

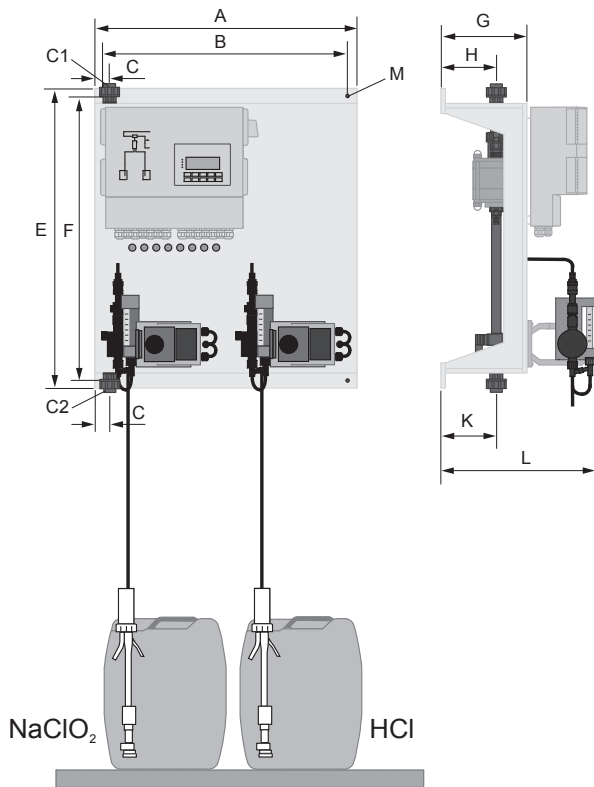
# Oxiperm<sup>®</sup> 164 D for 30 to 2000 g/h

Preparation of chlorine dioxide from diluted solutions

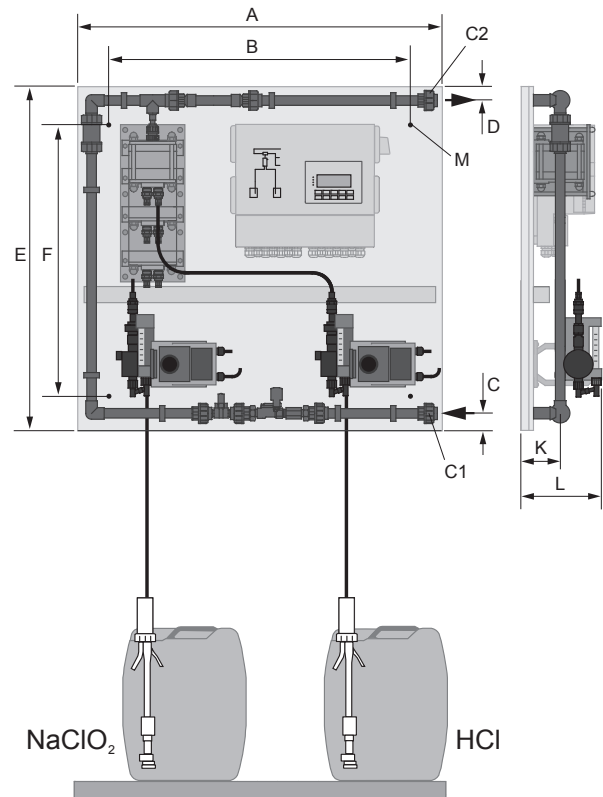


## Measurements

Standard system



Front installation system 164-xxxDFI



Measurements in mm

A	B	C	E	F	G	H	K	L	M	Connections C1 and C2 Option: NPT 3/4"	Type
700	650	40	800	760	230	148	148	410	∅ 11	DN 20	164-030D
700	650	40	800	760	230	148	148	410	∅ 11	DN 20	164-120D
700	650	40	800	760	230	148	148	410	∅ 11	DN 20	164-220D
950	790	45	900	710	-	-	102	213	∅ 10	DN 20	164-030DFI
950	790	45	900	710	-	-	102	213	∅ 10	DN 20	164-120DFI
950	790	45	900	710	-	-	102	213	∅ 10	DN 20	164-220DFI
760	700	70	1010	970	268	135	181	470	∅ 11	DN 20	164-350D
760	700	70	1010	970	268	135	181	470	∅ 11	DN 20	164-700D
760	700	70	1010	970	268	135	181	470	∅ 11	DN 20	164-1000D
760	700	70	1300	1260	268	135	181	470	∅ 11	DN 20	164-1500D
760	700	70	1300	1260	268	135	181	470	∅ 11	DN 20	164-2000D

## Types

ClO <sub>2</sub> preparation capacity [g/h]	p <sub>max</sub> [bar]		Consumption of components [l/h]		Consumption of bypass water [l/h] (input pressure < p <sub>max</sub> )		Weight [kg]	Type
	50 Hz	60 Hz	HCl	NaClO <sub>2</sub>	continuous operation	batch operation *) 0.5 - 2 g/l   2 - 3.3 g/l		
30	10	10	0.7		420	14   14 - 7.7	33	164-030D (DFI)
120	9	6	2.9		420	55   55 - 31	34	164-120D (DFI)
220	7	7	5.2		420	100   100 - 56	34	164-220D (DFI)
350	9	9	8.3		420	160   160 - 89	57	164-350D
700	9	9	16.5		900	320   320 - 179	62	164-700D
1000	9	9	24		900	450   450 - 258	66	164-1000D
1500	9	9	35		900	680   680 - 383	76	164-1500D
2000	9	6	48		900	900   900 - 517	82	164-2000D

