometric principle according to DIN EN ISO 7027 for in-situ use in water/wastewater with an ultrasonic cleaning system

The ultrasonic cleaning system ensures low-maintenance and permanently reliable measuring operation of the sensors, which are therefore particularly suitable for extreme applications, e.g. in sewage treatment plants.

With the nephelometric measuring principle of VisoTurb®, the scattered light is measured at a 90° angle.

Ultrasonic cleaning without
mechanics

Extremely low maintenance

Highly accurate factory calibration

High operational reliability (sensor
check function)



WTW IQ Sensor Net - sensors

Solid sensor ViSolid®

ViSolid®: Optical sensor for in-situ use for solids measurement (TS) with integrated ultrasonic cleaning

The ultrasonic cleaning system ensures low-maintenance and permanently reliable measuring operation of the sensors, which are therefore particularly suitable for extreme applications, e.g. in sewage treatment plants.

At higher particle concentrations, the turbidity measurement methods are only suitable to a limited extent; Special measuring techniques are required here to determine the concentration. WTW uses two methods that are used depending on the solid concentration: at low concentrations, scattered light measurement is used; at higher concentrations, direct backscattering provides optimal results.

Ultrasonic cleaning without mechanics

No sampling, reagent-free

Extremely low maintenance



VARiON®Plus 700 IQ nitrogen sensor

For measuring ammonium and nitrate ion-selective with automatic compensation of potassium/chloride with the VARiON® Plus 700 IQ

Ammonium and nitrate measurement directly in the process

No sampling, reagent-free

Simultaneous compensation of potassium, chloride

High operational reliability (sensor check function)

Measurement of centrate and other process water up to 2,000mg/l NH₄-N



WTW IQ Sensor Net - Analyzer

Ortho-phosphate analyzer Alyza IQ PO4

The optimal solution to support phosphate elimination and to monitor phosphate load - on-site analyzer for ortho-phosphate measurement in the IQ SENSOR NET

The orthophosphate analyzer Alyza IQ PO4 is another component for the IQ SENSOR NET. It can be integrated into new or existing systems as easily as a sensor. The measuring principle is based on the photometric yellow method (molybdate-vanadate), which has proven itself for years for measuring orthophosphate. Due to the wet chemical determination directly in operation, it is the optimal solution to support phosphate elimination and to monitor the phosphate load.

Extremely low reagent consumption

Direct connection to the IQ SENSOR NET

For every area of application, we optionally offer sample filtration that suits your requirements.



Ammonium analyzer Alyza IQ NH4

The optimal solution for monitoring ammonium in sewage treatment plant effluent and in surface waters - analyzer for indoor and outdoor installation for ammonium measurement in the IQ SENSOR NET

The ammonium analyzer Alyza IQ NH4 is the latest component for the IQ SENSOR NET. It can be integrated into new or existing systems as easily as a sensor. The measuring principle is based on the photometric indophenol method according to DIN 38 406, which has proven itself for measuring ammonium for years. Due to the wet chemical determination directly in operation, it is the optimal solution for monitoring sewage treatment plant discharge and surface water.

Extremely low reagent consumption

Direct connection to the IQ SENSOR NET

For every area of application, we optionally offer sample filtration that suits your requirements.



Reagents PO4-NH4 Analyzer

Calibration standards, reagents and cleaning solutions for Alyza IQ NH4 analyzers have been optimized to minimum quantities and have a long shelf life.

WTW IQ Sensor Net – converter

DIQ/S 281

Digital and cost-effective multi-parameter single-channel transmitter

1 sensor input / 2 signal outputs

The digital converter DIQ/S 281 for pH/ORP, oxygen, turbidity, TS, conductivity or sludge level enables a sensor change at any time with a cable length of up to 250 m.



DIQ/S 282

Digital and cost-effective multi-parameter two-channel transmitter

2 sensor inputs / 4 signal outputs

Converter for up to two sensors from the IQ Sensor Net program



DIQ/S 284

The converter for connecting up to 4 sensors

4 sensor inputs / 8 signal outputs

The DIQ/S 284 is available with different outputs. In addition to the reagent-free measurement of COD, all parameters relevant to the sewage treatment plant are available to you. By combining multi-parameter sensors, up to 20 different parameters can be recorded and displayed in parallel.

EX converter

The converter for EX applications

1/2 sensor inputs / 2/4 signal outputs

EX converter with 1 or 2 sensor inputs for the EX versions of the proven pH and LF sensors SensoLyt® or TetraCon®. In addition to a clear display with colored background lighting, the converter impresses with its ability to be used at temperatures from -20 °C to 65 °C.

Input modules

Input module

With the MIQ/IC2 module you expand the system with two current inputs and thus enable the integration of separate sensors and analyzers into the IQ Sensor Net.

Digital output modules

MIQ/3-MOD for the MODBUS connection MIQ/3-PR for the PROFIBUS connection

Analog output modules

The analog output modules can be combined in any way up to a maximum of 48 output channels (total current outputs and relays in the 2020 system). MIQ/R6 with 6 relay outputs MIQ/CR3 with 3 current and 3 relay outputs each MIQ/C6 with 6 current outputs.



WTW IQ Sensor Net - Controllers

Terminal/Controller MIQ/TC 2020 3G

Portable control unit with large, color screen, robust buttons and USB interface; Can be connected to any module.
Multi-parameter system for up to 20 sensors with USB interface, remote maintenance and remote communication

Advantages

A solution for every application: up to 20 sensors can be connected, all IQ parameters can be measured

Flexible and future-proof – the IQ Sensor Net can be expanded as desired and cost-effectively thanks to its modular structure

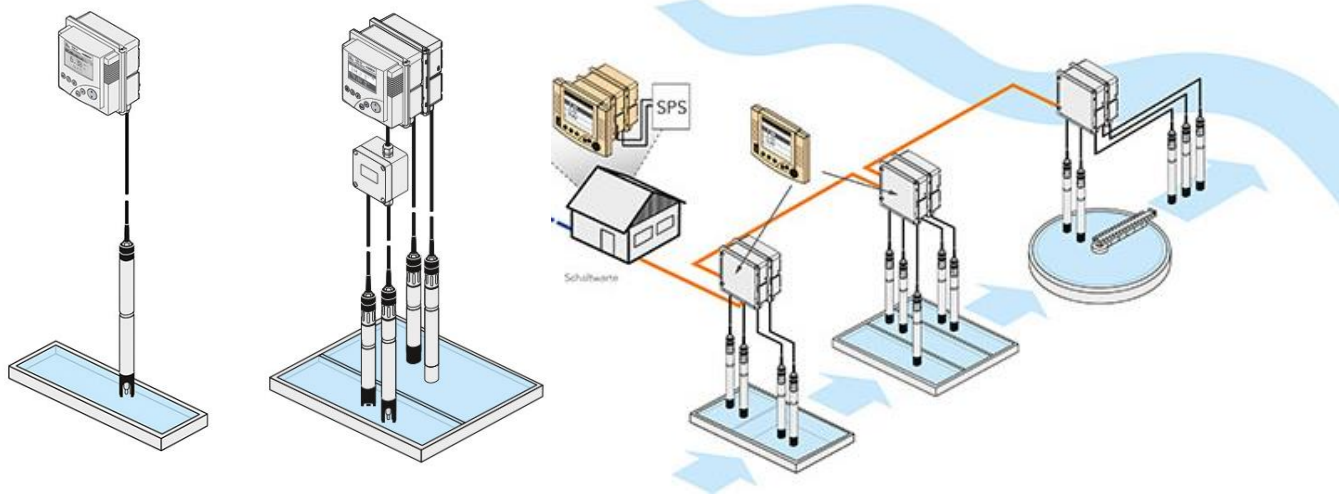
Power supply:

MIQ/PS or MIQ/24V for wide range or 24V (AC and DC) power supply. The power supply modules for operating the IQ Sensor Net are available in two versions: the wide-range power supply MIQ/PS for 100-240 VAC and the low-voltage power supply MIQ/24V for 24 VAC/24 VDC. Thanks to the stacking option in the IQ Sensor Net, you can quickly and easily dock the modules to existing modules - at any position in the system. You therefore do not need any additional mounting accessories.

With the MIQ/WL PS SET we can also offer you modules for wireless connection and branching in your IQ SENSOR NET. Once set up, the radio network can be expanded to include additional radio links (with a single MIQ/WL PS module).



Modular and flexibly expandable



Process measurement and dosing technology



Through precise measurement recording, your operations can be permanently optimized, be it in wastewater treatment, sludge dewatering or drinking water treatment.

Correct dosing is a basic requirement for optimizing any system - and thus also for reducing costs. In order to optimize the processes for the best water quality and lowest costs, the interaction of process measurement technology, dosing technology and water chemistry is of fundamental importance.

Sample filtration

ETL PMC-R

Application

Designed for use in inlet, aeration and outlet, the PMC-R system is an all-rounder for safe sample filtration of wastewater. Combined with on-line analyzers, it serves for reliable system control.

