

The "In pipe" measurement chambers have been designed to perform the measurement(s) of physicochemical parameters on open or closed gravity return pipes.

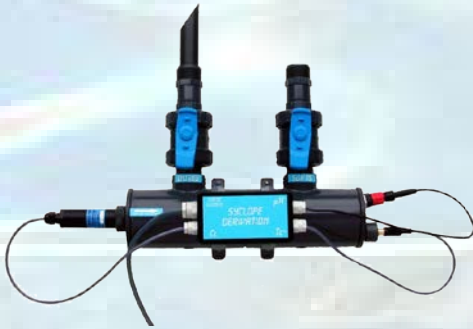
Their technique uses the principle of depression created between two points, one of which is provided with a "bevel" realizing the pressure increase necessary for the circulation of water inside the chamber. Of course, this measurement chamber can only work if the laminar velocity of the water in ms is sufficient. (Around 0.5m/s)

These measuring probe housings can be equipped with one or more mounting holes for standard ½ "gas, PG13.5 or 1" gas sensors. In general, the ½ "hole is provided for a temperature probe, the PG13.5 holes for pH, ORP(Redox) probes, etc ... and the 1" holes for CAAxxxx amperometric sensors type.

Available in several fixing systems, they can be adapted to PVC, steel, stainless steel or HDPE pipes.

With a simple and efficient technology, this equipment has a model deposit patent at the International Institute of Industrial Protection (INPI).

### 1. Technical features for 2x1" "In pipe" measuring probe housing



Hydraulic connection : 1" male  
Nature : PVC pressure max. 16 bars  
Using area : Swimming pool water or equivalent  
Operating range : 0,5ms to 5m/s  
Temperature range : 0 to 55°C (32°F to 150°F)

Probe housing references with diameter hole types :

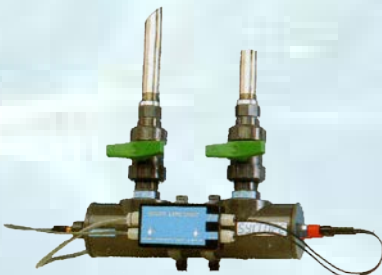
Ref : CAC 4109 2 holes PG 13,5 and 1 hole de 1"  
Ref : CAC 4209 2 holes PG 13,5, 2 holes ½" and 1"  
Ref : CAC 4210 1 hole PG 13,5, 1 hole ½" & 1 hole 1"  
Ref : CAC 4211 1 hole 1" only  
Ref : CAC 4213 1 hole PG13,5 and 1 hole 1"

For mounting kits using for PVC or PEHD 1" clamps, please add the corresponding measuring probe housing according your needs.

#### Accessories :

Clamps in 1" x 60,75,90,110,125,160 and 200mm  
Saddles to stick for PVC tube from 200mm to 3000mm  
For other method, please consult us.

### 2. Technical features of measuring probe housing to be solder on steel pipe



Hydraulic connection : Steel tube D=25mm to be soldered  
Nature : PVC pressure max. 16 bars  
Using area : Swimming pool water or equivalent  
Operating range : 0,5ms to 5m/s  
Temperature range : 0 to 55°C (32°F to 150°F)

Probe housing references with diameter hole types :

Ref : CAC 4204 2 holes PG 13,5 and 1 hole 1"  
Ref : CAC 4205 2 holes PG 13,5, 2 holes ½" and 1"  
Ref : CAC 4206 1 hole PG 13,5, 1 hole ½" & 1 hole 1"  
Ref : CAC 4208 1 hole 1" alone  
Ref : CAC 4207 1 hole PG13,5 and 1 hole 1"

« In pipe » measuring probe housing without lost water  
(Without pressure)  
CAC4xxx types - Input / Output screwed 1"

---

**2. Technical features of measuring probe housing with 3 pieces union fittings**



Hydraulic connection : 50mm and 63mm  
Nature : PVC pressure max. 16 bars  
Using area : Swimming pool water or equivalent  
Operating range : 0,5ms to 5m/s  
Temperature range : 0 to 55°C (32°F to 150°F)

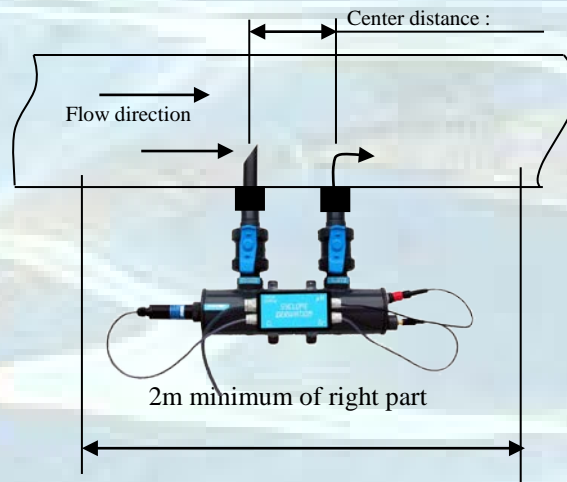
Probe housing references with diameter hole types :  
Ref : CAC 4201 2 holes PG 13,5 and 1 hole 1"  
Ref : CAC 4202 2 holes PG 13,5, 1 hole ½" & 1 hole 1"

**3. Montage/installation**



**Warning :** The center distance for drilling the 2 fixation holes in the pipe for fluid circulation must be **143 mm**.

Synoptic of working :



Before disassembling the measuring probe housings, close the shut-off valves upstream and downstream.  
Take appropriate protective measures when handling sensors and take care to water loss when opening.

**4. Winterization**



**Warning :** If the installation risks freezing, put the measuring probe housing out of the water.  
Disassemble the sensors as indicated in each operating manual.  
Protect the cable ends of the electronic converter.  
Check the faucet closure ¼ turn.