

# DYNISCO MODELS PT130, PT140, PT150 & PT160

## Hydraulic Pressure Transducers for Injection Molding Applications

### Description

The Dynisco PT100 series measures hydraulic pressure on injection molding machines. The PT100 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

- Stainless steel construction
- Contoured diaphragm
- Internal shunt calibration (PT130, PT150, PT160)
- Potted hybrid electronics and flex-print wiring
- 3 mV/V, 5 Vdc, 10 Vdc or 4 to 20 mA outputs
- Fully temperature compensated
- Ranges from 0 - 500 psi to 0 - 10,000 psi

### Benefits

- Rugged
- Greater accuracy, repeatability, fatigue strength
- Easy set-up
- Resists shock and vibration
- Choice of outputs
- Ideal for high temperature processes
- Choice of ranges



## Specifications

### Performance Characteristics

**Ranges (psi):** 0 - 500, 0 - 750, 0 - 1,000, 0 - 2,500, 0 - 3,000, 0 - 5,000, 0 - 10,000

**Accuracy:**  $\pm 0.5\%$  full scale including linearity, hysteresis and repeatability

**Safe overpressure:** 2 x rated pressure

**Burst pressure:** 5 x rated pressure

#### Full scale output:

PT130: 3 mV/V  $\pm 1.0\%$  typical ( $\pm 2.0\%$  maximum)

PT140/150/160: 5 Vdc, 10 Vdc, 4 to 20 mA  $\pm 1.0\%$  typical ( $\pm 2.0\%$  maximum)

**Zero balance:**  $\pm 1.0\%$  typical ( $\pm 2.0\%$  maximum)

### Electrical Characteristics

**Input resistance:** PT130: 420 Ohms  $\pm 10\%$

**Output resistance:** PT130: 370 Ohms  $\pm 10\%$

**Load resistance:** PT150/160: 2,000 Ohms minimum

**Maximum loop resistance:** PT140: 0 to 1,100 Ohms from 14 to 36 Vdc

**Internal shunt calibration (R-Cal):**

PT130/150/160: 80%  $\pm 0.5\%$  full scale typical ( $\pm 1.0\%$  maximum)

**Wiring:** Reverse polarity protection of excitation leads

#### Output:

3 mV/V  
0 to 5 Vdc (4 - wire)  
1 to 6 Vdc (3 - wire)  
0 to 10 Vdc (4 - wire)  
1 to 11 Vdc (3 - wire)  
4 to 20 mA (2 - wire)

#### Input voltage:

10 Vdc recommended, 15 Vdc maximum  
11 to 32 Vdc,  $\pm 12$  to  $\pm 16$  Vdc  
11 to 32 Vdc  
16 to 32 Vdc,  $\pm 14$  to  $\pm 16$  Vdc  
16 to 32 Vdc  
14 to 36 Vdc

### Temperature Characteristics

**Operating range:** PT130:  $-65^{\circ}\text{F}$  to  $+250^{\circ}\text{F}$  ( $-54^{\circ}\text{C}$  to  $+120^{\circ}\text{C}$ )

PT140/150/160:  $-20^{\circ}\text{F}$  to  $+185^{\circ}\text{F}$  ( $-29^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$ )

**Compensated range:**  $0^{\circ}\text{F}$  to  $+150^{\circ}\text{F}$  ( $-18^{\circ}\text{C}$  to  $+66^{\circ}\text{C}$ )

**Temperature effect on zero:** PT130:  $\pm 0.005\%$  full scale/ $^{\circ}\text{F}$

( $\pm 0.009\%$  full scale/ $^{\circ}\text{C}$ ) typical ( $\pm 0.01\%/\pm 0.018\%$  maximum);

PT140/150/160:  $\pm 0.02\%$  full scale/ $^{\circ}\text{F}$  ( $\pm 0.036\%$  full scale/ $^{\circ}\text{C}$ )

