







## Features

-  Strong, highly reliable and heavy-duty cables
-  Durable gland to cable connection
-  Fiber filled Delrin® insulators and support for longterm reliability
-  Secondary seal of PTFE prevents moisture and condensation from causing false switching
-  Bare stainless steel sensing rods and cables resist abrasion and corrosion
-  Proven reliability in wide-ranging solids applications

## Description

The top-mounted Delta Controls **P80 Series 2** Capacitance Probes are top-mounted on a tank or silo with a cable hanging inside the vessel. Bottom weights are required when strong air currents are present. The insertion should be limited to 6 feet when high velocity air currents are present. The glands are **sealed against moisture and water**. All materials are 316 Stainless Steel.

**Model P87** and Model P87W are general-duty probes with a 0.125 inch diameter (3 mm) cable without a weight. It is intended for service where roiling or side-to-side movement of the process solids occur. Applications include cement load out bins, flour bins, bottom centerline takeout pellet hoppers, etc.

**Model P87W** has a weighted bottom to provide cable stability.

**Model P88** is a heavy-duty probe with a 0.19 inch diameter (5 mm) cable and a bottom weight for service in heavy granules and similar small chunks. Taconite, marble chips, and similar materials are reliably sensed.

**Model P89A** is a heavy-duty cable probe which is hung from an internal support to the tank support. The lower end is free to move and follow the flow of material.

**Model P89B** has an additional tie-off at the tank's bottom and is recommended when there is substantial horizontal material flow. Multiple switch points or a 4-20 mA signal are common output signals. Used for service in tall cement silos, etc.



Model P80 Series 2

## Specifications

<b>Type:</b>	Top Mount
<b>Working Pressure:</b>	+1500 psig (+103.4 bar) at +100 °F (+38 °C)
<b>Working Temperature:</b>	-460 °F to +400 °F (-273 °C to +204 °C)
<b>Bulk Density:</b>	1230 lb/ft <sup>3</sup> to 6500 lb/ft <sup>3</sup>
<b>Insertion Length:</b>	Custom
<b>Process Connection:</b>	0.75 in NPT minimum
<b>Threaded Process Connection:</b>	0.75 in to 1.0 in
<b>Available Wetted Materials:</b>	316 Stainless Steel

## Model Numbering System

**MODEL EXAMPLE**    **MODEL** - **INSERTION LENGTH** - **PROCESS CONNECTION** - **OPTIONS<sup>1</sup>**

**P87** - **\*\*\*** - **0.75"MPTY** - **AA**

MODEL	DESCRIPTION
P87	Capacitance Probe, Flexible Cable, Dry Granulated Solids and Powders, General-duty
P87W	Capacitance Probe, Flexible Cable, Dry Granulated Solids and Powders, General-duty, Weighted
P88	Capacitance Probe, Flexible Cable, Dry Granulated Solids and Powders, Heavy-duty
P89A	Capacitance Probe, Flexible Cable, Dry Granulated Solids and Powders, Heavy-duty, Internal Mount
P89B	Capacitance Probe, Flexible Cable, Dry Granulated Solids and Powders, Heavy-duty, Internal Mount with Support

INSERTION LENGTH	DESCRIPTION
***	*** ft of insertion

PROCESS CONNECTION	DESCRIPTION	AVAILABLE TYPES
0.75"MPTY	0.75 MPT, 316 Stainless Steel	P87, P87W
1"MPTY	1 in MPT, 316 Stainless Steel	P88, P89A, P89B

OPTIONS <sup>1</sup>	DESCRIPTION
AA	None
VBKT	Cable clamp support arm for vertical mounting, carbon steel
HBKT	Cable clamp support arm for horizontal mounting, carbon steel
PH4	Probe head housing with terminals for use with remote mounted electronics unit, 4X housing
PH7	Probe head housing with terminals for use with remote mounted electronics unit, 7X housing

Notes:

<sup>1</sup> A hyphen will separate multiple options selected

### REQUIRED ORDERING INFORMATION:

- Detailed model number
- Tag or nameplate detail (if required)
- Documentation & testing packages (if required, refer to Additional Resources)

### Application Details:

- Process fluid or material name
- Process fluid or material dielectric constant
- Maximum process temperature
- Maximum process pressure