

CAPACITANCE LEVEL SENSORS

*For Solid and Liquid
Point Level Detection,
Plugged Chute Detection
and Process Control*



BINMASTER
Taking Control...To A Higher Level

PRO SERIES Capacitance Sensors

No Plant Equipment Interference

BinMaster's PRO Series capacitance sensors provide reliable point level detection and process control for solid, liquid and slurry applications. PRO Series sensors feature a unique design which doesn't emit RF signals. "Quick-Set" calibration provides simple selection of detection sensitivity. PRO-Shield design ignores material build-up on the sensor probe and guards against false indications. Backed by a two-year warranty, the PRO Series sensors are the most dependable capacitance sensors you can buy – period.

OPERATION

NO RF SIGNALS –

BinMaster's PRO Series capacitance sensors provide high sensitivity and accurate level detection without using radio frequency signals. **Competitive capacitance sensors which emit RF signals** are subject to Federal Communication Commission regulations and **may interfere with nearby electronic plant equipment.** According to the FCC, signals in excess of 9 KHz are classified as "RF". **Many competitive manufacturers** have ignored or

are unaware of the FCC regulation requiring verification of RF signal levels radiated from their capacitance sensor products. Manufactures of these products **may be in violation of FCC regulations and subject to penalty.**

HOW THE PRO SERIES SENSORS WORK –

BinMaster's PRO Series capacitance sensors read the presence or absence of material in contact with the probe by sensing a change in capacitance caused by the difference in the dielectric constant of the vessel material and air. These sensors must be able to sense very small changes in capacitance, typically one picofarad. To sense such a small capacitance change, competitive manufacturers often use electronic circuits incorporating frequency shift oscillators and balanced bridges that must operate at high frequencies in the RF range. Most capacitance sensor manufacturers use frequencies between 100 KHz and 2 MHz.

BinMaster's PRO Series use a unique discharge time constant detector circuit which allows sensing capacitance changes less than one picofarad *without the need for radio frequencies.* **PRO Series** capacitance sensors operate at approximately 6 KHz, well below the RF level and therefore **not subject to FCC regulation.** Plus, because the

PRO Series sensors operate at such a low frequency, they **will not interfere with nearby electronic plant equipment** and are not susceptible to interference from other equipment.

FEATURES

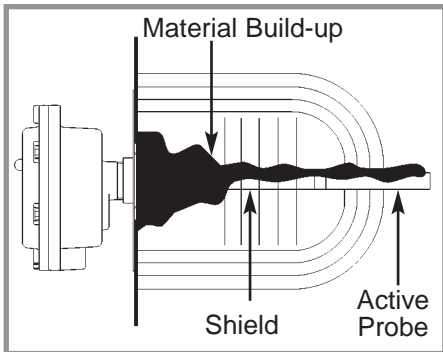
"QUICK-SET" CALIBRATION – Simple and Precise

Calibrating PRO Series sensors is made simple and precise with the Quick-Set design. Two single turn potentiometers are used to calibrate the sensor once it is installed in the vessel. One potentiometer labeled "fine" is set to the desired sensitivity for the vessel material. However, material does not need to be present when calibrating Pro Series sensors. And that's it. Two quick turns and the sensor will maintain precise calibration and dependable operation even throughout temperature changes.

FAIL-SAFE PROTECTION ELIMINATES PROCESS ACCIDENTS

PRO Series capacitance sensors feature fail-safe protection to eliminate process accidents caused by a power failure. A high/low selectable switch allows the sensor to be set for fail-safe high or fail-safe low. If a power failure occurs, the relay de-energizes and the contact will indicate a condition that is deemed safe for the application.

