

# Oxiperm<sup>®</sup> Pro

Reliable preparation and dosing of chlorine dioxide  
from diluted solutions for water disinfection



## General

Oxiperm Pro systems produce chlorine dioxide using diluted solutions of sodium chlorite (NaClO<sub>2</sub> 7,5%) and hydrochloric acid (HCl 9%). They are available in four capacity levels, producing 5, 10, 30 and 60 g/h of chlorine dioxide respectively. This capacity is sufficient to treat up to 150 m<sup>3</sup> of drinking water per hour at the maximum admissible concentration of 0.4 mg/l ClO<sub>2</sub>. Chlorine dioxide is produced on demand from diluted solutions using the reliable sodium chlorite / hydrochloric acid, in accordance with the German Drinking Water Directive.

The chlorine dioxide solution produced is stored in an integrated or external batch tank and is added to the drinking water pipe as required using the integrated dosing pump or an external dosing pump.

## Applications

Usually, disinfection is the first step of pathogen reduction, in order to continue operating a drinking water installation. An ideal means of ensuring the sterility of drinking water is to use chlorine dioxide as a disinfectant. Chlorine dioxide is highly effective against all types of germs and has a long dwell time in the tubing system, which means it disinfects even without re-dosing. The big advantage of chlorine dioxide over other disinfectants is its effectiveness against biofilms. It destroys the existing biofilm, thus removing the breeding ground for microorganisms, and prevents it from building up again.

Ideal application areas for Oxiperm Pro include combating germs and pathogens, such as legionella in building installations, disinfecting cooling water systems, and disinfecting drinking water in water plants or industrial processes.

Chlorine dioxide is often used in the food and beverage industry for disinfection of process water or for CIP and bottle washing because it doesn't change the taste or smell of the treated water.

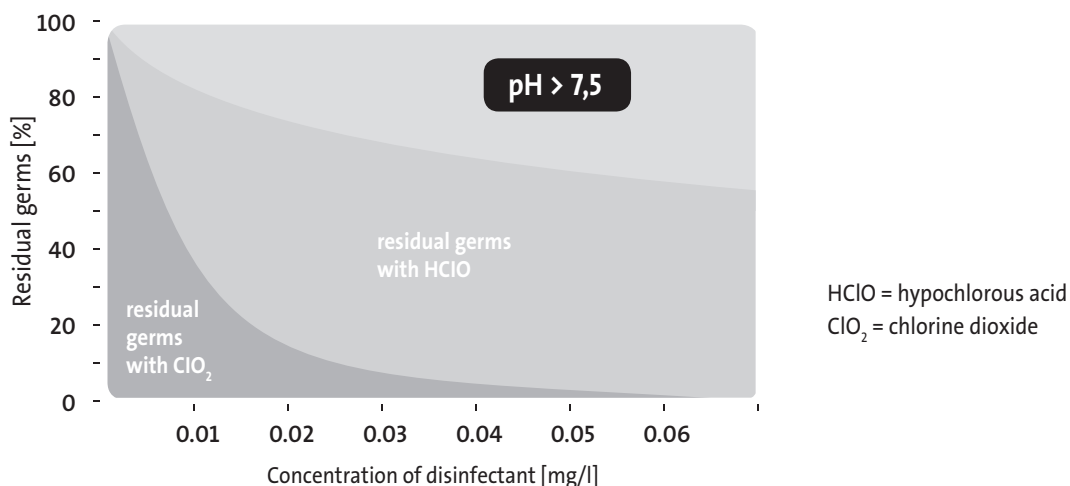
## No chance for pathogens

Legionella are rod-shaped bacteria that enter drinking water systems and start to reproduce. Especially in temperatures between 30 and 40 °C Legionella reproduce quickly. The bacteria can enter the lungs when a person inhales aerosols containing Legionella when showering. They can cause a life-threatening form of pneumonia known as legionellosis. The ideal breeding ground for legionella in drinking water systems can be found in biofilm, a slimy layer on the inside of water pipes, where other pathogens also build up and reproduce. Legionella also establish themselves in amoebae, which offer them protection against conventional disinfection methods.

Using Oxiperm Pro ensures reliable removal of the biofilm with all pathogens and Legionella present in piping and prevents reinfestation. For decontamination, disinfection represents only a part of the accompanying measures, e.g. constructional modifications.

Oxiperm Pro OCD-162-5 and -10 systems are designed for small or medium-sized buildings with water flows up to 25 m<sup>3</sup>/h. Oxiperm Pro OCD-162-30 and -60 systems are suited for disinfection tasks in waterworks or applications in the food and beverage industry

## Effectiveness diagram



## Product benefits

### Compact system

Oxiperm Pro can also be installed in confined spaces, as operation and maintenance are performed exclusively from the front.

### Low operating costs

This intelligent method for producing chlorine dioxide functions with minimal need for chemicals and thus saves up to 40% of chemical costs over other systems on the market. In comparison with thermal disinfection, up to 90% of the operating costs can be saved.

### Stable product solution

With a chlorine dioxide concentration of 2 g/l (2000 ppm), the product solution can be stored for several days. The low concentration makes the solution safe to handle.

### Integrated measurement value logging device

A chlorine dioxide control unit can be easily retrofitted as the connection for a measuring device for chlorine dioxide as well as pH or Redox (measuring cell) is already in place in the system control.

### Little installation work

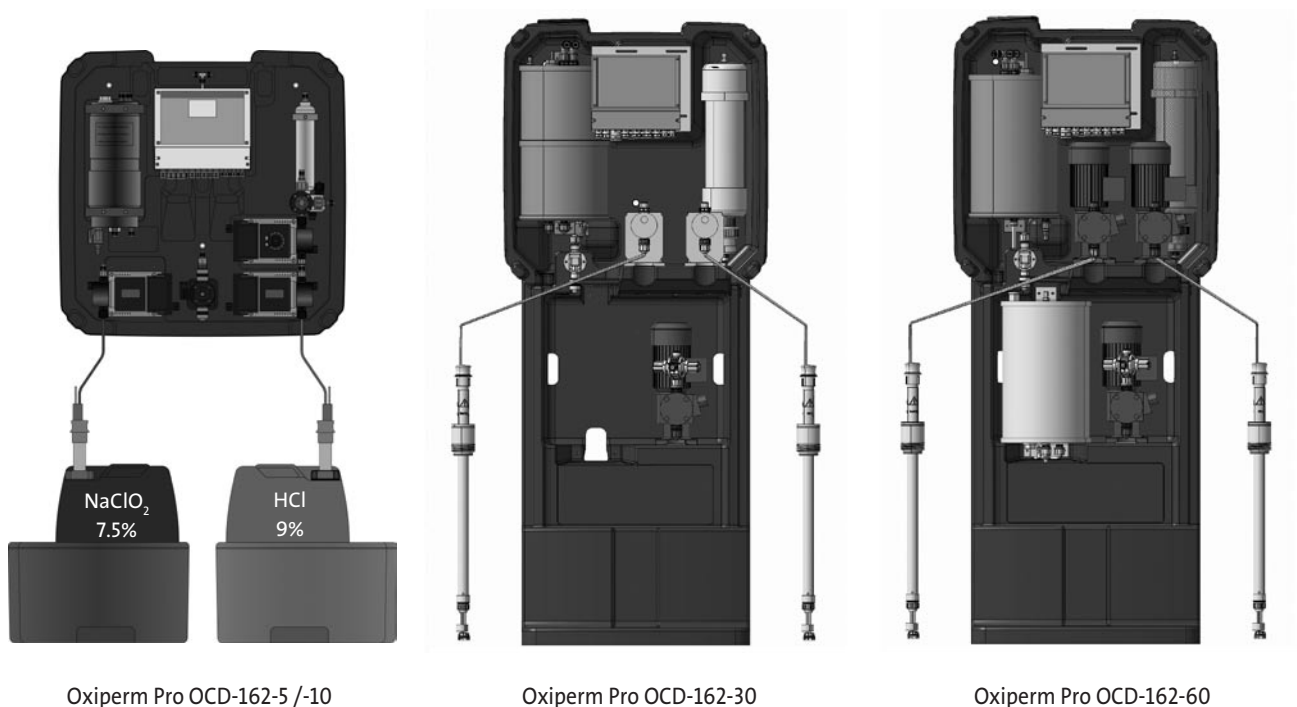
Optional accessories simplify assembly and start-up. In fact, the system can be connected and taken into operation without even interrupting the building's water supply. This represents a decisive cost factor when it comes to decontaminating hospitals or nursing homes.

### Robust design

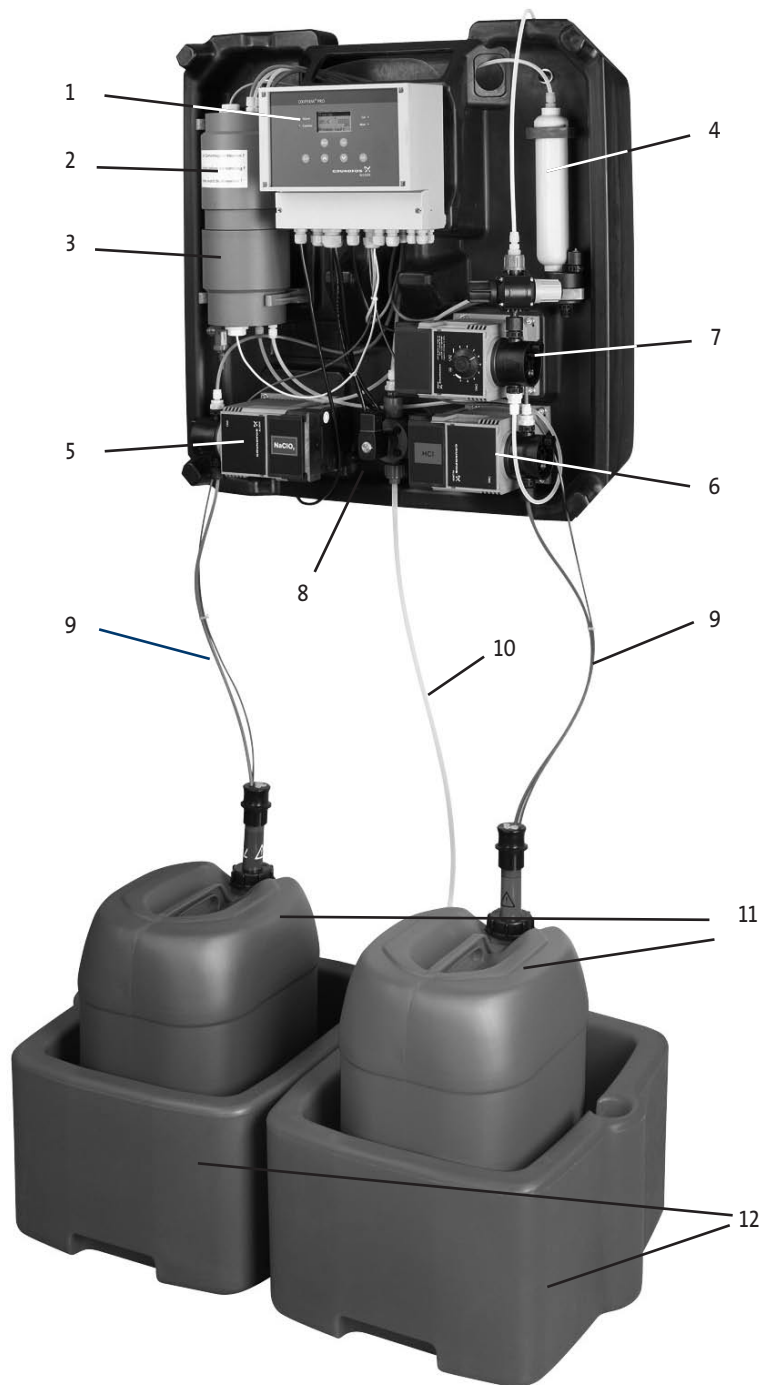
Oxiperm Pro's robust design ensures high operational reliability and lower maintenance costs. Furthermore, the newly designed control system makes for straightforward and user-friendly operation and opens up a number of application areas for discrete disinfection of drinking water installations.

