

## PROCAP Capacitance Level Sensors

#### Simple. Rugged. Reliable.

- . Triple thread screw on/off cover No more bolts!
- · Unsurpassed sensitivity and stability
- · No interference from RF signals
- · Switch selectable high/low fail-safe
- · "Quick-Set" calibration
- · Dual conduit entrance for improved wiring access
- · Hazardous location approval standard
- · Wetted parts are all 316 stainless steel
- Powder coat finish
- · Dual timer covered/uncovered flexibility

CONTACT YOUR DEALER FOR MORE INFORMATION OR A QUOTATION.



(800) 792-7427 OR (352) 628-6674



# PROCAP Capacitance Probes

(800) 792-7427 (352) 628-6674

#### No plant equipment interference from RF signals

#### **Innovative Design**

PROCAP capacitance probes use advanced integrated circuit technology operating at a low frequency to achieve both high sensitivity and stable calibration. The probe uses a simple timing technique that compares the discharge time of the probe capacitance to that of a reference capacitance. The probe's outstanding stability results from several factors.

- A single integrated circuit makes the critical timing comparison. Temperature variations have an equal effect on the timing of both the probe and reference capacitance and, therefore, cancel.
- The time interval at which the discharge comparison is repeated is not involved in the sensing process, making calibration independent of oscillator frequency and stability.
- Both the probe and the reference capacitance discharge are from a common voltage level. This makes calibration insensitive to power supply voltage variations.
- Equal internal capacitance in both the probe and reference circuitry make any temperature dependent changes to these component values cancel. In addition, these internal capacitors have zero temperature coefficients and are physically located together to assure they are at equal temperatures.

New calibration stability, along with static discharge survival, and RF immunity are three of the main reasons why BinMaster probes outperform the competition.

#### Interference Free

BinMaster's PROCAP capacitance sensors provide high sensitivity and accurate level detection without using radio frequency (RF) signals. According to the Federal Communications Commission, signals in excess of 9 KHz are classified as "RF" and are prone to radiate. Competitive capacitance sensors which emit RF signals may interfere with nearby electronic plant equipment. Conversely, some competitive sensors utilizing RF are themselves susceptible to interference from other RF sources and may not function properly when a device such as a two-way radio is operated near them. BinMaster PROCAP capacitance probes are completely immune to such interference issues.

#### "Quick-Set" Calibration

Calibrating PROCAP sensors is made simple and precise with the Quick-Set design using two single-turn potetiometers. One labeled "coarse" is used to compensate for the capacitance of the empty vessel. The other potentiometer labeled "fine" is set to the desired sensitivity for the vessel material. However, material does not need to be present when calibrating PROCAP sensors. Two quick turns and the sensor will maintain precise calibration and dependable operation even throughout extreme climate changes.

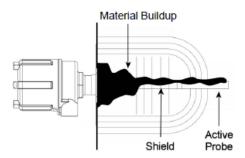
#### **Principle of operation**

BinMaster's PROCAP capacitance sensors detect 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

tance sensor manufacturers use freque cies between 100 KHz and 2 MHz.

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



## **Quality Construction, Reliable Performance**

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#### Accurate & reliable level detection even in the harshest conditions

## Pro-Shield Prevents False Readings

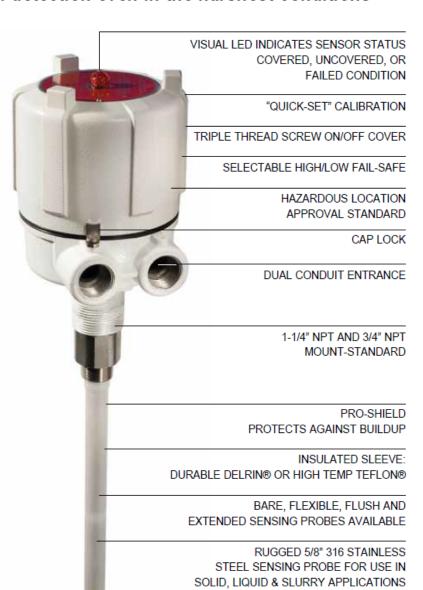
PROCAP sensors feature PRO-Shield to guard against false readings from buildup on the probe or bridging between the sidewall and the probe. The shield is a portion of the probe that emits a non-sensing signal that forces the active signal to examine a large area around the probe. The PRO-Shield allows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

#### Time Delay Minimizes False Signals

The 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 30 seconds. BinMaster also offers a dual timer capacitance probe with a flexible time delay for covered and uncovered conditions.

