

P300 Pressure Sensors

Connect directly to any XR440 Data Logger input channel; no external power required.

For indoor air applications including Lab/Clean Room Pressurization, Filter Differential Pressure, Fan Static Pressure, Absolute Pressure and Barometric Pressure.

Compatible pressure media: dry air, nitrogen, oxygen, hydrogen, helium, neon, argon, krypton, xenon.

- Proven Reliability
- Long Term Stability
- Low pressure ± 1 inch H₂O model
- Differential/Gage and Absolute models



P300-1 inch-D Pressure Sensor (± 1 inches H₂O differential/gage)

P300 Specifications	
Combined Linearity, Hysteresis & Repeatability:	$\pm 0.5\%$ max.
Maximum zero (offset) variation: (this variation can be zeroed out using Pocket Logger Software)	15 and 30 PSI models: $\pm 1\%$ of full scale. 0-1 and 0-5 PSI models: $\pm 1.6\%$ of full scale. Inch H ₂ O models: $\pm 2.5\%$ of full scale
Resolution:	Depends on resolution selected on XR440 Data Logger (see table below).
Operating temperature range:	-25 to 65°C (-13 to 149°F)
Compensated temperature range:	PSI models: 0 to 65°C (32 to 149°F)

	Inch H2O models: 5 to 50°C (41 to 122°F)
Maximum temperature effect over the compensated temperature range:	15 and 30 PSI models: ±2% of full scale. 0-1 and 0-5 PSI models: ±3% of full scale. Inch H2O models: ±2% of full scale.
Pressure Ports:	Plastic fittings accept 3/16" I.D. tubing.
Proof / Burst Pressure:	See table of available models (below).
Weight:	1.1 oz. (32 grams)
Overall Size:	1.3" x 1.5" x 2.25" (33mm x 38mm x 57mm)

Physical: Thermoplastic housing with three 12" leads.

P300 Resolution (depends on XR440 Data Logger resolution selected)				
P300 Model	8 bit	10 bit	12 bit	Units
±1 in. H2O differential	0.01	0.002	0.0006	in. H2O
±5 in. H2O differential	0.05	0.01	0.003	in. H2O
±10 in. H2O differential	0.10	0.02	0.006	in. H2O
±30 in. H2O differential	0.29	0.07	0.018	in. H2O
0-1 psig (0-27.7 in.H2O)	0.005	0.001	0.0003	psi
0-5 psig (0-138 in.H2O)	0.02	0.006	0.0014	psi
0-15 psig	0.07	0.017	0.004	psi
0-15 psia	0.07	0.017	0.004	psi
0-30 psig	0.13	0.034	0.009	psi
0-30 psia	0.13	0.034	0.009	psi
Barometric	2.4	0.6	0.15	mbar
600-1100 mbar	0.08	0.02	0.005	inHg

Note: 1 psi = 27.677 in. H2O

P300 Pressure Sensors - available models				
RANGE	TYPE	PROOF PRESS.*	BURST PRESS.	Remarks
±1 inch H2O	Differential	100 in. H2O	200 in. H2O	
±5 inch H2O	Differential	150 in. H2O	300 in. H2O	
±10 inch H2O	Differential	150 in. H2O	300 in. H2O	
±30 inch H2O	Differential	150 in. H2O	300 in. H2O	
0-1 psi	Gage	20 psi	40 psi	
0-5 psi	Gage	20 psi	40 psi	

15 psi	Absolute, Gage	30 psi	60 psi	
30 psi	Absolute, Gage	60 psi	120 psi	
Barometric (600-1100 mbar)	Absolute	30 psi	60 psi	

*Exceeding the Proof Pressure causes permanent sensor failure.

P300 Sensors can be scaled by the user to read in any pressure unit (psi, kPa, bar, etc.). Contact SCIENSCOPE SDN BHD for details.

Part No: P300-[specify range]-[specify type]

Example part #'s: P300 for Barometric Pressure: **P300-Baro**; P300 Pressure Sensor for 10 inch H2O Differential: **P300-10in-D**

Differential models: Input range is + full scale pressure range to - full scale pressure range. For example: Pressure range for P300-10in-D is +10 inch H2O to -10 inch H2O. Differential models may also be used to read gage pressure by using the LOW port to sense ambient pressure.

Gage models: Input range is from 0 to full scale pressure range. Gage models may also be used to read differential pressure in applications where one side is always at a higher pressure. The higher pressure is connected to the Pressure port, and the lower pressure is connected to the REF (reference) port.