From RF Signals



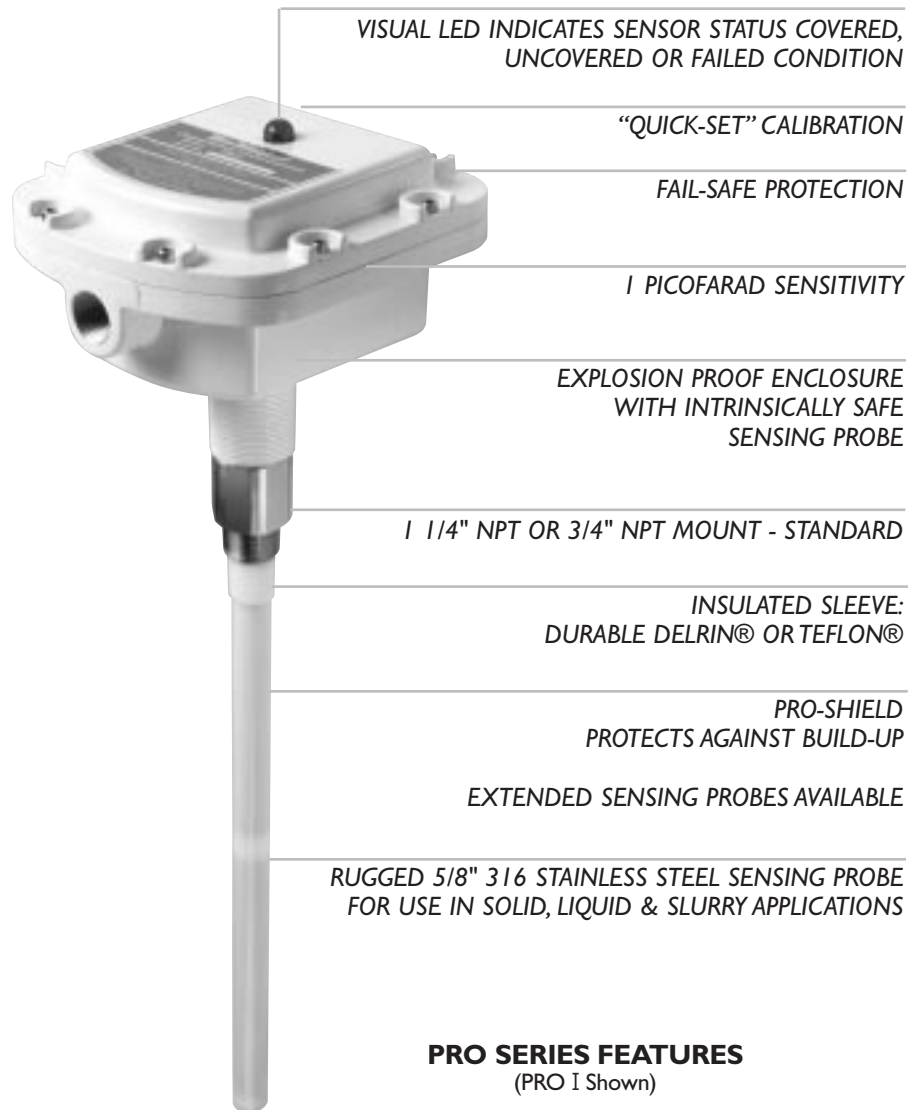
Side Mounted Probe - Ignores Buildup

PRO-SHIELD PREVENTS FALSE INDICATIONS

PRO Series sensors feature PRO-Shield to guard against false indications from build-up on the probe or bridging between the sidewall and the probe. The shield is a portion of the probe that emits a non-sensing signal that forces the active signal to examine a large area around the probe. The PRO-Shield allows the PRO Series sensors to be used in vessels storing a wide variety of dusty, sticky, or clinging materials.

TIME DELAY MINIMIZES FALSE SIGNALS

The PRO Series time delay feature minimizes false signals from sudden material shifts or splashing liquids caused by process activities. The time delay operates by "delaying" a set period of time prior to acknowledging the signal for a change in the presence or absence of material. The time delay is simple to adjust and may be set up to 10 seconds.



PRO SERIES FEATURES (PRO I Shown)

2 YEAR WARRANTY

PRO SERIES Capacitance Sensors

Level Sensors To Fit Your Application

APPLICATIONS

SOLID, LIQUID AND SLURRY APPLICATIONS

BinMaster's PRO Series capacitance sensors are designed for industries' wide array of applications. PRO Series sensors may be used in solid, liquid and slurry materials. The sensors may be used for high and low level detection in bins, silos, tanks, hoppers, chutes and other vessels where material is stored, processed or discharged.

DETECTS WIDE RANGE OF MATERIALS

Capacitance sensors are calibrated based on the dielectric constant of the material being detected. BinMaster's PRO Series sensors may be easily calibrated for detecting material with a dielectric content ranging from 1.5

picofarad and greater. With the simple to use "Quick-Set" calibration, you can quickly set the PRO Series sensor to detect your material in just a few seconds!

HIGH TEMPERATURE, VIBRATION AND HAZARDOUS APPLICATIONS

The PRO Remote capacitance sensor is specially designed for hostile applications with high temperature or vibration. This model features remote electronics located in a separate housing. With this unique "split" configuration, the sensor's electronics may be safely mounted up to 75' (depending upon necessary sensitivity) from the sensing probe and out of the hostile environment.



PRO REMOTE

COMMON PRO SERIES MATERIAL APPLICATIONS

| | |
|------------------|------------------|
| Calciums | Paints |
| Cement | Paper Pulp |
| Coal | Pellets Plastics |
| Chemicals | Pharmaceuticals |
| Feed | Rubber |
| Fly Ash | Sand |
| Food Ingredients | Seeds |
| Grains | Wastewater |
| Oils | Water |



COMPACT AND ECONOMICAL CAPACITANCE PROBE

CompactPRO provides reliable point level measurement in materials where proximity switches don't work. Special PRO-Shield technology ignores material buildup that causes proximity switches to fail. For use in metal, plastic or other non-metallic tanks and vessels.



AUTO CALIBRATION AND EXTERNAL TEST FEATURE

Pro Auto-Cal simple and automatic calibration and testing without having to remove the cover. Calibration takes just seconds and is performed with the use of a special magnet.

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LAG THROUGH THICK WALLS OR AWAY FROM HEAT SOURCE

Lagged Probes are used to extend the probe up to 2ft. through thick vessel walls or double-walled hoppers and bins. It can also be used to lag the electronics away from the heat source or to clear external insulation. Available in Stainless Steel or Galvanized pipe.