### Wide field of applications

Besides continuous operation, the optional external batch tank allows the use of Oxiperm Pro for shock disinfection or in cleaning applications, such as CIP.



## Oxiperm Pro OCD-162-5 / -10

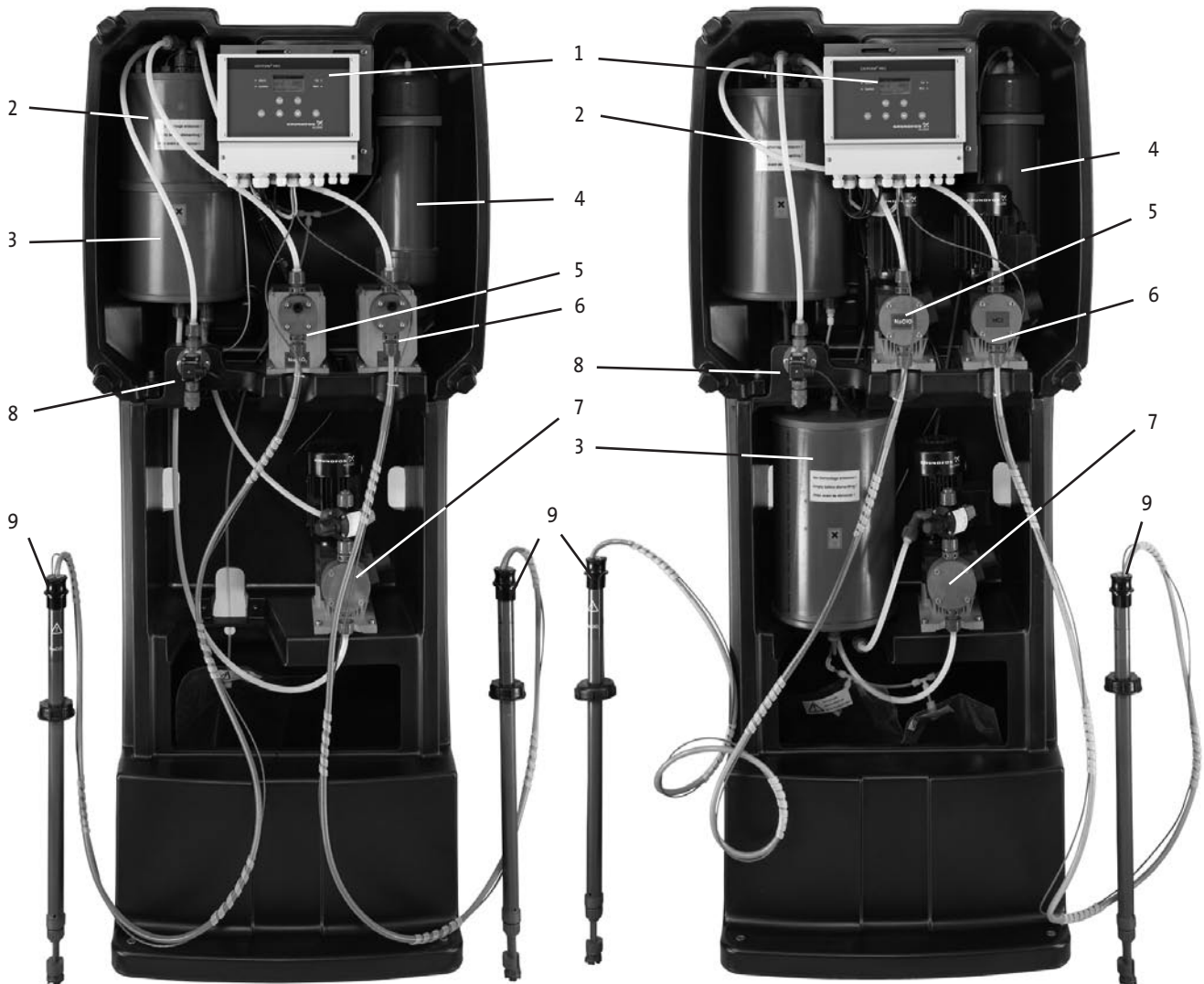


### Legend:

- |   |                                   |    |  |
|---|-----------------------------------|----|--|
| 1 | Measuring and control unit        | 7  | Dosing pump for chlorine dioxide           |
| 2 | Reaction tank                     | 8  | Solenoid valve for dilution water          |
| 3 | Reservoir tank                    | 9  | Suction set                                |
| 4 | Absorption filter                 | 10 | Dilution water line                        |
| 5 | Dosing pump for sodium chlorite   | 11 | Chemical tank (not in standard delivery)   |
| 6 | Dosing pump for hydrochloric acid | 12 | Collecting tray (not in standard delivery) |

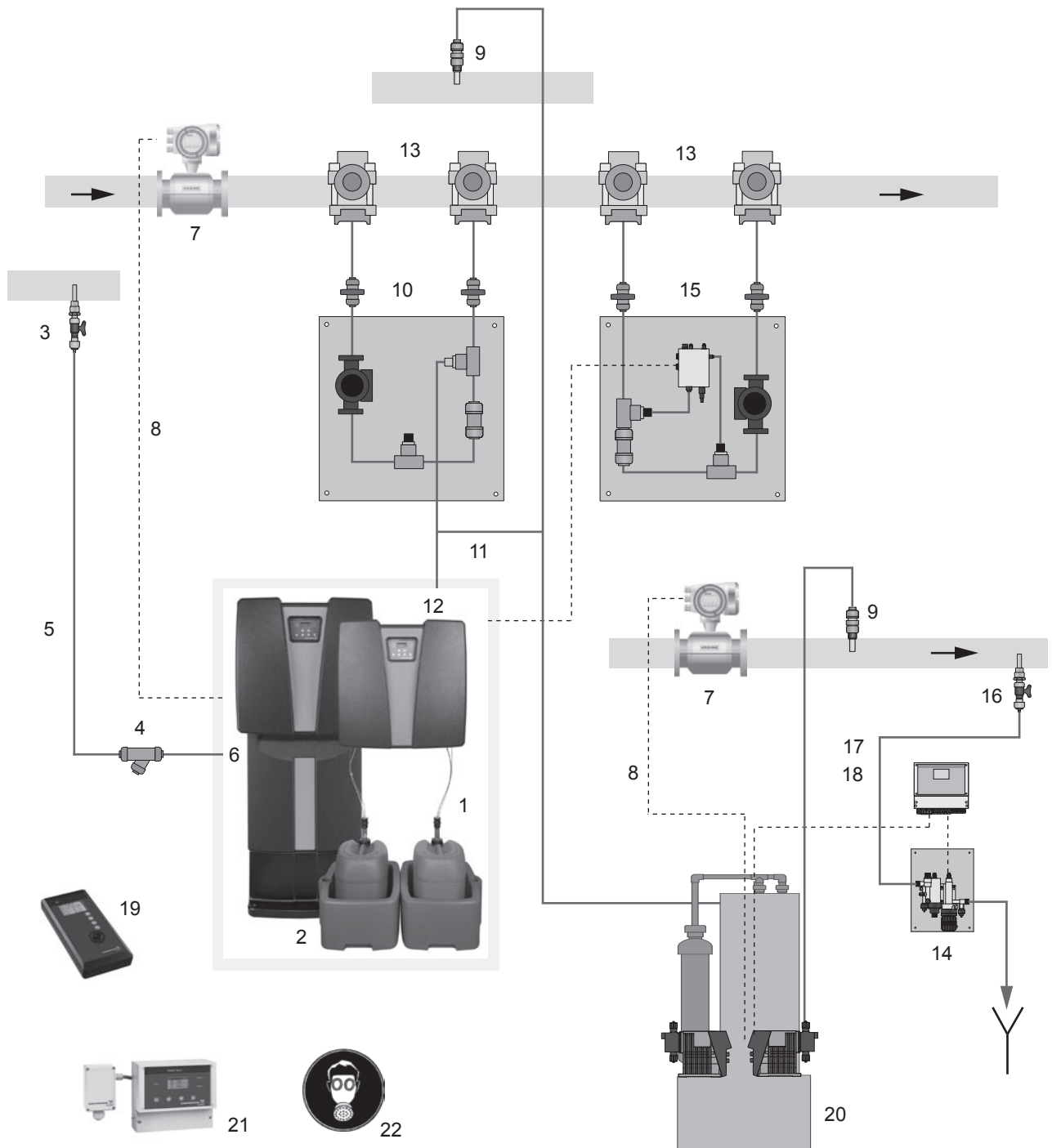
Oxiperm Pro OCD-162-30

Oxiperm Pro OCD-162-60



**Legend:**

- |   |                                   |   |                                   |
|---|-----------------------------------|---|-----------------------------------|
| 1 | Measuring and control unit        | 7 | Dosing pump for chlorine dioxide  |
| 2 | Reaction tank                     | 8 | Solenoid valve for dilution water |
| 3 | Reservoir tank                    | 9 | Suction set                       |
| 4 | Absorption filter                 |   |                                   |
| 5 | Dosing pump for sodium chlorite   |   |                                   |
| 6 | Dosing pump for hydrochloric acid |   |                                   |



## Checklist of installation components

Nr.	Component	Page
	<b>Basic unit</b>	
1	Oxiperm Pro chlorine dioxide generator	8-12
2	Collecting tray for chemical tank	13
	<b>Dilution water for Oxiperm Pro</b>	
3	Dilution water extraction device, connection 6/9 (comprised in the bypass module for cold water)	14
4	Dirt trap for dilution water, connection 6/9	14
5	PE hose 6/9 for dilution water connection	13
6	Dilution water connections for differring measurements	13
	<b>Flow measurement</b>	
7	Water meters / Flow meters	14-15
8	Connection cable for flow meter	14
	<b>Dosing of chlorine dioxide</b>	
9	Injection unit for the direct dosing of chlorine dioxide into the water pipe, hose connection PTFE 4/6 or 9/12	15
10	Bypass modules for pre-mixing with integrated injection unit for hot and cold water, connections DN 20	15
11	PTFE hose 4/6 or 9/12 for connecting the chlorine dioxide dosing pump with the injection unit	13
12	Connections for chlorine dioxide dosing pump with differring measurements	13
13	Tapping sleeves for the connection of extraction or adding points	17
	<b>Chlorine dioxide measurement</b>	
14	Measuring cells for cold water (connection 6/12) or hot water (connection 6/8) with free outlet	16
15	Measuring module for hot water measurement with measuring water recycling (connections DN 20)	15
16	Measuring water extraction device for cold water measurement (connection 6/12)	14
17	PVC hose 6/12 for measuring water extraction device of cold water	13
18	PE hose 6/8 for measuring water extraction device of hot water	13
19	Hand photometer with reagents for check measurement	16
20	External batch tanks for peak demand (50 litres, 100 litres)	17
	<b>Safety equipment</b>	
21	Gas warning unit for control of the air in a room	18
22	Personal protective equipment (gloves, apron, goggles), warning signs	18
	<b>Maintenance</b>	
	Maintenance kits for Oxiperm Pro	18

