

# ***BINMASTER*** Mini-Capacitance Probes

## Small sensor fits right in

*Bluetooth-programmable sensor for level detection in tight spaces*

When precision and control is critical for bulk ingredient processing, BinMaster's mini-capacitance probes can transform the way your employees monitor levels in vessels containing everything from pharmaceutical powders to beer and butter.

Mini-capacitance probes provide point-level detection in light bulk solids or water-based liquids. They alert to material levels too high or too low. As a process control, mini-capacitance probes ensure production runs efficiently and there is adequate supply to prevent downtime.

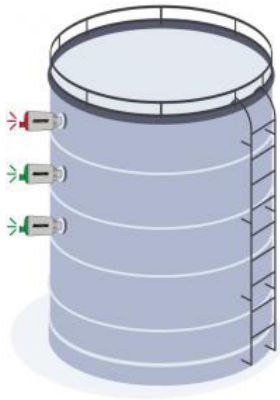
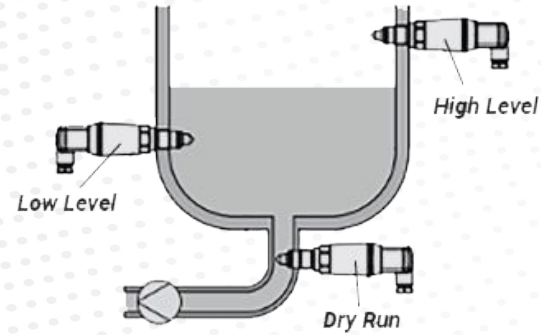
Choose from models for liquids, solids, or an extended unit for liquids.



# Small sensors. Big impact.

## How does a capacitance probe work?

When material rises and covers a capacitance probe, the capacitance changes. It changes again when the probe is uncovered. The probe's electronics relay data that a switch has occurred. BinMaster mini-capacitance probes ignore buildup to prevent false alerts.



## Alert to overfills, low levels and dry runs

Know the status of the vessel when the color changes on the sensor. You can see the bright light from a distance. No need to constantly check each vessel on the plant floor.

## Simple set up with Bluetooth

Connect to power using an M12 connector, then download the free BinMaster sensor app to program your mini-capacitance probe using wireless Bluetooth on your phone or a USB cable connected to a PC. You can set vessel dimensions and adjust parameters with the free App available on Apple App Store or Google Play. Once connected, an IO link sends digital data to a PLC, control room or HMI.



## Return on investment

- > Saves steps and employee workhours
- > Alerts for overfills
- > Automatically start/stop a process
- > Alerts to clogged or empty conveyors
- > Fits in tight areas, unaccessible with other sensors
- > Monitor storage in silos, tanks, hoppers, condensers, mills, feeders, and more



# Pick a mini-probe for your application



## MCP-300 for water-based liquids

MCP-300 mini-capacitance probe, with stainless-steel tube customized in lengths from 2.4" to 9.8", is used for point-level detection in water-based liquids. It comes with FDA approvals for hygienic conditions, or it can be used in ordinary inventory and process control applications, or to detect floods in a pump room. It installs using a 1/2" NPT, 3/4" NPT, or 1" NPT stainless steel fitting. Connect to power using an M12 connector.

### Application examples

- > Protect pumps from water damage caused by leaks
- > Maintain proper levels in hops and wort tanks at breweries
- > Fermentation of dairy cultures for yogurt, kefir, butter, or cheese
- > Metering coagulants or enzymes added to milk when making foodstuffs.

## MCP-200 for light-bulk solids

MCP-200 mini-capacitance probe is for point level measurement in light bulk solids. This probe works well for silos, hoppers, mills, or feeders to prevent overfills, low levels and dry runs that can damage equipment.

BinMaster offers hygienic connectors ideal for food, beverage, or pharmaceutical processors, including G1/2", G1" with o-ring, G1" with metallic sealing, and welded sockets. Connect to power using an M12 connector.