#### New Fail-Safe Protection Eliminates Process Accidents

PROCAP 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.



## **PROCAP Sensors**

**Modular Design, Many Applications** 

(800) 792-7427 (352) 628-6674

#### **Applications**

BinMaster's PROCAP capacitance sensors are designed for a wide array of applications. PROCAP 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 PROCAP sensors may be easily calibrated for detecting material with a dielectric constant ranging from 1.5 picofarad and greater. With the simple to use "Quick-Set" calibration, a PROCAP sensor can be set to detect your material in just a few seconds!



#### **OEM Models**

The shielded, bare stainless steel probe was designed to allow customers to purchase one standard probe and adjust the length in the field. The probe can be cut down to 8" or extended to 8'. This will reduce cost, decreases lead times, and allows stocking of one probe.



#### Extended Models

The flexible cable extension probe was designed for high, mid or low level detection when it is necessary to top mount the sensor. This probe is also very effective in aggregates, coal, or other lump materials that might damage a rigid probe. The maximum length of the cable is 35 feet. The cable can be cut to the desired length in the field.

#### Sanitary Models

Sanitary versions for the food and pharmaceutical industries have no threads and feature a tri-clamp connection. These units are 3-A/USDA compliant and are food grade safe. Units are designed to operate in clean-in-place (CIP) applications in the food industry.



#### Flush Mounted Models

This probe was designed for space constrained areas or applications where material flow or bridging may damage standard probes. The probe mounts flush on a vessel wall, conveyor housing or chute.



### (800) 792-7427 (352) 628-6674

## **PROCAP Series**

**Mounting Flexibility, Various Configurations** 



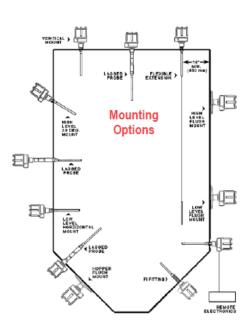
#### **Bendable Probe**

This probe can be bent to avoid obstructions in a vessel while still allowing adequate probe surface area to detect presence or absence of material. The bendable probe can be used in most solid materials; one popular use is in smaller mixers or containers for food processing applications.



#### **Hazardous Locations**

PROCAP IX & IIX capacitance sensors are specially designed for hazardous location applications. The sensor housing is explosion proof for Class I, Groups C & D and Class II, Groups E, F & G. This model is available with a standard or flush mount sensing probe.





#### **Remote Electronics**

Specially designed for hostile applications with high temperature or vibration, the probe and electronics are housed in separate enclosures. With this unique "split" configuration, the sensor's electronics may be safely mounted up to 75' from the sensing probe.



#### Auto-Calibration

The PRO AUTO-CAL calibration procedures take seconds and can be performed through the unit's cover with the use of a magnet. This unit also allows simulation of either covered or uncovered conditions without accessing the probe assembly or electronics.

# Common PROCAP Material Applications

Calcium Grains

Cement Oils

Coal Paints
Chemicals Paper Pulp

Feed Pellets
Fly Ash Plastics

Food Pharmaceuticals

Rubber Sand







#### PROCAP I & II **PROCAP IX & IIX PROCAP I 3-A & II 3-A**

24 to 240 VAC or VDC Universal Power Supply PROCAP I: Power -20°F to +145°F Ambient Temperature: (-28°C to +62°C) PROCAP II: 115/230 VAC Power 50/60 Hz, 2.2VA -40°F to +158°F Ambient (-40°C to +70°C) Temperature: DPDT 10 Amp Output Relay: at 250 VAC Probe: 250°F Delrin/Bare (121°C) 500°F Teflon (260°C) Pressure: 500 psi, 3/4" mount Adjustable sensitivity Sensitivity Setting: to < 1 picofarad "Quick Set" Calibration: Coarse/fine single turn

potentiometers

Fail-Safe: Switch selectable high/low

Dual delay covered/ Time Delay: uncovered up to 30 seconds

Enclosure: Die cast aluminum, threaded cover, FDA recognized powder coat finish

3/4" NPT Conduit Entry:

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

PRO-Shield: Compensates for material buildup on sensing probe

🖭 listed for Class II, Approval Groups E, F & G Hazardous Rating: Locations. Enclosure Type NEMA 4X, 5, 9 & 12. C€Mark.