ClO <sub>2</sub> preparation capacity [g/h]	P <sub>max</sub> max. backpressure [bar]		Consumption of components at max. capacity [l/h]		dilution water [l/h]	Type of ClO <sub>2</sub> dosing pump	Weight [kg]	Voltage/frequency	Type	Order No.
	50 Hz	60 Hz	HCl	NaClO <sub>2</sub>						

Standard (with ClO<sub>2</sub> dosing pump) mechanical dosing pump DMI or digital dosing pump DDI with suction line for 30 litre tank

5	9	6	0.15	0.14	2.5	DMI	30	230/240V (50-60 Hz)	OCD-162-5-D/G	95702474 (162-005-10000)
5	9	6	0.15	0.14	2.5	DMI	30	110/120V (50-60 Hz)	OCD-162-5-D/H	95702475 (162-005-10001)
5	10	10	0.15	0.14	2.5	DDI	26	230/240V (50-60 Hz)	OCD-162-5-P/G	95707848 (162-005-10004)
5	10	10	0.15	0.14	2.5	DDI	26	110/120V (50-60 Hz)	OCD-162-5-P/H	95707849 (162-005-10005)
10	7	5	0.31	0.29	5	DMI	32	230/240V (50-60 Hz)	OCD-162-10-D/G	95702478 (162-010-10000)
10	7	5	0.31	0.29	5	DMI	32	110/120V (50-60 Hz)	OCD-162-10-D/H	95702479 (162-010-10001)
10	10	10	0.31	0.29	5	DDI	28	230/240V (50-60 Hz)	OCD-162-10-P/G	95707850 (162-010-10004)
10	10	10	0.31	0.29	5	DDI	28	110/120V (50-60 Hz)	OCD-162-10-P/H	95707851 (162-010-10005)

Standard (with ClO<sub>2</sub> dosing pump) mechanical dosing pump DMI or digital dosing pump DDI with suction line for 60 litre tank

30	10	10	0.88	0.87	14.8	DMX	70	230/240V (50-60 Hz)	OCD-162-30-D/G1	95718444 (162-030-10000)
30	10	10	0.88	0.87	14.8	DMX	70	110/120V (50-60 Hz)	OCD-162-30-D/H1	95718445 (162-030-10001)
30	10	10	0.88	0.87	14.8	DDI	69	230/240V (50-60 Hz)	OCD-162-30-P/G1	95718446 (162-030-10002)
30	10	10	0.88	0.87	14.8	DDI	69	110/120V (50-60 Hz)	OCD-162-30-P/H1	95718447 (162-030-10003)
60	10	10	1.71	1.63	32.5	DMX	85	230/240V (50-60 Hz)	OCD-162-60-D/G1	95718452 (162-060-10000)
60	10	10	1.71	1.63	32.5	DMX	85	110/120V (50-60 Hz)	OCD-162-60-D/H1	95718453 (162-060-10001)
60	10	10	1.71	1.63	32.5	DDI	84	230/240V (50-60 Hz)	OCD-162-60-P/G1	95718454 (162-060-10002)
60	10	10	1.71	1.63	32.5	DDI	84	110/120V (50-60 Hz)	OCD-162-60-P/H1	95718455 (162-060-10003)

Standard (with ClO<sub>2</sub> dosing pump) mechanical dosing pump DMI or digital dosing pump DDI with suction line for 200 / 1000 litre tank

30	10	10	0.88	0.87	14.8	DMX	70	230/240V (50-60 Hz)	OCD-162-30-D/G2	95718448 (162-030-10004)
30	10	10	0.88	0.87	14.8	DMX	70	110/120V (50-60 Hz)	OCD-162-30-D/H2	95718449 (162-030-10005)
30	10	10	0.88	0.87	14.8	DDI	69	230/240V (50-60 Hz)	OCD-162-30-P/G2	95718450 (162-030-10006)
30	10	10	0.88	0.87	14.8	DDI	69	110/120V (50-60 Hz)	OCD-162-30-P/H2	95718451 (162-030-10007)
60	10	10	1.71	1.63	32.5	DMX	85	230/240V (50-60 Hz)	OCD-162-60-D/G2	95718456 (162-060-10004)
60	10	10	1.71	1.63	32.5	DMX	85	110/120V (50-60 Hz)	OCD-162-60-D/H2	95718457 (162-060-10005)
60	10	10	1.71	1.63	32.5	DDI	84	230/240V (50-60 Hz)	OCD-162-60-P/G2	95718458 (162-060-10006)
60	10	10	1.71	1.63	32.5	DDI	84	110/120V (50-60 Hz)	OCD-162-60-P/H2	95718459 (162-060-10007)

**Note:** For systems in combination with an external batch tank it is recommended to use a mechanical dosing pump. Digital dosing pumps are designed for direct dosing.



ClO <sub>2</sub> preparation capacity [g/h]	P <sub>max</sub> max. backpressure [bar]		Consumption of components at max. capacity [l/h]			Type of ClO <sub>2</sub> dosing pump	Weight [kg]	Voltage/frequency	Type	Order No.
	50 Hz	60 Hz	HCl	NaClO <sub>2</sub>	dilution water [l/h]					

without ClO<sub>2</sub> dosing pump \*)

5	**)	**)	0.15	0.14	2.5	without	26 - 30	230/240V (50-60 Hz)	OCD-162-5-N/G	95702476 (162-005-10002)
5	**)	**)	0.15	0.14	2.5	without	26 - 30	110/120V (50-60 Hz)	OCD-162-5-N/H	95702477 (162-005-10003)
10	**)	**)	0.31	0.29	5	without	28 - 32	230/240V (50-60 Hz)	OCD-162-10-N/G	95702480 (162-010-10002)
10	**)	**)	0.31	0.29	5	without	28 - 32	110/120V (50-60 Hz)	OCD-162-10-N/H	95702481 (162-010-10003)

\*) **Note:** Without integrated dosing pump for chlorine dioxide, in case an external dosing pump will be connected. A standard delivery comprises 5 m of PTFE hose 4/6 and hose connections for product storage tanks. The multi-function valve is not contained in a standard delivery.

\*\*\*) The backpressure depends on the dosing pump.

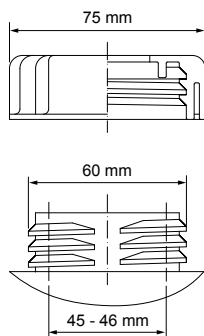
## Type key OCD Oxiperm Pro

Example: Type key OCD-162-30-D/G1

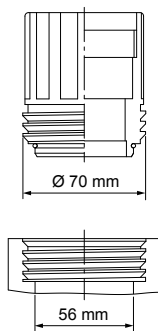
<b>Example:</b>	OCD-162	-30	-D	/G	1
<b>Type range</b>					
<b>Max. capacity</b>					
5	5 g/h				
10	10 g/h				
30	30 g/h				
60	60 g/h				
<b>Operation mode</b>					
D	integrated mechanical dosing pump DMI or DMX				
P	integrated digital dosing pump DDI *)				
N	without integrated dosing pump				
<b>Supply voltage</b>					
G	230-240V / 50-60 Hz				
H	110-120V / 50-60 Hz				
<b>Suction line</b>					
	for 30 litre chemical tank				
1	for 60 litre chemical tank				
2	for 200 litre / 1000 litre chemical tank				

\*) **Note:** It is recommended to use a digital dosing pump for direct dosing of the product solution.

