

OXAQUA

Inline Drinking Water Disinfection

CHEMICAL FREE DRINKING WATER DISINFECTION (up to 10 m³/h) INLINE GENERATION OF AN OXIDIZER RESIDUAL WITHOUT PRECURSOR

BlueSense™, technology part of LONZA Water Care, developed **OXAQUA**, a reliable and sustainable inline water disinfection technology.

Based on the water electrolysis principle, **OXAQUA** can sanitize flow rates up to 10 m³/h without any addition of chemicals nor precursors such as sodium chloride and create a residual of oxidizer up to the end-user's point of use.

OXAQUA uses the chlorides naturally present in the water to be treated (concentration has to be above 20 ppm Cl⁻) to generate on site and on demand up to 2 ppm of free chlorine under the form of hypochlorous acid, a strong oxidizer known for the prevention of the proliferation of bacteria, viruses, algae and molds in drinking and hot water systems. It is also efficient against many pathogens, such as E. Coli or Legionella Pneumophila.

On site Water Disinfection

OXAQUA is a compact system, easy to install and to control, even on existing pipework for retrofitting or replacement of obsolete disinfection systems.

It is easily operated through an intuitive control panel and monitoring of the performance can be done through the built-in data-logger (optional).

Although it is generating a sanitizer, **OXAQUA** does not require any handling of chemicals, ensuring a minimum manpower and an extremely low carbon footprint.



OXAQUA 5m³/h unit

Maintenance operations are also limited and do not necessitate specific skillset or personal protection equipment.

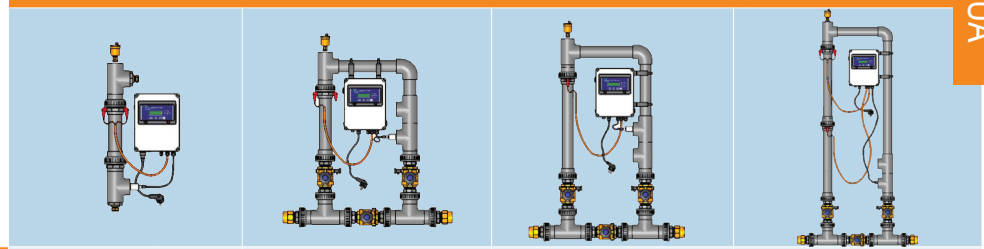
The core of **OXAQUA**, the electrolysis cell, has a lifetime of up to 8,000 hours of operation, and the power consumption of less than 500 Watts for 10 m³/h of treated water allows its installation not only on small to mid-size water supplies but also in remote locations such as islands, mountain sides or isolated communities.

The equipment can be used indifferently for primary disinfection or for inline re-chlorination (boosting stations).

OXAQUA is available in different versions depending on the flow rates to be treated (1 - 2 - 3 - 5 - 10 m³/h) and can optionally be equipped with a communication modem and a chlorine sensor to adapt the production to the exact need of the water to be treated.

OXAQUA TECHNICAL SPECIFICATIONS

Product Range



Reference	Oxaqua 1	Oxaqua 3	Oxaqua 5	Oxaqua 10
Water Disinfection Capacity	1 & 2 m ³ /h	3 m ³ /h	5 m ³ /h	10 m ³ /h
Energy Consumption / h	100W	150W	250W	500W
Power Supply	100-230 VAC; 50-60 Hz, single phase			
Water Working Temperature	5 to 40°C			
Ambient Working Temperature	< 45°C			
Pressure Range	1 to 10 bar			
Connections (Brass Couplers)	15 mm	15 mm	22 mm	22 mm
Control Panel	LCD screen (size 24x14x28cm) with LED indicator			
Protection Class	IP32			
Size cm (LxH)	100x35x25	120x60x25	130x60x25	160x60x25
Weight	8 kg	15 kg	18 kg	24 kg
Electrode length	15 cm	30 cm	50 cm	100
Minimum Chlorides Concentration	20 ppm			
Flow Sensor	Pulse generation			
Alarm Modem to GMS	Optional			
HOCl Production Controller (sensor)	Optional			

Examples of application:

- Primary drinking water disinfection (Private Wells, Municipal Supplies)
- Chlorine boosting stations on drinking water networks
- Top-up chlorination on private networks (hotels, resorts, hospitals)

KEY ADVANTAGES

Advantages	Benefits
On-site generation of disinfected water	No handling of hazardous chemicals
Consistent chlorine production	No loss of chlorine strength, less adjustments of the dosage compared to Sodium Hypochlorite
Integrated chlorine controller	Operation of the unit only when required (free chlorine level)
Production of a free chlorine residual	Treatment of the entire distribution network and security in case of contamination
Need of only 20 ppm of chlorides	Adaptive to most waters (surface and ground water)
Low footprint	Easily fitted in valve chamber, no civil work required
Efficient on Legionella spp.	Can be installed on hot water or air conditioning systems
Low production of by-products	No discharge of bromates in the environment, less chlorates and THMs compared to Sodium Hypochlorite

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Check the **OXAQUA** web page

Lonza

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