



ELECTRO-KATADYN IONISATIONS SYSTEMS

The Science Of Clean Water

English

Overview

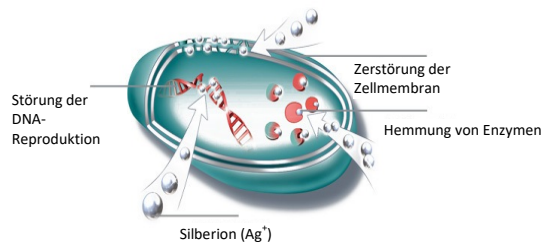
According to the World Health Organization, millions of people drink contaminated drinking water daily, often without knowing it. WHO estimates that in the WHO European Region alone, 14 people die every day from diarrhea caused by inadequate water supply.

Safe drinking water of good quality and in sufficient quantity is a key requirement for good health and economic development. By planned procedure, safe drinking water can be guaranteed in the most effective way.

With the founding brand Katadyn, individual water purification systems and products for outdoor and marine applications have been developed and manufactured for more than 80 years. In this segment, Katadyn is the world market leader with a share of more than 50 percent. The product portfolio includes water filters, disinfectants and desalination equipment.

With the help of **Electro Katadyn ionization systems**, microorganisms are catalytically killed by the smallest amounts of dissolved silver by the silver ions are electrolytically added to the water. The Elektro-Katadyn method is an extremely effective method of preserving drinking water in containers over long periods of time.

Many companies worldwide rely on the Swiss quality of our products. Nothing tastes better than fresh, clean drinking water.



THE SCIENCE OF SILVER

In the Electro-Katadyn system, microorganisms are destroyed by catalysis, using very small amounts of dissolved silver. The silver ions are added into the water using an electrolytic process – the practical application of Faraday's Law of Electrochemical Equivalents – which causes a bacterial action that maintains disinfected water without changing the taste. The effect is long-lasting, which makes the system ideal for long-term drinking water storage applications like marine vessel and platforms.

PROVEN BACTERIAL EFFECT

Over the years, several scientists have studied the effect of silver ions on water. Dr. Lee at the Centre for Applied Microbiology of the U.K. Public Health Service examined the effect of silver ions on legionella, a water-borne bacterium that becomes airborne via showers or air conditioning systems. By breathing them in, people contract Legionnaire's Disease, a type of pneumonia. Lee's tests showed that legionella bacteria are killed by silver ions, and that the silver remains effective in water for weeks, at low and high temperatures.

SOLUTIONS FOR YOUR SPECIFIC NEEDS

Katadyn electro-systems have been used successfully in a variety of applications for decades. Our sales and distribution partners can help determine the size and model that is correct for your particular needs. Whether designing a water bottling process, thinking about safe water storage, or prevention in hot water systems we can provide guidance on using the Electro-Katadyn system in a primary or bypass loop layout. No moving parts and a small design footprint provide flexibility for your overall system architecture.

SAFE DRINKING WATER FOR A WIDE RANGE OF APPLICATION



MARINE VESSELS & PLATFORMS: DRINKING WATER STORAGE

The Electro Katadyn systems are used on ships, platforms and other vessels where large amounts of drinking water need to be safely stored for significant periods of time. The process starts with filtration, followed by a treatment process such as UVC Certified Disinfection. For durability, silver ions can be added to the water during the final treatment step. The water will remain bacteria-free for a minimum of six months, even in cases of extreme temperature fluctuation.

SYSTEM SIMPLICITY

Simple dosing principle makes treatment process fast and straightforward. Our silver ionization process does not have a corrosive effect, so storage mechanisms will stay intact for safe, long-lasting containment. The Electro-Katadyn system is trusted by companies around the world. Robust construction and Swiss quality ensure excellent, dependable and long-term



DEVELOPING NATIONS

Water-borne illness is a major problem in many developing countries; silver ion treatment is a cost-effective approach to providing safe drinking water and preventing disease in vulnerable populations. Lack of central distribution water systems can also cause the need for more local storage of water and the need to ensure that clean drinking water remains safe. The Electro-Katadyn systems can help planners incorporate cost effective water storage into their strategy.