System cabinet

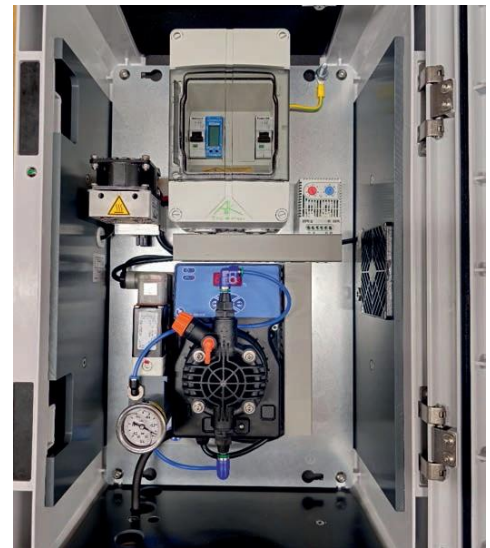
The submerged PMC disc is connected to the permeate pump via the suction line. With the help of this membrane pump integrated in the control cabinet, a negative pressure is generated. This means that permeate is drawn off via the PMC disc and transported to the analyzer via a pressure line. The automatic backwashing with filtrate is freely adjustable. The negative pressure can be read on the pressure gauge as a contamination indicator. The PMC-R system therefore guarantees a continuous supply of sample to the measuring device.

PMC disc

The disc is made of a special inorganic membrane material. Surface filtration is achieved through the fine pores including the dirt-repellent surface. This makes the membrane very light and yet thorough to clean manually, even apart from backwashing. Depending on the operating conditions, chemical cleaning may be necessary from time to time. The membrane area and thus also the performance can be easily increased by adding another disc using a PMC multi-adapter.

Container system

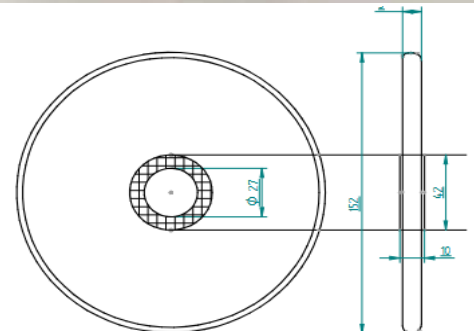
The pump continuously delivers raw water into the container. The flow around the disc prevents coarse dirt deposits and a high throughput guarantees a quick raw water exchange of the container contents. The excess raw water is drained away without pressure via the overflow. Even in the container version, the membrane area can be increased using a PMC multi-adapter and another PMC disc.



The PCM-R ceramic disc

The compact membrane module PMC consists of a special inorganic membrane material. Surface filtration is achieved through the specified fine pores including the dirt-repellent membrane surface. This makes the membrane surface very easy to clean and yet thorough.

Thanks to the automatic (programmable) backwash, the probe in the basin cleans itself. Depending on the operating conditions, chemical cleaning may be necessary from time to time. With an additional adapter, the membrane area can be easily increased by mounting another membrane disc on the existing one.



PCM-R disc

The advantages at a glance

- Periodic backwashing
- Easy filter change
- Low weight of the filter disc
- Low dead times
- Long downtimes
- Easy cleaning
- Large distances to the analyzer measuring device possible
- Solid-free sample
- High operational reliability
- Outdoor installation with heating
- Use in pools and channels
- Suitable for SBR processes
- Container installation possible
- Easy maintenance

specification

Electrical connection:	230V/50Hz
Membrane area:	360 cm ² (per PMC disc)
Operating temperature:	-20°C to +45°C
Separation limit:	0.45μ
dimension	152mm diameter, 10mm thickness

Proven sampling devices from the market leader

Sampler 4 x 14 liters SP5-S

- Dimensions (H x W x D): 1290 x 690 x 645 mm
- 4 x 14 liter collection containers
- 4 °C (heating/cooling) for outdoor installation
- Time-, quantity- and event-proportional sampling
- Vacuum dosing system 20 – 350 ml
- Dosing containers made of plastic or glass



Sampler 4 x 20l SP5-S

- Stationary sampler 4 °C (heating/cooling) for outdoor installation
- Time-, quantity- and event-proportional sampling
- Sample distribution for 4 x 20 l sampling: vacuum dosing system
- 20 – 350 ml plastic/glass



TP5W wall sampler

- Stationary sampler
- Can be combined with any collection container or refrigerator
- Dimensions (H x W x D): 362 x 442 x 222 mm



P6 Mini Max

- Dimensions (D x H): 400 x 605 mm
- Collection container 10l PE or 4l glass
- Incl. battery and power supply P



Article

Sampler 4 x 14 liters SP5-S

Sampler 4 x 20l SP5-S

TP5W wall sampler

P6 Mini Max

Order number

ENS21.1060

ENS40.1500

ENS21.1130

ENS21.2000

MAXX sampler

SP5A Self-draining sampler

- Stationary sampler with automatic bottle emptying and rinsing function Stainless steel housing with insulation, sample chamber: 4 °C Time and flow-proportional sampling
- Container variant: 2 x 10 l PE, 4 x 5 l PE, 12 x 1.6 l glass Duran 50, optional 24 x 2 l glass Duran 50



SP5 DK mud sampler

- Stationary sampler for high solids contents (sludge sampler) and pressure lines
- Double ball valve system with dosing tube mounted in between, standard volume 100 ml, other volumes possible on request
- Inlet: internal thread 1 1/4", outlet: hose nozzle DN40



SP5 ExZone1

- Stationary sampler
- Stainless steel housing with insulation Sample chamber: 4 °C
- Time and flow proportional sampling
- Container variant: 1 x 25 l / 2 x 22 l / 4 x 14 l / 12 x 3 l / 24 x 1 l
- Protection class: II 2 G Ex IIB T3 Gb X, II 2 G Ex IIB T4 Gb X without heating



SP4 Zone 2

- Stationary sampler
- Stainless steel housing with insulation Sample chamber: 4 °C
- Time and flow proportional sampling
- Container variant: 1 x 25 l / 2 x 22 l / 4 x 14 l / 12 x 3 l / 24 x 1 l
- Protection class: Ex zone 2; II 3G EEX nC/R/L IIB T3



TP5C

- Mobile sampler with active cooling with distributor 1 x 10 l / 4 x 5 l / 12 x 2 l / 24 x 1 l (glass/plastic)
- Battery and mains operation
- Optional: duct suspension, remote control UMTS module, vacuum system/hose pump



Article

SP5A Self-draining sampler

SP5 DK mud sampler

SP5 ExZone1

SP4 Zone 2

TP5C

Order number

ENS21.1110

ENS21.1120

ENS21.1160

ENS21.1150

ENS21.2100

FLOCMIX® Dynamic mixers and polymer dissolving stations

The dynamic dissolving and dosing systems of the Flocmix® FLD-FLM series are designed as continuous processing systems for emulsion and dispersion polymers. These are set up completely as fully automatic system systems (polymer processing systems) and only require the supplies such as electricity, pFM, water and a signal input of the sludge flow quantity (optionally also from the TS measurement) for operation.

The heart of the system is the high-intensity mixer Flocmix® FLM, which was specially developed for dissolving polymer concentrate. The Flocmix® FLD-FLM dissolving and dosing system is fully equipped including the polymer concentrate and dissolving water pump, as well as the required measurement and control technology. Our proven Flocmatic® controller based on a Siemens S7 control is used as the controller unit. With this controller you can specify the concentration [%] and dosage quantity [kg/Mg·TM] exactly. Depending on requirements and specifications, autodynamic adjustments are made during operation.



