

# MODEL PT2M

- ✓  $\pm 0.5\%$ FS static accuracy ( $\pm 0.25\%$ FS possible as an option)
- ✓ Small, rugged, all 316 stainless steel wetted parts (No O-ring)
- ✓ Reliable (lifetime in millions of cycles), high-performance transducers
- ✓ High performance/cost ratio
- ✓ Fully tested, fully compensated and calibrated
- ✓ Ranges from 30 to 300 psi



#### Description

The model PT2M is a small, rugged and reliable pressure transducer that utilizes the latest leading-edge technologies to measure low to medium pressure. Its small size (approx. 3/4" x 2"), light weight and slim profile allows for mounting in places too tight for most other transducers. The PT2M is a high precision pressure transducer specifically designed for demanding applications where the primary criteria are reliability and low cost.

The sensing element is a solid-state piezoresistive silicon die. This technology is based on a principle that results in excellent linearity, increased long-term stability and reliability and virtually no hysteresis. The silicon strain gage is housed into a stainless steel package. The weld-sealed pressure cavity is made of 316 stainless steel. There are no internal O-rings or elastomers to contain the media and to contribute to instabilities or drifts.

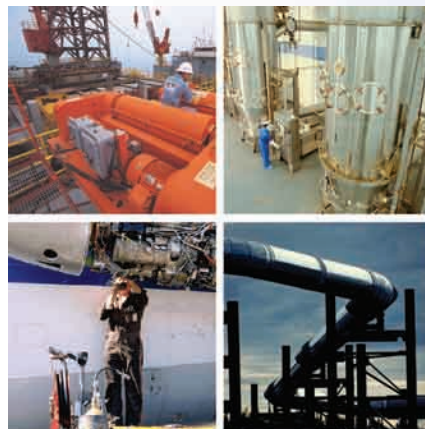
The solid-state strain gage sensor signal is amplified by a state-of-the-art ASIC-based electronics providing a high-level output from an unregulated voltage supply. The ASIC enables improved accuracy, stability and reliability while reducing the transducer's size. Coupled with MEMS technology, the ASIC technology also enables Sensors to offer almost any output over any pressure range. Each unit is fully tested, compensated and calibrated for pressure and temperature.

Providing excellent media compatibility with all 316 stainless steel wetted parts, it is perfectly suited for applications where media compatibility is a problem. With its high stability, low cost and proven reliability in industrial as well as outdoor environments, it is ideal for OEM applications. A modular design allows special ordering of fittings, electrical connections, etc.



#### Applications

Pressure Instrumentation  
 Pumps / Compressors  
 Flow Control  
 Refrigeration / Air Conditioning / HVAC  
 Hydraulics & Pneumatics  
 Industrial Automation / Robotics  
 Medical Equipment / Biomedical Devices  
 Construction & Agriculture Equipment  
 Machine Tools  
 Energy & Water Management Systems  
 Pulp & Paper Processing  
 Water Pipeline Monitoring