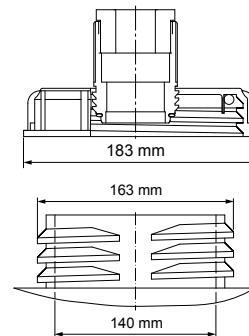
### Suction line tank screwing



30-60-litre tank

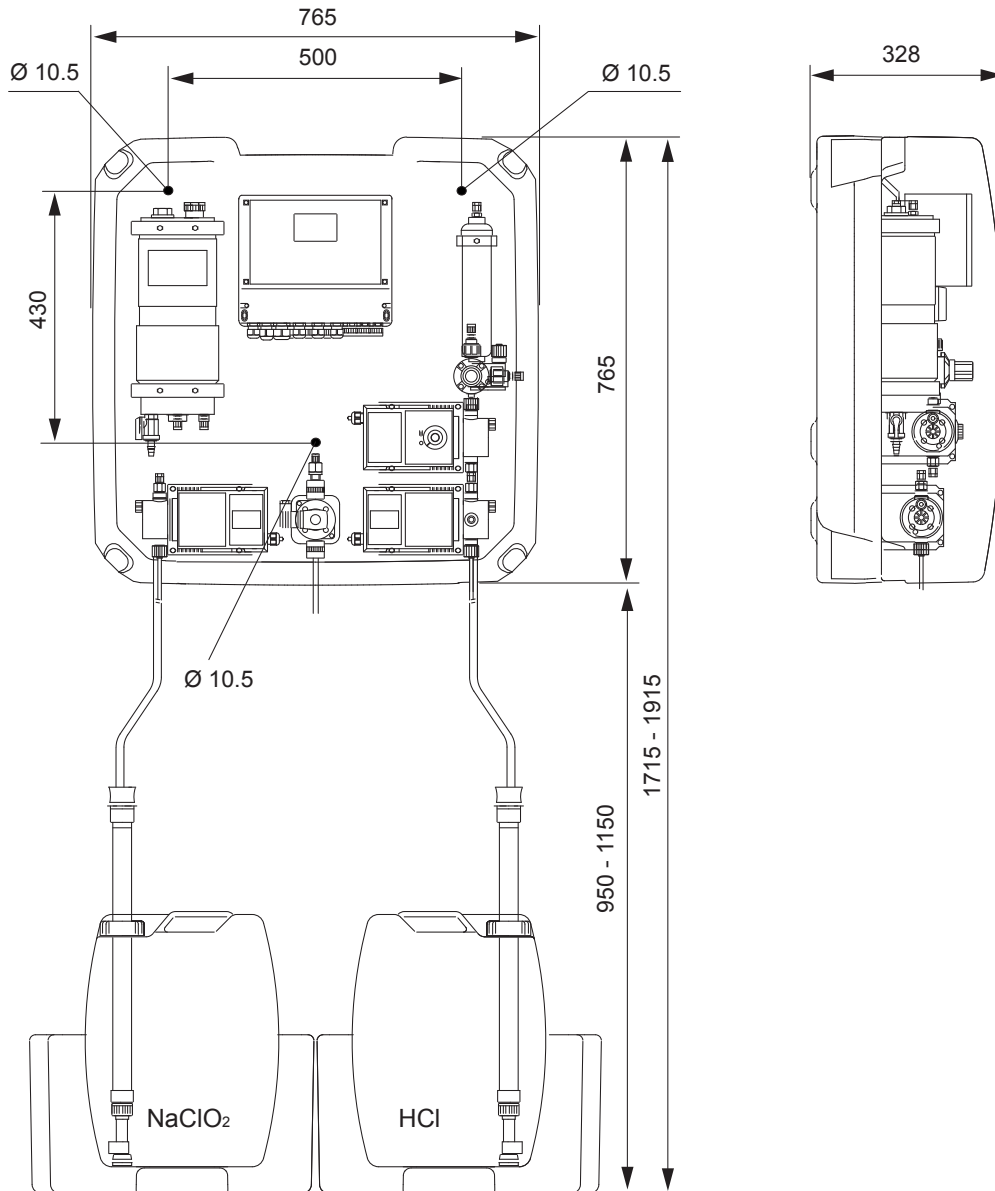


200-litre tank



600-800-1000-litre tank

## Dimensions Oxiperm Pro OCD-162-5 /-10



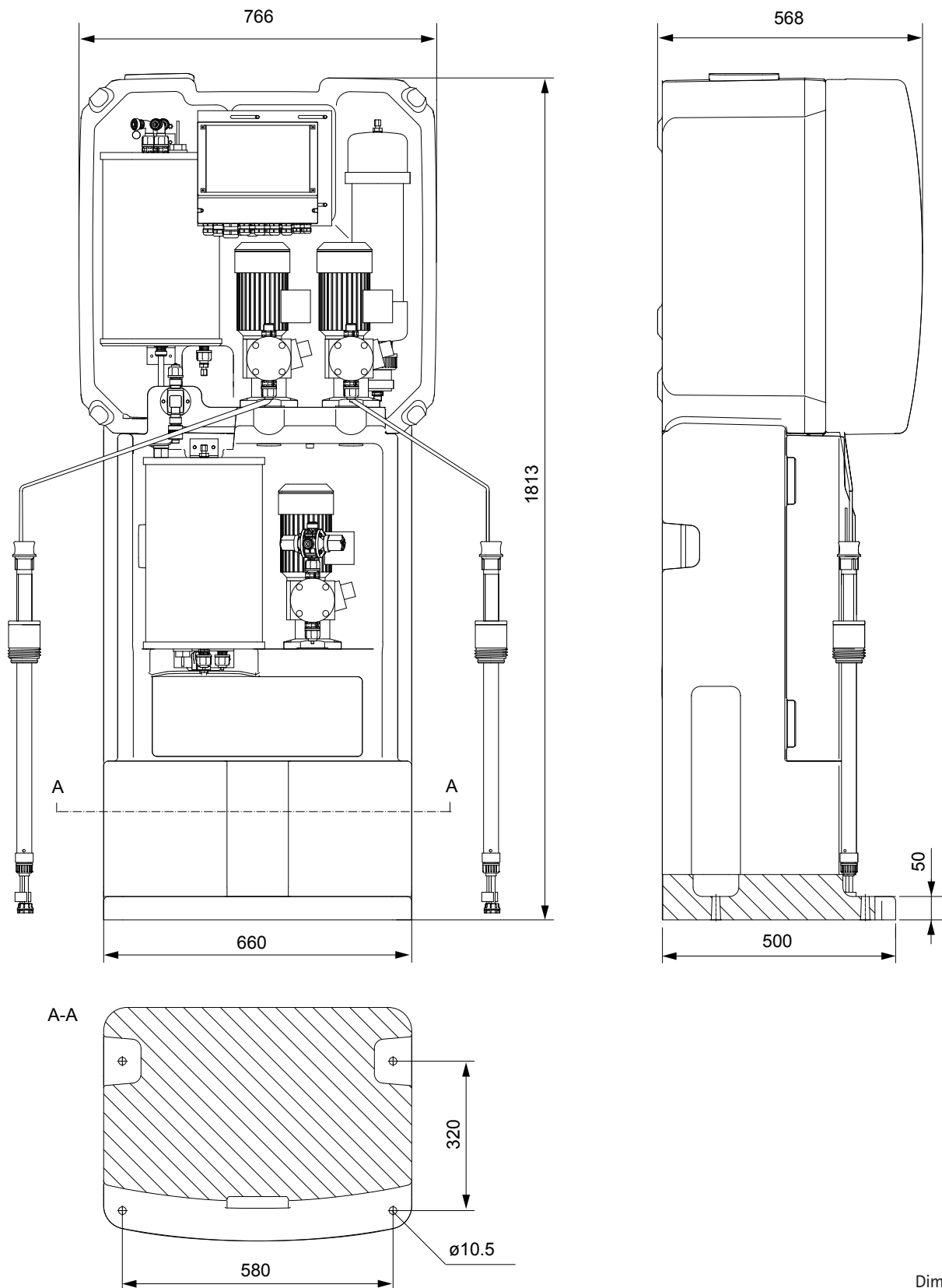
Dimensions in mm

## Conditions for installation

- No outdoor installation, installation site must be protected against sun and frost, and well-ventilated
- Protection against unauthorized access
- The system has to be wall-mounted vertically, the component tanks have to be situated below the system
- Temperature of dilution water 10 - 30 °C
- Water connection 3 - 6 bars, floor-drain and appropriate mains supply must be provided.

**Note:** In case of quantity fluctuations in the main water flow, the use of a bypass mixing module (see Accessories) or the version with digital dosing pump is recommended, in order to optimise the blending and to minimise the risk of corrosion.

## Dimensions Oxiperm Pro OCD-162-60



Dimensions in mm

## Technical data

<b>Adjustment of the preparation capacity</b>	manual by menu-controlled operator prompting, automatic by input signal																
<b>Protection level</b>	IP 65 electronics, dosing pumps, solenoid valve																
<b>Required concentration of chemicals</b>	<ul style="list-style-type: none"> <li>HCl (according to EN 939) 9 percent by weight</li> <li>NaClO<sub>2</sub> (according to EN 938) 7.5 percent by weight</li> </ul>																
<b>Admissible temperature</b>	<ul style="list-style-type: none"> <li>admissible ambient temperature 5 to 35 °C</li> <li>admissible operation water temperature 10 to 30 °C</li> <li>admissible chemicals temperature 10 to 35 °C</li> </ul>																
<b>Admissible operation water pressure</b>	3 to 6 bars																
<b>Admissible relative air humidity</b>	max. 80 %, not condensing																
<b>Total volume of reaction tank and reservoir tank</b>	<table border="0"> <tr> <td>reaction tank</td> <td></td> <td>reservoir tank (up to max. level alarm)</td> </tr> <tr> <td>OCD-162-5</td> <td>1.00 litres</td> <td>OCD-162-5 1.00 litres</td> </tr> <tr> <td>OCD-162-10</td> <td>1.80 litres</td> <td>OCD-162-10 1.80 litres</td> </tr> <tr> <td>OCD-162-30</td> <td>6.10 litres</td> <td>OCD-162-30 7.00 litres</td> </tr> <tr> <td>OCD-162-60</td> <td>13.40 litres</td> <td>OCD-162-60 13.90 litres</td> </tr> </table>	reaction tank		reservoir tank (up to max. level alarm)	OCD-162-5	1.00 litres	OCD-162-5 1.00 litres	OCD-162-10	1.80 litres	OCD-162-10 1.80 litres	OCD-162-30	6.10 litres	OCD-162-30 7.00 litres	OCD-162-60	13.40 litres	OCD-162-60 13.90 litres	
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OCD-162-30	6.10 litres	OCD-162-30 7.00 litres															
OCD-162-60	13.40 litres	OCD-162-60 13.90 litres															
<b>Filling volume of reaction tank and reservoir tank</b>	<table border="0"> <tr> <td>reaction tank</td> <td></td> <td>reservoir tank</td> </tr> <tr> <td>OCD-162-5</td> <td>0.87 litres</td> <td>OCD-162-5 0.87 litres</td> </tr> <tr> <td>OCD-162-10</td> <td>1.67 litres</td> <td>OCD-162-10 1.67 litres</td> </tr> <tr> <td>OCD-162-30</td> <td>5.52 litres</td> <td>OCD-162-30 6.50 litres</td> </tr> <tr> <td>OCD-162-60</td> <td>11.96 litres</td> <td>OCD-162-60 13.00 litres</td> </tr> </table>	reaction tank		reservoir tank	OCD-162-5	0.87 litres	OCD-162-5 0.87 litres	OCD-162-10	1.67 litres	OCD-162-10 1.67 litres	OCD-162-30	5.52 litres	OCD-162-30 6.50 litres	OCD-162-60	11.96 litres	OCD-162-60 13.00 litres	
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OCD-162-30	5.52 litres	OCD-162-30 6.50 litres															
OCD-162-60	11.96 litres	OCD-162-60 13.00 litres															
<b>Concentration of chlorine dioxide solution</b>	ca. 2 g/l (2000 ppm)																
<b>Safety equipment</b>	monitoring of the capacity via level measurement																
<b>Material</b>	<table border="0"> <tr> <td>system rack</td> <td>PP</td> </tr> <tr> <td>fastening sleeves</td> <td>stainless steel</td> </tr> <tr> <td>solenoid valve</td> <td>PVC</td> </tr> <tr> <td>reaction / reservoir tank</td> <td>PVC</td> </tr> <tr> <td>internal hoses</td> <td>PTFE</td> </tr> <tr> <td>gaskets</td> <td>FPM</td> </tr> </table>	system rack	PP	fastening sleeves	stainless steel	solenoid valve	PVC	reaction / reservoir tank	PVC	internal hoses	PTFE	gaskets	FPM				
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gaskets	FPM																
<b>Full text menu control for</b>	<ul style="list-style-type: none"> <li>commissioning</li> <li>entering operating parameters</li> </ul>	<ul style="list-style-type: none"> <li>rinsing the system</li> <li>maintenance</li> </ul>															
<b>Connections</b>	<table border="0"> <tr> <td>dosing line ClO<sub>2</sub></td> <td>230 V</td> <td>hose 4/6 (162-5, -10), 9/12 (162-30, -60)</td> </tr> <tr> <td></td> <td>115 V</td> <td>hose 1/8" x 1/4" (162-5, -10), 1/4" x 3/8" (162-30, -60)</td> </tr> <tr> <td>dilution water</td> <td>230 V</td> <td>hose 6/9 or 6/12 or PVC pipe DN 8</td> </tr> <tr> <td></td> <td>115 V</td> <td>hose 1/4" x 3/8"</td> </tr> </table>	dosing line ClO <sub>2</sub>	230 V	hose 4/6 (162-5, -10), 9/12 (162-30, -60)		115 V	hose 1/8" x 1/4" (162-5, -10), 1/4" x 3/8" (162-30, -60)	dilution water	230 V	hose 6/9 or 6/12 or PVC pipe DN 8		115 V	hose 1/4" x 3/8"				
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## Electrical and electronic data

