

## Flow / No Flow Detection with Hazloc Approvals



The [single-piece FD-2000](#) is a flow/no flow detector used to prevent cross contamination by ensuring flow has stopped completely before a new material is introduced into the flow stream. It detects even the tiniest trickle of flow of powders or solids. It is used in gravity chutes, feeders, pipelines, conveyor belts, or bucket elevators. With Class II approvals and rugged construction, it is especially popular with feed, grain, milling, food, cement, mining, power, and plastics operations.

### Prevent Cross Contamination & Comply with FSMA

It is significant to operations that must comply with the Food Safety Modernization Act (FSMA), when used as a preventive control and alarm to detect flow/no flow conditions while handling grain, feed, food, and ingredients.

### Detect Blockages, Empty Conveyors, or Loose Gates

The FD-2000 prevents downtime caused by blockages, conveyors running empty, no material flow to-and-from a process, or loose slide gates that can cause contamination, improper portioning, production loss, equipment damage or failure.

### Single-Piece Unit with Simple Set Up

The single-piece unit houses both the remote sensor and control console in a single NEMA 4X enclosure. Controls for the initial calibration, adjusting sensitivity, and setting output delays are accessible by unscrewing the lid of the

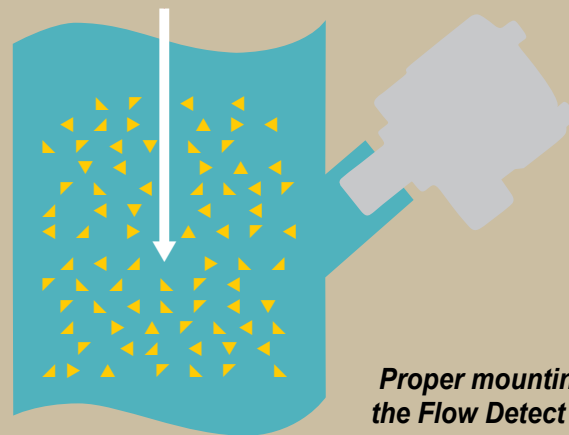
device. LED lights indicate power, flow/no flow and fault conditions and show the status of the device. It installs quickly & easily in a 1-1/4" NPS fitting and has no contact with the filling stream.

### Microwave-Based Doppler Technology

The FD-2000 uses low-power, microwave Doppler technology for highly sensitive motion detection that can pass through non-metallic materials. It includes a switchable filter to reduce the effect of vibration and ensure the detection of a trickle flow to fast-flowing materials. A single analog relay output communicates flow or no flow status to a PLC and has the option of using both normally open (NO) and normally closed (NC) contacts. LED indicator lights alert the end user of the device's status.

## Reliable Solids Flow Detector

- Class II hazardous location approvals
- One-piece design with built-in controls
- Detects solids, granules, pellets, meals & powders
- Prevents cross contamination for FSMA compliance
- Installs simply using 1-1/4" NPS fitting



*Proper mounting of the Flow Detect 2000*



# One Tough Capacitance Probe

BinMaster's toughest probe yet! The new [BinMaster HD probe](#) is a heavy duty, stainless steel probe that attaches to standard PROCAP I or hazloc PROCAP II capacitance probes. This rugged probe comes in a standard 8" length and features a Teflon finish to prevent material buildup and false readings. The robust 1" diameter increases the surface area for maximum sensitivity. Use it in powders like fly ash or high bulk density materials like coal, clinker, aggregates, or grain.

- Heavy duty, 1" diameter SS probe resists bending and breaking
- Teflon coating resists buildup and prevents false readings
- Suitable for high temperatures up to 500°F (260°C)
- High and low level detection in bins, tanks, or silos
- For standard [PROCAP I](#) or [hazloc PROCAP II](#) capacitance probes

## Digital Stored Grain Management



There's a new solution to maximize crop condition and value, while minimizing handling to get the best return on your grain assets. Digital sensors combined with [smart software](#) provide early detection and alert to hot spots that can indicate spoilage, fungus, insect infestation or other biologic activity. For operations required to comply with FSMA, data from these sensors and software can be part of a compliance and preventive action plan.



- [Monitor temperature, moisture and provide aeration control](#) to maximize the condition of stored grains of all types
- [Temperature cables](#) with precise digital temperature sensors won't drift and perform more reliably than analog technology
- [Digital moisture sensing cables](#) reduce losses due to spoilage from excessive moisture or shrinkage due to over-drying
- Automated aeration control ensures fans are run at optimal times and only when absolutely necessary to prevent shrinkage and reduce energy costs
- Modbus communication of data to your HMI, PLC or to Crop-Protector™ software

## Affordable, Submersible Liquid Level Transmitter

Just drop it in! The [PT-500](#) is a 316L SS sensor featuring built-in surge and lightning protection and simple field zero adjustment using a magnet. It has hazardous location approvals, is highly accurate, and offers a protective reusable cage option. It is used for water and wastewater management, chemical tanks, waste lift station overflow prevention, or leachate tanks.

- Class 1, Division 1; Groups C & D approvals
- Submersible up to 450 feet
- Accuracy to  $\leq 0.50\%$  of span (BFSL)
- 4-20 mA output
- Built-in lightning and surge protection
- Optional reusable protective cages
- Simple field zero adjustment using a magnet

