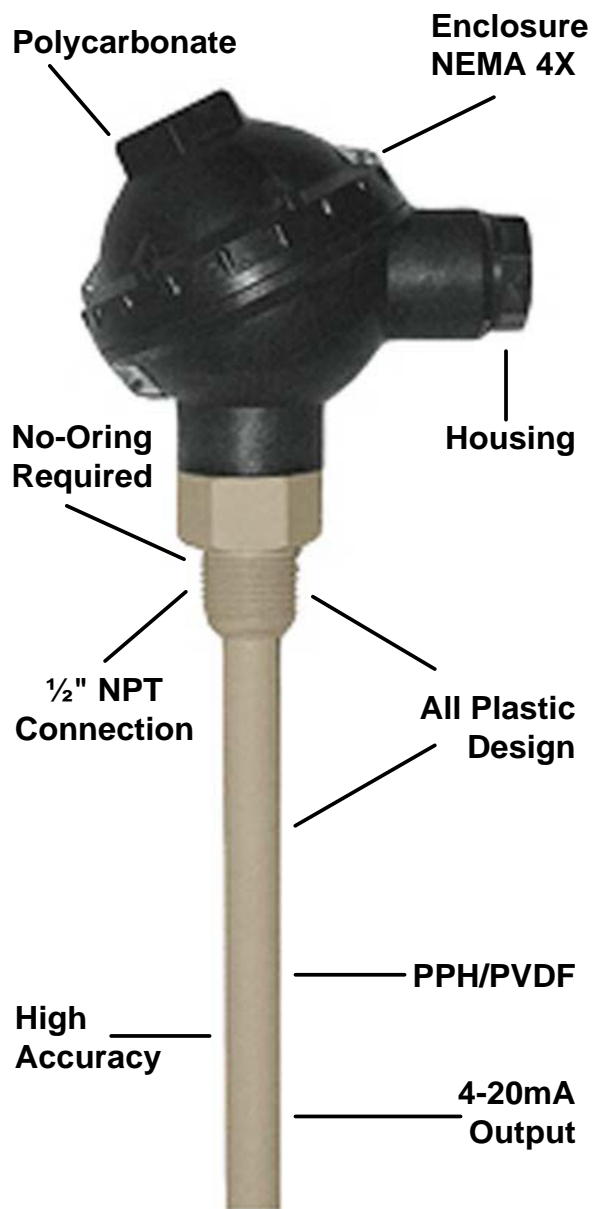


# TPP Series ALL PLASTIC TEMPERATURE PROBE



- Completely Corrosion Resistant
- Easy to Install
- High Impact NEMA 4X Plastic Enclosure
- PPH or PVDF Probe
- 3 Wire Design
- 3-Different Temperature Ranges  
0-100°C 32°F-212°F
- 4-20mA Output
- Standard Probe Lengths.
- Accuracy  $\pm 0.5\%$

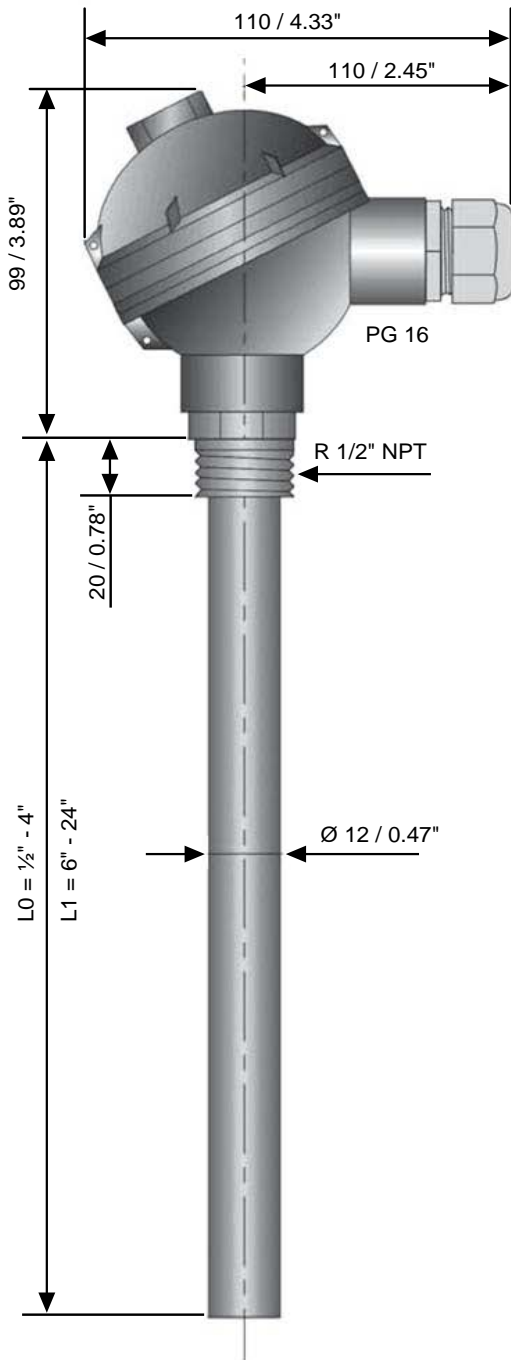
The Levelpro TPP Series Plastic Temperature probe is designed to handle industry's most corrosive applications. The TPP measures temperature by implementing a bimetal system inside the thermometer probe. The bimetal is non-wetted and consists of two thin strips of long term stability heat treated metals that are bonded together, both having different coefficients of thermal expansion. As the temperature increases the metal will begin to expand or contract, these changes are predictable and the resistive change per degree is used to determine temperature. The R vs T relationship is defined as the amount of resistance change of the sensor per degree of temperature change, and varies only marginally providing excellent repeatability.