### Application examples

- > Dry ingredients, grains, and malts for food and beverage
- > Makers of medications or supplements for pharmaceutical
- > Monitoring and dispensing of feed for fisheries or aquaculture.



## MCP-100 for liquid



MCP-100 probe is for point level measurement in any water-based liquid. Optional universal connectors and 3A or FDA approvals. It installs using a 1/2" NPT, 3/4" NPT, or G1/2" NPT stainless steel fitting. Connect to M12. No calibration needed.

### Application examples

- > Monitor levels in process and storage tanks
- > Prevent dry runs in vats or tanks
- > Condensers used for chilling and freezing
- > Steam separators used in cooking and heating



**Best practice:** Contact BinMaster to match your material to the correct mini-capacitance probe!



# Mini-capacitance switch brings big results with small-profile tech

- > Colored 360° status display, adjustable
- > NPN/PNP transistor or IO link output
- > Easily integrates into control systems through Bluetooth, IO-Link
- > Low-cost limit switch with smallest installation dimensions
- > Food, beverage, pharmaceutical, agriculture
- > Storage containers, condensers, fermentation tanks, mixers, capsules, tank feeders, and more

Model	Application	Process fitting	Temperature	Pressure	Approvals	Output
MCP-100	Liquids	Thread 0.5" NPT, ASME B1.20.1/315L Thread 0.5" G 316/L for hygienic adapter Thread 0.75" NPT, ASME B1.20.1/36L Thread 1.0" NPT, ASME B1.20.1/36L Clamp 1.0" (ø50.5mm) DIN32676, ISO2852/316L (Ra<0.76um) Clamp 1.5" (ø50.5mm) DIN32676, ISO2852/316L (Ra<0.76um) Clamp 2.0" (ø50.5mm) DIN32676, ISO2852/316L (Ra<0.76um)	-40°C to +115°C	-1 ... +64 bar	ATEX, UKEX, IECEX, CE 1935/2004, FDA, 3-A, EHEDG, ASME, BPE, USP Class VI, ADI, China FDA, WHG, VLAREM, SVTI, Ship	Transistor (NPN/PNP)  IO-Link
MCP-200	Light bulk solids	Thread 0.5" NPT, ASME B1.20.1/315L Thread 0.5" G 316/L for hygienic adapter Thread 0.75" NPT, ASME B1.20.1/36L Thread 1.0" NPT, ASME B1.20.1/36L Clamp 1.0" (ø50.5mm) DIN32676, ISO2852/316L (Ra<0.76um) Clamp 1.5" (ø50.5mm) DIN32676, ISO2852/316L (Ra<0.76um) Clamp 2.0" (ø50.5mm) DIN32676, ISO2852/316L (Ra<0.76um)	-40°C to +115°C	-1 ... +64 bar	ATEX, UKEX, IECEX, CE 1935/2004, FDA, 3-A, EHEDG, ASME, BPE, USP Class VI, ADI, China FDA, WHG, VLAREM, SVTI, Ship	Transistor (NPN/PNP)  IO-Link
MCP-300 (extension available)	Liquids or bulk solids	Thread 0.5" NPT, ASME B1.20.1/315L Thread 0.5" G 316/L for hygienic adapter Thread 0.75" NPT, ASME B1.20.1/36L Thread 1.0" NPT, ASME B1.20.1/36L Clamp 1.0" (ø50.5mm) DIN32676, ISO2852/316L (Ra<0.76um) Clamp 1.5" (ø50.5mm) DIN32676, ISO2852/316L (Ra<0.76um) Clamp 2.0" (ø50.5mm) DIN32676, ISO2852/316L (Ra<0.76um)	-40° to +115°C	-1 ... +64 bar	ATEX, UKEX, IECEX, CE 1935/2004, FDA, 3-A, EHEDG, ASME, BPE, USP Class VI, ADI, China FDA, WHG, VLAREM, SVTI, Ship	Transistor (NPN/PNP)  IO-Link