

MODEL 2911

BONDED STRAIN GAGE PRESSURE TRANSDUCER

SPECIFICATIONS:

Measurand Fluids: 0-5 through 0-2000 PSI ranges - all fluids compatible with 316 and 347 stainless steel.

0-3000 through 0-20,000 PSI ranges - all fluids compatible with 17-4pH stainless steel.

Full Scale Output: 5.000 ± 0.050 volts DC for a 50K ohm load or greater.

Zero Balance: 0.000 ± 0.050 volts DC at $+70^{\circ}\text{F}$ (21°C).

End Point Linearity: Within $\pm 0.20\%$ FSO.

Hysteresis: Within 0.20% FSO.

Repeatability: Within 0.10% FSO

Resolution: Infinitiite.

Natural Frequency:

Range (PSI)	Frequency (KHz)
0-5	1.0
0-15	1.0
0-25	1.3
0-30	1.4
0-50	2.0
0-75	2.5
0-100	3.0
0-200	4.0
0-500	11.0
0-1000	18.0
0-1500	25.0
0-2000	32.0
0-3000	59.0
0-5000	76.0
0-7500	90.0
0-10000	200.0
0-15000	245.0
0-20000	283.0
0-25000	317.0
0-30000	347.0

Proof Pressure Rating:

0-5 thru 0-200 PSI ranges: 500 PSI.

0-500 PSI range: 1500 PSI.

0-1000 thru 0-1500 PSI ranges: 3000 PSI.

0-2000 thru 0-30,000 PSI ranges: 1.5 times FS range.
Proof pressure can be applied without causing changes in performance characteristics.

Burst Pressure Rating:

0-5 thru 0-200 PSI ranges: Greater than 1500 PSI.

0-500 thru 0-2000 PSI ranges Greater than 4500 PSI.

0-3000 thru 0-30,000 PSI ranges: Greater than 3.0 times FS range.

Compensated Temperature Range: -30°F to $+170^{\circ}\text{F}$
(-34°C to $+77^{\circ}\text{C}$).

Operating Temperature Range: -65°F to $+250^{\circ}\text{F}$
(-54°C to $+121^{\circ}\text{C}$).

Thermal Sensitivity Shift: Less than $\pm 0.005\%$ FSO per $^{\circ}\text{F}$ over compensated temperature range ($\pm 0.009\%$ FSO per $^{\circ}\text{C}$).

Thermal Zero Shift: Less than $\pm 0.010\%$ FSO per $^{\circ}\text{F}$ over compensated temperature range ($\pm 0.018\%$ FSO per $^{\circ}\text{C}$).

Triaxial Mechanical Shock: 30 G's applied for 11 milliseconds will not cause change in performance characteristics.

Acceleration Error : Along most sensitive axis:

0-5 PSI range..... $\pm 0.16\%$ FSO/G

0-15 PSI range..... $\pm 0.16\%$ FSO/G

0-25 PSI range..... $\pm 0.09\%$ FSO/G

0-30 PSI range..... $\pm 0.08\%$ FSO/G

0-50 PSI range..... $\pm 0.04\%$ FSO/G

0-75 PSI range..... $\pm 0.03\%$ FSO/G

0-100 PSI range.... $\pm 0.02\%$ FSO/G

0-200 PSI range.... $\pm 0.006\%$ FSO/G

0-500 PSI range.... $\pm 0.002\%$ FSO/G

0-1000 thru 0-30,000 PSI ranges error is less than $\pm 0.0015\%$ FSO/G.

Excitation: 28 volts DC recommended. 20 to 36 volts DC unregulated. Reverse Polarity Protected.

Current Drain: 15 ma DC typical.

Output Impedance: 100 ohms typical.

Output Noise: Less than 15 millivolts peak to peak at less than 300 kHz

Insulation Resistance: Greater than 1000 megohms at 50VDC between all terminals in parallel and case at $+70^{\circ}\text{F}$ (21°C).

Pressure Connection: 0-5 thru 0-10,000 PSI ranges ...7/16 - 20 external thread per MS33656-4. 0-15,000 thru 0-30,000 PSI ranges....AE F250-C, 9/16-18 UNF internal thread. Options Available.

Pressure Cavity Volume:

Range (PSI)	Volume (Cubic Inches)
0-5 thru 0-200.....	0.031
0-500 thru 0-2000.....	0.027
0-3000 thru 0-10,000.....	0.034
0-15,000 thru 0-30,000.....	0.017

0-5 thru 0-10,000 PSI ranges include MS33656-4 pressure fitting.

Electrical Receptacle: Stainless steel hermetic receptacle to mate with PTS06E-10-6S. Standard Wiring: Excitation +A, -D; Signal +B, -C; No conn E,F. Options Available.

Enclosures: Entirely welded and hermetically sealed stainless steel.

Weight: Approximately 5.5 ounces (156 g)



WARRANTY:

Taber Industries, herein after designated as the Company, warrants that any part or parts of the product which, under normal operating conditions in the plant of the original purchaser thereof, proves defective in material or workmanship within one year from the date of shipment by the Company, as determined by an inspection by the Company, will be repaired or replaced free of charge provided that the original purchaser promptly sends to the Company the defective material, transportation charges prepaid, with notice of the defect and establishes that the product has been properly installed, maintained and operated within the limits of rated and normal usage. Replacement parts will be shipped F.O.B. the Taber Industries plant. The terms of this Warranty do not in any way extend to part or parts of the product thereof which has a