<b>Mains connection</b>	110/120 V / 50-60 Hz or 230/240 V / 50-60 Hz
<b>Power consumption</b>	OCD-162-5 und -10: ca. 50 VA; OCD-162-30: ca. 180 VA; OCD-162-60: ca. 320 VA
<b>Analog inputs</b>	<ul style="list-style-type: none"> <li>input 0(4) - 20 mA (water meter)</li> <li>measuring cell (ClO<sub>2</sub>, pH or Redox, temperature) (option)</li> </ul>
<b>Digital inputs</b>	<ul style="list-style-type: none"> <li>contact water meter (min. 3 pulses/min., max. 50 pulses/sec.)</li> <li>remote On/Off</li> <li>fault gas warning unit</li> </ul>
<b>Analog outputs</b>	<ul style="list-style-type: none"> <li>output 0(4) - 20 mA (pump regulation)</li> <li>measured value ClO<sub>2</sub> 0(4) - 20 mA</li> </ul>
<b>Potential-free outputs</b>	<ul style="list-style-type: none"> <li>alarm relay, 250 V/ 6 A, max. 550 VA (chemicals empty signal, dosing time monitoring, preparation process time monitoring, wire break current output)</li> <li>warning relay, 250 V/ 6 A, max. 550 VA (chemicals empty pre-alert, maintenance)</li> <li>ClO<sub>2</sub> dosing pump</li> </ul>

## Collecting trays

- for chemical storage tanks

Description	Order No.
Collecting tray, blue, for NaClO <sub>2</sub> tanks of max. 33 litres, with suction line support	95702450 (503-0035.1)
Collecting tray, red, for HCl tanks of max. 33 litres, with suction line support	95702451 (503-0035.2)
Collecting tray, for NaClO <sub>2</sub> or HCl tanks of max. 60 litres	95717348 (503-060)



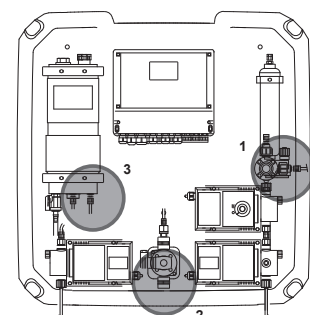
Collecting tray for tanks of max. 33 litres

## Hoses

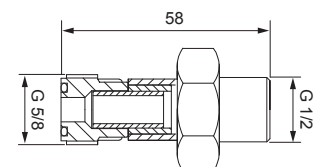
Description	Order No.
Hose PTFE 4/6 ecru, 5 metres (ClO <sub>2</sub> solution: multifunction valve dosing point)	96697911 (526-154/05)
Hose PTFE 4/6 ecru, 10 metres (ClO <sub>2</sub> solution: multifunction valve dosing point)	96692437 (526-154/10)
Hose PTFE 4/6 ecru, 25 metres (ClO <sub>2</sub> solution: multifunction valve dosing point)	96727484 (526-154/25)
Hose PTFE 9/12 ecru, 10 metres (ClO <sub>2</sub> solution: multifunction valve dosing point)	96727490 (526-155/10)
Hose PTFE 9/12 ecru, 25 metres (ClO <sub>2</sub> solution: multifunction valve dosing point)	96727492 (526-155/25)
Hose PE 6/9 transparent, 10 metres (dilution water inlet solenoid valve)	96727412 (526-017/10)
Hose PVC 6/12, with reinforcement, 10 metres (measuring water connection for measuring cell AQC-D1)	96653571 (526-022/10)
Hose PE 6/8, ecru, 10 metres (measuring water connection for measuring cell AQC-D6)	95709108 (526-011/10)

## Connections

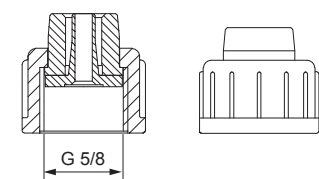
for	Description	Order No.
PTFE hose 4/6 to dosing pump (1)	Connection to multifunction valve DN 8, G 5/8	96727601 (529-442)
PE/PVC hose 6/12 to dosing pump (1)	Connection to multifunction valve DN 8, G 5/8	91835701 (529-039)
PE/PVC hose 6/9 to dosing pump (1)	Connection to multifunction valve DN 8, G 5/8	96692235 (529-128)
PTFE hose 4/6 from batch tank to external dosing pump	Connection to suction side G 3/8	91835694 (529-013)
PVC hose connection 6/9 or 6/12 with G 5/8 male thread	G 1/2 male thread for direct screwing into water supply line and G 5/8 male thread for hose connection	95702448 (529-481)
PVC hose connection 6/9 or 6/12 with G 5/8 male thread	G 3/4 male thread for direct screwing into water supply line and G 5/8 male thread for hose connection	95702449 (529-482)
PE hose 6/9 for dilution water (2)	Hose connection 6/9, with G 5/8 female thread	9662235 (529-128)
PE hose 6/12 for dilution water (2)	Hose connection 6/12, with G 5/8 female thread	91835701 (529-039)
PE/PVC hose 4/6 for 2 dosing pumps (3)	T-piece (3 x 4/6), PVC	96727510 (526-204)
PTFE hose 4/6 for 2 dosing pumps (3)	T-piece (3 x 4/6), PVDF	95714891 (526-174)



Connections



Adapter G 1/2, G 5/8 male thread

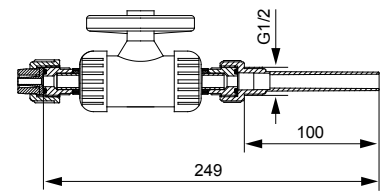


Hose connections, G 5/8 female thread

## Dilution / measuring water extraction device

- Connection for the extraction of dilution or measuring water

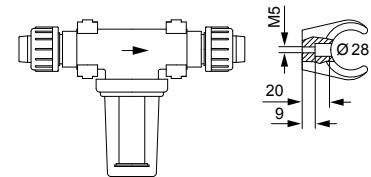
Description	Connection	Order No.
PVC, max. 10 bar, with ball valve, gasket FKM, connection for 6/9, 6/12 hoses and DN 10 PVC pipe	G 1/2 male thread	95707159 (521-162.1)



Dilution water extraction device

## Dirt trap

Description	Order No.
External dirt trap for dilution water connection, connection for 6/9, 6/12 hoses and DN 10 PVC pipe	95709473 314-165



Dirt trap

## Flowmeters

- 100-230 V AC, 50/60 Hz
- analog 4-20 mA output and pulse output

Description	Flange	Order No.
-------------	--------	-----------

### Inductive flowmeter

with annexed flow transformer, PP lining

Inductive flowmeter G 1/2"	DN 15	95702399 (530-4000-15)
Inductive flowmeter G 3/4"	DN 20	95702400 (530-4000-20)
Inductive flowmeter G 1"	DN 25	95702401 (530-2000-25)
Inductive flowmeter G 1 1/4"	DN 32	95702402 (530-2000-32)
Inductive flowmeter G 1 1/2"	DN 40	95702403 (530-2000-40)
Inductive flowmeter G 2"	DN 50	95702288 (530-2000-50)
Inductive flowmeter G 2 1/2"	DN 65	95702404 (530-2000-65)
Inductive flowmeter G 3"	DN 80	95702405 (530-2000-80)
Inductive flowmeter G 4"	DN 100	95702406 (530-2000-100)
Inductive flowmeter G 5"	DN 125	95702407 (530-2000-125)
Inductive flowmeter G 6"	DN 150	95702350 (530-2000-150)



Inductive flowmeter

### Ultrasonic flowmeter

with separate flow transformer

Ultrasonic flowmeter DN 15 - DN 100	95701808 (530-6000-15/100)
Ultrasonic flowmeter DN 50 - DN 400	95702408 (530-6000-50/400)



Ultrasonic flowmeter

**Important: flowmeter has to be dimensioned in a way, that > 3 pulses/min. are emitted!**

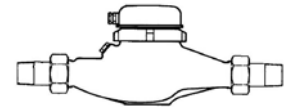
## Flowmeter cable

Description	Order No.
Flowmeter cable, 2-wire, with screening, for all models (per meter)	96687719 (321-130)

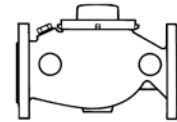
## Contact water meter

- Multiple-jet impeller water meter with contactor

Description	Connection	Order No.
Water meter DN 20, min. 180 l/h, max. 5 m <sup>3</sup> /h, 1 pulse/1 litre	R 3/4" external thread	96693258 (530-005)
Water meter DN 25, min. 180 l/h, max. 10 m <sup>3</sup> /h, 1 pulse/1 litre	R 1" external thread	96691880 (530-010)
Water meter DN 40, min. 360 l/h, max. 20 m <sup>3</sup> /h, 1 pulse/2 litres	R 1 1/2" external thread	96728112 (530-020)
Water meter DN 50, min. 1800 l/h, max. 30 m <sup>3</sup> /h, 1 pulse/10 litres	165 mm flange	96728115 (530-50)



Contact watermeter with thread

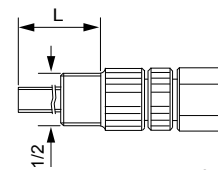


Contact watermeter with flange

**Important: water meter has to be dimensioned in a way, that > 3 pulses/min. are emitted!**

## Injection unit

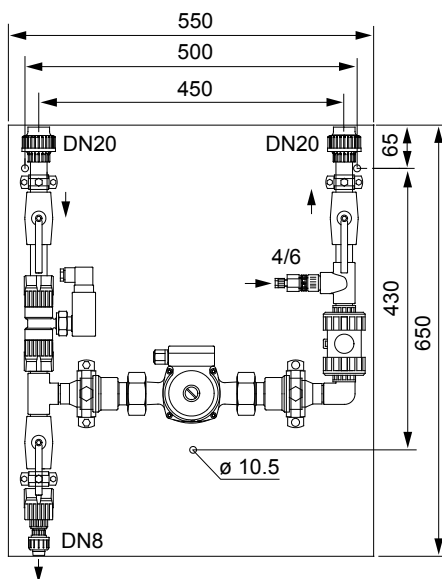
Description	Bestell-Nr.
Injection unit DN 4, PVDF, 10 bar, G 1/2", L = 100 mm, max. 70 °C at 8 bar, hose connection PTFE 4/6	96688280 (522-0100-10000)
Injection unit DN 8, PVDF, 10 bar, G 1/2", L = 100 mm, max. 60 °C at 8 bar, hose connection PTFE 9/12	95702763 (522-0200-10021)



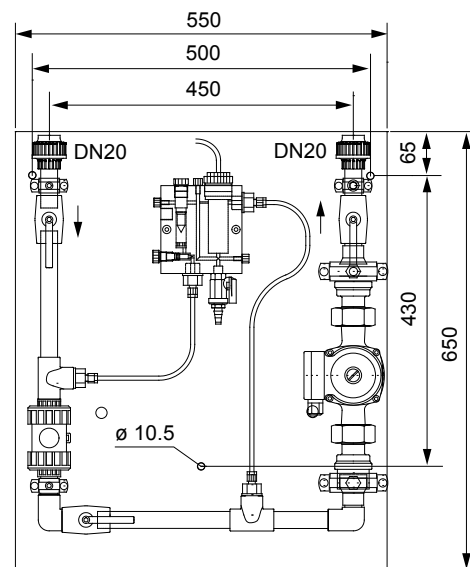
Injection unit

## Modules

Bypass mixing module for mixing before the main pipe	Order No.
<ul style="list-style-type: none"> <li>• for cold water: Material PP-R, up to max. 30°C (max. operating water pressure 9 bar), dilution water connection DN 8, connections inlet and outlet bypass water DN 20, PP-R, operating voltage 230 V, 50 Hz</li> </ul>	95703178 (550-1000-1)
<ul style="list-style-type: none"> <li>• for hot water: Material PP-R, up to max. 80°C (operating water pressure 6 bar), max. operating water pressure 9 bar (at 70°C), connections inlet and outlet bypass water DN 20, PP-R, operating voltage 230 V, 50 Hz</li> </ul>	95703179 (550-1000-2)
Measuring module	Order No.
<ul style="list-style-type: none"> <li>• for ClO<sub>2</sub> measurement in cold and hot water, up to max. 8 bar, max. 70 °C, with measuring water recirculation, pipes PP-R, connections inlet and outlet measuring water DN 20, PP-R, incl. 2 m of connection cable for the measuring cell, operating voltage 230 V, 50 Hz</li> </ul>	95708029 (550-2000-1)