Status Visual LED indicates Indicator: sensor status: uncovered,

covered, and power failure Probe

Delrin, Teflon, food grade, Options: flush mount, flexible extension, stubby shielded, extended shielded, bare shielded, lagged

PROCAP IX: 24 to 240 VAC or VDC Universal Power Supply Power

-20°F to +145°F Temperature: (-28°C to +62°C) PROCAP IIX: 115/230 VAC

**Ambient** 

Relay:

50/60 Hz, 2.2VA Power

-40°F to +158°F Ambient Temperature: (-40°C to +70°C) DPDT 10 Amp Output

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

at 250 VAC

Pressure: 500 psi, 3/4" mount

Sensitivity Adjustable sensitivity to < 1 picofarad Setting:

Calibration: "Quick Set" Coarse/fine single turn

potentiometers

Fail-Safe: Switch selectable high/low

Dual delay covered/ Time Delay: uncovered up to 30 seconds

Enclosure: Die cast aluminum. threaded cover, FDA recognized powder

coat finish

Conduit Entry: 3/4" NPT

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

PRO-Shield: Compensates for material buildup on sensing probe

Approval Rating: isted for Class I. Groups C & D and Class II, Groups E, F & G, Hazardous Locations. Enclosure Type NEMA 4X, 5, 9 & 12. C€ Mark.

Internal LED indicates Status Indicator: material In contact with probe

Delrin, Teflon, food Probe grade, flush mount, Options: stubby shielded, extended shielded, lagged

PROCAP I: 24 to 240 VAC or VDC Universal Power Supply Power

Ambient -20°F to +145°F Temperature: (-28°C to +62°C)

PROCAP II: 115/230 VAC 50/60 Hz, 2.2VA Power

Ambient -40°F to +158°F Temperature: (-40°C to +70°C)

DPDT 10 Amp Output Relay: at 250 VAC

Probe: 250°F Delrin (121°C)

Pressure: 200 psi

Sensitivity Adjustable sensitivity Setting: to < 1 picofarad

Calibration: "Quick Set" Coarse/fine single turn

potentiometers

Fail-Safe: Switch selectable

high/low

Dual delay covered/ Time Delay: uncovered up to 30 seconds

Enclosure: Die cast aluminum, threaded cover, FDA

recognized powder coat finish

Conduit Entry: 3/4" NPT

Approval

1" or 2" Sanitary 316 SS Mounting:

Fitting

PRO-Shield: Compensates for material buildup on sensing probe

> Iisted for Class II, Groups E, F & G Hazardous Locations

Rating: Enclosure Type NEMA 4X, 5, 9 & 12. **C** € Mark.

Status Visual LED indicates Indicator: sensor status: uncovered, covered, and power

failure

Probe All Delrin sleeved style

Options: probes







#### PROCAP I-FL & II-FL

#### PRO REMOTE

#### COMPACT PRO

PROCAP I: 24 to 240 VAC or VDC Universal Power Supply Power -20°F to +145°F Ambient Temperature: (-28°C to +62°C) PROCAP II: 115/230 VAC Power 50/60 Hz, 2.2VA

Ambient -40°F to +158°F (-40°C to +70°C) Temperature:

Output DPDT 10 Amp Relay: at 250 VAC

150°F Standard (65°C) Probe: 450°F High Temp (232°C)

250 psi, flush mount Pressure:

Sensitivity Adjustable sensitivity to < 1 picofarad Setting:

Calibration: "Quick Set" Coarse/fine single turn

potentiometers

Fail-Safe: Switch selectable high/low

Time Delay: Dual delay covered/ uncovered up to

30 seconds **Enclosure:** Die cast aluminum,

threaded cover, FDA recognized powder coat finish

Conduit Entry: 3/4" NPT

Flush Mount Non-Invasive Mounting:

PRO-Shield: Compensates for material buildup on sensing probe

Approval Rating: Iisted for Class II, Groups E, F & G Hazardous Locations

Enclosure Type NEMA 4X, 5, 9 & 12. Units also available in Class Groups C & D. C € Mark.

