



# Autoflush

## Keeping Sensors Cleaner For Longer

Pi's Autoflush is an automatic cleaning system that can be added to dirty processes where fouling may occur. The Autoflush can be used with Pi's pH, ORP, free chlorine, total chlorine, ozone or chlorine dioxide sensors (or a combination of sensors) and consists of a large flow cell that automatically empties on a user selectable time basis. It is installed around the world in paper mills, food factories, and other plants where keeping the sensors clean enhances their performance.

- **Frequent flushing prevents build-up of solids**
- **Reduced maintenance**
- **Prolonged sensor life**
- **Suitable for pH/ORP/Cl<sub>2</sub>/O<sub>3</sub>/ClO<sub>2</sub>/DO**
- **User selectable flush duration**
- **User selectable flush frequency**
- **'Flush now' facility**
- **Simple, infrequent maintenance**

### Principle of Operation

The idea is simple and effective...every x minutes, (the user can adjust x) the sample drains away and the sensor and sensor housing is flushed with clean water. This water flushes the whole of the inside of the sensor housing taking away any build-up of solids to drain. The repeated flushing of the housing and sensor helps prevent the build-up of solids and so prolongs the life of the sensor and reduces the maintenance. For waxy or fatty build-ups, warm water can be used to flush the sensors. Optionally, heavy duty pinch valves ensure reduced maintenance over a long life even in applications containing fibre.

There are different versions available depending on the water quality of the application. The Standard Autoflush utilises a large bore solenoid whereas the 'fibre' version utilises pinch valves that are not affected by fibres in the sample. Each Autoflush system can accommodate up to two sensors.

### Process Autoflush

Process Autoflush was designed for online batch processes that are turned on and off. Sensors are flushed at predetermined times that can be set during commissioning, the Process Autoflush takes a signal from the process that tells the Autoflush if the process is running or not. If the process is not running then the system will automatically go into a holding pattern where the sensor is held in flush water and flushed until the process restarts. This allows the membranes to remain wet and clean ready to control the process when it restarts.



*"The Autoflush from Pi has meant that we can now measure chlorine applications in dirty water applications reliably which previously we couldn't."* **Eddy Scott, UK**

### Standard Autoflush

Standard Autoflush was designed for an online process that is running continuously, the sensors are flushed at predetermined times that can be set during commissioning.

### Applications

- **pH:** paper mills, slurries
- **ORP:** scrubbers
- **Chlorine:** food disinfection, paper mill stock, waste water, pre-chlorination
- **Ozone:** food washing
- **Bromine:** pasteurisers