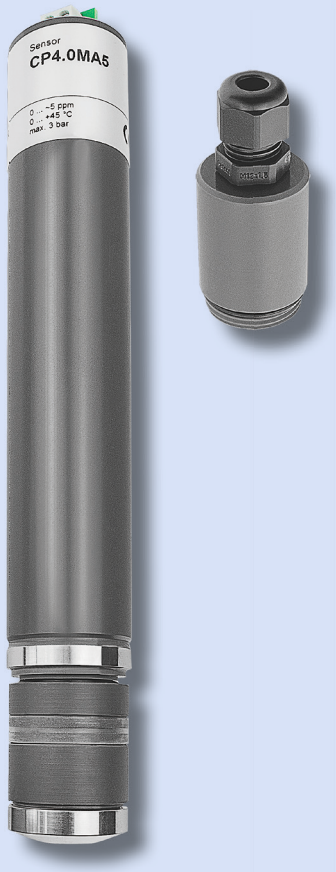
1.1.1. **DOSA***Sens* Chlorine sensor **CP4.0**



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

Product description:

- Measurand(s): NaClO (sodium hypochlorite), $Ca(ClO)_2$ (calcium hypochlorite), Cl_2 (chlorine gas), electrolytically generated chlorine
- Calibration: at the controller, via analytical chlorine determination by DPD-4 method (DPD-1 + DPD-3)
- Interferences:
  - ClO_2 is registered with 100 %,
  - O_3 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:
  - Operation without circlip: 0 – 0.5 bar, no pressure surges and/or vibrations
  - Operation with circlip: 0 – 3.0 bar, no pressure surges and/or vibrations
- Temperature range: 0 – 45 °C (no ice crystals are allowed in the water)
- Sensor with automatic temperature compensation
- Response time: T_{90} approx. 3 min.
- Absence of the disinfectant: max. 24 h
- Flow rate: approx. 15 – 30 l/h, low flow-dependence
- Shaft length: standard 190 mm, and up to 220 mm in length (mA-Version)
- Connection: 5-pin M12 screwed plug (mV-, mA-, Modbus RTU-version), 2-pole terminal (mA-Version)
- Material: microporous hydrophilic membrane, PVC-U, Peek, stainless steel 1.4571

Areas of application:

- Swimming pool, drinking water, surfactants are partially tolerated.

Scope of supply:

- **DOSA***Sens* **CP4** sensor, membrane cap, electrolyte, operating manual

Ordering data:

Type:	Measuring range: ppm	Resolution: ppm	Output signal:	Power supply:	Item number:
CP4.0**H-M12**	0,005 … 2,00	0,001	0 … -2000 mV/ 1 kΩ	±5 … ±15 VDC 10 mA	3626110
CP4.0**N-M12**	0,05 … 20,00	0,01			3626111
CP4.0**H-An-M12**	0,005 … 2,00	0,001		9 … 30 VDC ca. 20 … 56 mA	3626120
CP4.0**N-An-M12**	0,05 … 20,00	0,01			3626121
CP4.0**H-M0c**	0,005 … 2,00	0,001	Modbus RTU		3226340
CP4.0**N-M0c**	0,05 … 20,00	0,01			3226341

Ordering data:

Type:	Measuring range: ppm	Resolution: ppm	Output signal:	Power supply:	Item number:
CP4.0**MA0,5**	0,05 … 0,50	0,01	4 … 20 mA	12 … 30 VDC R_L = 50 … 900 Ω	3226310
CP4.0**MA2**	0,01 … 2,00	0,01			3226311
CP4.0**MA5**	0,01 … 5,00	0,01			3226312
CP4.0**MA10**	0,01 … 10,00	0,01			3226313
CP4.0**MA20**	0,01 … 20,00	0,01			3226314
CP4.0**MA0,5-M12**	0,05 … 0,50	0,01			3226320
CP4.0**MA2-M12**	0,01 … 2,00	0,01			3226321
CP4.0**MA5-M12**	0,01 … 5,00	0,01			3226322
CP4.0**MA10-M12**	0,01 … 10,00	0,01			3226323
CP4.0**MA20-M12**	0,01 … 20,00	0,01			3226324

Additional technical data:

Type:	Slope:	Connection:	Special characteristics:
CP4.0**H-M12**	-1000 mV/ppm	5-pin M12 screwed plug	Connection only to a controller with galvanically separated power supply.
CP4.0**N-M12**	-100 mV/ppm		
CP4.0**H-An-M12**	-1000 mV/ppm		-
CP4.0**N-An-M12**	-100 mV/ppm		
CP4.0**H-M0c**	Modbus RTU		
CP4.0**N-M0c**			
CP4.0**MA0,5**	32,0 mA/ppm	2-pole terminal	Connection only to a controller with galvanically separated power supply.
CP4.0**MA2**	8,0 mA/ppm		
CP4.0**MA5**	3,2 mA/ppm		
CP4.0**MA10**	1,6 mA/ppm		
CP4.0**MA20**	0,8 mA/ppm		
CP4.0**MA0,5-M12**	32,0 mA/ppm	5-pin M12 screwed plug	
CP4.0**MA2-M12**	8,0 mA/ppm		
CP4.0**MA5-M12**	3,2 mA/ppm		
CP4.0**MA10-M12**	1,6 mA/ppm		
CP4.0**MA20-M12**	0,8 mA/ppm		

Spare parts:

Spare parts:	for sensor type:	Item number:
Membrane cap **M48.4E**	**CP4.0** all types	9026023
Electrolyte **ECP1.4/GEL**	**CP4.0** all types	9026074

Accessories:

Type:	for sensor type:	Item number:
Sensor simulator pH, Redox, Cl	all sensors with mV signal	21131100
Sensor simulator SIM11.1n	0 mV, -100 mV, -1000mV	9026205
Sensor simulator 4–20 mA, current sensor	all sensors with mA signal	90249000
mV Simulator and **mA Tester**	all sensors with mV signal or mA signal	21131105
Photometer for calibration	chlorine, total chlorine, isocyanuric, pH	90231000