Status Visual LED indicates Indicator: sensor status: uncovered, covered, and power failure

Flush mounted probe; Probe standard or high temp Options:

120/240 VAC Power 50/60 Hz ±15%, 5VA Requirements: -40°F to + 185°F Ambient (-40°C to +85°C) Temperature:

Output DPDT 10 Amp at 250 VAC Relay: status contacts: 3 Amps 240 VAC

250°F Delrin/Bare (121°C) 500°F Teflon (260°C) Prohe:

Pressure: 500 psi, 3/4" mount

Sensitivity Adjustable sensitivity Setting: to < 1 picofarad

Calibration: "Quick Set" Coarse/fine single turn potentiometers

Fail-Safe: Switch selectable

Time Delay: Dual delay covered/

uncovered up to 30 seconds

Enclosure: Cast aluminum. bolt-on cover FDA recognized finish

Enclosure Electronics: Plastic

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

PRO-Shield: Compensates for material buildup on sensing probe

E Listed NEMA 4X, 5 & Approval Ratings 12 Intrinsically Safe Probe:

Listed Class II, Group E, F, & G NEMA 4X, 5 Electronics:

and 12

Probe

Status Internal LED indicates Indicator: material in contact with probe

Delrin, Teflon, food grade, flush mount, flexible extension, Options:

stubby shielded, extended shielded, bare shielded, lagged Power 120 VAC, 230 VAC, Requirements: or 24VDC

Ambient -40°F to 185°F (-40°C to 85°C) Temperature:

Output Relay: SPDT 5 amp at 250 VAC

-40 to 240°F Probe: (-40 to 116°C)

Enclosure: NEMA 4X, dust tight,

water resistant

Sensitivity Adjustable sensitivity to

Setting: < 1 picofarad

Calibration: Multi-turn potentiometer

Fail-Safe: Switch selectable. high/low

Time Delay: Adjustable 1 to 30

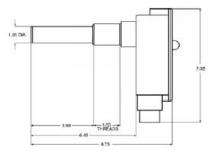
seconds

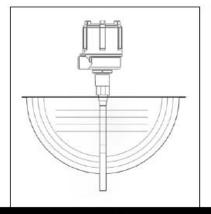
Enclosure: **PVC** 

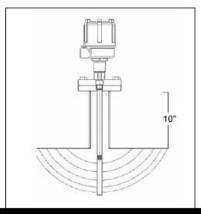
CPVC Probe:

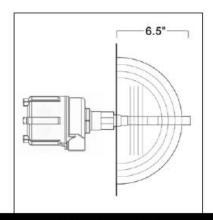
1" NPS (1-1/4" NPS Mounting: adapter available)

LED: Indicates material presence or absence









#### 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 the most versatile all-purpose probe. It works reliably in bulk solids, powders, slurries, and liquids. It has a rugged 5/8" diameter 316 SS probe featuring "PRO-Shield" protection 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" diameter 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"/2"/3"/4" 150# Raised face flanges

Power Pac Options: PROCAP | & ||

PROCAP IX & IIX PRO Remote 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" diameter 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"/2"/3"/4" 150# Raised face flanges

Power Pac Options: PROCAP | & ||

PROCAP IX & IIX PRO Remote PRO Auto-Cal

Applications: Point level detection

and process control for solid, liquid and slurry materials. Used when mounting 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 providing the PRO-Shield protection. This probe is specially 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" diameter 316 SS

Delrin/Teflon sleeved

Lengths Available: 6.5"

Fitting Options: 3/4" NPT, 1-1/4" NPT,

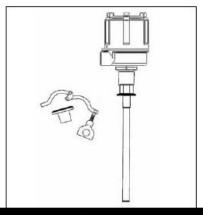
1" food grade, 1"/2"/3"/4" 150# Raised face flanges

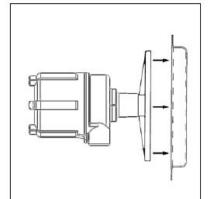
Power Pac Options: PROCAP | & ||

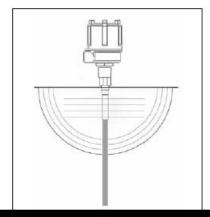
PROCAP IX & IIX PRO Remotes PRO Auto-Cal

Applications: Low level where

material load on probe may cause damage or when working in a restricted area or small vessel.







