

CONVERSION TABLE

PSI TO ENGINEERING UNITS

1 PSI = 0.068046A (atmospheres)	1 PSI = 6.89476 kN/m ² (kilonewtons per sq meter)	1 PSI = 51714.9 u Hg (microns of mercury)
1 PSI = 0.068046B (bars)	1 PSI = 703.069 kg/m ² (kilograms per sq meter)	1 PSI = 51.7149 mmHg (millimeters of mercury)
1 PSI = 5.17149 cmHg (centimeters of mercury)	1 PSI = 0.000703070 kg/mm ² (kilograms per sq millimeter)	1 PSI = 6894.76 N/m ² (newtons per sq meter)
1 PSI = 70.308 cmH ₂ O (centimeters of water)	1 PSI = 0.0703070 kg/cm ² (kilograms per sq centimeter)	1 PSI = 0.689476 N/cm ² (newtons per sq centimeter)
1 PSI = 0.68947 db (decibars)	1 PSI = 6.89476 kPa (kilopascals)	1 PSI = 16.000 oz/in ² (ounces per sq inch)
1 PSI = 68947.6 dyne/cm ² (dynes per sq centimeter)	1 PSI = 0.001 kip/in ² (ksi) kips per sq inch)	1 PSI = 2304.00 oz/ft ² (ounces per sq foot)
1 PSI = 2.3067 ft. H ₂ O (feet of water)	1 PSI = 0.00689476 MPa (megapascals)	1 PSI = 6894.76 Pa (pascals)
1 PSI = 70.306 g/cm ² (grams per sq centimeter)	1 PSI = 68.947 mb (millibars)	1 PSI = 144.00 lb/ft ² (pounds per sq foot)
1 PSI = 2.0360 in Hg @ 0 c (inches in mercury)	1 PSI = 68947 u b (microbars)	1 PSI = 51.7149 T (torrs)
1 PSI = 27.680 in H ₂ O @ 4 C (inches of water)	1 PSI = 0.70309 mH ₂ O (meters of water)	1 PSI = 0.072000 ton/ft ² (tons per sq foot)
1 PSI = 0.0000689476 kb (kilobars)		1 PSI = 0.00050000 ton/in ² (tons per sq inch)

PRESSURE TERMINOLOGY

Gage Pressure:	Pressure measured relative to ambient atmospheric pressure. Referred to as pounds per sq inch (gage) or psig.	Burst Pressure:	The maximum pressure that may be applied without physical damage to the sensing element.
Absolute Pressure:	Pressure measured relative to high vacuum. Referred to as pounds per sq inch (absolute) or psia.	Linearity:	The maximum deviation of any calibration point, on a specified straight line, during any one calibration cycle. (Setra uses the best straight line method).
Vacuum:	Vacuum measured relative to ambient atmospheric pressure. Referred to as pounds per sq inch (vacuum) or psiv.	Hysteresis:	The maximum difference in output, at any measured value within the specified range when the value is approached first when increasing and the decreasing pressure.
Differential Pressure:	Pressure measured relative to a reference pressure. Referred to as pounds per sq inch (differential) or psid.	Excitation:	The external electrical voltage and/or current applied to a transducer for its proper operation.
Pressure Transducer:	Provides a linear D.C. voltage output proportional to applied pressure.	Response Time:	The length of time required for the output to rise to a specified percentage of its final value as a result of a set change in pressure.
Pressure Transmitter:	Provides a linear current output proportional to applied pressure.	Thermal Error:	The maximum change in output, at any pressure value within the specified range when the temp. is changed from room temp. to specified temp. extremes.
Proof Pressure:	The maximum pressure that may be applied without changing performance beyond specifications.	Thermal Sensitivity Shift:	The sensitivity shift due to changes of the ambient temp. from room temp. to the specified limits of the operating temp. range.
Ambient Conditions:	The conditions (pressure, temp., ect.) of the medium surrounding the case of the transducer.	Thermal Zero Shift:	The zero shift due to changes of the ambient temp. from room temp. to the operating temp. range.
Repeatability:	The ability to reproduce output readings when the same pressure value is applied consecutively, under the same conditions, and in the same direction.		
Accuracy:	Combined error to linearity, hysteresis and repeatability. (Setra uses the root sum of the squares (RSS) method).		
Sensitivity:	The ratio of the change in output to a change in the value of the measured pressure.		