Bypass mixing module

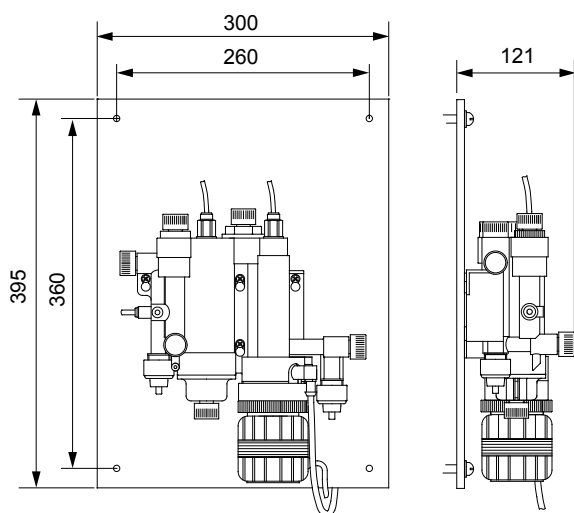


Measuring module

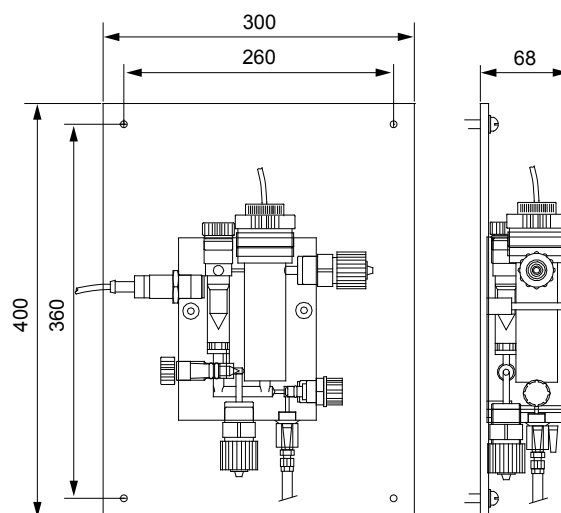
## Measuring cells

- for ClO<sub>2</sub> measurement with free measuring water outlet

Description	Order No.
<b>AQC-D1.AU-X-X.QS-T.G :</b> <ul style="list-style-type: none"> <li>• ClO<sub>2</sub> measurement in cold water (up to 40° C), connection measuring water inflow 6/12, incl. 3 m connection cable, integrated temperature compensation, cleaning motor, 230 V, 50/60 Hz</li> </ul>	96622832 (314-330-10019)
<b>AQC-D1.AU-PC-X.QS-T.G :</b> <ul style="list-style-type: none"> <li>• ClO<sub>2</sub> measurement in cold water (up to 40° C), connection measuring water inflow 6/12, incl. 3 m connection cable, integrated temperature compensation, single-rod pH measuring chain, cleaning motor, pH calibrating solution, 230 V, 50/60 Hz</li> </ul>	96622838 (314-330-10021)
<b>AQC-D1.AU-X-RCB.QS-T.G :</b> <ul style="list-style-type: none"> <li>• ClO<sub>2</sub> measurement in cold water (up to 40° C), connection measuring water inflow 6/12, incl. 3 m connection cable, integrated temperature compensation, Redox, cleaning motor, 230 V, 50/60 Hz</li> </ul>	96622851 (314-330-10082)
<b>AQC-D6 :</b> <ul style="list-style-type: none"> <li>• ClO<sub>2</sub> measurement in cold and hot water, up to max. 8 bar, 70°C, connection measuring water inflow 6/8, incl. 2 m connection cable, integrated temperature compensation</li> </ul>	95708118 (314-181)



Measuring cell AQC-D1



Measuring cell AQC-D6

## Hand photometer

- Mobile photometer for measuring the ClO<sub>2</sub> concentration at the extraction point

Description	Order No.
<b>DIT-B.C.GEF.I</b> <ul style="list-style-type: none"> <li>• Measuring range ClO<sub>2</sub> 0.05 - 10.0 mg/l (ppm), delivered in a case without testing reagents, operating voltage 9 V battery operation, display languages: German, English, French</li> </ul>	96609108 (310-055-10000)
<b>Reagent for ClO<sub>2</sub> measurement</b> <ul style="list-style-type: none"> <li>• testing reagent for the determination of ClO<sub>2</sub> with the DIT hand photometer, sufficient for 350 measurements</li> </ul>	91835797 (549-201F)



Hand photometer DIT with reagents

**Note:** For more detailed information on AQC and DIT, please see the Data Booklet Measurement & Control



## Tapping sleeves

- for retrofitting injection units etc. in pipework

for	Connection	Order No.
Steel pipe G 1/2"	G 1/2"	95702386 (515-663-1/2)
Steel pipe G 3/4"	G 1/2"	95702387 (515-663-3/4)
Steel pipe G 1"	G 3/4"	95702388 (515-663-1)
Steel pipe G 1 1/4"	G 1"	95702390 (515-663-11/4)
Steel pipe G 1 1/2"	G 1 1/4"	95702389 (515-663-11/2)
Steel pipe G 2"	G 1 1/4"	95702391 (515-663-2)
Steel pipe G 2 1/2"	G 1 1/4"	95702392 (515-663-21/2)
Steel pipe G 3"	G 1 1/4"	95702393 (515-663-3)
Stainless steel pipe 16 mm	G 1/2" male	95702394 (515-664-16)
Stainless steel pipe 18 mm	G 1/2" male	95702395 (515-664-18)
Stainless steel pipe 28 mm	G 3/4" female	95702396 (515-664-28)
Stainless steel pipe 35 mm	G 3/4" female	95702397 (515-664-35)
Stainless steel pipe 42 mm	G 3/4" female	95702398 (515-664-42)

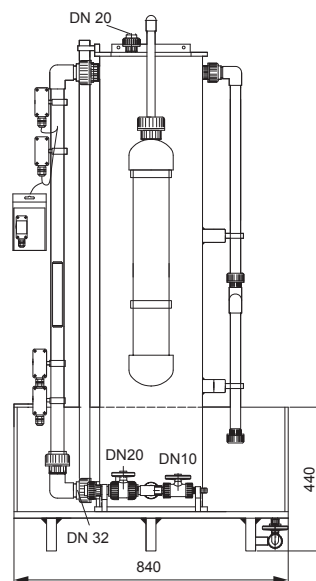


Tapping sleeve

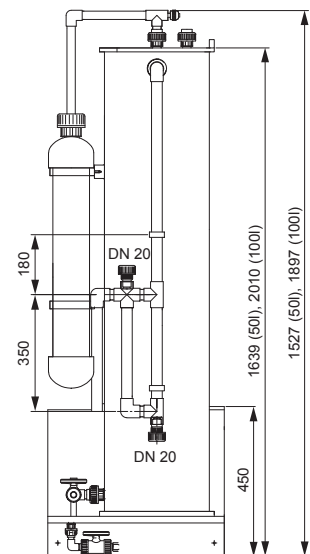
## External batch tank

- PVC, for ClO<sub>2</sub> product solution
- with absorption filter, catchment tray, level switch

Volume [l]	Ø [mm]	Order No.
50	315	96688079 (502-0002)
100	315	96726825 (502-0003)



Batch tank front view



Batch tank lateral view

## Gas warning unit

Description	Order No.
<b>Gas warning unit Conex DIA-G</b> with potentiostatic ClO <sub>2</sub> sensor, measuring range 0.00 to 1.00 ppm, 110/240 V, 50-60 Hz, (DIA-G-P, CDP-B, W-J)	95700854 (308-2000-10016)

**Note:** For more detailed information on Conex DIA-G, please see Data Booklet Measurement & Control



Gas warning unit Conex DIA-G

## Protective equipment

Description	Order No.
Protective gloves	96727012 (515-410)
Protective apron	96727013 (515-420)
Protective goggles	96727014 (515-430)
Set of warning signs	95701992 (515-665)

