Level pro

TPP Series ALL PLASTIC TEMPERATURE PROBE

Polycarbonate

Enclosure NEMA 4X

No-Oring Required

Housing

½" NPT Connection

All Plastic Design

High Accuracy

PPH/PVDF
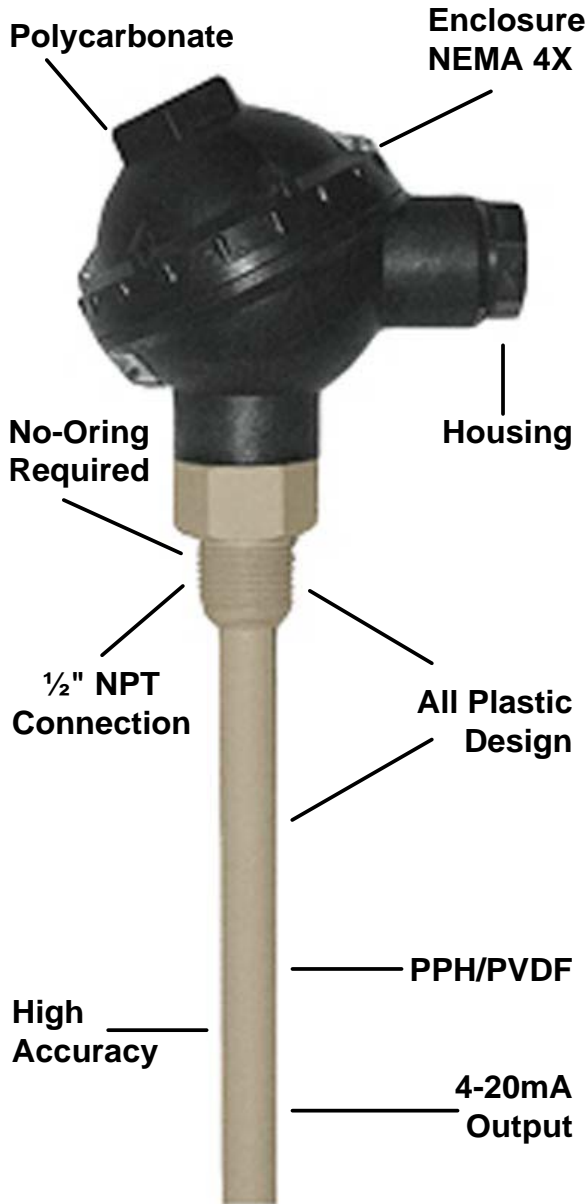
4-20mA Output

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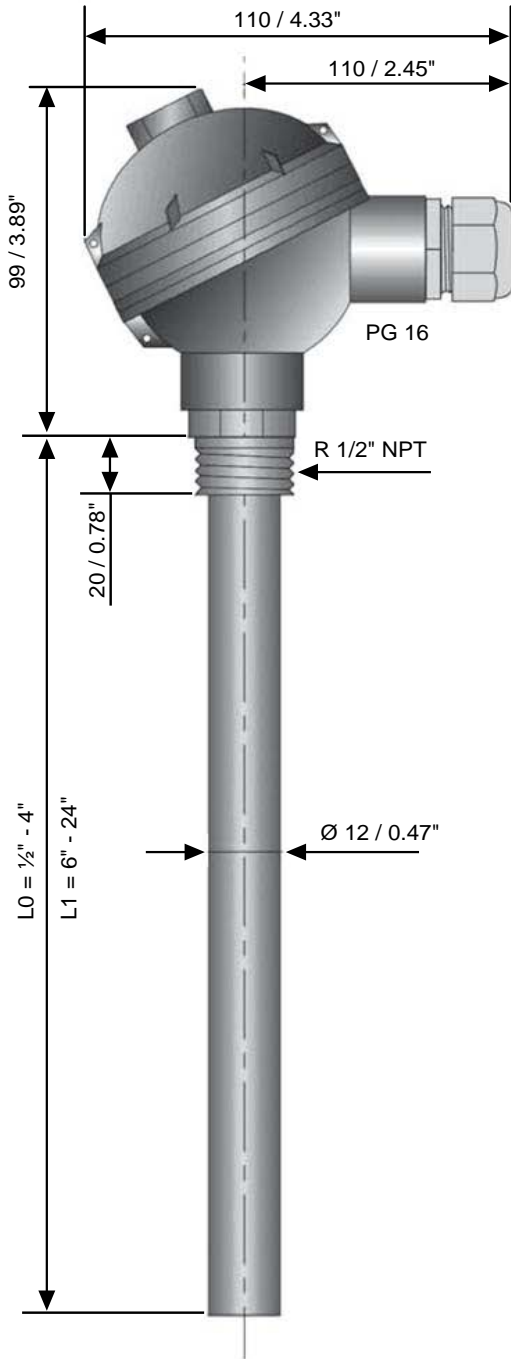
The resistance is then converted into a 4-20mA output signal the can be sent to local or remote display, valve, pump, and used to control or monitor your process.