Advantages of Flocmix polymer dissolving stations

Optimal electrolyte properties of the working solution

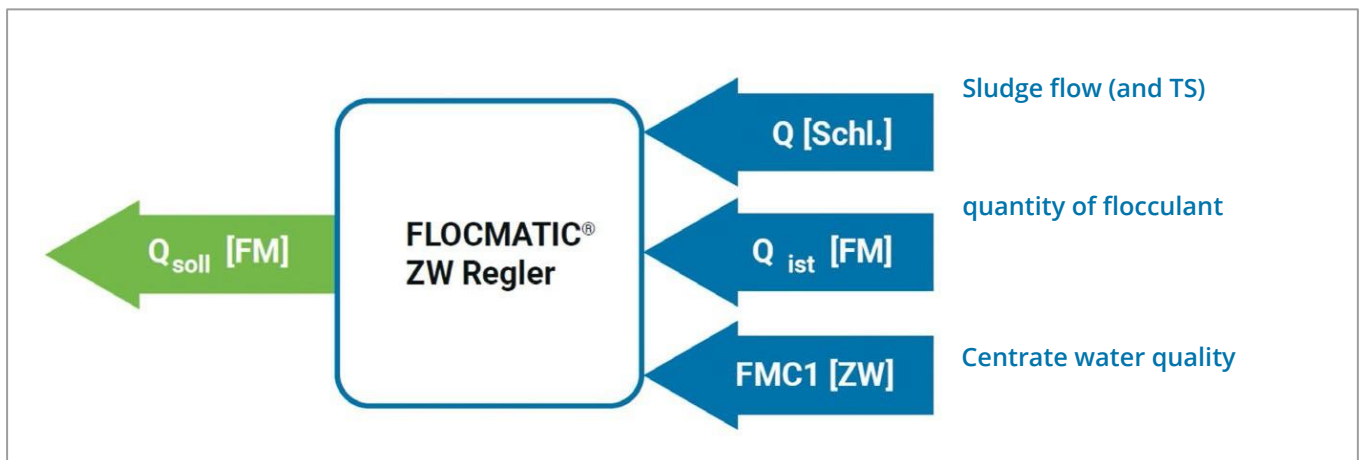
Continuous fully automatic operation

With autodynamic control function

Space-saving design

No polymer losses

Lower polymer consumption



Polymer dissolving stations

FLOCMIX® FLD-FLM 2.5/6.0 & FLD-COM

Advantages

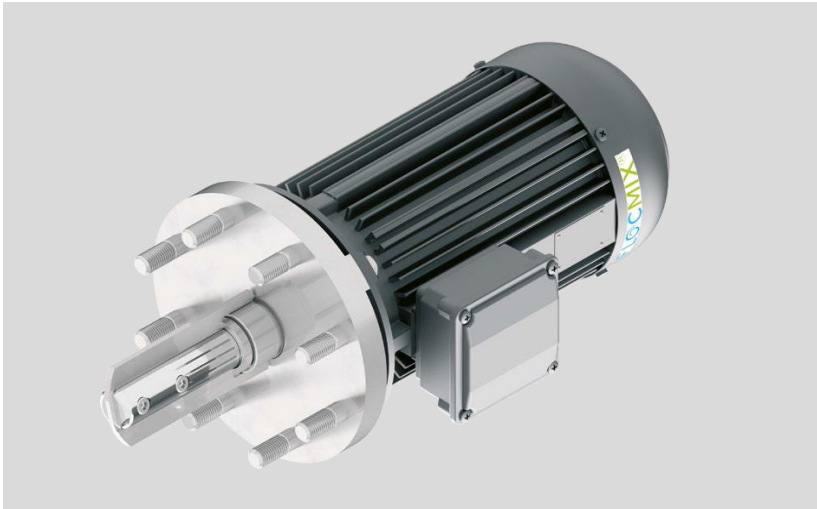
- Optimal electrolyte properties of the working solution
- Highly effective solution for use
- No polymer losses
- Low polymer consumption
- Continuous, fully automatic and dynamic operation Space-saving



Technical data	FLD-FLM 2.5	FLD-FLM 6.0	FLD COM
Application	Centrifuges and mud presses		Pre-drainage and precipitation
Solution for use	0.1 – 2.5 m3/h	0.4 – 6.0 m3/h	0.1 – 1.5 m3/h
Plant weight dimensions	235kg 1300 x 852 x 1825 mm (L/W/H)		110kg 800x692x1630mm
Electrical connection	Profi Net, digital input system start, analog inputs for TS probe and sludge quantity, potential-free contact for operating and alarm messages		
Components	Fresh water dilution pump, polymer pump, direct mixing with star mixer, cleaning oil system when changing polymer, water flow measurement		
steering	Flocmatic Siemens control, connection via BUS		

Inline motor mixer

Inline motor mixer Flocmix® IM2 CA



The inline motor mixer Flocmix® IM2 CA, designed as a dynamic high-intensity mixer, is used to mix the polymer produced with the Flocmix system into the sludge. The aim is better mixing of the polymer and thus polymer savings as well as higher TS and lower disposal costs.



Technical data	IM2 APPROX
dimension	Pipe sizes DN100 – DN300
Motor	4kW/400V 50Hz
speed	1460 rpm frequency control 15 – 100 Hz
steering	Connection to Flocmatic Siemens control
Mixing paddle with replaceable vaccination mixing blades	

Centrate water probe

Flocmatic® centrate water probe FMC2



With the maintenance-free Flocmatic® centrate water probe FMC2, it is possible to monitor the permanent centrate water condition. The intelligent controller intervenes automatically in the event of any changes in the centrate water. This means that smaller amounts of flocculant are required and more stable operation can be achieved with less operating effort for the centrifuge system.

Technical data	FMC2
type	Non-contact measuring probe, partial current operation
cleaning	Integrated cleaning mechanism
Signal exchange with control	4-20mA
steering	Connection to Flomatic Siemens control

■ PROCESS TECHNOLOGY

Cerlic

Sludge level measurement

Portable Mud Level/TS Meter

Ensola handheld measuring device MULTITRACKER

Portable measuring device for sewage treatment plant operators.

Precise measurement of the sludge level and TS

Robust, protected IP65 (NEMA 4) housing, also suitable for use in demanding environments.



Ensola mud level/TS sensor BLANK

It measures the water depth and the TS concentration and graphically records the profile (depth vs. TS).

The measurement is carried out in seconds by immersing the sensor in the basin.

Memory for 250 measurements (graphical profiles).

High-quality design in 316 stainless steel.



Article

Order no.

Cerlic handheld measuring device MULTITRACKER

11901057

Cerlic mud level sensor BLANK

11301060

Cerlic equipment case MULTITRACKER

20250978

PROCESS TECHNOLOGY

Cerlic

Sludge level measurement

ensola 
LABOR ■ WASSER ■ GAS

Ensola multitracker

The Ensola Multitracker is a portable device for measuring various values in wastewater plants and other facilities. Three sensors for mud cover, suspended solids and dissolved oxygen with cable lengths of 4, 8, 12 or 20m are available. As an option there is a cable reel with sensor holder, which can be attached directly to the handheld.

Ensola MULTITRACKER saves up to 250 measurements with measuring location. The handpiece can be connected to a PC via a USB cable, read out and integrated into existing systems

Two different alarm levels for min./max. values with vibration and an acoustic signal can be set.

Battery life is approximately 2 - 3 years with normal use. The MULTITRACKER is delivered in a practical case.



Type of measurement	Mud cover, suspended solids and dissolved oxygen
Backlight	Yes, duration adjustable
Storage values	250 measurements
Display graphically,	128 x 64 pixels, LCD
Alarm signal	Acoustic, vibration, display
Temperature liquid	0 - +50°C
Temperature handheld	-10 - +50°C
Weight handheld device without sensor	500g (sensor & console not included)
Battery life, normal use	Up to 100 h / sensor dependent
Dimension MultiTracker	130 x 105 x 200 mm (l x w x h)
Housing MultiTracker	IP65

ensola.com

NeoWater FX300

The revolutionary precipitant and flocculant



For efficient and economical wastewater treatment: Neo WaterFX300 uses a small amount of phosphorus and generates less precipitation sludge - thereby saving massive amounts of disposal costs.

Advantages

Very low dosage for phosphorus precipitation (4x to 8x less use compared to FeCl_3)

20 - 40% less sludge production

Very good dewaterability of the precipitation sludge

Significantly lower acid input - improvement in buffer capacity

Better nitrification at temperatures below 10°C

Not dangerous goods according to ADR

Applications

Phosphate precipitation

Reducing the mud index

Ideal for use in soft water areas (low pH shift)

Removal of fine cloudy substances (GUS)

NeoWater FX300

specification

LaCl ₃	70M%
CeCl ₃	30M%
Density (20°C)	1.55 ± 0.63 g/cm ³
Look	Brownish-yellow-cloudy solution
PH value	> 4
storage	Stable in storage up to -40 °C



Operating experiences through the use of Neo WaterFX300

- The direct ionic binding of the phosphorus leads to a significant reduction in the need for precipitant (4 -8 times lower consumption than with iron-III chloride)
- The lower use of product and the avoidance of hydroxide sludge lead to a lower amount of precipitation sludge
- The higher molecular weight leads to an improvement in sludge dewatering and a better floc structure
- The lower dosing volume and lower alkalinity of Neo WaterFX300 results in a 300- to 500-fold reduction in acid addition during precipitation, thereby improving buffer capacity

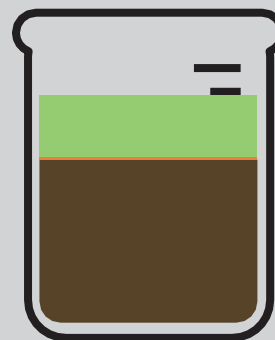
Change in organic/inorganic dry matter content in the biological stage through the use of Neo WaterFX300.

→ Activated sludge with iron III precipitation



■ 20% Inorganic hydroxide sludge
■ 80% organic activated sludge

→ activated sludge with Neo WaterFX300



■ 20% saved amount of mud
■ 0% inorganic hydroxide sludge
■ 100% organic activated sludge

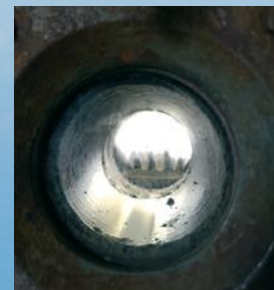
Sustainable precipitant production

At the Donau Chemie plant in Brückl (Austria), all basic materials for iron chloride and aluminum chloride are produced on site: chlorine, hydrochloric acid, caustic soda.

Thanks to this high degree of vertical integration, the factory can produce at full capacity even during times of raw material shortages (unlike other European suppliers, e.g. in 2020-2022) because the raw materials are produced in-house and locally.

Austrian quality and prudence fully guarantee the supply of our customers

- During the production of iron chloride and aluminum chloride, metal-containing raw materials are dissolved in hydrochloric acid and oxidized with chlorine. The DC plant in Brückl (A) can obtain 60% of the raw materials from upstream production steps (hydrochloric acid, chlorine and hydrogen are produced in the most modern membrane electrolysis).
- The raw material salt (sodium chloride) is delivered by train from the Austrian salt mines (Salzburg).
- DC's precipitants are produced exclusively from hydroelectric power, supported by an in-house power plant.
- Groundwater wells supply the plant with water.
- DC's precipitants undergo heavy metal precipitation to reduce customer input.
- The freight forwarders who have been working with DC for decades are specifically set up for the delivery of chemicals
- Transport companies are trained on ADR goods and have a modern vehicle fleet that meets the latest environmental standards (Euro 6, and some already run on biodiesel).
- Certifications ISO 9001, ISO 14001, ISO13485, GMP, HACCP,
- Various ECO labels (Austrian Ecolabel, Sustainable Cleaning) prove the sustainable production at the Brückl plant.



