

## CAC Series - Closed Amperometric Cells

for the analysis of CHLORINE, CHLORINE DIOXIDE, CHLORITE,  
BROMINE, HYDROGEN PEROXIDE, OZONE, PERACETIC ACID



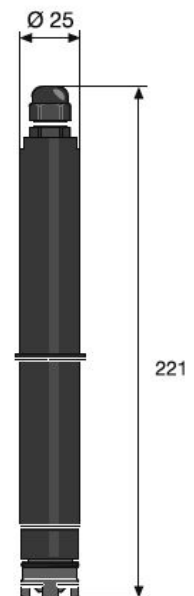
STEIEL Elettronica offers a full series of amperometric measure sensors, provided with two electrodes protected by a special ion-selective membrane.

The series includes cells for the analysis in water of chlorine (free active, available, total), chlorine dioxide, chlorite, bromine, hydrogen peroxide, ozone and peracetic acid.

A cell is also available for the measurement of chlorine and chlorine dioxide in hot water, up to 70 °C (HT model).

### GENERAL TECHNICAL DATA

Working Temperature	5 ... 45 °C
Thermo-compensation	automatic, through built-in sensor, with no temperature fluctuations
Sample Conductivity	(aqueous solution) 50 ... 10'000 µS/cm
Working Pressure	max 1 bar
Flow Rate	inlet flow rate, through flow sensor: 40 ... 60 l/h recommended value; 20 ... 100 l/h minimum ... maximum flow
Response Time	T <sub>90</sub> : approx. 60 seconds
Power Supply	±5 V
Output Signal	0 ... 2 V
Connection	4-pole (signal + power supply) shielded cable, standard length 1 m
Cell Body	PP, dia. 25 x L 221 mm
Membrane Life	approx. 1 year, depending on water quality
Protection rate	IP65
Storage Temperature	5 ... 50°C



### **Caution!**

- *The cell electrolytes are chemicals. Read the warnings on the electrolyte bottle before handling it.*
- *A gel electrolyte at temperatures higher than 30-32°C tends to melt and escape from the membrane; for a good performance and duration of a cell that works under these conditions, it is recommended to check frequently the electrolyte level (at least once a month) and, if necessary, top it.*

**CELLS FOR CHLORINE ANALYSIS**

Measured Variable	Range (ppm)	Cell	Code	Spare Parts	
				Membrane	Electrolyte
Active Free Chlorine (inorganic)	0 ... 0.5	CAC-CLI-XB	80611100	CAC-ME-1	CAC-EL-1
	0 ... 2	CAC-CLI-B	80611101		
	0.1 ... 10	CAC-CLI-SW	80611103		
	0.2 ... 20	CAC-CLI-M1	80611104	CAC-ME-2	CAC-EL-2
	0.5 ... 50	CAC-CLI-M2	80611105		
	1 ... 100	CAC-CLI-A1	80611106		
	10 ... 200	CAC-CLI-A2	80611107	CAC-ME-3	
Available Chlorine (organic)	0 ... 2	CAC-CLO-B	80611201	CAC-ME-4	CAC-EL-3
	0.1 ... 10	CAC-CLO-M1	80611203		
	0.2 ... 20	CAC-CLO-M2	80611204		
Total Chlorine	0 ... 0.5	CAC-CTO-XB	80611300	CAC-ME-1	CAC-EL-3
	0 ... 2	CAC-CTO-B	80611301	CAC-ME-4	
	0 ... 5	CAC-CTO-M1	80611302		
	0.1 ... 10	CAC-CTO-M2	80611303		

**CELLS FOR CHLORINE DIOXIDE ANALYSIS**

Measured Variable	Range (ppm)	Cell	Code	Spare Parts	
				Membrane	Electrolyte
Chlorine Dioxide	0 ... 2	CAC-CDX-B	80611401	CAC-ME-2	CAC-EL-5

*Model also available with prewired M8 connector (code 80611481).*

**CELLS FOR CHLORITE ANALYSIS**

Measured Variable	Range (ppm)	Cell	Code	Spare Parts	
				Membrane	Electrolyte
Chlorite	0 ... 0.5	CAC-CLT-XB	80611900	CAC-ME-6	CAC-EL-9
	0 ... 2	CAC-CLT-B	80611901		

**CELLS FOR ANALYSIS OF OTHER DISINFECTANTS**

Measured Variable	Range (ppm)	Cell	Code	Spare Parts	
				Membrane	Electrolyte
Total Bromine	0.1 ... 10	CAC-BRO-M	80611503	CAC-ME-1	CAC-EL-4
Hydrogen Peroxide	0.5 ... 50	CAC-HYP-XB	80611605	CAC-ME-5	CAC-EL-7
	2 ... 200	CAC-HYP-B	80611607		
	20 ... 2000	CAC-HYP-M	80611608		
Ozone	0 ... 2	CAC-OX3-B	80611701	CAC-ME-2	CAC-EL-6
Peracetic Acid	1 ... 200	CAC-PAA-B	80611807	CAC-ME-3	CAC-EL-8
	10 ... 2000	CAC-PAA-M	80611808		

**MEMBRANE-CAPS**

Item	Code	Colour	Spare part for the listed cells
CAC-ME-1	80611001	Blue	CAC-CLI-XB, CAC-CLI-B, CAC-CLI-SW, CAC-CTO-XB, CAC-BRO-M
CAC-ME-2	80611002	Transparent	CAC-CLI-M1, CAC-CLI-M2, CAC-CLI-A1, CAC-CDX-B, CAC-OX3-B
CAC-ME-3	80611003	White	CAC-CLI-A2, CAC-PAA-B, CAC-PAA-M
CAC-ME-4	80611004	Orange	CAC-CLO-B, CAC-CLO-M1, CAC-CLO-M2, CAC-CTO-B, CAC-CTO-M1, CAC-CTO-M2
CAC-ME-5	80611005	Grey	CAC-HYP-XB, CAC-HYP-B, CAC-HYP-M
CAC-ME-6	80611006	Black	CAC-CLT-XB, CAC-CLT-B

**ELECTROLYTES**

Electrolyte	Code	Volume (ml)	Spare part for the listed cells
CAC-EL-1	80611021	100	CAC-CLI-XB, CAC-CLI-B, CAC-CLI-SW
CAC-EL-2	80611022	100	CAC-CLI-M1, CAC-CLI-M2, CAC-CLI-A1, CAC-CLI-A2
CAC-EL-3	80611023	50	CAC-CLO-B, CAC-CLO-M1, CAC-CLO-M2, CAC-CTO-XB, CAC-CTO-B, CAC-CTO-M1, CAC-CTO-M2
CAC-EL-4	80611024	50	CAC-BRO-M
CAC-EL-5	80611025	100	CAC-CDX-B
CAC-EL-6	80611026	100	CAC-OX3-B
CAC-EL-7	80611027	50	CAC-HYP-XB, CAC-HYP-B, CAC-HYP-M
CAC-EL-8	80611028	100	CAC-PAA-B, CAC-PAA-M
CAC-EL-9	80611029	50	CAC-CLT-XB, CAC-CLT-B