# MODEL P61 SANITARY PROBE INSERTED DIRECTLY INTO THE TANK

## **ADVANTAGES**

- Only FDA approved natural Kynar® or Polypropylene comes into contact with the process fluids
- Simple open construction is easily cleaned; manually, in place, or by steam
- Basic general purpose sanitary applications
- Suitable for the pharmaceutical industry
- Ladish Tri-Clamp® flange has a 316 S.S. backing for strength and maximum reliability
- Metal clamps hold full pressure seal even though all wetted materials are plastic
- Suitable for use on most slurry and entrained solid applications
- A authorized and listed sanitary sensor
- Used in dairies and food processing plants
- A good choice for many cosmetic and printing plants
- Works with conductive or non conductive liquids



The Model P61 sensing probe is designed for sanitary service which requires superior cleanliness and high reliability. The wetted surfaces are composed entirely of virgin natural Kynar® (PVDF) or Polypropylene plastic. These surfaces have been welded together into a single piece without joints, crevices, or cracks. The finished unit is flame polished for the utmost in smoothness and cleanability.

The plastic flange facing has a 316 S.S. backing plate for strength and reliability. The basic sanitary flange mates with a Ladish Tri-Clamp® tubing size flange. Other type connections, such as ACME nut, APC, and Cherry-Burrell are optional.

# **SPECIFICATIONS**

Working Pressure: Up to 500 PSIG (35 BAR)
Working Temperature: -40 to + 300°F (-40 to 150°C)

**Insertion Length:** Up to 8 feet (5 meters)

**Process Connection:** 1 inch or larger Tri-Clamp flange;

other styles and types optional

Electronic Modules: Compatible with all models

Process Temperature Sensing: Optional –125 to
250°F (-80 to 122°C); 4-20 mA output signal over a

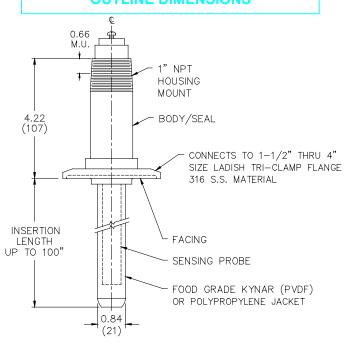
second 4-20 mA loop.

Wetted Material: Kynar® (PVDF) or Polypropylene

Body Materials: 316 stainless steel

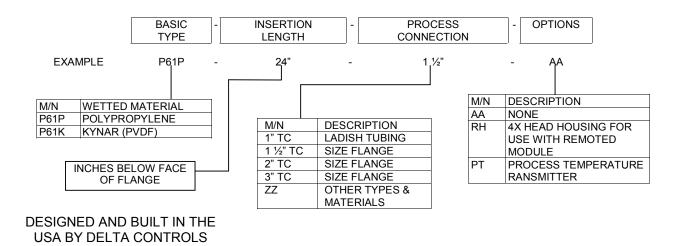


# **OUTLINE DIMENSIONS**



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### **MODEL NUMBERING SYSTEM**



# **DETERMINING PROBE PERFORMANCE**

STEP # 1 Determine "BSU"; total sensing unit equivalent when no material is covering the sensing probe.

A. Basic "SU" due to seal/body/temperature extension = 221

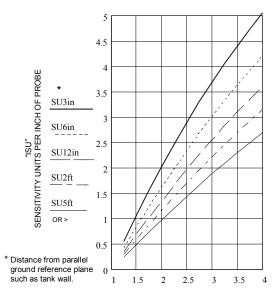
B. Inches sensing probe insertion x 3.0 = \_\_\_\_\_\_

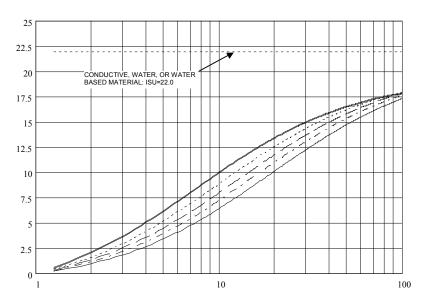
C. Inches of inactive shield and temperature extension X 22.0

D. Inches cable for remoted module x 4.5 = \_\_\_\_\_\_

"BSU" TOTAL = \_\_\_\_\_\_

STEP # 2 Determine "ISU"; quantity of sensing unit change due to a 1.0 inch change in the amount of process material covering the sensing probe. "ISU" = Read from graph below





Dielectric Constant of Process Material

Dielectric Constant of Process Material

Insert "BSU" and "ISU" (determined above) into the formulas shown in Application Note # PROB-198; "FORMULAS FOR MODELING AND PERFORMANCE TESTING". Verify that the selected probe and electronics module will meet the needs of the application and provide the expected results.

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