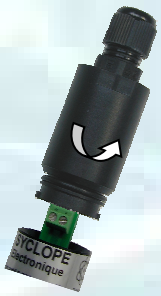
Chlorine measuring cell free chlorine or organic bound chlorine
Types CAA2920 – 4…20 mA – 0… 10 ppm

Chlorine measuring cells type CAA2920 are used to measure free chlorine (HOCl and OCl) and organically bound chlorine (to cyanuric acid in the form of trichloroisocyanuric acid or sodium dichloroisocyanurate-bound chlorine) in swimming pool water or water with same quality. Thanks to her gold working electrode, this sensor is able to measure free chlorine generated with a in-line electrolysis system

2. Caractéristiques techniques

Measured variable:	Free chlorine with or without cyanuric acid
Applications :	Swimming pool water or similar quality (Without surfactant)
Measurement ranges:	0,1 - 10 ppm, ref. CAA2920
pH range :	5,5 - 9,5 pH
Temperature using range:	5 - 45 °C (Internal controlled)
Storage and transport temperature:	+5 to +50 °C
Cyanuric acid Cross-sensitivity:	No sensitivity, if > 5 mg/l of cyanuric acid
Maximum pressure:	3 bars
Supply flow:	mini: 20 l/h Maxi: 100 l/h Recommanded: 30 l/h
Start time:	First calibration after 2 H
Total stability for definitive calibration	after 24 H
Membrane cap life time:	Currently 1 year (according to water quality)
Electrolyte :	KI, réf. CAA2511
Matériau du capuchon :	PVC bleu, réf. CAA2509
Electrode shaft material:	Black PVC
Electrical protection type:	I P 65
Supply voltage:	16-24VDC
Output signal:	4-20mA (not isolated)

3. Electric connection



Turn the upper part of the sensor a quarter of a turn anticlockwise and remove it. Loosen the PG-7 threaded connector and guide the 2-lead cable through, providing a spare 5 cm of bare cable inside the sensor. Connect the cable to the terminal: 1 = plus, 2 = minus. Tighten the PG-7 threaded connection. Push the upper part of the sensor right into the housing and turn it clockwise as far as it will go. After you've locked the PG nut, insert the cell measurement into the measuring housing.

Caution: The probe output signal has not galvanic isolation

4. Assembly/installation

Caution: Don't touch the membrane or the electrodes. Risk of definitive damage.

Depressurise the system before assembling the probe. Close stop valves in front of and behind the in-line probe housing.
Take care with any handling of chemicals products or chlorine liquids.

4.1 Filling the cap with electrolyte

Filling

Open the electrolyte bottle (KI), place the electrolyte bottle nozzle completely over the membrane cap and fill it slowly with electrolyte avoiding air bubbles. At the same time, pull the bottle back steadily. The cap is completely full when the electrolyte can be seen at the low level of threading.

Caution: Avoid air bubbles when pouring the electrolyte. The membrane cap must be used after cleaning. (See technical maintenance manual)

Place the electrode shaft on the full membrane cap in a vertical position. Turn the membrane cap by hand as far as it will go.
In first time excess air then electrolyte will escape through a hole below the rubber seal in the groove of the membrane cap while you are turning it. Wipe away any electrolyte with a soft paper towel or other similar item.

Membrane

4.2 Placing the cell into probe housing

Before the assembly in probe housing, pass the O ring around the shaft, below the washer on membrane side. Then slip the ring of tightening over the stem. Block the retaining nut until the O ring ensures the sealing. The correct depth of assembly of the probe is determined by the ring of tightening.

5. Calibration

A zero point calibration is not necessary. The slope calibration is performed by the chlorine content according to the DPD method using an appropriate instrument for measuring chlorine. Set the controller/measuring device to the value obtained in accordance with the operating instructions.

In order to carry out a correct calibration, the probe must be used in probe housing with recommended flows (see technical characteristics).

Repeat calibration at regular intervals. Repeating period is function of the using probe. Use currently 3 or 4 weeks for the water treatment processes.

Caution: In all case, after changing the membrane, a slope calibration must be performed.

6. Connections cable identification

1 : White wire 2: Blue wire

7. Accessories

Bleue membrane : ref. CAA2509
Electrolyte (KI) : ref. CAA2511
Fixation kit 1" : ref. CAA2510
Transport holding: ref. FTH2500