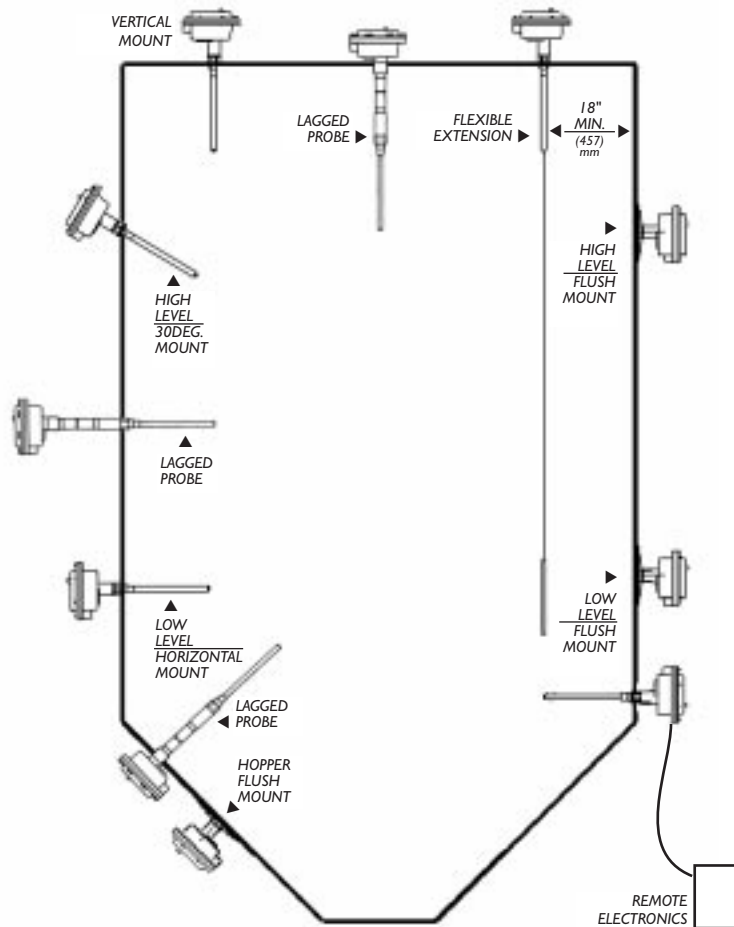


PRO X

PRO I

PRO X capacitance sensor is specially designed for hazardous location applications. The sensor housing is explosion proof: NRL/C, Class I, Group C, D and Class II, Group E, F, G. For Class II approval applications, select the Pro IIX. Both models are available with a standard or flush mount sensing probe.

MOUNTING OPTIONS



PRO I FEATURES LED STATUS INDICATOR

BinMaster's **PRO I** capacitance sensor features a brightly illuminated LED status indicator. The top mounted LED allows you to visually determine the status of the sensor without removing the cover. The status conditions are as follows: **Blinking LED** - the sensing probe is uncovered; **Solid LED** - normal operation and the sensing probe is covered; **Off LED** - failure has occurred and the fail-safe relay has responded.

PRO SERIES Power Pac Options



PRO I

Power Requirements: 120/240 VAC
50/60 Hz $\pm 15\%$, 5VA

Output Relay: DPDT 10 Amp
at 250 VAC

Ambient Temperature Electronics: -40°F to +185°F
(-40°C to +85°C)
Probe: 250°F Delrin (121°C)
500°F Teflon (260°C)

Pressure: 500 PSI, 3/4" Mount

Sensitivity Setting: Adjustable sensitivity
to < 1 PicoFarad

Calibration: "Quick Set"
Coarse/Fine Single Turn
Potentiometers

Fail-Safe: Switch Selectable
High/Low

Time Delay: Adjustable
.25 to 10 Seconds

Enclosure: Cast Aluminum,
Bolt-On Cover
USDA Approved Finish

Conduit Entry: 3/4" NPT

Mounting: 1 1/4" NPT or
3/4" NPT 316 SS

PRO-Shield: Compensates for Material
Build-up on Sensing Probe

Approval Ratings: NRTL/C
NEMA 4X, 5 and 12

Status Indicator: Visual LED Indicates
Sensor Status: Uncovered,
Covered and Power Failure

Probe Options: Delrin, Teflon, Food Grade,
Flush Mount,
Flexible Extension,
Stubby Shielded,
Extended Shielded,
Bare Shielded, Lagged

PRO X & PRO IIX (shown)

Power Requirements: 120/240 VAC
50/60 Hz $\pm 15\%$, 5VA

Output Relay: DPDT 10 Amp
at 250 VAC

Ambient Temperature Electronics: -40°F to +185°F
(-40°C to +85°C)
Probe: 250°F Delrin (121°C)
500°F Teflon (260°C)

Pressure: 500 PSI, 3/4" Mount

Sensitivity Setting: Adjustable sensitivity
to < 1 PicoFarad

Calibration: "Quick Set"
Coarse/Fine Single Turn
Potentiometers

Fail-Safe: Switch Selectable
High/Low

Time Delay: Adjustable
.25 to 10 Seconds

Enclosure: Cast Aluminum,
Bolt-On Cover
USDA Approved Finish

Conduit Entry: 3/4" NPT

Mounting: 1 1/4" NPT or
3/4" NPT 316 SS

PRO-Shield: Compensates for Material
Build-up on Sensing Probe

Approval Ratings: **PRO X** – NRTL/C
NEMA 4X, 5, 7, 9 and 12
Explosion Proof for
Class I Group C & D
Class II Group E, F, & G
PRO IIX – NRTL/C
NEMA 4X, 5, 9 and 12
Explosion Proof for
Class II Group E, F, & G

Status Indicator: Internal LED Indicates
Material In Contact
With Probe

Probe Options: Delrin, Teflon, Food Grade,
Flush Mount,
Flexible Extension,
Stubby Shielded,
Extended Shielded,
Bare Shielded, Lagged

PRO I-FL

Power Requirements: 120/240 VAC
50/60 Hz $\pm 15\%$, 5VA

Output Relay: DPDT 10 Amp
at 250 VAC

Ambient Temperature Electronics: -40°F to +185°F
(-40°C to +85°C)
Sensor: 150°F Standard (65°C)
450°F High Temp (232°C)

Pressure: 250 PSI, Flush Mount

Sensitivity Setting: Adjustable sensitivity
to < 1 PicoFarad

Calibration: "Quick Set"
Coarse/Fine Single Turn
Potentiometers

Fail-Safe: Switch Selectable
High/Low

Time Delay: Adjustable
.25 to 10 Seconds

Enclosure: Cast Aluminum,
Bolt-On Cover
USDA Approved Finish

Conduit Entry: 3/4" NPT

Mounting: Flush Mount
Non-Invasive

PRO-Shield: Compensates for Material
Build-up on Sensing Probe

Approval Ratings: NRTL/C,
NEMA 4X, 5 and 12
Note: Also available are
Explosion Proof model is for
Class I Group C & D and
Class II Group E, F, and G

Status Indicator: Visual LED Indicates
Sensor Status: Uncovered,
Covered and Power Failure

