

Pressure Transducer Series 2



Bonded Foil Sensing Technology

Model(s) 2211/2911

Designed Using Advanced Computer Modeling Tools

For optimum performance, the sensing element was designed using Finite Element Analysis and other computer modeling tools. Key features of the sensing element are isolation from induced stresses (generated from installation torque, temperature excursions, vibration and shock), and high over-pressure protection.



Manufactured for Aerospace Grade Applications

Reliability and accuracy are built into every transducer using advanced manufacturing techniques. Critical procedures such as heat-treat and bonding are controlled through vacuum furnaces. Welding and calibration are accomplished with fully automated work cells. State of the art characterizing electronics meet MIL-STD 461 EMI standards and are engineered for severe vibration and shock environments. Extreme environmental burn-in ensures the transducer's reliability and accuracy will be maintained over time.



Pressure and Temperature Outputs

An internal 100 Ohms Platinum RTD temperature sensor is a standard feature of the Series 2. The RTD can be used to measure media temperature, or to thermally characterize the output of the pressure transducer.

Standard and Customer Configurations Available

A full range of options is offered for the Series 2, including alternate materials, pressure ports, electrical connectors, and



Standard Features

- 0-2 thru 0-20k psi
- +/- 0.2% FSO Static Accuracy
- 100 Ohms platinum RTD
- (17) point calibration cert with temp data

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"On-Board" and Support Applications
0-2 thru 0-20k psi

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Mechanical

Pressure Ranges		Ranges from 0-2 thru 0-20k psi	
Proof Pressure	2211A	15 to 200 psi	500 psi
		500 to 20k psi	1.5X std. range
	2911C & F	2 to 10 psi	100 psi
		15 to 200 psi	500 psi
		300 to 5000 psi	3X std. range
Burst Pressure	2211A	7.5k to 10k psi	2X std. range
		15k to 20k psi	1.5X std. Range
		15 to 200 psi	>1000 psi
	2911C & F	500 to 5k psi	>3X std. Range
		7.5k to 20k psi	>2X std. range
Pressure Port	MS33656-4 male *	2 to 200 psi	>1000 psi
		300 to 5000 psi	>6X std. range
		7.5k to 10k psi	>3X std. range
		15k to 20k psi	>2X std. Range
Elect. Connection		Mates w/ MS3116-10-6S *	
Materials		316L, 347, 17-4 Stainless Steel *	
		(Plus materials of electrical connector and cable)	
Dimensions		Per outline drawing below	
Weight		Less than 170 g.	

Electrical

Input Voltage		
Model 2211A		Calibrated at 10 Vdc (15 Vdc max)
Model 2911C*		20-36 Vdc Unregulated
Model 2911F		8-36 Vdc Unregulated Vdc
Power Supply Rejection		± 0.002% per Volt input change
Model 2211A		N/A ; ratio-metric output
Output		
Model 2211A		3 mV/V
Model 2911C		0-5 Vdc Isolated *
Model 2911F		4-20 mAdc
Zero Balance		± 1.0% FSO *
FSO Setting		± 0.5% FSO *
Resolution		Infinite (± 0.001% FSO usable)
Response Time		Less than 3 ms (10-90% FSO)
Insulation Resistance		Greater than 100 M Ohms @ 50 Vdc
Reverse Polarity Protected		Yes
Output Short Circuit Protected		Yes
EMI/RFI Protected		2911C and 2911F

Environmental

Compensated Temp Range	-20 to 76° C (-4 to 170° F) *
Operating Temp Range	-54 to +121° C (-65 to 250° F)
Storage Temp Range	-54 to +121° C (-65 to 250° F)
Triaxial Shock	30 g's for 11 ms without calibration shift
Vibration Rating	25 grms
Acceleration Error	From ± 0.0015% FSO/g to ± 0.2% FSO/g (highest to lowest pressure range)

* Options available

Performance

Static Accuracy	± 0.25% FSO * (BFSL, RSS)
	(Combined effects of non-linearity, hysteresis and repeatability)
Repeatability	± 0.075% FSO
Temperature Error Band	± 1.5% FSO * over comp range
	(Combined effects of Zero and FSO with reference at 28° C)
Long Term Stability	± 0.1% FSO per annum

Standard wiring

mV/V and 0-5VDC PTO6E-10-6P

Excitation (+)	A
Excitation (-)	D
Signal (+)	B
Signal (-)	C
RTD	E & F

4-20mAdc

Excitation	A
Signal/Return	B
RTD	E & F



Specifications apply to Models 2211A, 2911C and 2911F unless otherwise noted.
Taber reserves the right to change specifications without notice.

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