Danube Clearly Smart

Danube Clearly Smart

Iron III chloride solution 40%

Advantage

Very pure, highly concentrated iron chloride solution, free of solids

Application

Phosphate precipitation

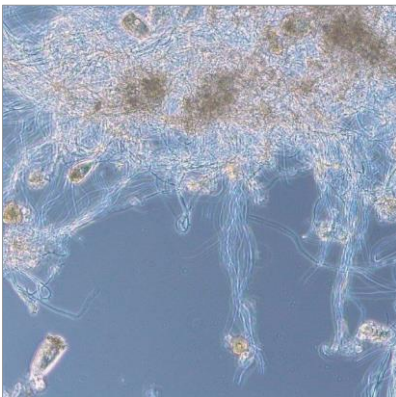
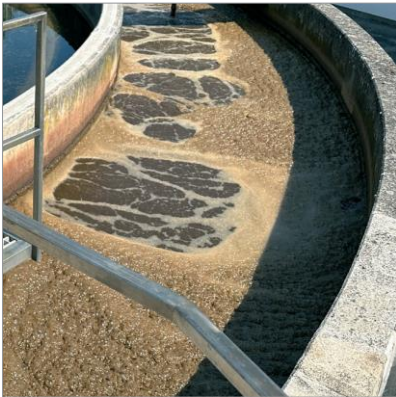
H₂S binding

specification

Iron(III) chloride (FeCl ₃)	40 ± 1.2M%
Iron (III) (Fe ³⁺)	13.8 ± 0.5 M%
Density (20°C)	at least 1.38 g/cm ³
Look	Brown liquid
Total active substance	2.5 mol/kg ± 0.15
Dosage quantity (β=1)	1 kg of phosphorus requires 9 liters
PH value	< 1
type	EN 888 Type 2 (Donau Klar Select: Type 1 for drinking water)



Danube Acquabella Fadex



Targeted combating of floating sludge with Donau Acquabella Fadex

Danube Acquabella Fadex

Special precipitants for sewage treatment plants

Advantage

Special product for combating swelling/floating sludge as well as relief from capacity bottlenecks

Application

Targeted control/prevention of swelling and floating sludge

Precipitation / relief flocculation

Great reduction in mud index

Phosphate precipitation

Increasing the rate of descent

Binding of fat and other lipophilic substances

specification

Density (20°C)	1.32 ± 0.05g/cm ³
Total active substance	2.6 mol/kg
Look	Clear, yellowish solution
PH value	<3
Dosage quantity (β=1)	1 kg of phosphorus requires approx. 9 liters
Dosage quantity for combating floating sludge	>50ppm (inflow related)
Hydrochloric acid (HCl-free)	< detection limit
type	EN 17034 Type 1 (drinking water)

The quality of precipitants also lies in the delivery

Interview with Roman Bolger



Roman Bolger,
Owner of our in-house shipping
company

Mr. Bolger, in your opinion, what are the sticking points of a precipitant delivery?

I think, apart from the modern equipment we bring with us, the most important sticking points are safety, punctuality and reliability! We try to implement this as best as possible. Our drivers are constantly trained and instructed, particularly in the handling and use of safety-relevant equipment and personal protective equipment.

How do you assure demanding Swiss customers of this high delivery quality?

It is also our aim to offer high delivery quality. One of the most important points is that, together with my brother, who is also the managing co-owner of our company, we carry out most of the planning ourselves, such as scheduling, order processing, personal contact with customers and the actual transport. This increases quality and customer satisfaction enormously. We want to stick to this in the future.

What fascinates you about delivering chemical products?

Handling chemicals requires special knowledge and that is something that fascinates me. You're always learning new things - expanding your specialist knowledge almost every day.

You travel to Switzerland very often in your work and have been doing so for decades. What do you like about us Swiss?

We feel very connected to Switzerland. We were able to research our family history back more than 300 years and know that our ancestors were Swiss.

They emigrated to Germany in the 17th century and originally come from Oberentfelden in the canton of Aargau.

As I examine your work from the outside, you have a very customer-oriented job. We sell the goods together with your service, but you are essentially much closer to our customers when it comes to delivery. I assume you like customer contact?

That's true, I like personal contact with customers.

I am a very open person and am convinced that open, honest and nice communication is very important, no matter what whether in private or business.

I thank you very much for your support and look forward to a future together.

Thank you. I would also like to thank you for the excellent collaboration and look forward to new tasks and challenges.



WATER CHEMISTRY

Polymers

Sludge dewatering

Polymers for sludge dewatering

Polymers are chemicals used in flocculation. Flocculation is the process of agglomeration of destabilized particles into larger flakes. In wastewater flocculation and sludge treatment, colloidal particles are flocculated to facilitate their removal or to aid in sludge dewatering. Polymers can be used alone or together with inorganic coagulants to make the flakes larger and more resistant to shear forces.

We serve you with a wide range of polymer flocculants (FHM) directly from our warehouse:

Application

Incident	Anionic flocculants with inorganic salts (Fe/Al)
Biological flocculation	Cationic flocculants/organic coagulants/polyamines
Excess sludge dewatering	Cationic flocculants
Sludge dewatering	Cationic flocculants
Mining/gravel wastewater	Non-ionic flocculants

Laboratory experiment

We support you on site with laboratory tests to evaluate the optimal products for your application. Our optimized laboratory test procedure provides a comparison of the dewaterability of your sludge. After the laboratory test, we recommend testing individual products in machine tests. We are of course also available to you on site so that the machine parameters, mixing and dosing systems can be adapted to our products if necessary.



container

Liquid polymers

IBC 1050kg

Barrel 210 kg

Canister 25 kg

Powder polymers

Big Bag 500 – 1000 kg

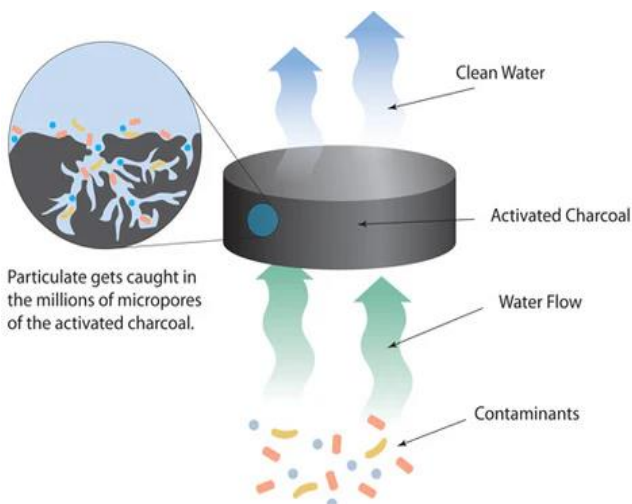
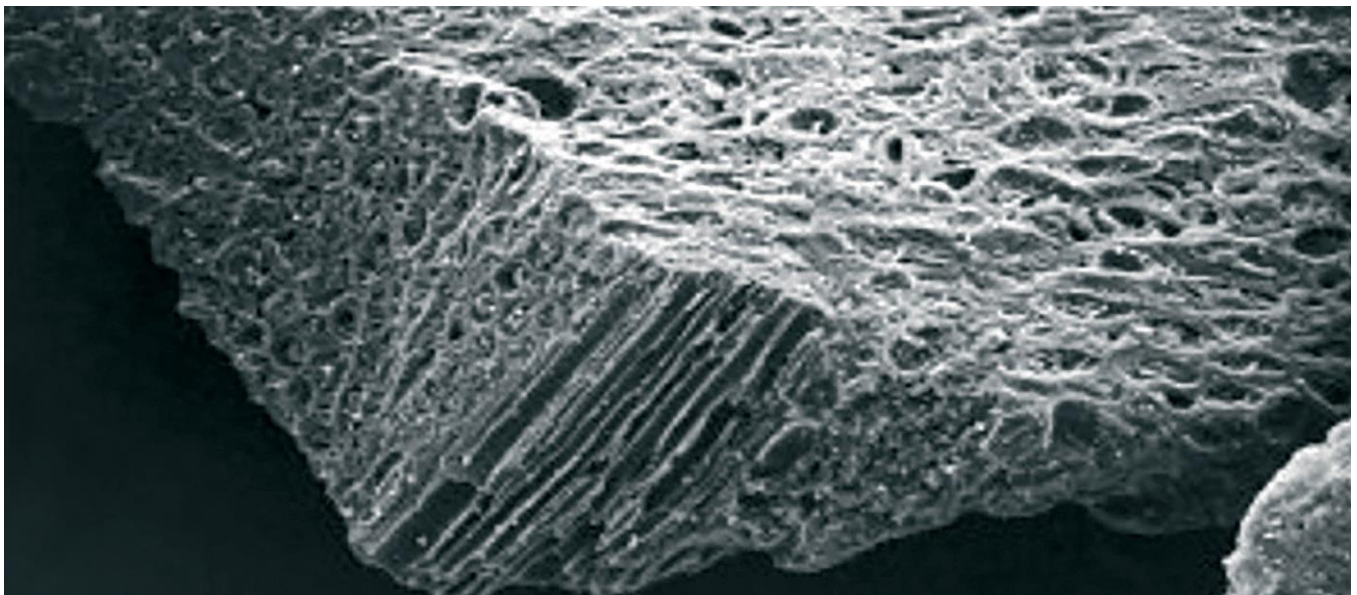
Bag 25kg

Activated carbon: Remove micropollutants, PFAS & microplastics

Thanks to its highly porous microstructure and chemical properties, organic carbon absorbs microparticles, including microplastics and PFAS molecules - without creating potentially toxic byproducts

Thermal reactivation, a proven high-temperature process, mineralizes the PFAS molecules adsorbed on the activated carbon to remove these persistent pollutants from the water cycle. With this process, the used activated carbon can be recovered and therefore reused.