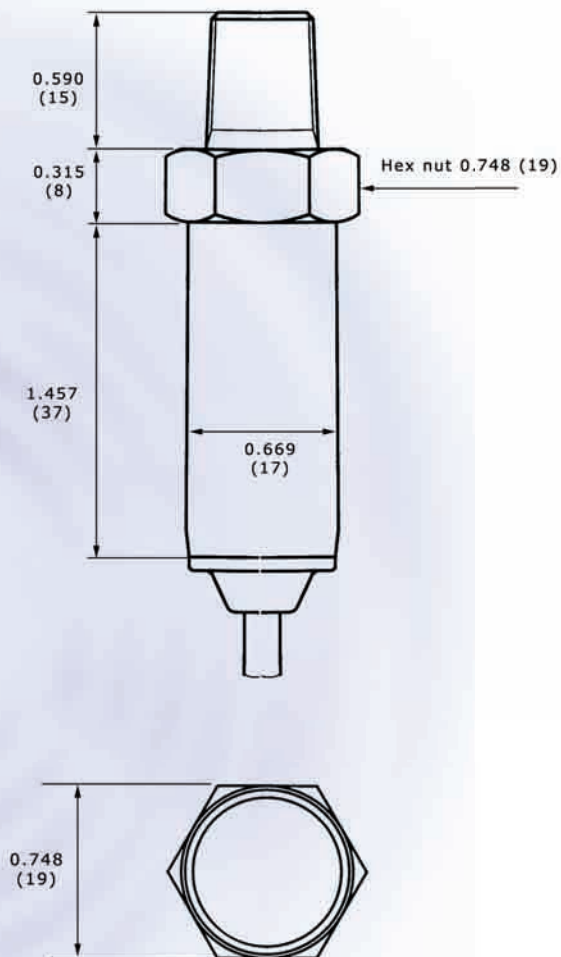


## Model PT2M

### Industrial Pressure Transducers

#### Dimensions

Dimensions below are in inches and (mm).  
Tolerance on diameter: -0.000"/-0.0020"  
(-0.00mm/-0.05mm)



#### Specifications

Pressure Ranges	0-30 psi through 0-300 psi
Type of pressure	Absolute, Vented, Sealed

#### Performances

Static Accuracy (linearity, hysteresis, repeatability and calibration)	± 0.5%FS (B.F.S.L.) ± 0.25%FS (B.F.S.L.) optional
Temperature error	± 0.02%FS/°F
Long term stability	± 0.2%FS per annum
Response time (-3dB)	< 1 ms
Resolution	infinite (0.02%FS practical minimum)
Fatigue life	> 10 million cycles

#### Environmental characteristics

Operating temperature (process)	-40°C to +100°C
Ambient temperature	-40°C to +80°C
Random vibration (50-2000Hz)	2G
Shock	10G, 11 ms, half-sine
Drop (any axis)	1.5 m

#### Electrical characteristics

Supply	5 to 28 VDC	8 to 28 VDC	13 to 28 VDC	8 to 28 VDC
Output	0 to 1 VDC	0 to 5 VDC	0 to 10 VDC	4 to 20 mA
Load	> 5 kΩ	> 5 kΩ	> 5 kΩ	< 1 kΩ
Current draw	< 3 mA	< 3 mA	< 3 mA	< 23 mA
Insulation	> 100 MΩ at 50 VDC			

#### Physical characteristics

Proof pressure	2x
Burst pressure (pressure containment)	750 psi for vented-type transducers 2000 psi for absolute and sealed
Wetted parts	316L Stainless Steel
Weight	Varies upon pressure port

#### Wiring diagram

	Cable	DIN 43650	Binder	mPm
3-wire, voltage output	Brown +Supply White +OUT Green GND	pin 1 GND pin 2 +OUT pin 3 +Supply	pin 1 GND pin 2 +OUT pin 3 +Supply	pin 1 GND pin 2 +OUT pin 3 +Supply
2-wire, 4-20 mA output	Brown +Supply White +OUT/GND	pin 1 +OUT/GND pin 3 +Supply	pin 1 +OUT/GND pin 3 +Supply	pin 1 +OUT/GND pin 3 +Supply

#### Ordering information

	PT2M	-	A	P50	05	-	42	5C	-	N4	CC	S	X	K	-	0000
Pressure reference																
A																
S																
R																
Pressure range																
Request code to use for your pressure range																
Compensated temperature range																
05																
A8																
Request code to use for any other compensated temperature range																
Output signal																
42																
10																
Request code to use for any other output signal																
Static accuracy																
5C																
3A																
Pressure fitting																
N4																
G4																
Request code to use for any other pressure fitting																
Electrical connection																
D4																
BI																
Request code to use for any other electrical termination																
Wetted material																
S																
O-ring material																
V																
E																
K																
Oil filling																
K																
Option																
0000																

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