\*) In batch operation the concentration is freely adjustable between 0.5 and 3.3 g/l

Between 2 and 3.3 g/l the system operates at full capacity. From 2 down to 0.5 g/l the system reduces the capacity continuously, because the dosing quantity of the chemical components is regulated if the bypass water quantity is set to constant.

These systems are also available as front installation variants. Their designation is 164-xxxDFI.

## Technical data

Adjustment of the preparation capacity	Manual by menu-controlled operator prompting, automatic by input signals
Protection level	<ul style="list-style-type: none"> <li>• IP 65 Electronics, dosing pumps, solenoid valve (option), flowmeter</li> <li>• IP 44 Bypass pump (option)</li> <li>• P 67 Dosing controller</li> </ul>
Admissible concentration of chemicals	<ul style="list-style-type: none"> <li>• HCl 9 percent by weight</li> <li>• NaClO<sub>2</sub> 7.5 percent by weight</li> </ul>
Admissible <ul style="list-style-type: none"> <li>• ambient temperature</li> <li>• operation water temperature</li> <li>• chemicals temperature</li> </ul>	5 to 40 °C 2 to 30 °C 2 to 30 °C
Admissible relative air humidity	Max. 80 % at 40 °C, not condensing
Connection dilution water inlet	PVC pipe DN 20 / option: 3/4" NPT male thread
Connection ClO <sub>2</sub> solution	PVC pipe DN 20 / option: 3/4" NPT male thread
Safety equipment	<ul style="list-style-type: none"> <li>• Parallel monitoring of capacity via dosing controller and internal Hall sensor signal for all dosing pumps</li> </ul>
Material	Supporting rack PP Fastening Stainless steel Reactor PVC grey, lacquered stainless steel Post mixer PVC grey Pipes PVC grey Gaskets FPM/PTFE

## Electrical and electronic data

- Mains voltage 230 V / 50 Hz or 115 V / 60 Hz
- Control: PLC, S7
- 4-line plain text display
- Menu-controlled operator prompting
- Flow-scheme with LED display showing mode and error signal

<b>Power consumption</b>	<ul style="list-style-type: none"> <li>• up to 220 g/h approx. 300 VA</li> <li>• from 350 g/h approx. 650 VA</li> </ul>
<b>Analog inputs</b>	0(4) - 20 mA input or free configuration, charge 50 Ohm
<b>Digital inputs</b>	<ul style="list-style-type: none"> <li>• Contact water meter, 1 to 45 pulses/sec. for control *)</li> <li>• MIN contact for main water</li> <li>• Remote On/Off</li> <li>• Error gas warning unit</li> <li>• Preparation tank ClO<sub>2</sub>: overflow, MAX, MIN, dry run</li> </ul>
<b>Analog outputs</b>	0(4) - 20 mA input or free configuration, max. charge 500 Ohm
<b>Potential-free outputs</b>	<ul style="list-style-type: none"> <li>• Error messages</li> <li>• Pre-alert: chemicals empty</li> <li>• Dry run ClO<sub>2</sub> solution tank (batch systems)</li> <li>• Automatic/manual operation</li> <li>max. charge 250 V, 6 A, max. 550 VA</li> </ul>

\*) **Note:** The water meter has to be designed in a way that the number of input pulses for the control is between 1 - 45 pulses/sec.

## Versions

### Check valve (reactor)

- System backpressure less than 3 bars
- System backpressure more than 3 bars

### System completely for wall mounting

## Options

- With solenoid valve, with / without exhaust system
- For batch operation, with / without exhaust system
- With internal bypass pump, with / without exhaust system
- With external centrifugal pump (provided by the customer), with / without exhaust system

### Bus system

- Modbus (RS 232 / RS 485)
- Profibus DP module (on request)
- Ethernet TCP/IP module (on request)

### Operating languages

Standard: German

Other languages can be selected with the software:

- English, French, Spanish, Italian

## Suction line systems

- 2 suction lines with 2 tank covers
- With empty signal and pre-alert

Tank size	∅ tank opening	Suction line
30 l	45-46 mm	1.3 m, 2.5 m, 5 m
60 l	45-46 / 57-58.5 mm	1.3 m, 2.5 m, 5 m
200 l	56 mm	2.5 m, 5 m

## Water extraction

Material	Connection system	Connection water supply	Order Number
PVC	DN 20	G1"	521-164.2