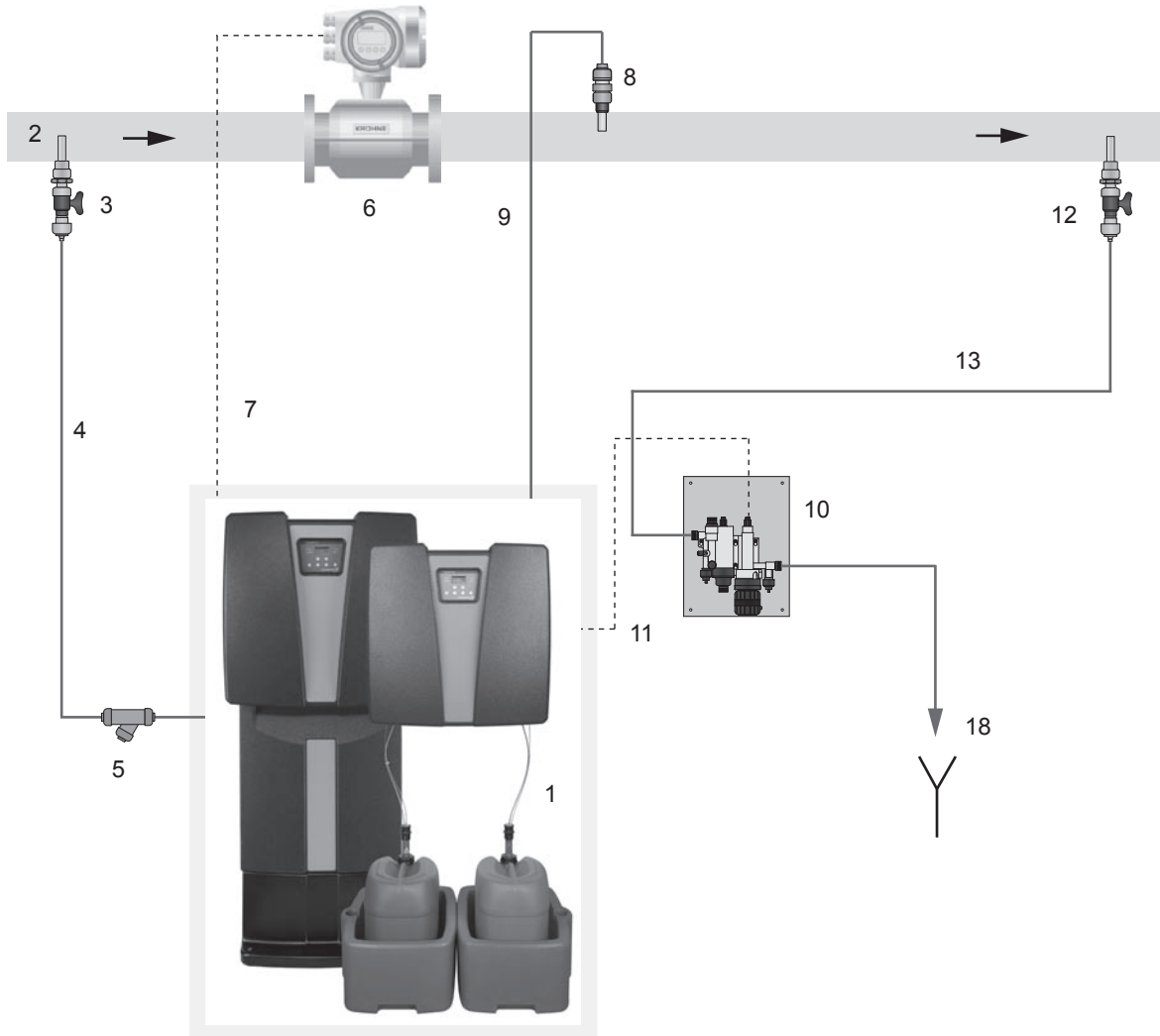
## Maintenance kits

- for annual maintenance to DIN 1988, section 8

Maintenance kit for	Description	Order No.
Oxiperm Pro 5 g/h	with mechanical and digital dosing pump for ClO <sub>2</sub>	95702445 (553-1742)
Oxiperm Pro 5 g/h	without dosing pump for ClO <sub>2</sub>	95702446 (553-1743)
Oxiperm Pro 10 g/h	with mechanical dosing pump DMI for ClO <sub>2</sub>	95702500 (553-1752)
Oxiperm Pro 10 g/h	with digital dosing pump DDI for ClO <sub>2</sub>	95707853 (553-1767)
Oxiperm Pro 10 g/h	without dosing pump for ClO <sub>2</sub>	95702499 (553-1753)
Oxiperm Pro 30 g/h	with mechanical dosing pump DMX for ClO <sub>2</sub>	95717915 (553-1820)
Oxiperm Pro 30 g/h	with digital dosing pump DDI for ClO <sub>2</sub>	95717916 (553-1821)
Oxiperm Pro 30 g/h	without dosing pump for ClO <sub>2</sub>	95717917 (553-1822)
Oxiperm Pro 60 g/h	with mechanical dosing pump DMX for ClO <sub>2</sub>	95717919 (553-1842)
Oxiperm Pro 60 g/h	with digital dosing pump DDI for ClO <sub>2</sub>	95717920 (553-1843)
Oxiperm Pro 60 g/h	without dosing pump for ClO <sub>2</sub>	95717921 (553-1844)

## Preparation and one dosing point

Oxiperm® Pro basic module with optional measuring cell for chlorine dioxide in cold water

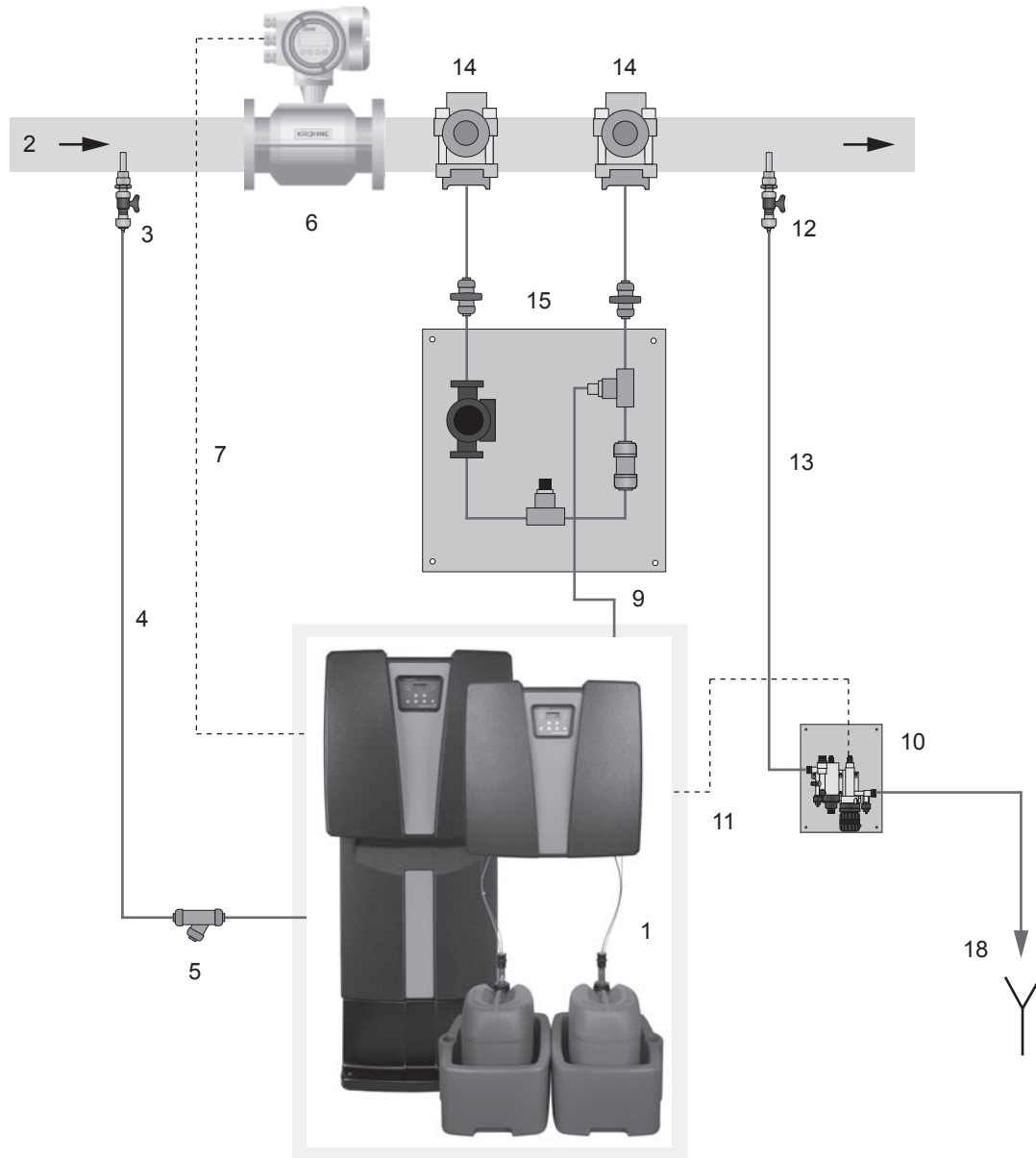


### Legend:

- |  |  |
|--|--|
| 1 Oxiperm Pro OCD-162-5, -10, -30 or -60 | 10 Chlorine dioxide measuring cell   |
| 2 Main water pipe                        | 11 Signal line chlorine dioxide measurement                                  |
| 3 Dilution water extraction point        | 12 Measuring water extraction point<br>(min. distance to injection unit 5 m) |
| 4 Dilution water pipe                    | 13 Measuring water pipe  |
| 5 Dirt trap                              | 18 Drain   |
| 6 Flow measurement                       |  |
| 7 Signal line flow measurement           |  |
| 8 Injection unit                         |  |
| 9 Dosing line                            |  |

## Preparation and one dosing point

Oxiperm® Pro basic module with optional measuring cell for chlorine dioxide with bypass (cold water)

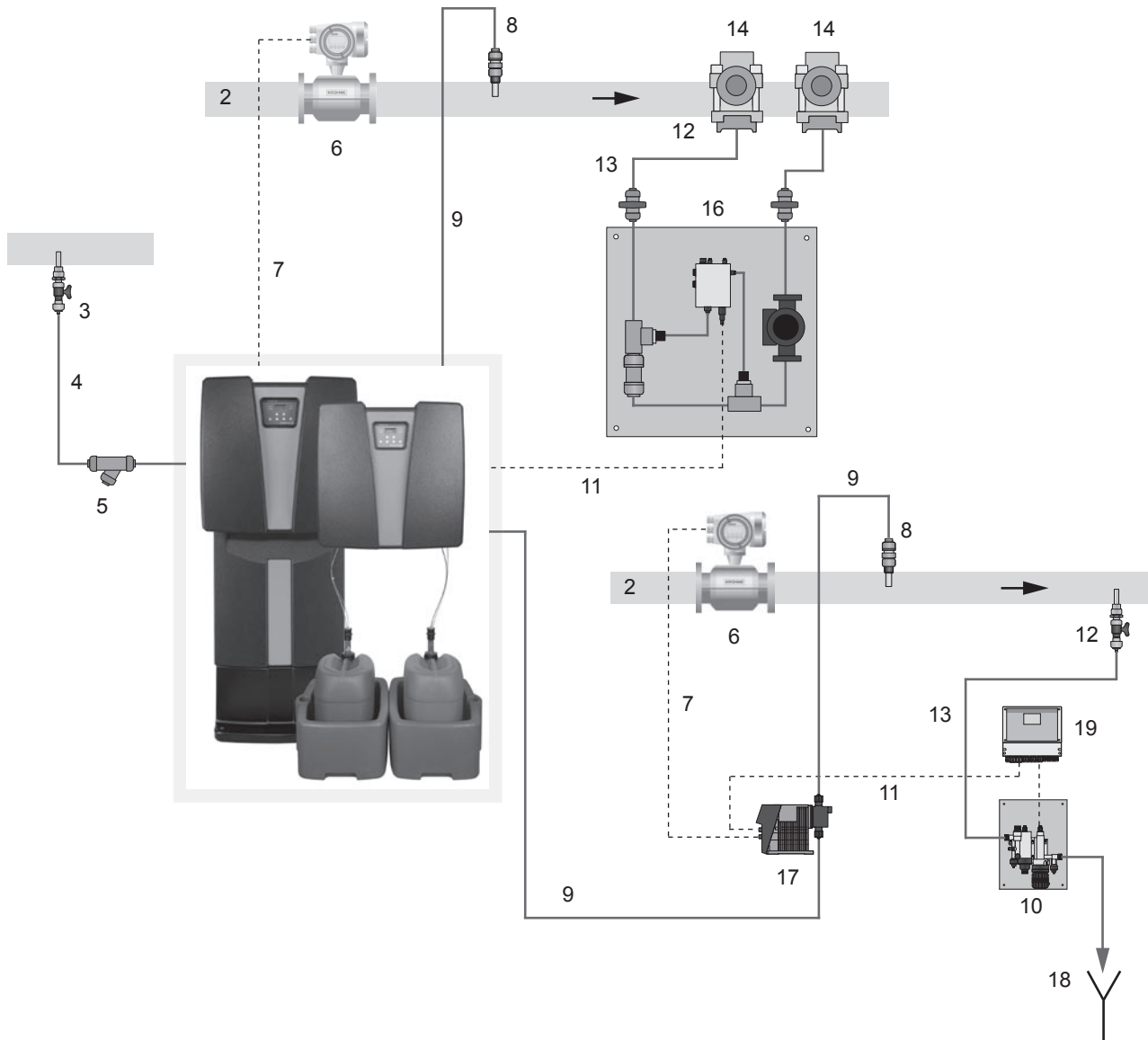


### Legend:

- |  |   |
|--|---|
| 1 Oxiperm Pro OCD-162-5, -10, -30 or -60 | 10 Chlorine dioxide measuring cell  |
| 2 Main water pipe                        | 11 Signal line chlorine dioxide measurement                               |
| 3 Dilution water extraction point        | 12 Measuring water extraction point (min. distance to injection unit 5 m) |
| 4 Dilution water pipe                    | 13 Measuring water pipe   |
| 5 Dirt trap                              | 14 Tapping sleeve   |
| 6 Flow measurement                       | 15 Mixing module  |
| 7 Signal line flow measurement           | 18 Drain  |
| 9 Dosing line                            |   |

