

Powell ORP Electrode

The reaction of chlorine and caustic soda that results in the manufacture of sodium hypochlorite must be controlled to ensure that the end product — bleach for laundry, household and industrial uses — is of the desired quality. The batch end point is critical because — in addition to inefficient use of raw materials — a finished bleach that contains high excess caustic may result in slower bleaching speed. Conversely, an over-chlorinated product may be seriously unstable and may result in a chlorine release. The preferred way to monitor the reaction is by Oxidation Reduction Potential — commonly referred to as ORP. The use of ORP is a simple, accurate way to maximize the use of raw materials to produce a product with maximum stability and improved bleaching speed.

The standard Powell 2-Meter Hypo Batch Controller uses the principle of ORP to monitor the caustic remaining in the batch system. ORP electrodes, when placed in a bleach solution, produce a voltage inversely proportional to the amount of excess caustic in the solution. Given the same amount of excess caustic, the electrodes will consistently produce the same voltage. This allows the bleach producer to establish a give set point on the controller that yields bleach with a consistent excess caustic end point.



Years of Proven Service

- Kynar® electrode holder designed to fit between companion flanges
 - Kynar® electrode body
 - PVC moisture-resistant ductcaps
 - No electrolyte solution
 - Direct in-line usage
 - Optional electrode holders for other applications



Fabrication & Manufacturing, Inc.
740 East Monroe Road
St. Louis MI 48880

Phone: 888.800.2310 (Toll Free)

989.681.2158 (Local)

Fax: 989.681.5013

email: info@powellfab.com

website: www.powellfab.com

www.valveclosures.com

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