

Model DPT 209 Transducer

Gauge Pressure

Range: 0 to 1 psig up to 0 to 10,000 psig

Now Available!

COMPOUND
& VACUUM
RANGES



Setra Systems Model 209 pressure transducers have been designed specifically for industrial applications with demanding price and performance requirements. The 209 offers exceptional reliability in typical industrial grade environments. Standard features tailor the Model 209 for applications with more extreme environmental conditions or more stringent performance needs. The Model 209 offers unparalleled performance in a configurable transducer designed specifically for the budget conscious OEM.

NOTE: Setra quality standards are based on ANSI-Z540-1. The calibration of this product is NIST traceable.

Setra's proven center mount electrode configuration is the heart of this simple, yet industrialized, design. A 17-4 PH stainless steel sensor and a rigid stainless steel electrode form the variable capacitor.

Setra 209 transducers are packaged in rugged stainless steel/Valox housings, which are small and lightweight for optimum compatibility with system designs. As a totally self-contained electronic package, the 209 stainless steel capacitance sensing element, coupled with a high level output IC-based circuit, assures excellent accuracy and long term stability.

Pressure Ranges

Full Scale Range	Proof Pressure	Burst Pressure
1	2	250
2	4	250
5	10	250
10	20	500
25	50	500
50	100	750
100	200	1000
200	400	2000
250	500	2000
500	1000	3000
1000	2000	5000
2000	3000	6500
3000	4500	7500
5000	7500	10,000
10,000	12,500	20,000

Applications

- Industrial OEM Equipment
- Hydraulic Systems
- Compressor Control
- HVAC/R Equipment
- Industrial Engines
- Process & Containerized Refrigeration Systems

Benefits

- Unparalleled Price/Performance
- Rugged Design Survives Harsh Environments
- Operates Over a Wide Temperature Band
- Compatible with Wide Range of Gases & Liquids
- Operates on Low Cost Unregulated DC Power
- Suitable for High Shock & Vibration Applications
- No Seals or "O" Rings to Cause Leakage
- No Brazed Joints Susceptible to Corrosion Problems
- 3 to 5 Day Shipment for Small Quantities, Standard Configurations



Visit Setra Online:
<http://www.setra.com>

setra

800-257-3872

Model DPT 209 Specifications

Performance Data

Accuracy RSS* (at constant temp)	±0.25% FS
Non-Linearity (BFSL)	±0.22% FS
Hysteresis	0.10% FS
Non-Repeatability	0.05% FS

Thermal Effect

Compensated Range °F (°C)	-4 to +176 (-20 to +80)
Zero Shift %FS/100°F (%FS/50°C)	2.0 (1.8)
Span Shift %FS/100°F (%FS/50°C)	1.5 (1.3)

Warm-up Shift	±0.1% FS total
Response Time	5 milliseconds
Stability	0.5% FS/Year

*RSS of Non-Linearity, Non-Repeatability and Hysteresis.

Environmental Data

Temperature	
Operating °F (°C)	-40 to +260 (-40 to +127)
Storage °F (°C)	-40 to +260 (-40 to +127)
Vibration*	20g
Shock**	200g
Environmental Protection	Weather Resistant

*MIL-STD 202, Method 204, Cond. C

**MIL-STD 202, Method 213B, Cond. C

Electrical Data (Voltage)

Circuit	3-Wire (Com, Out, Exc)
Excitation	9 to 30 VDC
Output*	0.5 to 5.5 VDC**
Output Impedance	10 ohms

*Calibrated into a 50K ohm load, operable into a 5000 ohm load or greater.

**Zero output factory set to within ±50mV.

***Span (Full Scale) output factory set to within ±50mV.

Note: Other outputs are available with 9 to 30 VDC excitation. An output of 0.5 to 4.5 VDC output is available with 15 VDC excitation.

Electrical Data (Current)

Circuit	2-Wire
Output*	4 to 20 mA**
External Load	0 to 800 ohms

Minimum supply voltage (VDC) = $9 + 0.02x$
(Resistance of receiver plus line).

Maximum supply voltage (VDC) = $28 + 0.004x$
(Resistance of receiver plus line).

*Calibrated at factory with a 24 VDC loop supply voltage and a 250 ohm load.