Probe Options: Flush Mount Sensor,
Standard and High Temp



PRO REMOTE



PRO III



PRO DC

| | |
|---|---|
| Power Requirements: | 120/240 VAC 50/60 Hz ±15%, 5VA |
| Output Relay: | DPDT 10 Amp at 250 VAC STATUS Contacts: 3 Amps 240 VAC |
| Ambient Temperature Electronics: | -40°F to +185°F (-40°C to +85°C) |
| Probe: | 250°F Delrin (121°C) 500°F Teflon (260°C) |
| Pressure: | 500 PSI, 3/4" Mount |
| Sensitivity Setting: | Adjustable Sensitivity to < 1 PicoFarad |
| Calibration: | "Quick Set" Coarse/Fine Single Turn Potentiometers |
| Fail-Safe: | Switch Selectable High/Low |
| Time Delay: | Adjustable .25 to 10 Seconds |
| Enclosure Probe: | Cast Aluminum, Bolt-On Cover USDA Approved Finish |
| Enclosure Electronics: | Plastic |
| Mounting: | 1 1/4" NPT or 3/4" NPT 316 SS |
| PRO-Shield: | Compensates for Material Build-up on Sensing Probe |
| Approval Ratings Probe: | NRTL/C NEMA 4X, 5 and 12 Intrinsically Safe Class I Group C & D Class II Group E, F, & G NEMA 4X, 5 and 12 |
| Electronics: | |
| Status Indicator: | Visual LED Indicates Sensor Status: Uncovered, Covered and Power Failure |
| Probe Options: | Delrin, Teflon, Food Grade, Flush Mount, Flexible Extension, Stubby Shielded, Extended Shielded, Bare Shielded, Lagged |

| | |
|---|---|
| Power Requirements: | 120/240 VAC 50/60 Hz ±15%, 5VA |
| Output Relay: | DPDT 5 Amp at 250 VAC |
| Ambient Temperature Electronics: | -40°F to +185°F (-40°C to +85°C) |
| Probe: | 250°F Delrin (121°C) 500°F Teflon (260°C) |
| Pressure: | 500 PSI, 3/4" Mount |
| Sensitivity Setting: | Adjustable Sensitivity to < 1 PicoFarad |
| Calibration: | "Quick Set" Course/Fine Single Turn Potentiometers |
| Fail-Safe: | Switch Selectable High/Low |
| Time Delay: | Adjustable up to 15 Seconds |
| Enclosure: | Die Cast Aluminum |
| Conduit Entry: | 3/4" NPT |
| Mounting: | 1 1/4" NPT or 3/4" NPT 316 SS |
| PRO-Shield: | Not Available |
| Approval Ratings: | NRTL/C NEMA 4, 5, 9 and 12 Explosion Proof for Class II, Group E, F, & G |
| Status Indicator: | Internal LED Indicates Material In Contact With Probe |
| Probe Options: | Delrin, Teflon, Bare, Food Grade, Flexible Extension, Stubby, Lagged |

| | |
|---|---|
| Power Requirements: | 12/24 VDC 50/60 Hz ±15%, 5VA |
| Output Relay: | DPDT 10 Amp at 250 VAC |
| Ambient Temperature Electronics: | -40°F to +185°F (-40°C to +85°C) |
| Probe: | 250°F Delrin (121°C) 500°F Teflon (260°C) |
| Pressure: | 500 PSI, 3/4" Mount |
| Sensitivity Setting: | Adjustable sensitivity to < 1 PicoFarad |
| Calibration: | "Quick Set" Course/Fine Single Turn Potentiometers |
| Fail-Safe: | Switch Selectable High/Low |
| Time Delay: | Adjustable up to 10 Seconds |
| Enclosure: | Die Cast Aluminum, USDA Approved Finish Powder Coat Finish |
| Conduit Entry: | 3/4" NPT |
| Mounting: | 1 1/4" NPT or 3/4" NPT 316 SS |
| PRO-Shield: | Compensates for Material Build-up on Sensing Probe |
| Approval Ratings: | NRTL/C, NEMA 4X, 5 and 12 |
| Status Indicator: | Internal LED Indicates Material In Contact With Probe |
| Probe Options: | Delrin, Teflon, Food Grade, Flexible Extension, Stubby Shielded, Extended Shielded, Bare Shielded, Lagged |



PRO AUTO CAL

Power Requirements: 120/230 VAC
50/60 Hz, $\pm 15\%$, 5VA

Output Relay: DPDT 10 Amp at 250 VAC

Ambient Temperature: (-40°F to +160°F)

Electronics: (-40°C to +70°C)

Probe: 250°F Delrin (121°C)
500°F Teflon (260°C)

Pressure: 500 PSI, 3/4" mount

Sensitivity Setting: Adjustable Sensitivity to < 1 Picofarad

Calibration: Calibrates through cover with magnetic applicator, or internal push button; 5 switch selectable sensitivity settings

External Test: Simulates covered or uncovered conditions through the cover using magnetic applicator

Fail-Safe: Switch Selectable High/Low

Time Delay: Adjustable .3 to 10 Seconds

Enclosure: Cast Aluminum Bolt-On Cover FDA Approved Finish

Conduit Entry: 3/4" NPT

Mounting: 1 1/4" NPT or 3/4" NPT, 316 SS

PRO-Shield: Compensates for Material Build-up

Approval Ratings: NRTL/C
NEMA 4X, 5, 9, & 12
Class II, div. 1, Groups E, F, & G

Status Indicator: Visual LED Indicates Sensor Status: Covered, Uncovered, Power Failure, and Calibration Status

Probe Options: Delrin, Teflon, Food Grade, Flush Mount, Flexible Extension, Stubby, Extended Shield, Bare Shielded, Lagged



PRO IIX 3A

Power Requirements: 120/240 VAC
50/60 Hz $\pm 15\%$, 5VA

Output Relay: DPDT 10 Amp at 250 VAC

Ambient Temperature:

Electronics: -40 to 185°F
(-40 to 85°C)

Probe: up to 250°F (121°C)