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

Flush Mounted **Shielded Probe** 

Bare Shielded **OEM 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 the tank to facilitate ease of inspection and cleaning.

Maximum Temp: 250°F (121°C)

Maximum Pressure: 200 psi (14 kg/cm²)

5/8" diameter 316 SS Probe Material:

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

PROCAP I 3-A & Power Pac Options:

II 3-A

Applications: Point level detection

and process control for solid, liquid and slurry materials. Built specifically for dairy, pharmaceutical, and food grade applications where 3-A/ USDA sanitary standards apply. Used

in bins, tanks, chutes, and spouts. No probe intrusion, designed for space constrained 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 the inside of the vessel wall, eliminating false signals due to excessive buildup on the probe surface.

150°F (65°C) Maximum Temp:

standard probe 450°F (232°C) High temp probe

Maximum Pressure: 250 psi (17 kg/cm²)

Standard Probe

Material:

Polyethylene High Temp Teflon

5.75" hole mounted Fitting Options:

on 7.00" bolt circle 8.50" hole mounted on 9.50" bolt circle when using bin wall

adapter

Power Pac Options: PROCAP | & II

PROCAP IX & IIX PRO Remote PRO Auto-Cal

Applications: Detects presence of

material or level of materials that may bend or break probes when material shifts. Works well in coal, aggregates, 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 7 inches or extended up to 8 feet. It has a rugged solid 5/8" diameter 316 SS probe featuring "PRO-Shield" protection against false readings because of coating or buildup.

250°F (121°C) Maximum Temp:

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"

> diameter 316 SS/Bare with Delrin insulator

Lengths Available: 7 inches to 8 feet

Fitting Options: 3/4" NPT, 1-1/4" NPT,

> 1" food grade, 1"/2"/3"/4" 150# Raised face flanges

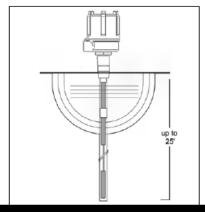
PROCAP I & II Power Pac Options:

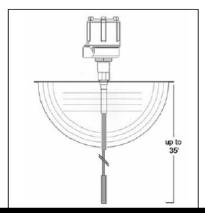
PRO Remote PRO Auto-Cal

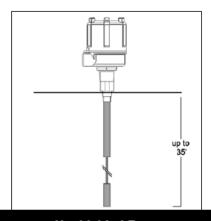
Applications: Point level detection

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 Teflon Sleeved 316 SS Hanging Flexible Cable Extension

Shielded Bare 316 SS Hanging Flexible Extension

Unshielded 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 aggregates, 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/cm<sup>2</sup>)

50 psi (3.5 kg/cm²) 1-1/4" NPT 500 psi (35 kg/cm²) 3/4" NPT

314 1

316 stainless steel 1/4" diameter cable with Teflon sleeve and insulator

Lengths Available: 16 inches to 25 feet

Fitting Options: 3/4" NPT,

3/4" NPT, 1-1/4" NPT, 1" food grade, 1"/2"/3"/4" 150# Raised face flanges

Power Pac Options:

Probe Material:

PROCAP I & II PROCAP IX & IIX PRO Remote PRO Auto-Cal

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 aggregates, 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

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

Lengths Available: 16 inches to 35 feet

Fitting Options: 3/4" NPT, 1-1/4"

NPT, 1" food grade, 1"/2"/3"/4" 150# Raised face flanges

Power Pac Options: PROCAP | & ||

PRO Remote 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 aggregates, 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,

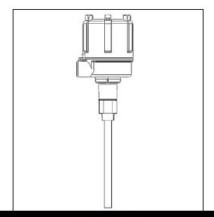
1" food grade, 1"/2"/3"/4" 150# Raised face flanges

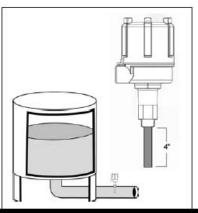
Power Pac Options: PROCAP | & ||

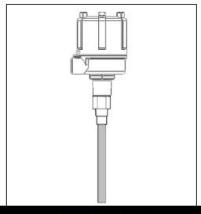
PRO Remote PRO Auto-Cal

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 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" diameter 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