The resistance is then converted into a 4-20mA output signal the can be sent to local or remote display, valve, pump, and used to control or monitor your process.

## CODE NUMBERS AND REFERENCES

Ordering Cord	Material	Range
720 403	PPH	152 0-115°
720 503	PVDP	162 0-212°

# Pt 100 $\Omega$ - PLASTIC TEMPERATURE PROBE



- PVC, PP, PVDF
- Pt 100  $\Omega$  at 0°C
- Operating range: -20...+140 °C
- Wetted parts: aggressive fluids
- All Plastic Designed to Handle

## DESCRIPTION & FEATURES

### Fitting

Without  
1/2" NPT

0  
1

### Probe material

PVC  
PPH  
PVDF

P  
H  
V

### Plunger length

L0 = 1/2" - 4"  
L1 = 6" - 24"

XXX

### Sensor

Simple 3 wires Output  
Simple 4 wires Output

3  
4  
6

### Connexion

Ceramic terminal box  
4-20 mA transmitter

C  
T

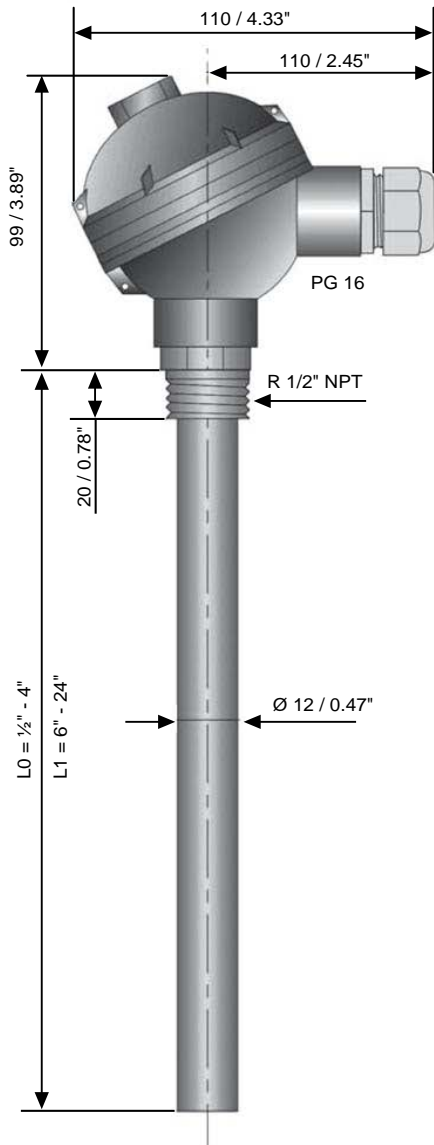
## Operating Limits

PVC: -10...60 °C  
PPH: -10...105 °C  
PVDF: -20...140 °C

TS 13

12

# Pt 100 $\Omega$ - PLASTIC TEMPERATURE PROBE



**Industrial probes and boards are base on :**  
 **$R_o = 100 \text{ Ohms}$**   
 **$R_{100^\circ\text{C}} = 138,5 \text{ Ohms}$**

## STANDARDS AND TOLERANCES

INTERNATIONAL CEI 751

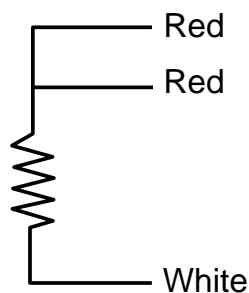
acceptable tolerances in  $^\circ\text{C} \pm (0,15 + 0,002[t])$  for class A

acceptable tolerances in  $^\circ\text{C} \pm (0,3 + 0,005[t])$  for class B

[t] is temperature value in  $^\circ\text{C}$ .

Temperature in $^\circ\text{C}$	Acceptable Tolerance	
	$\Omega$	$^\circ\text{C}$
-200	$\pm 0,24$	$\pm 0,55$
-100	$\pm 0,14$	$\pm 0,35$
0	$\pm 0,06$	$\pm 0,15$
100	$\pm 0,13$	$\pm 0,35$
200	$\pm 0,20$	$\pm 0,55$
300	$\pm 0,27$	$\pm 0,75$
400	$\pm 0,33$	$\pm 0,95$
500	$\pm 0,38$	$\pm 1,15$
600	$\pm 0,43$	$\pm 1,35$
700	$\pm 0,46$	$\pm 1,45$

## SETTINGS AND CONNECTIONS



2 / 3 wires setting  
 for industrial applications.  
 This setting limits the effect of lines  
 resistances