Pressure: 200 PSI

Sensitivity Setting: Adjustable sensitivity to <1 Picofarad

Calibration: "Quick Set" Coarse/Fine" Single Turn Potentiometers

Fail-Safe: Switch Selectable, High/Low

Time Delay: Adjustable .25 to 10 seconds

Enclosure: Cast Aluminum, Bolt-On Cover, USDA Approved Finish

Mounting: 1" Sanitary Ferrule with Optional Tri-Clover "Quick Release" Clamp Pro-Shield compensates for material build up

Approval Ratings: CSA, NRTL/C
NEMA 4X, 5, 9, & 12
Explosion Proof for Class II, div. 1 & 2, Groups E, F, & G
3A Dairy Food Grade

Probe Options: Delrin, Stubby, Shielded and Extended Shielded



COMPACT PRO

Power Requirements: 120 VAC, 230 VAC, or 24VDC

Output Relay: SPDT 5 amp at 250 VAC

Temperature:

Electronics: -40 to 185° F
(-40 to 85° C)

Probe: -40 to 240° F
(-40 to 116° C)

Enclosure: NEMA 4X, Dust Tight, Water Resistant

Sensitivity Setting: Adjustable sensitivity to <1 Picofarad

Calibration: Multi-turn Potentiometer

Fail-Safe: Switch Selectable, High/Low

Time Delay: Adjustable 1 to 30 Seconds

Enclosure: PVC

Probe: CPVC

Mounting: 1" NPS (1 1/4" NPS Adapter available)

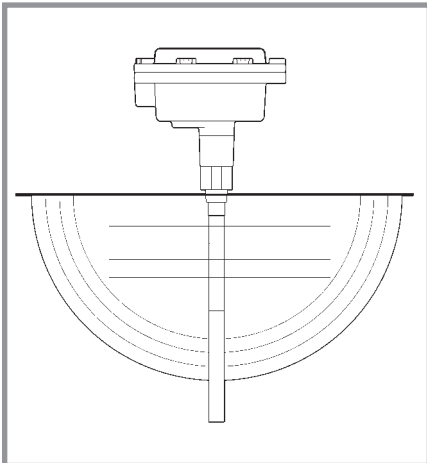
LED: Indicates Material Presence or Absence



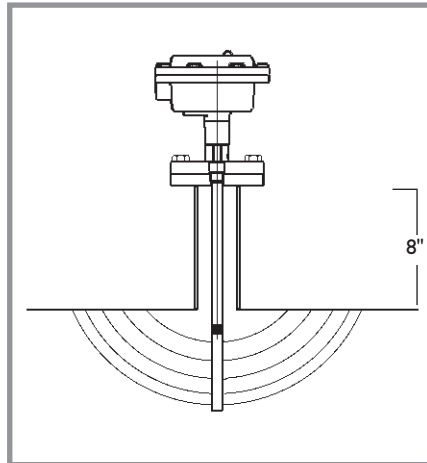
PRO SERIES Probe Options



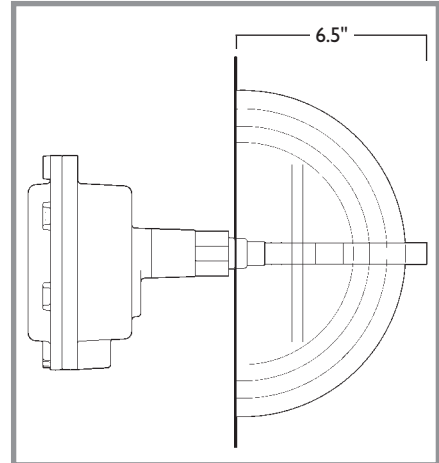
Taking Control...To A Higher Level



**Standard Shielded
Delrin/Teflon Sleeved Probe**



**Extended Shield
Delrin/Teflon Sleeved Probe**



**Stubby Shielded
Delrin/Teflon Sleeved Probe**

The standard Delrin/Teflon sleeved probe is our most versatile all-purpose probe. It works reliably in bulk solids, powders, slurries, and liquids. It has a rugged 5/8" dia. 316 SS probe featuring "PRO-Shield" protecting against false readings because of coating or buildup.

- Maximum Temp:** Delrin Sleeved
250° F. (121° C)
Teflon Sleeved
500° F. (260° C)
- Maximum Pressure:** 50 psi (3.5 kg/cm2)
1 1/4" NPT
500 psi (35 kg/cm2)
3/4" NPT
- Probe Material:** 5/8" dia. 316 SS
Delrin/Teflon sleeved
- Lengths Available:** 10.63", 18", 24", 30",
36", 48", and custom
order lengths
- Fitting Options:** 3/4" NPT, 1 1/4" NPT,
1" food grade,
1 1/2"/3"/4" 150#
Raised Face Flanges
- Power Pac Options:** PRO I, PRO IIX,
PRO X, PRO DC,
PRO Remotes,
PRO Auto-Cal
- Applications:** Point level detection
and process control
for solid, liquid and
slurry materials.
Used in bins, tanks,
chutes, and spouts.

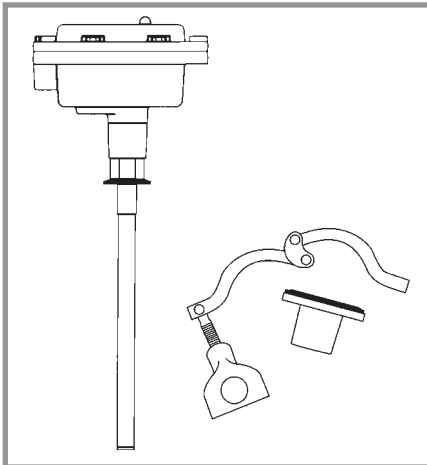
Designed with a 10" extended PRO-Shield, used when mounting the probe through a nozzle or standpipe. This probe has all the same features as the standard probe.