HOT WATER SYSTEMS: PROVEN AGAINST LEGIONELLA

Warm water provides good conditions for bacterial growth. This can affect institutions such as Hospitals or long-term care facilities such as retirement homes that have a higher concentration of vulnerable patients. Effectively maintaining the hot water systems to avoid associated outbreaks requires a preventative strategy. Silver ionization has been repeatedly proven as effective against the bacteria that cause Legionnaire's Disease, which can be a significant risk in larger systems.



FOOD, BEVERAGE AND INDUSTRIAL: NO CHLORINE TASTE

In various locations, Katadyn-Electro systems are used by the food and beverage industry and integrated into their manufacturing process to ensure product quality and system safety while enhancing storability. Our systems require less space and complexity which adds flexibility for the process design. This increases efficiency while reducing risks associated with additional chemical handling. For the same reason, in many areas without access to safe public water infrastructure, the Electro-Katadyn system is used for storing table water or food equipment rinsing.

TECHNICAL DATA



TYPE	EK-4	EK 2-24	EK 3-24	EK 4-24	EK 6-24
Application					
Drinking water 0.02 ppm	20 m ³ /h	40 m ³ /h	60 m ³ /h	80 m ³ /h	120 m ³ /h
Rinse Water 0.5 ppm	0.8 m ³ /h	1.6 m ³ /h	2.4 m ³ /h	3.2 m ³ /h	4.8 m ³ /h
Disinfection Water 1.0 ppm	0.4 m ³ /h	0.8 m ³ /h	1.2 m ³ /h	1.6 m ³ /h	2.4 m ³ /h
Treatment volume with 1 anode	20'000 m ³ (at 0.01ppm Ag) 10'000 m ³ (at 0.02ppm Ag)				
Housing					
No. Of Anodes, Type E1	1	2	3	4	6
Housing material	1.4301 / 316S				
Maximum Pressure (bar)	6				
Weight (dry) kg	5.8	15.8	16.2	16.6	17.3
System Dimensions					
Height mm	500	605			
Diameter mm	64	140			
Connections (Inlet/Outlet)	G 3 / 4"	G 1"			
Installation Mounting	Vertical				
Control Box					
Dimensions (WxHxD) mm	300 x 400 x 155				
Weight kg	9.8				
Supply Voltage	230/120V 50/60Hz				
Power Consumption (nominal)	40W				
Protection class	IP64				
Contacts					
6 Relay Output:	Voltage free relays contact (max.240VAC/2A/24VDC)				
4 Control Input:	Closed contact / 24VDC Supply from EK control box				
2 Analog Input:	0-10VDC				
Options					
Dosage control with flow measurement					



KATADYN.
CLEAN DRINKING WATER.
STORED SAFELY.

Wasser means life.

It quenches our thirst, flushes toxins from our body and keeps our body in a healthy balance. But without prior disinfection and safe storage, it can lead to the opposite. The Elektro-Katadyn method is an extremely effective method of preserving drinking water in containers over long periods of time. It enables safe storage and at the same time protects against harmful water bacteria. The Katadyn Water Primer contains further water treatment methods for various water qualities (fresh/salt water).

The Katadyn Group

The Katadyn Group is a globally operating group of companies that always strives to make what is good better. With a comprehensive brand portfolio, it provides products and solutions for the outdoor and marine sectors as well as for industry and municipalities. The diverse product range extends from water treatment products and freeze-dried special foods to outdoor kitchens, land-based water desalination plants and special disinfection systems for industry. Humanitarian aid organisations and the military have also been regular customers of the Swiss group for many years.

Our locations



Our Brands

Katadyn, Micropur & Steripen

Mobile water purification systems
Chlorine and silver-based chemical disinfectants
Products for industrial and municipal water treatment and UV disinfection
UV Water Purifier Systems

KATADYN®
MICROPUR®
Steripen®

Optimus

Expedition cookware and outdoor stoves

OPTIMUS

Trek'n Eat

Freeze-dried outdoor and expedition food
Emergency preparedness food (Europe)

TREK'N EAT

Spectra Watermakers

Desalination systems
(marine and land-based; hand-operated and electrically powered)

SPECTRA
WATERMAKERS

AlpineAire Foods

Freeze-dried outdoor and expedition food

ALPINEAIRE FOODS

PharmaVoyage

Travel products and first aid kits (France)

pharmavoyage

Certisil, Certinox, Certiman

Drinking water hygiene, tank cleaning, and vehicle care
for caravanning (Germany)

certiman® certisil® certinox®

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Print No. 7011885/1
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