The large product range and the outstanding quality of Chemivron's activated carbon offer major advantages over competing products in many applications. With Chemivron, significantly lower application quantities or longer filter life can be achieved.



adsorption

Activated carbon consists of small porous carbon particles. Just 4 grams of activated carbon covers the area of a football field (6400 m²). This large surface area makes them very effective at removing pollutants.

The forces that ensure that pollutants adhere to the surface of the activated carbon are called “van der Waals forces”.

These act like a magnet on pollutants such as pesticides, lead, copper, herbicides, fungicides, hormone residues and drug residues.

■ WATER CHEMISTRY

Chemivron activated carbon

Microplastics & PFAS



Powder activated carbon (PAH) to remove micropollutants

Pulsorb WP-260 / WP-260-90 / WP-235

Powder activated carbon (PAH) for removing micropollutants in the 4th cleaning stage

Steam-activated powder activated carbon (PAH) is efficient for use in water technology to remove organic contaminants. These fine media can no longer be regenerated and are disposed of in the KVA.

specification

type	Hard coal, powder
Area of application	4. Cleaning stage on sewage treatment plants for the treatment of micropollutants. Can be used in biology, as well as in the separate purification stage.
Bulk density	350kg/m3 (WP260/WP235) 250kg/m3 (WP260-90)
Iodine number	1000 (WP-260) / 850 (WP-235)



Filtrisorb 400

Regenerated grain activated carbon to remove PFAS in drinking water

With this process, the used activated carbon can be recovered and thus reused. Reactivation of spent activated carbon containing PFOS, PFOA and other PFAS has been practiced for over 15 years.

specification

type	Hard coal, GAC
Area of application	Elimination TOC/PFAS
Bulk density	570kg/m3
Iodine number	1000



■ WATER CHEMISTRY

Kikkoman

ATP hygiene rapid test



Ensola Lumitester Smart: rapid drinking water test A3

Unique accuracy and resolution

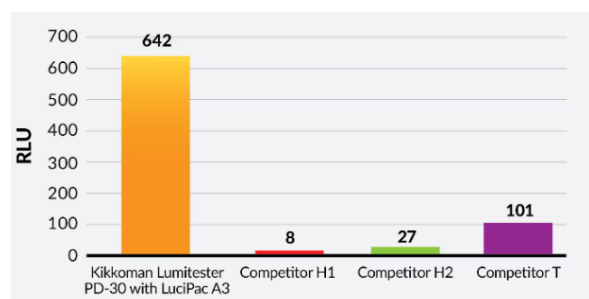
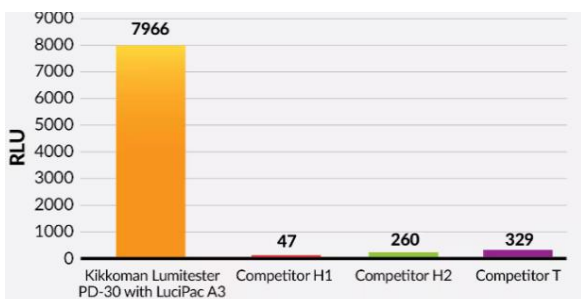
The Ensola Lumitester Smart is a portable luminometer for ATP testing. The ATP test (Kikkoman A3) allows you to easily check the purity of a drinking water sample for microbiological contamination using LuciPac kits. All organisms that produce ATP, ADP and AMP are recorded (E-coli, Pseudomonas, germs).

The LuciPAC A3 water test uses ATP (adenosine triphosphate), a biological indicator found in various organic substances (including living things). With the Lumitester, a quantifiable assessment of the cleaning effect can be carried out anywhere and in just 10 seconds.

The LuciPAC A3 is the only system on the market that detects all three adenylates of ATP (ATP+ADP+AMP or "A3") in one test, enabling highly sensitive examinations for various types of microbiological contamination (including dead organisms).

The ATP testing procedure is used by various companies, municipalities, health authorities and hospitals. It is also the standard method of analysis in various industries based on HACCP.

Independent laboratory testing has proven that the Kikkoman A3 ATP test detects residues and microorganisms that other kits miss.



■ WATER CHEMISTRY

Kikkoman

ATP hygiene rapid test



Drinking water rapid test A3

Kikkoman Lumitester

Detection method	Integration with a photodiode
Dark noise	10 RLUs or less
Detection reagent	Dedicated disposable device
Measuring range	0 to 999999 RLUs
Temperature compensation	+10 to +40 °C
Measuring time	10 seconds
Advertisement	Organic LED
AUTO ZERO calibration	Built in
Automatic shutdown	10 minutes
Clock	Built-in: Date and time only valid when the application is connected (automatic synchronization)
Measurement data interface	RLU USB, Bluetooth LE (Ver. 4.1)
Number of data points saved	2000
Ambient temperature range	+5 to +40 °C
Ambient humidity range	20 to 85% RH (condensation-free)
Storage temperature range	-10 to +50 °C
Storage humidity range	20 to 90% relative humidity (condensation-free)
Power supply	Two AA alkaline batteries or nickel hydride batteries
Dimensions	65mm (W) x 176mm (H) x 40mm (D)
mass	Approx. 235 g (without batteries)



Kikkoman LuciPac

Test kit for hygiene monitoring of water and liquids. LuciPac A3 Water detects ATP+ADP+AMP to check the cleanliness of water and liquid samples.

Description	Sampling rod with trigger reagent and phosphor
Crowd	100 sticks/set (20 x 5 aluminum bags)
storage	2-8°C (do not freeze)
durability	15 months from date of manufacture



ODOR REDUCTION

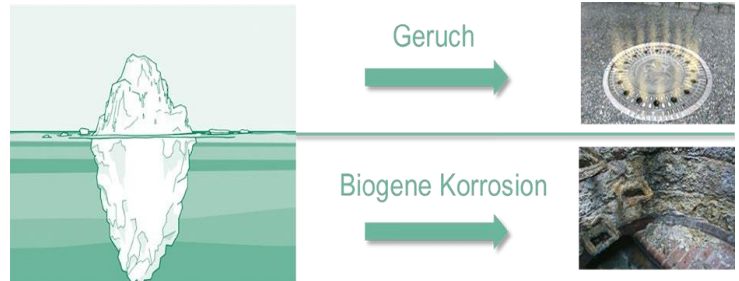
Overview

Integrated odor control

Odor reduction

The smell is unpleasant - but biogenic corrosion is the problem

Unpleasant smells disturb the neighborhood and can lead to lengthy discussions lead to court cases. However, biogenic corrosion in the sewer network is even more expensive. Depreciation of sewer systems is up Estimated to last 100 years, but progressive biogenic corrosion can completely ruin shafts and sewer bottoms within 2-5 years.



Ensola therefore recommends seeking qualified advice on the causes and effects of hydrogen sulfide formation. The sewer network can be analyzed holistically using data models and simulation software. Additional tools are also available:

Channel status detection using H₂S / temperature measurement

- > Condition detection of H₂S concentrations and temperatures in the gas phase using gas sensors.
- > Point-by-point or channel section or channel network measurement using gas sensors.
- > Determination of outgassing routes in sewer systems. Comprehensive evaluation of the current status.
- > Derivation of recommendations for action to minimize odor and biogenic sulfuric acid corrosion.



