

# BAMOCHLORE 192

## Free chlorine measurement cell



*Basic model (200 x 600 mm)  
for free active chlorine monitoring*



*Complete assembly, (600 x 700 mm)  
here equipped with a BAMOPHOX 192 (not included)*

## INSTRUCTION MANUAL

**BAMO MESURES**

22, Rue de la Voie des Bans - Z.I. de la Gare - 95100 ARGENTEUIL  
Tél : (+33) 01 30 25 83 20 - Web : [www.bamo.fr](http://www.bamo.fr)  
Fax : (+33) 01 34 10 16 05 - E-mail : [info@bamo.fr](mailto:info@bamo.fr)

Free chlorine  
measurement cell  
**BAMOCHLORE 192**

12-09-2008

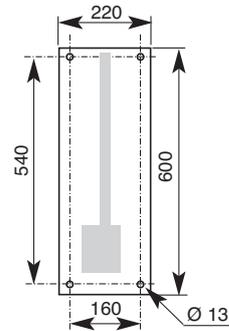
192 M1 01 D

**MES**

**192-01/1**

## SPECIFICATIONS

Principle:	Electrochemical cell
Electrodes:	Copper/ platinum
Range:	Scalable up 5 ppm (5 mg/l)
Detection:	0,001 ppm
Self cleaning action:	Glass balls
Required flow:	35 l/h - integrated valve
Pressure inlet:	Maximum 5 bar
Pressure outlet:	Atmospheric
Wetted parts:	PVC, PMMA, FPM
Process connections:	PVC nozzle, diameter 12/14 mm
Mass:	1 kg (without fittings)
Electric output:	Cable, 5 wires 0.22 mm <sup>2</sup> , connector RED or BROWN: (+); BLUE: (-)

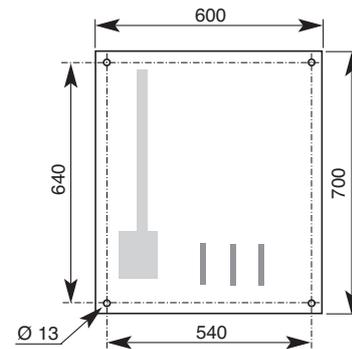


Holder are of PVC, Board 6 mm thick. Colours are RAL 850 (blue) or RAL 591 (green).

Fire resistant: Class M1.

## CODE NUMBERS AND REFERENCES

By-pass assembly for free active chlorine monitoring:	
192 281	Basic model without fittings to process
192 295	Complete model, with fittings to process, including 192 601 192 286 / 192 287 / 192 288 / plus 1 shut-off and 1 sampling valve
Accessories and consumables for free active chlorine monitoring:	
192 600	Sachet of calibrated glass balls
192 287	5" filter holder
192 288	PP filter, 50_m, pack of 2 filters
192 286	Active charcoal filter (for 9500 l) pack of 2 filters
Spare parts:	
192 601	Probe with electrochemical cell
192 602	Electrochemical cell alone



**CAUTION:** The complete assembly have to be connected to a derivative from the main pipe, the measurements is done on waste continuous sample. The pH monitoring should be done to assure a totally operational regulation of the pH. An electrode could be fitted on the Chlorine cell, connection PG 13.5

**Mounting:** Take care of perfectly horizontal and vertical mounting of holder.

## WATER TUBING CONNECTIONS

Please consider the maxima accepted by the cell.

Maximum inlet pressure: 4 bar (58 psi) with a PVC nozzle, diameter 12/14 mm.

Waste fluid outlet (it is the lower nozzle): this outlet should be under atmospheric pressure. Connect to the drain with a flexible tube.

**CAUTION:** You may install an input for water from the tap (low chlorine concentration) on the active charcoal filter (this filter is not active above 2 ppm) in order to perform the zero ppm of chlorine calibration.

## TESTING IN CHARGE

- Close the sampling valve.
- Check the tightness on filter body coupling.
- Open slowly the inlet valve.
- Adjust the flow until water goes over the level tube.
- Let the sampling water circulating almost 24 hours to prepare the cell to operate.

## ELECTRICAL CONNECTIONS

Connect to the BAMOPHOX: Be careful not to be closer than 20 cm from any power cable.

**Service:** First shut the electrical power before any handwork on electrical part of the system.

RED or BROWN: (+); BLUE: (-)

## 0% CHLORINE ADJUSTMENT

The carbon filter traps chlorine to allow the setup of an electrical zero from the cell. Its capability is to decrease the chlorine concentration from 2 ppm down to 0.5 ppm. So better is to use water with the minimum chlorine concentration to adjust the "zero" like water from the tap. Let the water flows through the filter during 10 min, and then stop the flow. Wait until 5 min before to adjust the "zero", please see the BAMOPHOX Instruction Manual. Then replace the carbon filter by the particle filter.

## SLOPE ADJUSTMENT

Let flows the sampling water through the cell and wait until the signal is stable. Measure the chlorine concentration with a standard (handheld colorimeter) by sampling some water just before the cell. Report the measure displayed on the colorimeter to the BAMOPHOX, please see the BAMOPHOX Instruction Manual.

## MAINTENANCE

Turn 90° the cell, once a month, glass balls will erode electrode on the entire surface. Clean any part of tubing, in particular on the level tubes. Avoid any solvent: this could damage the PMMA tubes.

**Note:** a bio film could rise on the 50 µm filter: this filter could be cleaned 5 to 6 times then you may change it (or at least once a year).