34 14 1

Probe Material:

5/8" diameter 316 SS Delrin or Teflon 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"/2"/3"/4" 150# Raised face flanges

Power Pac Options: PROCAP I & II

PROCAP IX & IIX PRO Remote PRO Auto-Cal

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 vessels 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

314 141 1

Probe Material: 5/8" diameter 316 SS

Delrin or Teflon sleeved

Lengths Available: 4'

Fitting Options: 3/4" NPT, 1-1/4" NPT,

1" food grade, 1"/2"/3"/4" 150# Raised face flanges

Power Pac Options: PROCAP I & II

PRO Remote PRO Auto-Cal

Applications: Designed for minimal

insertion into pipes, small hoppers, vessels, or other restricted areas. An unshielded probe whose length can be modified in the field. It can be cut back 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" diameter 316 SS/bare with Delrin insulator High temp probe 5/8" diameter 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,

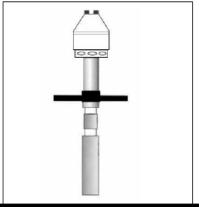
1" food grade, 1"/2"/3"/4" 150# Raised face flanges

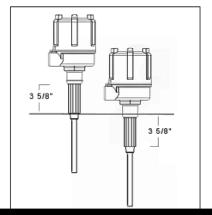
Power Pac Options: PROCAP | & ||

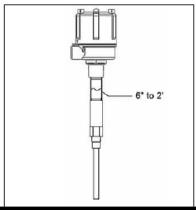
PRO Remote PRO Auto-Cal

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 excessive sidewall buildup is not present. Used in bins, tanks, chutes, and spouts.







#### Shielded Bare Stainless Steel/Ceramic High Temperature Probe

FI Fitting

Stainless Steel or Galvanized Lag

The high temperature PRO Remote capacitance probe is a heavy duty probe designed for applications that exceed 500°F (260°C). A stainless steel probe with ceramic inserts protects the probe from heat; remote electronics can be located up to 20 feet from the probe.

Maximum Temp: 1000°F (538°C)

Maximum Pressure: 100 psi (3.5 kg/cm²)

Probe Material: 1-1/8" diameter 316

SS with ceramic

inserts

Lengths Available: 9" (230 mm)

Fitting Options: 1-1/4" NPT

Power Pac Options: Remote electronics

only

Applications: Point level detection and process control

for solid, liquid and slurry materials. Used in bins, tanks, chutes, and spouts. The PROCAP FI stainless steel fitting is used to extend the probe 3-5/8" beyond the vessel wall to get past excessive buildup or through a thick wall. It can also be used to lag the electronics away from a heat source or clear external insulation. The extended lag fitting works with bare and Delrin sleeved probes.

Maximum Temp: Delrin sleeved/Bare

250°F (121°C)

Maximum Pressure: 50 psi (3.5 kg/cm²)

1-1/4" NPT 500 psi (35 kg/cm²)

3/4" NPT

Fitting Material: 316 SS

Lengths Available: 3-5/8"

Fitting Options: 3/4" NPT to lag

out, 1-1/4" NPT to lag in

Probe Options: All Delrin sleeved,

bare, and flexible probes

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Power Pac Options: PROCAP I & II

PRO Remote PRO Auto-Cal

Applications: Point level detection

and process control for solid, liquid and slurry materials. Used in bins, tanks,

chutes, and spouts.

The lagged probe fitting is used to extend the probe up to 2 feet through thick vessel walls or double-walled hoppers and bins. It can be used to lag the electronics away from a heat source or to clear external insulation. Available in stainless steel or galvanized pipe.

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

Lengths Available: 6" to 24"

Fitting Options: 3/4" NPT to lag

out, 1-1/4" NPT to lag in

Probe Options: All Delrin sleeved,

bare, and flexible

probes

Power Pac Options: PROCAP | & ||

PRO Remote PRO Auto-Cal

Applications: Point level detection

and process control for solid, liquid and slurry materials. Used in bins, tanks, chutes, and spouts.



CONTACT YOUR DEALER FOR A QUOTATION OR MORE INFORMATION:



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