■ ODOR REDUCTION

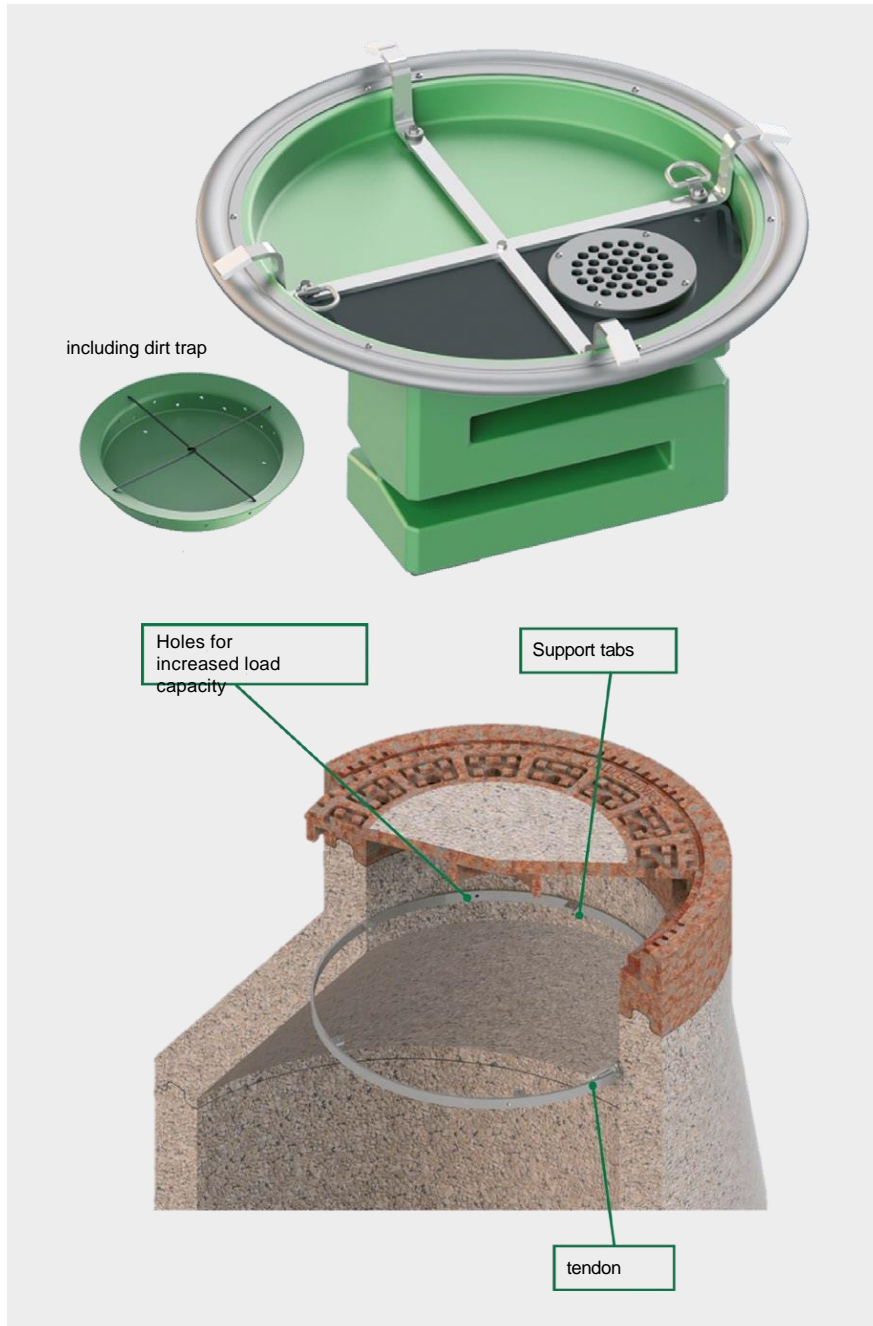
UniTechnics

Channel closures



Sewer odor trap – self-cleaning

Uni-AdSorber-Active odor attenuation system for inspection shafts



Advantages

Reduction/avoidance of odor through self-regenerating filter material

Active ventilation of the channel through an existing one-way valve

No replacement of the filter material necessary

Easy installation and removal

Dirt trap included

Low maintenance, only cleaned with water

Day water permeable

Special use cases (e.g. for aggressive media in industry) possible on request

Application

Municipal, industrial and wastewater systems

Sewer shafts with a shaft frame diameter of \varnothing 620 to 630 mm

Special sizes available on request

Uni-AdSorber-B (B for Basic, the basic model) for predominantly medium H₂S loads

ODOR REDUCTION

Ensola

Anti-odour

Ensola Anti-Odour



Ensola Antiodor

The solution to odor reduction

Odor problems arise as a result of the progressive consolidation of sewer systems. In pumping stations where the wastewater is pumped periodically, the longer residence time and the pressure pipe can lead to the development of hydrogen sulfide, which escapes into the surrounding area in the gravity pipe and causes odor nuisance to residents.

PROBLEM STATEMENT

- The wastewater is deprived of oxygen in the sewer system due to a longer residence time
- This triggers the formation of hydrogen sulfide (H₂S) through biogenic processes in the sewer membrane
- The H₂S formation is pH and temperature dependent

RESULT:

- **Duct odor problems**
- **Corrosion of reinforced concrete**

ODOR REDUCTION

Ensola

Antiodor

ensola 
LABOR ■ WASSER ■ GAS

CONCEPT

- Determination of the H₂S gas concentration in the gravity pipeline using mobile MyDatasens H₂S sensors (measuring interval 5 minutes).
- Measurement data is continuously uploaded to our web server via mobile network and can be recorded by the customer at any time.
- Signal transmission to the dosing pump to regulate the dosing quantity.
- Dosage of Ensola Antiodour from IBC 1000 liter containers into the pump sump.
- **Dosage quantity: approx. 50 liters per 1000 m³ of wastewater and day**
- **Ensola Antiodour is not volatile and remains active in wastewater if overdosed.**

Optionally, the detection of the redox potential or the UV signal in the pump sump can also regulate the dosage amount.

ENSOLA Antiodour dosing from the container using a dosing pump

Optional: H₂S signal acquisition for pump control

Housing development



HOW IT WORKS



- **Ensola Antiodour is a non-hazardous solution that contains a significant amount of available oxygen.**
- It prevents a sharp drop in the redox potential in the wastewater. This prevents the formation of reduced odor components, such as hydrogen sulphide, in the medium used.
- **Ensola Antiodour is ready for use and can be added undiluted from the delivery container using a dosing pump.**
- Dosing should take place before the emission source. The pH value remains stable.
- **Ensola Antiodour can be stored in the IBC 1000 liter container.**

OPTIONAL



MyDatasens H₂S probe

For monitoring odor emissions and gas concentrations

- My dataNet evaluation software on Ensola Server
- Long battery life (2 - 3 years)
- Possible gases: ozone, H₂S, O₂, temperature, humidity etc.



ensola.com

■ ODOR REDUCTION

PureAIR

Exhaust air absorber



PureAIR exhaust air absorber system

PureAIR air filter media consists of spherical, porous pellets formed from a combination of activated aluminum oxide and other binding agents and suitably coated with potassium permanganate (KMnO₄).

impregnated with potassium hydroxide (KOH). In special cases, these can be mixed with activated carbon granules.

The chemisorptive process removes contaminating gases through adsorption and chemical reaction (oxidation).

PureAIR Medium converts harmful gases into solids and neutral gases or deposits them in the pellet, meaning there is no possibility of desorption and return to the environment.

PureAIR filter media impress with their wide and very large cleaning capacity against a wide variety of gases and odorous substances.



Advantages

The contact time between exhaust air and medium requires approx. 1.5 seconds, which is why the design of the absorbers is very small. In comparison, a biofilter requires 45 seconds of contact time. With activated carbon filters it takes approx. 4 - 5 seconds.

The absorber is always prepared for large temporary fluctuations in the exhaust air concentration and does not have to be adapted prematurely to concentration surges. This is the disadvantage of biofilters and acid/alkaline scrubbers, which are designed for a specific concentration.

PureAIR is a product with a variety of possible uses. It eliminates a variety of odorous ingredients.

The various basic media, which can be mixed together as a blend, allow all specific exhaust air problems to be eliminated precisely

PureAIR filter media is much more stable in moist exhaust air streams than activated carbon. This is a big advantage, as moisture from the processes is often present in environmental technology.

The filter pack is flowed through by a fan. This means that cleaning can be controlled for individual events (e.g. using a pump signal or H₂S probe).

ODOR REDUCTION

PureAIR

Exhaust air absorber



PureAire filter media

Sulfasorb XL™

Activated carbon-based medium to reduce odors in the pumping station. The medium is not impregnated, but treated according to a patented formulation and achieves maximum H₂S reduction.



Sulphasorb 2™

Activated aluminum oxide bodies and highly efficient activated carbon, impregnated and added with binding agents. Also contains a fire prevention additive. Developed for the treatment of acidic gases.



PureAir 12

Aluminum oxide body impregnated with sodium permanganate (NaMnO₄) and mixed with binding agent. Contains twice the capacity compared to PureAir 8. It is designed for corrosion and odor control.



PureAir 8

Aluminum oxide body impregnated with potassium permanganate (KMnO₄) and mixed with binding agent. It is developed for corrosion and odor control.



PP blend

Mixture consisting of aluminum oxide body impregnated with potassium permanganate (KMnO₄) and highly efficient activated carbon, impregnated and mixed with binder. Basic medium for odor filters and corrosion prevention.



CPS12 Blend

Mixture consisting of aluminum oxide body impregnated with sodium permanganate (NaMnO₄) and highly efficient activated carbon. Very broadly applicable product for preventing corrosion.



Sulphasorb Fe™

Mineral medium consisting of iron hydroxide. Designed for hydrogen sulfide removal at concentrations above 50ppm H₂S in biogas or sewer gas. The product is also suitable for mixing with the PureAir products. It works significantly more efficiently than activated carbon, even in moist gas.



Siloxosorb

Aluminum oxide bodies for use in siloxane removal and VOC treatment in biogas



drinking water



When it comes to water supply, no two systems are the same; Inflows, geography, settlement structure, local industry and agriculture influence the conditions. Applications must therefore be adapted to the conditions depending on the location.

We only work with high-quality products that have proven themselves in practice and develop individual solutions with our customers.

Thanks to our many years of experience, we can support you individually with planning, implementation and maintenance with practical knowledge - specifically tailored to your problem.

Ensola drinking water panels

Drinking water panels allow seamless monitoring of drinking water treatment in order to detect any changes in drinking water quality or system malfunctions and to take the appropriate measures immediately.

Modular panels with standard sensors

Modularly expandable, compact panels (HxW: 85cm x 75cm).

Low drinking water consumption of ~ 15 l/h with small flow cells saves water.

Robust sensor technology, Bavarian quality (pH from Schott)

24/7 remote access for monitoring and alerting.

Easy (dis)installation and long maintenance intervals thanks to efficient panel design

Sensors can also be connected to the hand-held measuring devices (WTW Multi 3620).

Expandable with UV-SAK measurement, nitrate or turbidity.