**Zero output factory set to within ±0.16mA.

***Span (Full Scale) output factory set to within ±0.16mA.

Physical Description

Case	Stainless Steel & Valox
Sensor	17-4 PH Stainless Steel
Electrical Connection	2 ft. multi-conductor cable
Pressure Fitting*	1/4" - 18 NPT external, 17-4 PH Stainless Steel

Vent	Through cable
Weight (approx.)	2.3 ounces (65 grams)

*See ordering information for other fittings available (minimum quantities apply).

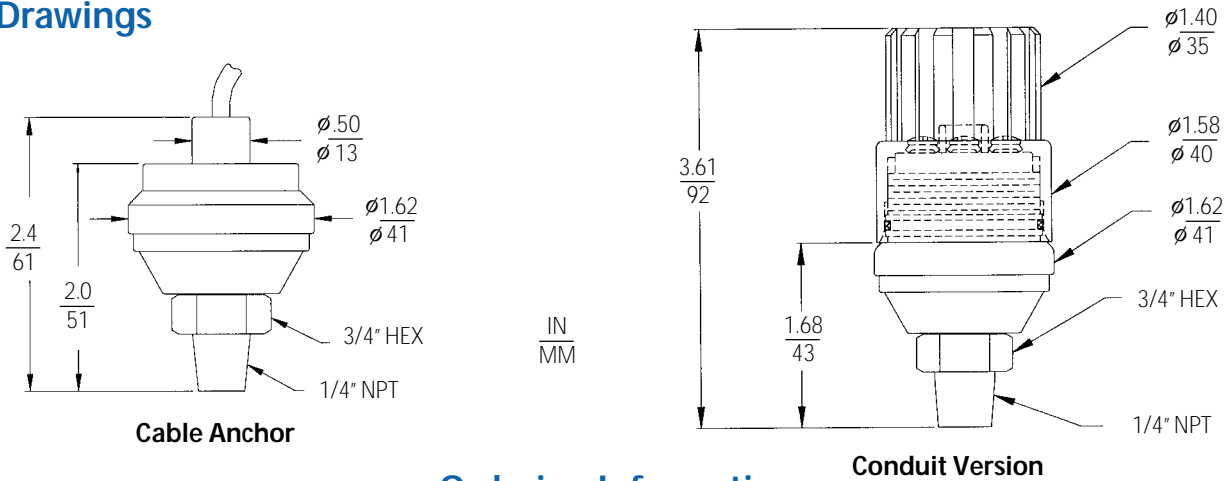
Pressure Media

Liquids or gases compatible with 17-4 PH Stainless Steel*.

*Note: Hydrogen not recommended for use with 17-4 PH Stainless Steel.

Specifications subject to change without notice.

Outline Drawings



Ordering Information

Input Range PSIG	Product Codes-Cable Version		Input Range PSIG	Product Codes-Conduit Version	
	0.5 to 5.5 VDC Output	4 to 20 mA Output		0.5 to 5.5 VDC Output	4 to 20 mA Output
0 to 5	DPT2090-5G	DPT2091-5G	0 to 5	DPT2090C-5G	DPT2091C-5G
0 to 10	DPT2090-10G	DPT2091-10G	0 to 10	DPT2090C-10G	DPT2091C-10G
0 to 25	DPT2090-25G	DPT2091-25G	0 to 25	DPT2090C-25G	DPT2091C-25G
0 to 50	DPT2090-50G	DPT2091-50G	0 to 50	DPT2090C-50G	DPT2091C-50G
0 to 100	DPT2090-100G	DPT2091-100G	0 to 100	DPT2090C-100G	DPT2091C-100G
0 to 250	DPT2090-250G	DPT2091-250G	0 to 250	DPT2090C-250G	DPT2091C-250G
0 to 500	DPT2090-500G	DPT2091-500G	0 to 500	DPT2090C-500G	DPT2091C-500G
0 to 1000	DPT2090-1000G	DPT2091-1000G	0 to 1000	DPT2090C-1000G	DPT2091C-1000G
Compound			Compound		
-14.7 to 30	DPT2090-30C	DPT2091-30C	-14.7 to 30	DPT2090C-30C	DPT2091C-30C
-14.7 to 100	DPT2090-100C	DPT2091-100C	-14.7 to 100	DPT2090C-100C	DPT2091C-100C
Vacuum			Vacuum		
14.7 PSIV	DPT2090-14.7V	DPT2091-14.7V	14.7 PSIV	DPT2090C-14.7V	DPT2091C-14.7V

Add DPT-CAL-CERT for Calibration Certificate