**Temperature effect on span:**  $\pm 0.02\%$  full scale/ $^{\circ}\text{F}$  ( $\pm 0.036\%$  full scale/ $^{\circ}\text{C}$ )

### Mechanical Characteristics

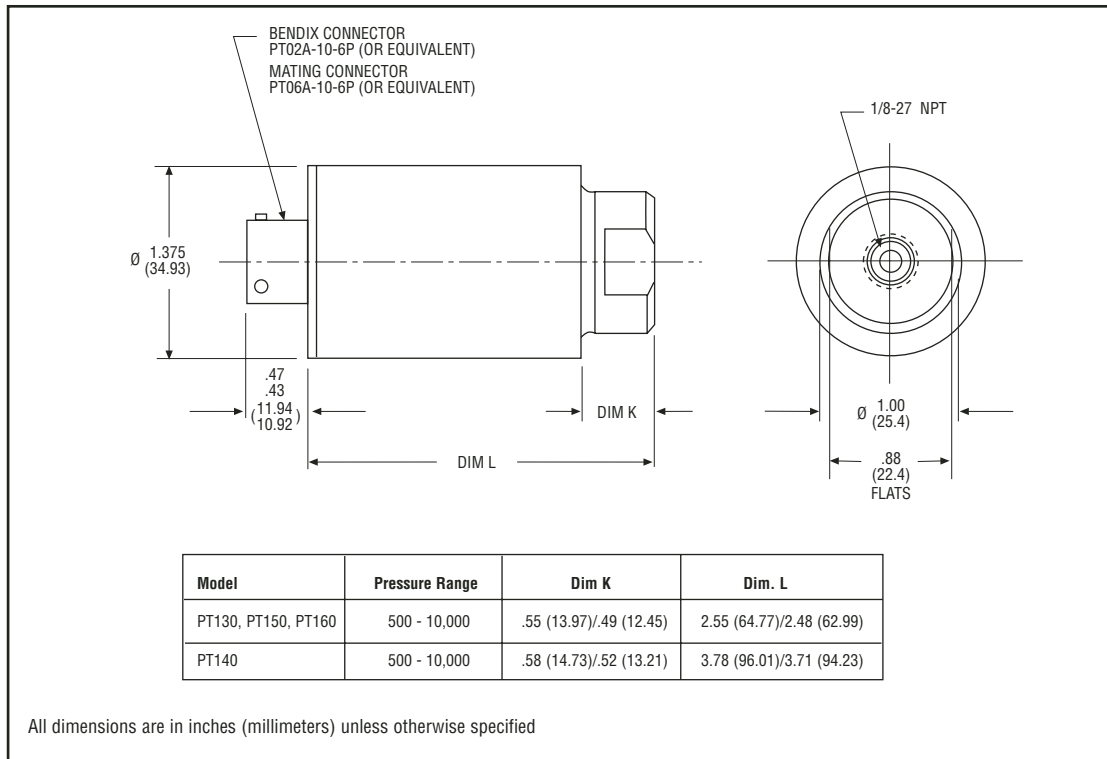
**Wetted material:** 17 - 4 PH, 15 - 5 PH stainless steel

**Cover material:** 303, 304 stainless steel

**Weight:** Approximately 5.5 ounces

# DYNISCO MODELS PT130, PT140, PT150 & PT160

## Hydraulic Pressure Transducers for Injection Molding Applications



### Ordering Guide

Model	Pressure Range (psi)	
	Code	Range
	5C	0 - 500
PT130 (3 mV/V)	7.5C	0 - 750
PT140 (4 - 20 mA)	1M	0 - 1,000
PT150 (5 Vdc)	2.5M	0 - 2,500
PT160 (10 Vdc)	3M	0 - 3,000
	5M	0 - 5,000
	10M	0 - 10,000

### Connector Wiring

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

Ordering Example: PT130 - 3M

- Mating connector P/N711600 or 6 - pin cable assembly sold separately.

### Delivery

Express delivery. Call for delivery information on other configurations.