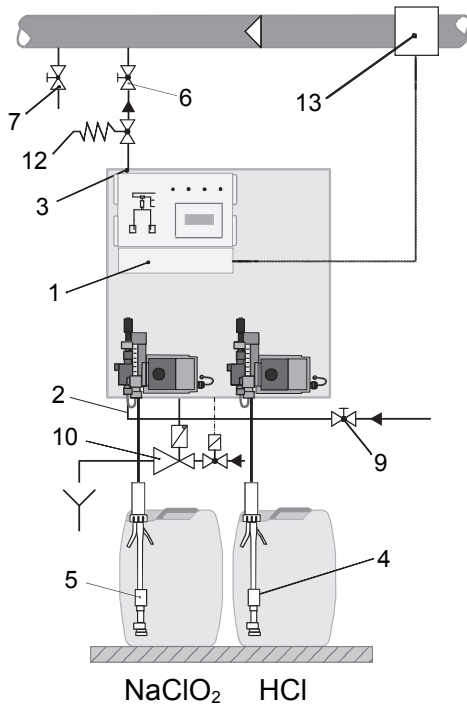
## Injection unit

Material	Connection system	Connection injection unit	Order Number
PVC	DN 20	R1"	522-232

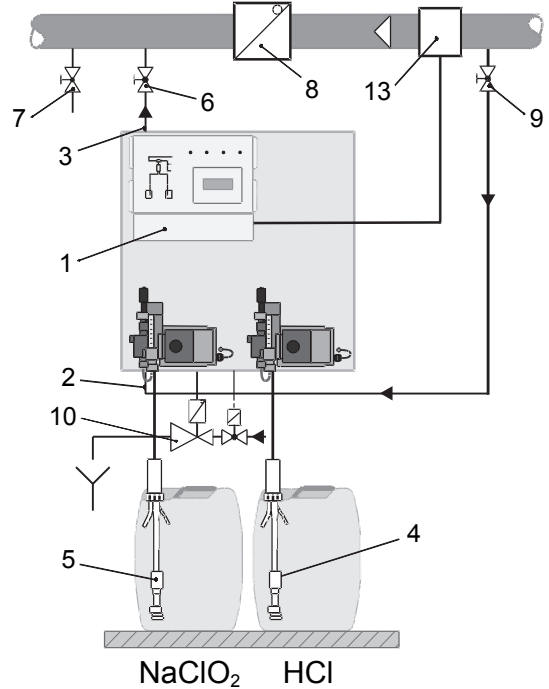
## Spare parts sets

for Oxiperm®	System pressure	
	less than 3 bar	more than 3 bar
164-030D/120D	553-720	553-720.1
164-220D	553-745	553-745.1
164-350D	553-722	553-722.1
164-700D	553-723	553-723.1
164-1000D	553-724	553-724.1
164-1500D	553-725	553-725.1
164-2000D	553-726	553-726.1

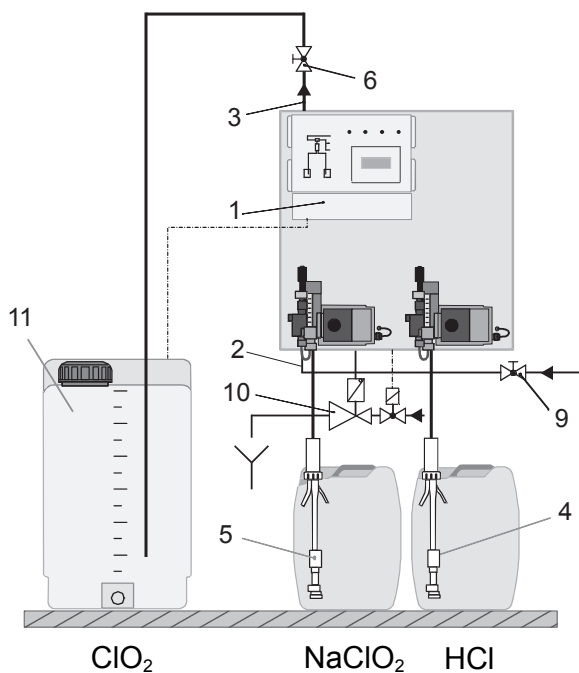
## Oxiperm® 164 C with solenoid valve



## Oxiperm® 164 C with internal bypass pump



## Oxiperm® 164 C Batch operation



- 1 Oxiperm® 164 D electronics
- 2 Connection for bypass water input
- 3 Connection for the ClO<sub>2</sub> solution line output to the injection unit
- 4 Suction line for the HCl dosing pump
- 5 Suction line for NaClO<sub>2</sub> dosing pump
- 6 Shutt-off valve (by customer)
- 7 Sample extraction (by customer)
- 8 Check valve (by customer),  
**for operation with an internal bypass pump**
- 9 Shut-off valve for bypass water extraction (by customer)
- 10 Exhaust system for supporting rack (option)
- 11 Dilution tank with level monitoring (option)  
**for batch operation**
- 12 Pressure loading valves (by customer) for system backpressures < 1 bar
- 13 Inductive flowmeter 4-20 mA or contact water meter for proportional control of the system

**Note:**

For protection of the drinking water supply, the customer has to provide a pipe disconnecter (to DVGW, W624).



91834789 0108	EN
15.810017 V7.0	

Subject to change