

# PT130, PT140, PT150 & PT160 Hydraulic Pressure Sensors

*IDEAL FOR HIGH TEMPERATURE PROCESSES*



## Description

Dynisco's PT130, PT 140, PT150 & PT160 are designed to measure hydraulic pressure on injection molding machines. The series withstands cyclic pressure and provides outstanding performance under the severe demands of measuring the injection ram and clamp pressure of injection molding machines. Variations in the hydraulic pressure profile indicate irregularities during the injection and feeding stages of the molding operation and provide information about the stability of the injection ram system.

## Features

- 3 mV/V output
- Accuracy  $\pm 0.50\%$
- Handles temperatures up to 285°F (140°C)
- All welded, stainless steel construction
- Rugged design
- Internal shunt calibration
- Compact

Performance Characteristics	
<b>Pressure Range (psi):</b>	0 - 500, 0 - 750, 0 - 1,000, 0 - 2,500, 0 - 3,000, 0 - 5,000, 0 - 10,000
<b>Accuracy:</b>	±0.5% full scale including linearity, hysteresis and repeatability
<b>Full Scale Output:</b>	PT130: 3 mV/V ±1.0% typical (±2.0% maximum) PT140/150/160: 5 Vdc, 10 Vdc, 4 to 20 mA ±1.0% typical (±2.0% maximum)
<b>Zero Balance:</b>	±1.0% typical (±2.0% maximum)
Electrical Characteristics	
<b>Input Resistance:</b>	PT130: 420 Ohms ±10%
<b>Output Resistance:</b>	PT130: 370 Ohms ±10%
<b>Internal Shunt Calibration:</b>	PT130/150/160: 80% ±0.5% full scale typical (±1.0% maximum)
<b>Load Resistance:</b>	PT150/160: 2,000 Ohms minimum
<b>Maximum Loop Resistance:</b>	PT140: 0 to 1,100 Ohms from 14 to 36 Vdc
<b>Wiring:</b>	Reverse polarity protection of excitation leads
<b>Output:</b>	<b>Input Voltage:</b>
3 mV/V	10 Vdc recommended, 15 Vdc maximum
0 to 5 Vdc (4 - wire)	11 to 32 Vdc, ±12 to ±16 Vdc
1 to 6 Vdc (3 - wire)	11 to 32 Vdc
0 to 10 Vdc (4 - wire)	16 to 32 Vdc, ±14 to ±16 Vdc
1 to 11 Vdc (3 - wire)	16 to 32 Vdc
4 to 20 mA (2 - wire)	14 to 36 Vdc

Temperature Characteristics	
<b>Operating Range:</b>	PT130: -65°F to +250°F (-54°C to +120°C) PT140/150/160: -20°F to +185°F (-29°C to +85°C)
<b>Compensated Range</b>	0°F to +150°F (-18°C to +66°C)
<b>Temperature Effect On Zero:</b>	PT130: ±0.005% full scale/°F (±0.009% full scale/°C) typical (±0.01%/±0.018% maximum); PT140/150/160: ±0.02% full scale/°F (±0.036% full scale/°C)
<b>Temperature Effect On Span:</b>	±0.02% full scale/°F (±0.036% full scale/°C)
Mechanical Characteristics	
<b>Safe Overpressure:</b>	2 x rated pressure
<b>Burst Pressure:</b>	5 x rated pressure
<b>Wetted Material:</b>	17 - 4 PH, 15 - 5 PH stainless steel
<b>Cover Material:</b>	303, 304 stainless steel
<b>Weight:</b>	Approximately 5.5 ounces

## Ordering Guide for PT130, PT140, PT150 & PT160 Series

PT1X0 XX

Model
PT130 (3 mV/V)
PT140 (4 - 20 mA)
PT150 (5 Vdc)
PT160 (10 Vdc)

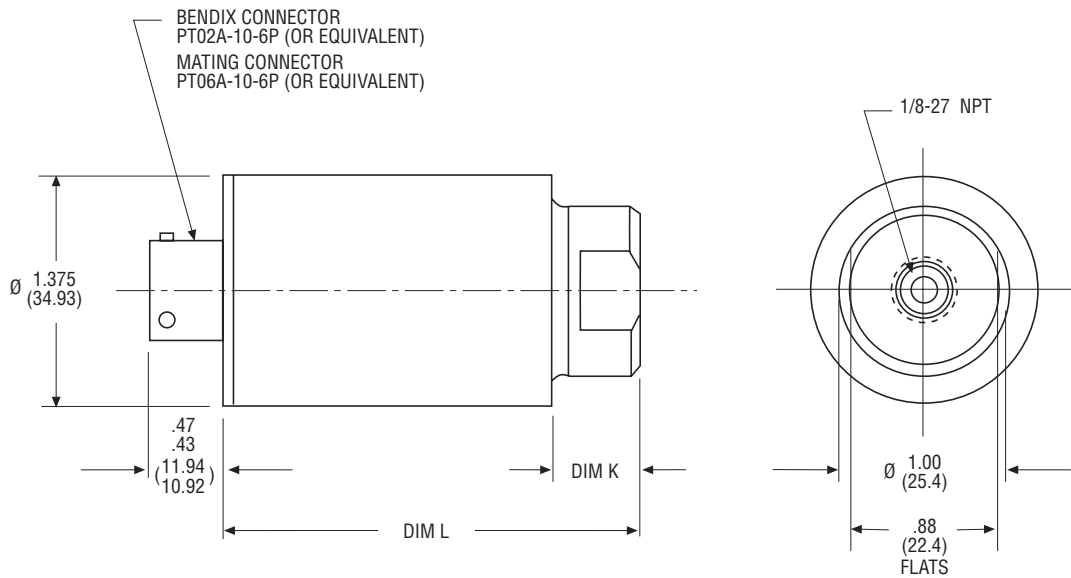
Pressure Range (psi)
5C = 0 - 500
7.5C = 0 - 750
1M = 0 - 1,000
2.5M = 0 - 2,500
3M = 0 - 3,000
5M = 0 - 5,000
10M = 0 - 10,000

### Connector Wiring

Model	Pin	Function
	A	Signal+
PT130	B	Signal-
PT150	C	Excitation+
PT160	D	Excitation-
	E, F	Int. Shunt Cal.
PT140	A	Excitation+
	B	Excitation-

Mating connector PN/711600 or 6 - pin cable assembly sold separately. For additional options please consult factory.

### Dimensions



All dimensions are inches (mm) unless otherwise specified.

Model	Pressure Range	Dim K	Dim. L
PT130, PT150, PT160	500 - 10,000	.55 (13.97)/.49 (12.45)	2.55 (64.77)/2.48 (62.99)
PT140	500 - 10,000	.58 (14.73)/.52 (13.21)	3.78 (96.01)/3.71 (94.23)