CODE NUMBERS AND REFERENCES

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

CE

Level pro

Pt 100 Ω - PLASTIC TEMPERATURE PROBE

- 110 / 4.33"
- 110 / 2.45"
- 99 / 3.89"
- PG 16
- R 1/2" NPT
- 20 / 0.78"
- L0 = ½" - 4"
- L1 = 6" - 24"
- Ø 12 / 0.47"

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

DESCRIPTION & FEATURES

TPP

Fitting
Without — 0
1/2" NPT — 1

Probe material
PVC — P
PPH — H
PVDF — V

Plunger length
L0 = ½" - 4"
L1 = 6" - 24"
XXX

Sensor
Simple 3 wires Output — 3
Simple 4 wires Output — 4
6

Connecion
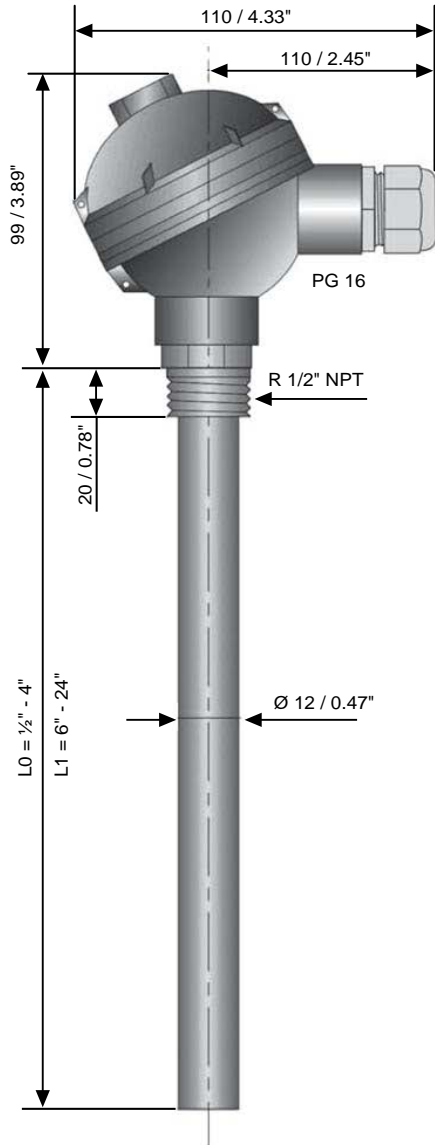Ceramic terminal box — C
4-20 mA transmitter — T
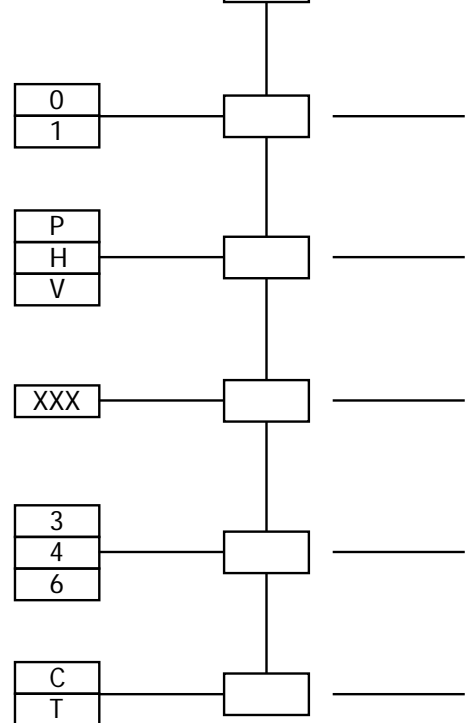
TS 13				12				

Operating Limits

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

CE

Pt 100 Ω - PLASTIC TEMPERATURE PROBE

110 / 4.33"

110 / 2.45"

99 / 3.89"

PG 16

R 1/2" NPT

20 / 0.78"

L0 = ½" - 4"
L1 = 6" - 24"

Ø 12 / 0.47"

Industrial probes and boards are base on :
Ro = 100 Ohms
R 100°C = 138,5 Ohms
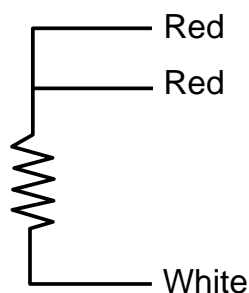
STANDARDS AND TOLERANCES

INTERNATIONAL CEI 751

acceptable tolérances in °C ± (0,15 + 0,002[t]) for class A

acceptable tolérances in°C ± (0,3 + 0,005[t]) for class B

[t] is temperature value in °C.

Temperature in °C	Acceptable Tolerance	
	Ω	°C
-200	±0,24	±0,55
-100	±0,14	±0,35
0	±0,06	±0,15
100	±0,13	±0,35
200	±0,20	±0,55
300	±0,27	±0,75
400	±0,33	±0,95
500	±0,38	±1,15
600	±0,43	±1,35
700	±0,46	±1,45

SETTINGS AND CONNECTIONS

Red

Red

White

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