## Preparation and two dosing points

Oxiperm® Pro basic module with second dosing pump and optional chlorine dioxide measurement

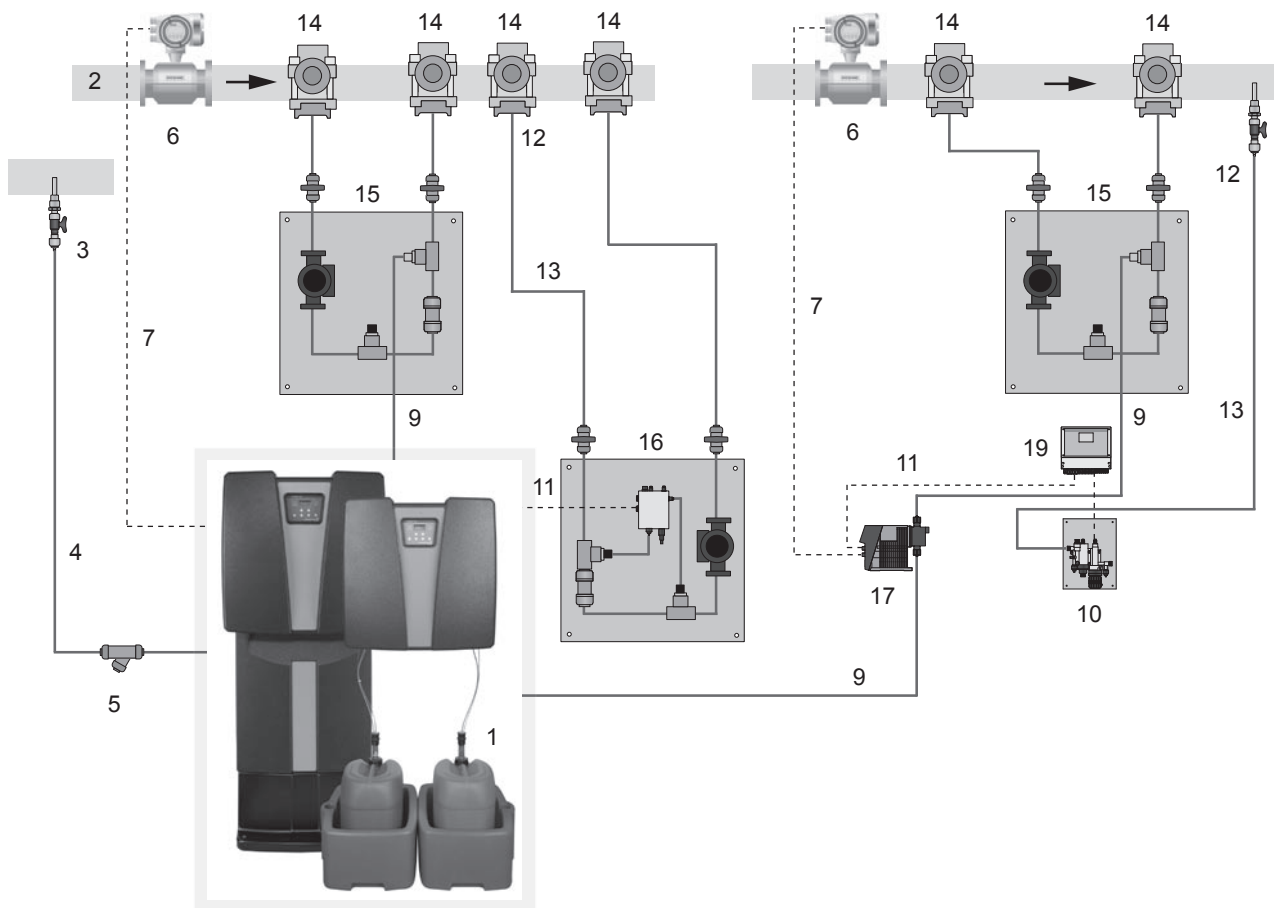


### Legend:

- |  |   |
|--|---|
| 1 Oxiperm Pro OCD-162-5, -10, -30 or -60 | 11 Signal line chlorine dioxide measurement                               |
| 2 Main water pipe                        | 12 Measuring water extraction point (min. distance to injection unit 5 m) |
| 3 Dilution water extraction point        | 13 Measuring water pipe   |
| 4 Dilution water pipe                    | 14 Tapping sleeve   |
| 5 Dirt trap                              | 16 Measuring module   |
| 6 Flow measurement                       | 17 Additional ClO <sub>2</sub> dosing pump                                |
| 7 Signal line flow measurement           | 18 Drain  |
| 8 Injection unit                         | 19 Measuring amplifier  |
| 9 Dosing line                            |   |
| 10 Chlorine dioxide measuring cell       |   |

## Preparation and two dosing points

Oxiperm® Pro basic module with second dosing pump and optional chlorine dioxide measurement with bypass

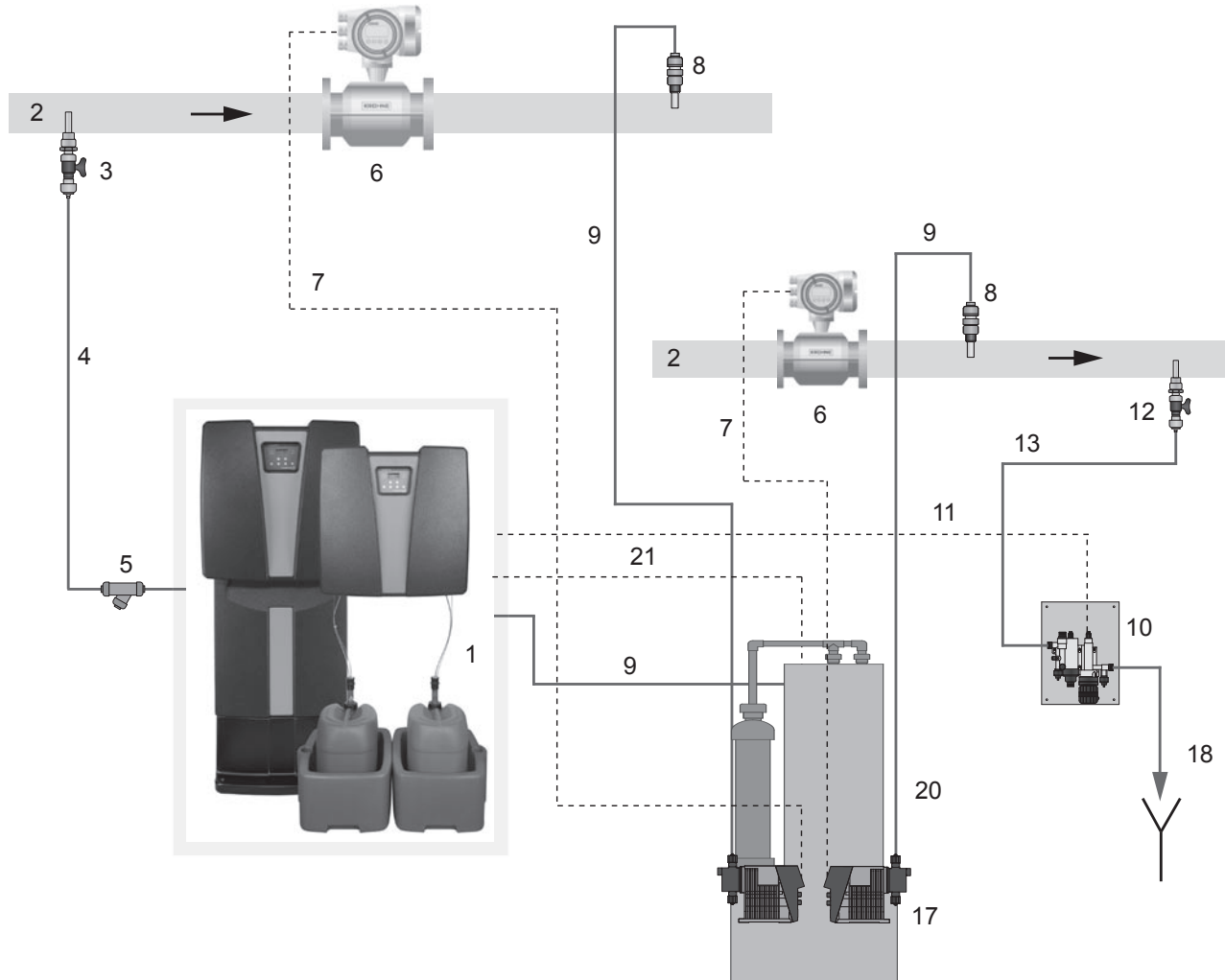


### Legend:

- |  |  |
|--|--|
| 1 Oxiperm Pro OCD-162-5, -10, -30 or -60 | 11 Signal line chlorine dioxide measurement                                  |
| 2 Main water pipe                        | 12 Measuring water extraction point<br>(min. distance to injection unit 5 m) |
| 3 Dilution water extraction point        | 13 Measuring water pipe  |
| 4 Dilution water pipe                    | 14 Tapping sleeve  |
| 5 Dirt trap                              | 15 Mixing module   |
| 6 Flow measurement                       | 16 Measuring module  |
| 7 Signal line flow measurement           | 17 Additional ClO <sub>2</sub> dosing pump                                   |
| 9 Dosing line                            | 19 Measuring amplifier   |
| 10 Chlorine dioxide measuring cell       |  |

## Preparation and several dosing points with batch tank

Oxiperm® Pro basic module with additional dosing pumps on a batch tank and optional chlorine dioxide measurement



### Legend:

- |  |  |
|--|--|
| 1 Oxiperm Pro OCD-162-5, -10, -30 or -60 | 10 Chlorine dioxide measuring cell   |
| 2 Main water pipe                        | 11 Signal line chlorine dioxide measurement                                  |
| 3 Dilution water extraction point        | 12 Measuring water extraction point<br>(min. distance to injection unit 5 m) |
| 4 Dilution water pipe                    | 13 Measuring water pipe  |
| 5 Dirt trap                              | 17 Additional ClO <sub>2</sub> dosing pumps                                  |
| 6 Flow measurement                       | 18 Drain   |
| 7 Signal line flow measurement           | 20 Batch tank  |
| 8 Injection unit                         | 21 Signal line batch tank  |
| 9 Dosing line                            |  |

95718614 0709 15.781001 V1.0	EN
Repl.: 95701950 0408 15.810050 V3.0	

Subject to change.