

MODEL PTRH

- ✓ $\pm 1\%$ FS static accuracy ($\pm 0.5\%$ FS possible as an option)
- ✓ Rugged, all-welded 316 stainless steel wetted parts (No O-ring)
- ✓ Reliable (lifetime in millions of cycles), high-performance transducers
- ✓ Low cost pressure transducers
- ✓ Calibrated & temperature compensated
- ✓ Ranges from 300 to 3,000 psi



Description

Senzors' model PTRH is a compact rugged pressure transducer. It is designed for the OEM customer using medium to high volumes and needing a small, low cost pressure transducer for industrial applications. With its excellent stability and proven reliability the PTRH provides high performance and is designed for any application that requires a medium to high pressure measurement. These low cost pressure transmitters are available with several package options, thanks to their flexible design.

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 fitted into a 316 stainless steel package and is completely isolated from the media. There are no internal O-rings or elastomers to contain the media and to contribute to instabilities or drifts.

The sensor signal is amplified by a signal conditioning module that integrates an advanced electronic amplifier and a built-in voltage regulator providing a high-level output from an unregulated voltage supply. Each unit is calibrated and pressure and temperature compensated in our facilities. The PTRH is thus field-interchangeable.

Providing excellent media compatibility with all 316 stainless steel wetted parts, it is perfectly suited for use with most corrosive fluids. The PTRH also has a IP65 weatherproof stainless steel case allowing outdoor installations. This model will satisfy the most demanding OEM applications.



Applications

Pressure measuring systems
 Smart valves
 Pump Control
 Compressor Control
 Pneumatic & Hydraulic Systems
 Industrial Controls
 Hydraulic Presses
 Construction & Agriculture Equipment
 Transportation & Off-Road
 Train Brake Systems / Railroad Brake Systems
 Lift Trucks
 Machine Tools



Model PTRH

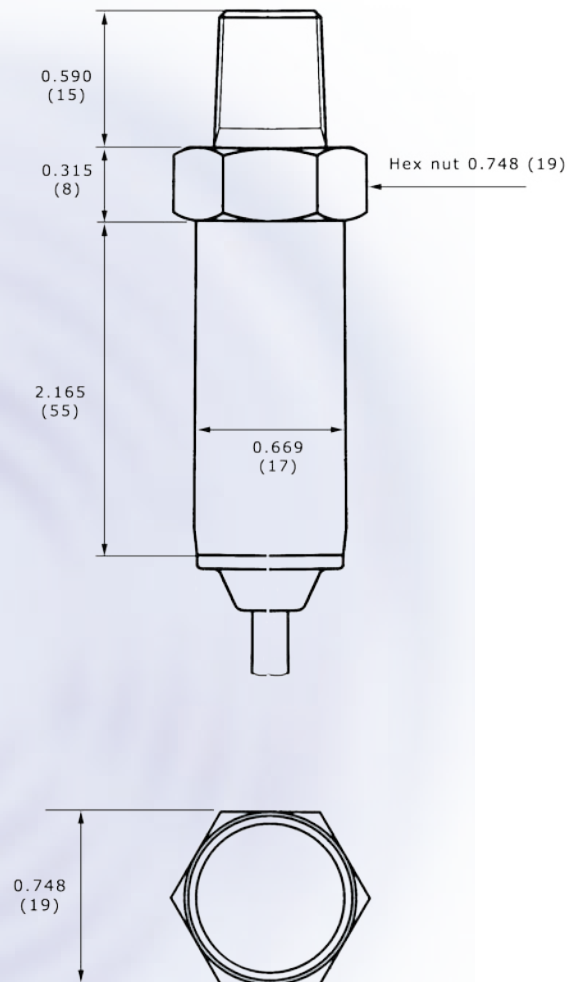
SENZORS

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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	0-300 psi through 0-3,000 psi
Type of pressure	Absolute, Sealed, Compound

Performances

Static Accuracy (linearity, hysteresis, repeatability and calibration)	± 1%FS (B.F.S.L.) ± 0.5%FS (B.F.S.L.) optional
Temperature error	± 0.05%FS/°F
Long term stability	± 0.3%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)	-30°C to +85°C
Ambient temperature	-30°C to +85°C
Random vibration (50-2000Hz)	2G
Shock	5G, 11 ms, half-sine
Drop (any axis)	1.5 m

Electrical characteristics

Supply	8 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	< 4 mA	< 4 mA	< 4 mA	< 25 mA
Insulation	> 100 MΩ at 50 VDC			

Physical characteristics

Proof pressure	1.5x
Burst pressure (pressure containment)	5,000 psi
Wetted parts	316L Stainless Steel
Weight	≈ 2.8oz (80g)

Wiring diagram

	Cable	Binder	Micro-DIN
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
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

Ordering information

PTRH	-	S	Q50	05	-	42	9C	-	N4	M3	S	X	K	-	0000
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Pressure reference

A	Absolute
S	Sealed
C	Compound

Pressure range

Request code to use for your pressure range

Compensated temperature range

05	0 to +50°C
A8	-10 to +80°C

Request code to use for any other compensated temperature range

Output signal

42	4 to 20 mA	01	0 to 1 VDC
10	0 to 10 VDC	05	0 to 5 VDC

Request code to use for any other output signal

Static accuracy

9C	1%FS
5B	0.5%FS

Pressure fitting

N4	1/4"-18NPT
G4	1/4" BSP (G 1/4")

Request code to use for any other pressure fitting

Electrical connection

M3	Micro-DIN connector	CC	Cable
BI	Binder connector		

Request code to use for any other electrical termination

Wetted material

S	316L Stainless Steel
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O-ring material

V	Fluorocarbon	S	Silicone
E	EPDM	X	No O-ring (metal seal threads)
K	Kalrez®		

Oil filling

K	Silicone oil
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Option

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Senzors, Inc.
3500 South Dupont Highway
Dover, DE 19901
Toll free: 1-866-SENZORS (736-9677)
email: sales@senzors.com
www.senzors.com