- Maximum Temp:** Delrin Sleeved
250° F. (121° C)
Teflon Sleeved
500° F. (260° C)
- Maximum Pressure:** 50 psi (3.5 kg/cm2)
1 1/4" NPT
500 psi (35 kg/cm2)
3/4" NPT
- Probe Material:** 5/8" dia. 316 SS
Delrin/Teflon
sleeved
- Lengths Available:** 15", 18", 24", 30",
36", 48", and custom
order lengths
- Fitting Options:** 3/4" NPT, 1 1/4"
NPT, 1" food grade,
1 1/2"/3"/4" 150#
Raised Face Flanges
- Power Pac Options:** PRO I, PRO IIX,
PRO X, PRO DC,
PRO Remotes,
PRO Auto-Cal
- Applications:** Point level detection
and process control
for solid, liquid and
slurry materials.
Used when mount-
ing probe in a nozzle
or standpipe. Also
can be used when
excessive sidewall
buildup may occur.

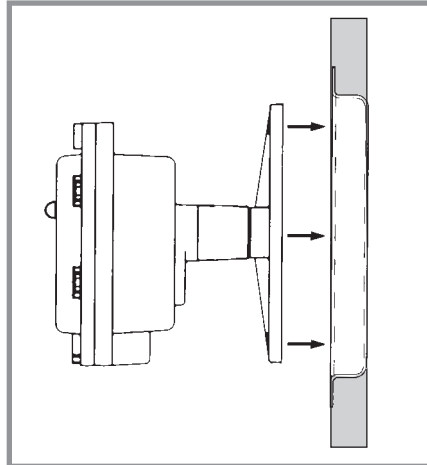
Designed with a 6.5" overall length while still giving you the PRO-Shield protection. This probe is especially designed for low level applications where minimal projection is preferred due to restricted area or excessive weight that could damage a longer probe. This probe has all the same features as the standard probe.

- Maximum Temp:** Delrin Sleeved
250° F. (121° C)
Teflon Sleeved
500° F. (260° C)
- Maximum Pressure:** 50 psi (3.5 kg/cm2)
1 1/4" NPT
500 psi (35 kg/cm2)
3/4" NPT
- Probe Material:** 5/8" dia. 316 SS
Delrin/Teflon sleeved
- Lengths Available:** 6.5"
- Fitting Options:** 3/4" NPT, 1 1/4" NPT,
1" food grade,
1 1/2"/3"/4" 150#
Raised Face Flanges
- Power Pac Options:** PRO I, PRO IIX,
PRO X, PRO DC,
PRO Remotes,
PRO Auto-Cal
- Applications:** Low level where
material/load on
probe may cause
damage or when
working in restricted
area or small vessel

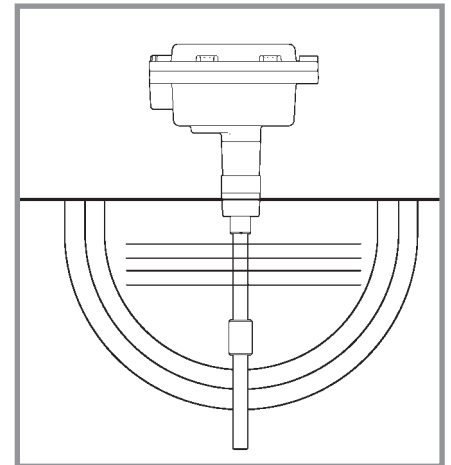
PRO SERIES Probe Options



**Shielded Delrin Sleeved
Sanitary/3-A Probe**



Flush Mounted Shielded Probes



**Shielded Unsleeved
Bare Probe**

Sanitary Probe meets 3-A and USDA Standards, conforming to the food industry's most demanding requirements for material, surfaces, and clean-in-place construction. This probe is designed for quick disconnect from tank to facilitate ease of inspection and cleaning.

Maximum Temp: 250° F. (121° C)

Maximum Pressure: 200 psi (14 kg/cm²)

Probe Material: 5/8" dia. 316 SS/
Delrin sleeved

Lengths Available: 4", 6.5", 10.63", 18",
24", 30", 36", 48",
and custom order
lengths

Fitting Options: 1" or 2" Sanitary
316 SS Fitting for use
with Tri-Clamp

Power Pac Options: PRO IIX 3-A

Applications: Point level detection
and process control
for solid, liquid and
slurry materials. Built
specifically for Dairy,
Pharmaceutical, and
Food Grade applica-
tions where 3-A/USDA
Sanitary Standards
apply. Used in bins,
tanks, chutes,
and spouts.

No probe intrusion designed for space constraint areas or applications where material flow or bridging may damage standard probes. The probe mounts flush on a vessel wall, conveyor housing or chute. A special bin wall adapter is available when working with thick walls or angled hoppers to move the face of the probe flush or slightly protruding with the inside of the vessel wall, eliminating false signals due to excessive buildup on the probe surface.

Maximum Temp: 150° F (65° C)
standard Probe
450° F (232° C)
High Temp. Probe

Maximum Pressure: 250 psi (17 kg/cm²)

**Probe Sensor
Material:** Standard Probe
Polyethylene
High Temp. Probe Teflon

Fitting Options: 5.75" hole mounted on
7.00" bolt circle

8.50" hole mounted on
9.50" bolt circle when
using bin wall adapter

Power Pac Options: PRO I, PRO IIX,
PRO X, PRO DC,
PRO Remotes,
PRO Auto-Cal

Applications: Detects presence of
material or level of
materials that may bend
or break other probes
when material shifts.
Works well in coal,
aggregate, gravel, or
other heavy and/or
chunky materials.

This is a bare shielded probe whose length can be modified in the field. It can be cut back to 8 inches or extended up to 5 feet. It has a rugged solid 5/8" dia. 316 SS probe featuring "PRO-Shield" protection against false readings because of coating or buildup.