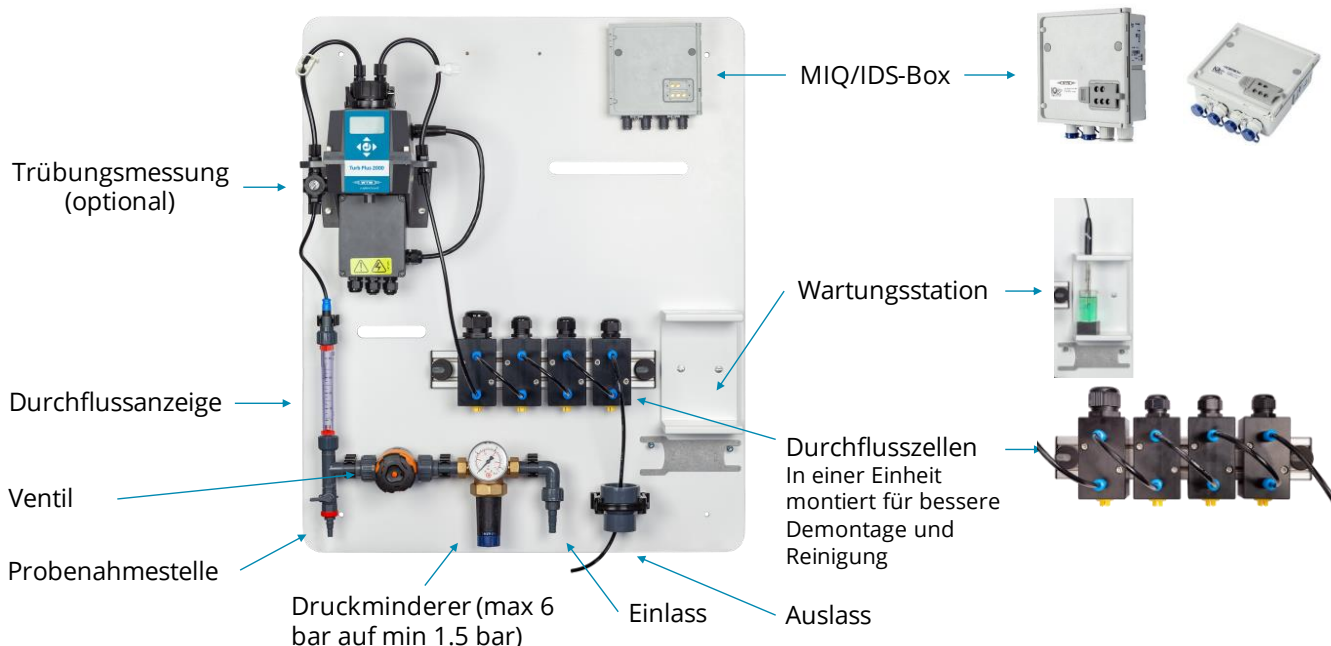
Compact design
(H:85cm x W:70cm)

Remote monitoring

High quality sensors

Modular structure

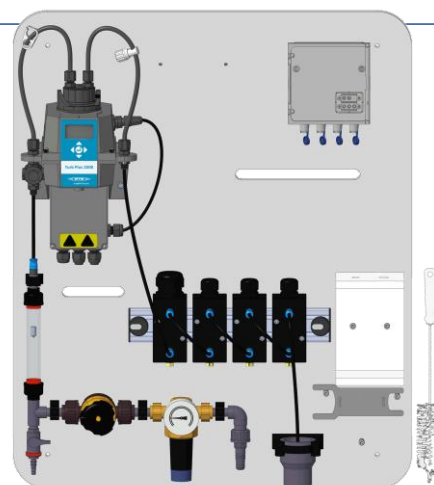
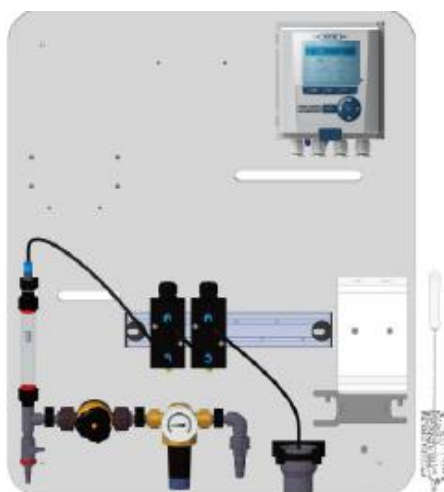
Low water consumption



Ensola standard drinking water panels

Ensola standard drinking water panels

Number of probes	2 ports	3-4 connections	4+ ports
Controllers	DIQ 282/2 CR32 inputs3 outputs	DIQ 284/4 CR64 inputs6 outputs	MIQ/TC 2020 G320 inputs 20 exits
Flow cells	2	3-4	4 or more (max. 4 per board)
Flow cell size	D17 for pH, conductivity, O2 and redox (17mm)D19 for Cl2 (19mm)		
Measuring probe options	Temperature, pH, oxygen (O2), chlorine (Cl2), conductivity, redox (organic)		
Options Additional devices	Turbidity measurement (NTU/FNU) Dissolved organic substances (SAK/SSK 254nm) Nitrate (UV 238nm)		
Dimension panel	850x700mm	850x700mm	Several panels à 850x700mm



Digital handheld measuring device WTW Multiline IDS

WTW has been active in the drinking/wastewater market for over 80 years and develops portable measuring devices for measuring pH, redox, dissolved oxygen, conductivity and turbidity in the field.

WTW devices are very robustly built, waterproof to IP67, and are characterized by large storage options. The sensors used were developed specifically for complex water technology measurements so that they can be used for a long time. Useful accessories support a wide range of applications in the field.



MultiLine® IDS Portable

Digital multi-parameter measuring device for measuring pH, oxygen, conductivity and turbidity, which combines proven measuring technology with the advantages of the latest technology. Based on the tried and tested electrochemical WTW sensors, but equipped with the latest measuring electronics, the new IDS sensors can store their serial number and calibration data in the sensor, unmistakably and ready for immediate use.

Future-proof as it is radio-ready for the IDS wireless modules

Measure, display and document three parameters including secondary variables

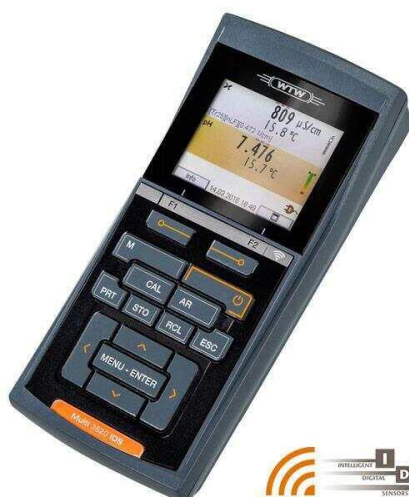
One device for up to four parameters: pH/redox, dissolved oxygen, conductivity and turbidity

Digital sensor detection

Three galvanically isolated measuring inputs

MULTI IDS digital field measuring devices

Model	Description	Order no
MultilIDS 3620	Professional, digital multi-parameter measuring device for mobile measurement, with two universal measuring channels, radio-ready, color graphic display, data logger and USB interfaces. Single device in a carrying case with short operating instructions, CD-ROM and batteries, driver software for USB, cable, plug-in power supply.	2FD560
MultilIDS 3630	Professional, digital multi-parameter measuring device for mobile measurement, with three universal measuring channels, radio-ready, color graphic display, data logger and USB interfaces. Single device in a carrying case with short operating instructions, CD-ROM and batteries, driver software for USB, cable, power supply, SM Pro reinforcement	2FD570



DRINKING WATER

Lovibond

Photometer



Lovibond photometer

Unique measurement quality

The MD150 photometer offers high-quality features and ease of use with versatile multi-parameter combinations. With its high-precision optics, the MD150 offers unmatched accuracy and efficiency, making it the ideal solution for a wide range of water testing.

MD 150 measures the desired value quickly and easily and shows the test results on the display with colored background lighting.

Multiparameter

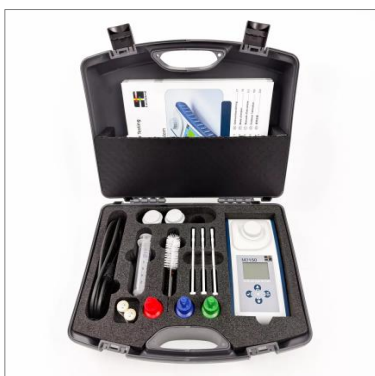
The MD150 provides key monitoring and disinfection control parameters including chlorine, bromine, ozone, chlorine dioxide, pH, cyanuric acid, alkalinity and calcium hardness.

GLP compliant (Good Laboratory Practice)

The MD150 automatically registers and saves all changes to the device to ensure the quality and integrity of the data. Changes to the device that could influence the measurement results can be tracked in this way.

Data transfer NFC / USB-C

Simply transfer your data wirelessly via NFC to the AquaLX® app or via USB-C cable to the Lovibond® Data Expert software. The data can be exported in CSV format and further processed in Excel, for example.



