

# Electrochemical Monitors

## SZ 283

### Potentiostatic electrode



This sensor is made for the measurement of Free Chlorine, Chlorine dioxide and D.Ozone in water.

The potentiostatic method is an "amperometric" measure with constant potential, made through 2 metal electrodes and a reference electrode dipped in a cell.

The current running through the cell consumes Chlorine or Ozone contents, therefore they must be renewed through a constant liquid flow.

In the traditional amperometric measurement it results difficult to maintain a constant relation between cell current and Chlorine (Ozone) concentration, especially near the zero, because of the ORP and liquid resistance effects. As result frequent zero and sensitivity calibration are needed.

In the potentiostatic measuring, the electrodes potential is electronically controlled in relation to the liquid, providing a linear relationship current/concentration and a very stable zero value in oxidative absence.

The sensor is shaped so that it is easy to clean and replace.

It is suggested to place the sensor in a measurement cell SZ 7231 or SZ 7233 provided with overflow in order to maintain the sample flow constant.

If placed in the SZ 7251 cell or in a pipe-line, in order to avoid an instable measurement, it is necessary for the flow to be constant.

## Specifications

**Electrodes:** 2 Platinum rings  
**Reference:** gel with annular junction  
**Body:** glass  
**Cable:** 3 m  
**Max pressure:** 10 bar at 20°C  
**Dimensions:** 110x12 mm

## SZ 7231 – SZ 7233

### Flow cells



This series of cells is made for the measurement of Residual Chlorine with a potentiostatic method.

The cell's manufacturing characteristics allow the sample to run through the potentiostatic electrode site with a constant velocity. The in-flow can be regulated through a check valve.

The SZ 7231 cell is for the potentiostatic electrode and the Temperature sensor, while the SZ 7233 cell is also for additional pH and O.R.P. electrodes.

The package includes a 1/4" fitting, 2 meters of 4x6 plastic tubing for the sample drawing and 2 screws for wall fastening.

## Specifications

**Material:** clear acrylic resin  
**Inlet:** 1/4" fitting  
**Outlet:** fitting for 10x14 mm tubing  
**Connection tubing:** 2 m 4x6 tubing  
**Flow:** about 10/30 litre/hour approx  
**Temperature:** 0/50°C  
**SZ 7233 dimensions:** 150 x 120 x 40 mm  
**SZ 7231 dimensions:** 150 x 90 x 40 mm  
**Sensors site:** diameter 12 mm for pH/ORP/Cl  
diameter 5 mm for temperature  
**Suggested sensors:** pH = SZ 165  
ORP = SZ 275  
Cl = SZ 283  
°C = SP 514