

1.1.1 Chlorine Sensor CP2.1 and CP3

Chlorine sensor with membrane-covered, amperometric 3-electrode system. For the measurement of total chlorine with greatly reduced pH-dependence, also in sea water.



Product description:

- Measurand(s): NaClO (sodium hypochlorite), Ca(OCl)₂ (calcium hypochlorite), Cl₂ (chlorine gas), electrolytically generated chlorine
- Calibration: at the controller, via analytical chlorine determination by DPD-4 method (DPD-1 + DPD-3),
- Interferences: ClO₂ is registered with 100 %, O₃ is measured with a slope of approx. 130% (factor 1.3 with regard to the chlorine slope)
- Resolution: depending on the sensor type 0.1 ... 0.001 ppm,
- pH range: 4 ... 12 (linear decrease with approx. 5 % per increasing pH-unit)
- Pressure range: 0.5 bar, no pressure surges and/or fluctuations,
- Temperature range: 5 ... 45 °C,
- Sensor with automatic temperature compensation
- Response time: T90 approx. 2 min.,
- Flow rate: approx. 30 l/h, low flow-dependence,
- Shaft length: 175 mm, 195 mm, 205 mm,
- Material: microporous hydrophilic membrane, PVC-U, Peek, stainless steel 1.4571,

Areas of Application:

- Swimming-pool-, drinking- and sea water, surfactants are partially tolerated; special electrolyte for the use in sea water

Scope of supply:

- CP2.1, CP3: sensor, membrane cap, electrolyte,

Ordering data:

Type: Chlorine sensor CP2.1	Measuring range: ppm	Resolution: ppm	Output signal:	Power supply:	Item number:
CP2.1H	0.005 ... 2.000	0.001 ppm	0 ... -2000 mV 1 kΩ	±5 ... ± 15 V DC 10 mA	3326018
CP2.1N	0.05 ... 20.00	0.01 ppm			3326026
CP2.1MA0,5	0.05 ... 0.50	0.01 ppm	4 ... 20 mA	12 ... 30 V DC R: 50Ω ... 900Ω	3326038
CP2.1MA2	0.01 ... 2.00	0.01 ppm			3326027
CP2.1MA5	0.01 ... 5.00	0.01 ppm			3326037
CP2.1MA10	0.01 ... 10.00	0.01 ppm			3326036
CP2.1MA20	0.01 ... 20.00	0.01 ppm			3326019
CP2.1MA0.5-M12	0.05 ... 0.50	0.01 ppm			4 ... 20 mA
CP2.1MA2-M12	0.01 ... 2.00	0.01 ppm	3426501		
CP2.1MA5-M12	0.01 ... 5.00	0.01 ppm	3426502		
CP2.1MA10-M12	0.01 ... 10.00	0.01 ppm	3426503		
CP2.1MA20-M12	0.01 ... 20.00	0.01 ppm	3426504		

Type: Chlorine sensor CP3	Measuring range: ppm	Resolution: ppm	Output signal:	Power supply:	Item number:
CP3H-An	0.005 ... 2.000	0.001	0 ... -2000 mV (max. -2500 mV) 1 kΩ	9 ... 30 V DC ca. 20 ... 56 mA	3326920
CP3N-An	0.05 ... 20.00	0.01			3326921
CP3H-M0c	0.005 ... 2.000	0.001	Modbus RTU		3326960
CP3N-M0c	0.05 ... 20.00	0.01			3326961

Additional technical data:

Type: Chlorine sensor CP2.1	Slope:	Connection:	Special characteristics:	
CP2.1H	-1000 mV/ppm	4-pole plug	Connection only to a controller with galvanically separated power supply.	
CP2.1N	-100 mV/ppm			
CP2.1MA0.5	32.0 mA/ppm	2-pole terminal		
CP2.1MA2	8.0 mA/ppm			
CP2.1MA5	3.2 mA/ppm			
CP2.1MA10	1.6 mA/ppm			
CP2.1MA20	0.8 mA/ppm	M12 male		
CP2.1MA0.5-M12	32.0 mA/ppm			
CP2.1MA2-M12	8.0 mA/ppm			
CP2.1MA5-M12	3.2 mA/ppm			
CP2.1MA10-M12	1.6 mA/ppm			
CP2.1MA20-M12	0.8 mA/ppm			
Type: Chlorine sensor CP3	Slope:	Connection:		Special characteristics:
CP3H-An	-1000 mV/ppm	4- pole plug		
CP3N-An	-100 mV/ppm			
CP3H-M1-12	Modbus RTU	M12 male		
CP3N-M1-12				
CP3H-M1-24				
CP3N-M1-24				

Spare parts:

Spare part:	For sensor type:	Item number:
Membrane cap M48.2D	CP2.1H,	9026022
Membrane cap M48.2	CP2.1MA, CP2.1N, CP3 (all types)	9026020
Electrolyte ECP1.3/GEL	CP2.1 and CP3 for measurement without salts <1g/l in the water (all)	9026056
Electrolyte ECP2S/Gel	CP2.1 and CP3 for measurement in salt water (all types)	9026055

Accessories:

Type:	For sensor type:	Item number:
Sensor simulator pH, Redox, Cl	all sensors with mV signal	(10115)
mV sensor simulator	all sensors with mV signal	9026205
mA sensor simulator	all sensors with mA signal	2125100
mV simulator and mV tester	all sensors with mV signal	(10300)
mV simulator and mA tester	all sensors with mV signal or mA signal	(10305)
Photometer for calibration	all sensors	
Reagent for photometer	all sensors	