Maximum Temp: 250° F. (121° C)

Maximum Pressure: 50 psi (3.5 kg/cm²)
1 1/4" NPT
500 psi (35 kg/cm²)
3/4" NPT

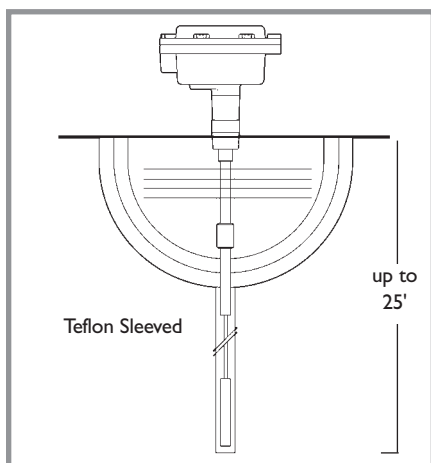
Probe Material: 5/8" dia. 316 SS/Bare

Lengths Available: 10.63 inches to 5 feet

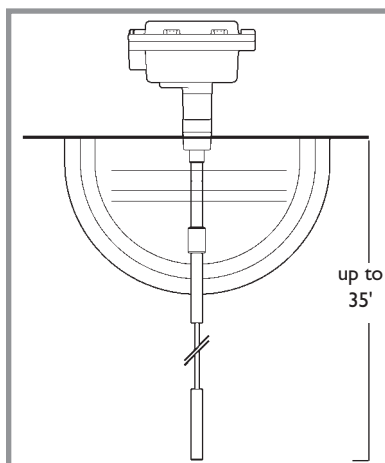
Fitting Options: 1 1/4" NPT

Power Pac Options: PRO I, PRO IIX,
PRO DC,
PRO Remotes,
PRO Auto-Cal

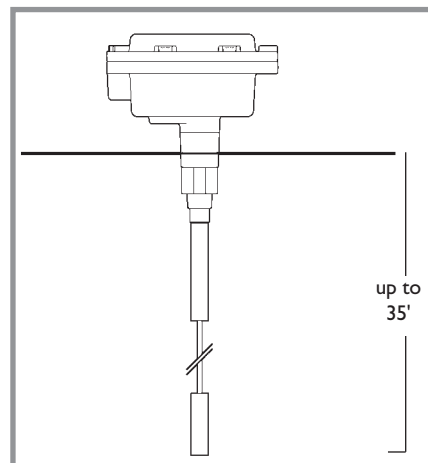
Applications: Point level detection
and process control for
powders and dry bulk
solid material that may
have a tendency to
build up and coat the
probe. Used in bins,
tanks, chutes, and
spouts.



**Shielded Custom Length
Teflon Sleeved 316 SS Hanging
Flexible Cable Extension**



**Shielded Custom Length
Bare 316 SS Hanging
Flexible Cable Extension**



**Unshielded Custom Length
Bare 316 SS Hanging
Flexible Cable Extension**

The Teflon sleeved flexible cable extension was designed for high, mid, or low level when it is necessary to top mount. The flexible extension is also used in aggregate, coal or other lump materials that might damage a rigid probe or in materials that are not compatible with Stainless Steel. Maximum length of the cable and weighted probe end is 25 feet. The cable can be cut to length in the field.

Maximum Temp: 500° F (260° C)

Maximum Pressure: 50 psi (3.5 kg/cm²)
1 1/4" NPT
500 psi (35 kg/cm²)
3/4" NPT

Probe Material: 316 Stainless Steel
1/4" diameter cable
with Teflon Sleeve and
insulator

Lengths Available: 16 inches to 25 feet

Fitting Options: 3/4" NPT, 1 1/4
NPT, 1" food grade,
1 1/2"/3/4" 150#
Raised Face Flanges

Power Pac Options: PRO I, PRO IIX,
PRO X (potted),
PRO DC,
PRO Remotes

Applications: Point level detection
and process control
for various solid, liquid
and slurry applications
when top-mounting.
This teflon sleeved
probe should be used
in applications where
conductive material
may leave residue on
the probe (most liquids
for instance). Note: Any
conductive residue
which builds up from
the vessel wall to the
active portion of any
unsleeved bare probe
will short out the two
conductors.

The flexible cable extension was designed for high, mid, or low level when it is necessary to top mount. The flexible extension is also used in aggregate, coal or other lump materials that might damage a rigid probe. This Flexible Cable Extension Probe features "PRO-Shield" protection against false readings because of coating or buildup. The Shielded probe also allows you to mount the probe in a standoff pipe or nozzle. Maximum length of the cable and weighted probe end is 35 feet. The cable can be cut to length in the field.

Maximum Temp: 250° F (121° C)
Standard Probe
500° F (260° C)
High Temp. Probe

Maximum Pressure: 50 psi (3.5 kg/cm²)
1 1/4" NPT
500 psi (35 kg/cm²)
3/4" NPT

Probe Material: 316 Stainless Steel
1/4" diameter cable
with Delrin insulator
High Temp. Probe 316
Stainless Steel 1/4"
diameter cable with
Teflon insulator

Lengths Available: 16 inches to 35 feet

Fitting Options: 3/4" NPT, 1 1/4 NPT,
1" food grade,
1 1/2"/3/4" 150#
Raised Face Flange

Power Pac Options: PRO I, PRO IIX,
PRO DC,
PRO Remotes,
PRO Auto-Cal

Applications: Point level detection
and process control
for various solid, liquid
and slurry applications
when top-mounting.

The flexible cable extension was designed for high, mid or low level detection when it is necessary to top mount. The flexible extension is also used in aggregate, coal or other lump materials that might damage a rigid probe. Maximum length of the cable and weighted probe end is 35 feet. The cable can be cut to length in the field.