DRINKING WATER

Lovibond

Photometer



Specifications Lovibond MD-150

Detection method	Integration with a photodiode
optics	LED, spectrometer sensor
light source	LED
wavelength	Variant specific (415, 445, 480, 515, 530, 555, 590, 630, 680)
Photometric range	0 - 3 paragraphs
Photometric accuracy	3% FS (T = 20 °C - 25 °C)
Suitable cuvettes	Round cells 13 mm Round cells 16 mm Round cells 24 mm
display	Backlit LCD
Interfaces	USB-C
Programmability	NFC (Near Field Communication)
adjustment	With Lovibond Data Expert Software Factory calibration and user adjustment - return to factory calibration possible at any time
Updates	Firmware and methods update
internal memory	Internal ring memory for 100 data sets
Battery life	approx. 5000 measurements (without backlight)
Environmental conditions	5 - 50 °C at a relative humidity of 30 - 95% (non-condensing)
IP ratings	IP65
conformity	CE
Dimensions	155x76x45mm
Weight	265 g (without 4 AAA batteries)

Set MD150 Cl powder

Measuring parameters	Cl ₂ , CL total
Contents	Photometer MD150, 2 x AA batteries, screwdriver, 3 x stirring rods 3 x 24 mm cuvettes with lid, syringe, cleaning brush, USB-C to USB-A cable, reagents, liquid, powder or tablets
Order no	282105



Set MD150 Cl-Br-ClO₂-O₃-pH

Measuring parameters	Cl ₂ , CL total, ozone
Contents	Photometer MD150, 2 x AA batteries, screwdriver, 3 x stirring rods 3 x 24 mm cuvettes with lid, syringe, cleaning brush, USB-C to USB-A cable, reagents, liquid, powder or tablets
Measuring parameters	Cl-Br-ClO ₂ -O ₃ -pH tablets
Order no	282140

TriOS sensors and transmitters

TriOS spectral sensors are characterized by the highest measurement accuracy and are made of high-quality stainless steel or titanium. The modular design principle enables the realization of all path lengths – depending on the application.

The TriOS G2 interface enables quick and easy integration of the sensor into existing process control systems or external data loggers. The sensors can be easily configured using any standard web browser on a PC, tablet or smartphone.

TriBox3 Controller	TriBox mini controller
--------------------	------------------------

4-channel display and control unit with integrated solenoid valve for compressed air control.
4 sensors, 6 x analog output configurable
7 inch capacitive touch display (800x480 pixels)
Integrated compressed air valve for probe cleaning
Aluminum housing, protection class IP65
280x170x94mm, 3.7kg

Digital 2-channel controller
2 sensors, 2x analog output,
3.5 inch capacitive touch display (320x240 pixels)
Aluminum housing, protection class IP65
150 x 139 x 80mm, 1.6kg



LISA UV COD sensor	NICO nitrate sensor
--------------------	---------------------

	Cost-effective SAK254 UV absorption photometer
light source	2 LEDs (254nm, 530nm)
detector	photodiode
Optical path	0.3, 1, 2, 5, 10, 20, 50, 100mm
parameter	SAK254, CSBeq, BBSeq, TOCeQ, UVT, Turb 530

	Digital, optical in-situ photometer for nitrate with integrated turbidity compensation.
	Xenon flash lamp
	4 photodiodes + filters
	0.3, 1, 2, 5, 10, 20, 50mm
	NO3 / NO3-N, NOx / NOx-N (calibrated with NO3 standard solution)



TriOS analyzer

The TW Master series is a new TriOS product line that was specifically developed for the precise analysis of drinking water. The measuring ranges are designed to meet the special requirements of drinking water monitoring.

The modular structure enables an individual combination of parameters that specifically meet the requirements of your application. All devices can be installed in a row and analyze all desired parameters in just one bypass installation.

	TW Turb	TW pH/EC
Application	Analyzer for turbidity measurement	Analyzer for determining pH value and conductivity in drinking water.
Measurement technology	IR LED or white light LED	pH electrode
measurement	photodiode	potentiometry, conductivity
Optical path	0.3, 1, 2, 5, 10, 20, 50, 100mm	0.3, 1, 2, 5, 10, 20, 50mm
parameter	Turbidity FNU/NTU	pH value, conductivity (LF), temperature
Dimensions W/H/D	16/28/10.8cm	16/28/10.8cm



SECURITY

Gas detectors

Riken Keiki



Gas monitors Riken Keiki GX-3R / GX-3R Pro

GX-3R: unrivaled

Drinking water is produced in wells, shafts and closed rooms. This can lead to a dangerous atmosphere, which must be monitored by gas detectors.

The risks often lie in a lack of oxygen, whereby infiltrating gases such as CO, CO₂ and explosive gases (LEL) can also occur. Due to the technologies used in drinking water treatment, there is also an increasing number of toxic gases such as ozone.

Ensola AG is the sales and service partner for Riken – Keiki gas warning devices in Switzerland is there for you.

GX-3R and GX-3Rpro Advantages at a glance

- GX-3R is the smallest 4-material device (LEL, O₂, CO, H₂S)
- GX-3Rpro is the smallest 5-material device (LEL, O₂, CO, H₂S and CO₂)
- Water and heat resistant
- Highly sensitive sensors 3 year sensor guarantee
- Robust: fall-proof up to 7 m
- 20 hours of battery life
- Lighter than a smartphone



SECURITY

Gas detectors

Riken Keiki GX-3R



GX-3R

The smallest & lightest 4-gas monitor in the world

Sensor configuration: CO/H2S, LEL, O2 (also available as 1, 2 or 3 substance device)

3 year sensor warranty

25 hours of battery life in operation

Weight: approx. 100g

Dimension: 58mm (W) x 65mm (H) x 26mm (D)

Waterproof and dustproof, IP66/68

Loud alarm buzzer 95 dB at 30 cm

Approvals: 2014/34/EU (ATEX): Type II 1G Ex ia IIC T4 Ga (use in Zone 0), MED approval for marine equipment

Optional accessories (sold separately): connectors, wall brackets, exhaust hose, gas bottles



GX-3R Pro

The smallest & lightest 5-gas monitor in the world

Sensor configuration: CO/H2S, LEL, O2, + toxic gas (selectable: CO2/SO2/NO2/NH3) (also available as 1, 2, 3 or 4 substance device)

3 year sensor warranty

25 hours of battery life in operation

Compatible with 11 languages

Connection with Bluetooth via mobile phone (panic alarm/dead man/gas alarm)

Weight: approx. 120g

Dimension: 73mm (W) x 65mm (H) x 26mm

Waterproof and dustproof, IP66/68

Loud alarm buzzer 95 dB at 30 cm

Approvals: 2014/34/EU (ATEX): Type II 1G Ex ia IIC T4 Ga (use in Zone 0), MED approval for marine equipment

Optional accessories (sold separately): connectors, wall brackets, exhaust hose, gas bottles



SECURITY

Gas detectors

Riken Keiki GX-3R



Gas monitor accessories

Docking station SDM-3R

Bump test station for testing GX-3R and GX-3R Pro (30 seconds alarm achievement)

Charging function 230 VAC

Suction flow / suction rate (approx.): 0.25 L/min.

External dimensions (approx.): 130 (W) x 110 (H) x 250 (D) mm, weight (approx.): 800 g

Optional accessories (sold separately): connectors, wall brackets, exhaust hose, gas bottles

BC-3R charging cradle

With 230 VAC connection cable, with safety clip for the GX-3R / GX3R Pro

SDM-3R

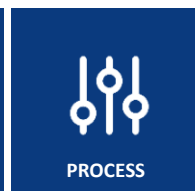


BC-3R



Calibration gas bottles





Our products

Water chemistry range

- Products for felling
Iron salts (ferric chloride/ferrous chloride)
– Aluminum salts (aluminum chloride, aluminum sulfate)

– Neo WaterFX300 (lanthanum chloride solution)
– Sodium aluminate $\text{NaAl}(\text{OH})_4$
– Products to combat filamentous bacteria

– Mixed products (iron-aluminium mixed products)

– Combination products with load carriers

Polymers for sludge dewatering

- Anionic emulsions (liquid)
- Cationic emulsions (liquid)
- Cationic dispersion emulsions (liquid)
- Anionic and nonionic solid polymers
- Cationic powder polymers

Products for pH regulation

- Sulfuric acid (25 – 50%)
- Caustic soda (30 – 50%)
- Hydrochloric acid (25 – 32%)
- Chalk/lime

Cleaning/deposit reduction/defoaming

- Ropur RWI® 8000 deposit reducer
- Membrane cleaner (alkaline hypochloride or acidic)
- PressClean (cleaner for drainage machines and irrigation systems)
- Hydrogen peroxide 35%
- Phosphoric acid (80 – 85%)
- "Special" defoamer for digestion towers and biogas production

Odor reduction

- Ensola Antiodor

Assortment of process measurement technology

- Maxx sampling devices
- Cerlic process probes for TS solids measurement
- 3S TOC Analyzer
- 3S process photometer phosphate, nitrite, ammonia
- WTW process measurement technology
- Microtronics decentralized measurements

Assortment of dosing technology

- **Flocmix: Dynamic mixing and dosing systems**
- **Grundfos: dosing pumps for precipitants**
- **Watson Marlow: Metering pumps for precipitants and polymers**
- Tank system construction (1 – 100 m³)
- Dosing panels (0 – 4000 liters/day)
- IBC agitators

Laboratory analysis range

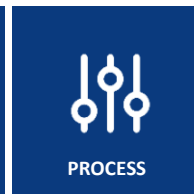
- Macherey & Nagel laboratory photometry
- WTW laboratory measurement technology
- DL laboratory consumables
- Laboratory reagents and process chemicals

Gas monitoring and safety technology

- Riken Keiki gas monitoring mobile and stationary
- Tripods, fall protection and lifting cranes

Services

- Process measurement technology service
- Service laboratory measurement technology
- Calibration service for gas and safety technology
- Rent: process measurement technology and measurement campaigns
- Temporary data collection
- Short-term troubleshooting



Ensola

Due to the different framework conditions in environmental technology, problem solutions can hardly be standardized. Needs and applications can vary greatly depending on location.

We work with reliable partners and high-quality products. We develop individual solutions with our customers.

Thanks to our many years of experience on countless systems, we can support you with practical knowledge on your specific problem.

competent. reliable. fast.



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