

1.1.1 Chlorine Sensor CC1

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



Product description:

- Measurand(s): NaOCl (sodium hypochlorite), Ca(OCl)₂ (calcium hypochlorite), Cl₂ (chlorine gas), electrolytically generated chlorine, and organic combined chlorine based on iso-cyanuric acid (tested up to an iso-cyanuric acid concentration of 500 mg/l),
- Calibration: at the controller, via analytical chlorine determination by DPD 1 method. Observe the isocyanuric acid concentration when determining the free chlorine.
- Interferences: ClO₂ is 100 % detected, O₃ is detected,
- pH range: 4 ... 12, greatly reduced pH dependence,
- Pressure range: 0 ... 0.5 bar, no pressure surges and/or fluctuations,
- Temperature range: 5 ... 45 °C,
- Integrated automatic temperature compensation,
- Response time: T₉₀ approx. 2 min.,
- Flow rate: approx. 30 l/h, low flow dependence,
- Shaft length: standard 175 mm, mA version 220 mm,
- Material: PVC-U, PEEK, stainless steel 1.4571, microporous hydrophilic membrane,

Areas of application:

- Fresh water and seawater; surfactants are tolerated in part; a special electrolyte is used for seawater

Scope of supply:

- **CC1:** sensor, membrane cap, electrolyte for use in fresh water use

Ordering data:

Type: Chlorine Sensor CC1	Measuring range: ppm	Resolution: ppm	Output signal:	Power supply:	Item number:
CC1H	0.005 ... 2.000	0.001	0 ... -2000 mV 1 kΩ	±5 ... ±15 V DC 10 mA	3326102
CC1N	0.05 ... 20.00	0.01			3326090
CC1H-An	0.005 ... 2.000	0.001		9 ... 30 V DC 20 ... 56 mA	3426600
CC1N-An	0.05 ... 20.00	0.01			3426601
CC1H-M0c	0.005 ... 2.000	0.001			3426610
CC1N-M0c	0.05 ... 20.00	0.01			3426611

CC1MA2	0.01 ... 2.00	0.01	4 ... 20 mA	12 ... 30 V DC R. 50Ω ... R. 900Ω	3326094
CC1MA5	0.01 ... 5.00	0.01			3326096
CC1MA10	0.01 ... 10.00	0.01			3326095
CC1MA20	0.01 ... 20.00	0.01			3326107
CC1MA2-M12	0.01 ... 2.00	0.01	4 ... 20 mA	12 ... 30 V DC R. 50Ω ... R. 900Ω	3426615
CC1MA5-M12	0.01 ... 5.00	0.01			3426616
CC1MA10-M12	0.01 ... 10.00	0.01			3426617
CC1MA20-M12	0.01 ... 20.00	0.01			3426618

Additional technical data:

Type: Chlorine Sensor CC1	Slope:	Connection:	Special characteristics:
CC1H	-1000 mV/ppm	4-pole plug	Connection only to a controller with galvanically separated power supply.
CC1N	-100 mV/ppm		
CC1H-An	-1000 mV/ppm		
CC1N-An	-100 mV/ppm		
CC1H-M0c	-1000 mV/ppm	M12 male	Connection only to a controller with galvanically separated power supply.
CC1N-M0c	-100 mV/ppm		
CC1MA2	8.0 mA/ppm	2-pole terminal	
CC1MA5	3.2 mA/ppm		
CC1MA10	1.6 mA/ppm		
CC1MA20	0.8 mA/ppm		
CC1MA2-M12	8.0 mA/ppm	M12 male	
CC1MA5-M12	3.2 mA/ppm		
CC1MA10-M12	1.6 mA/ppm		
CC1MA20-M12	0.8 mA/ppm		

Spare parts:

Spare part:	For sensor type:	Item number:
Membrane cap M48.2	CC1 (all types)	9026020
Electrolyte ECC1/GEL	CC1 for measurement without salts <1 g/l in the water (all types)	9026067
Electrolyte ECC1S/GEL	CC1 for measurement in salt water (all types)	9026069

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	