Maximum Temp: 250° F (121° C)
Standard Probe
500° F (260° C)
High Temp Probe

Maximum Pressure: 50 psi (3.5 kg/cm²)
1 1/4" NPT
500 psi (35 kg/cm²)
3/4" NPT

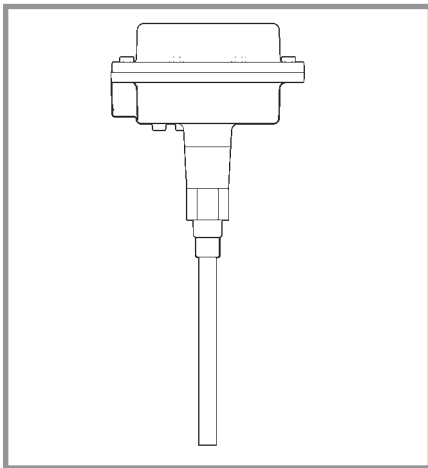
Probe Material: Standard Probe
316 Stainless Steel
1/4" diameter cable
with Delrin insulator
High Temp. Probe
316 Stainless Steel
1/4" diameter cable
with Teflon insulator

Lengths Available: 16 inches to 35 feet

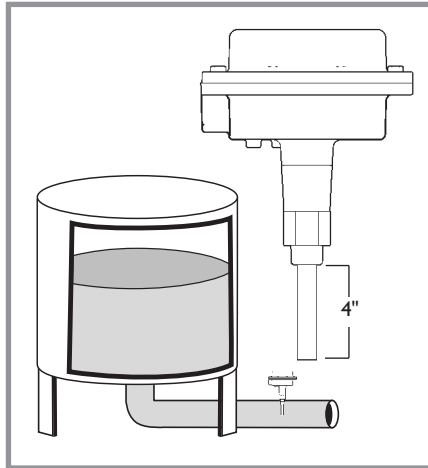
Fitting Options: 3/4" NPT, 1 1/4 NPT,
1" food grade,
1 1/2"/3/4" 150#
Raised Face Flange

Power Pac Options: PRO IIX

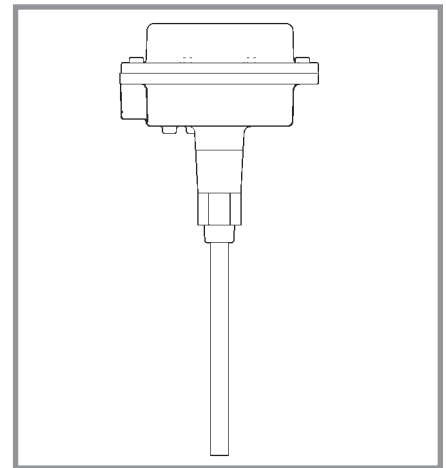
Applications: Point level detection
and process control
for various solid, liquid
and slurry applications
when top-mounting.



Unshielded Delrin/Teflon Sleeved Probe



Stubby Unshielded Delrin/Teflon Sleeved Probe



Unshielded Bare Stainless Steel Probe

The unshielded fully insulated Delrin/Teflon Sleeved probe is the standard probe on the PRO III X Power Pac. It was designed to be a lower cost yet versatile probe. This all-purpose probe works reliably in bulk solids, powders, slurries, and liquids. It has a rugged solid 5/8" dia. 316 SS probe.

- Maximum Temp:** Delrin Sleeved
250° F. (121° C)
Teflon Sleeved
500° F. (260° C)
- Maximum Pressure:** 50 psi (3.5 kg/cm2)
1 1/4" NPT
500 psi (35 kg/cm2)
3/4" NPT
- Probe Material:** 5/8" dia.
316 SS/Delrin sleeved
- Lengths Available:** 10.63", 18", 24", 30",
36", 48", and custom
- Fitting Options:** 3/4" NPT, 1 1/4" NPT,
1" food grade,
1 1/2"/3/4" 150#
Raised Face Flange
- Power Pac Options:** PRO III X
- Applications:** Point level detection
and process control
for solid, liquid and
slurry materials. When
working with powders
and bulk solids, this
probe works best if top
mounted or side
mounted in vessels
with free-flowing
material where
excessive sidewall
buildup is not present.
Used in bins, tanks,
chutes, and spouts.

The stubby unshielded probe is designed for minimal insertion into pipes, small hoppers, and in vessel where excessive buildup is not present. Also designed for low level applications where minimal insertion is preferred due to restricted areas or excessive weight that could damage a longer probe.

- Maximum Temp:** Delrin Sleeved
250° F. (121° C)
Teflon Sleeved
500° F. (260° C)
- Maximum Pressure:** 50 psi (3.5 kg/cm2)
1 1/4" NPT
500 psi (35 kg/cm2)
3/4" NPT
- Probe Material:** 5/8" dia. 316 SS
Delrin sleeved
- Lengths Available:** 4"
- Fitting Options:** 3/4" NPT, 1 1/4" NPT,
1" food grade,
1 1/2"/3/4" 150#
Raised Face Flanges
- Power Pac Options:** PRO III X,
- Applications:** Designed for minimal
insertion into pipes,
small hoppers, vessels,
or other restricted
areas and small vessels.

This is an unshielded probe whose length can be modified in the field. It can be cutback to 3 inches or extended to 8 feet. The probe will work reliably in a variety of powders and dry bulk solid materials.

- Maximum Temp:** 250° F (121° C)
Standard Probe
500° F (260° C)
High Temp Probe
- Maximum Pressure:** 50 psi (3.5 kg/cm2)
1 1/4" NPT
500 psi (35 kg/cm2)
3/4" NPT
- Probe Material:** Standard Probe 5/8"
dia. 316 SS/Bare with
Delrin insulator
High Temp. Probe
5/8" dia. 316 SS/Bare
with Teflon insulator
- Lengths Available:** 3", 4", 6", 10.19", 18",
24", 30", 36", 48", 72",
96", and custom
- Fitting Options:** 3/4" NPT, 1 1/4" NPT,
1" food grade,
1 1/2"/3/4" 150#
Raised Face Flange
- Power Pac Options:** PRO III X
- Applications:** Point level detection
and process control
for powder and dry
bulk solids. This probe
works best when top
mounted or side
mounted in vessels
with free-flowing dry
material where exces-
sive sidewall buildup is
not present. Used in
bins, tanks, chutes, and
spouts.

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