

Model 526

Submersible Pressure Transducer



FEATURES

- Superior Stability Avoid Down Time
- IP30, IP65, IP68 Rated
- $\pm 0.25\%$ FS Accuracy, Optional $\pm 0.15\%$
- High Shock and Vibration Resistance
- Meets CE Conformance Standards

APPLICATIONS

- General Purpose
- Off-Highway Vehicles
- Natural Gas Equipment
- Power Plants
- HVAC Compressors
- Refrigeration
- Robotics

DESCRIPTION

Setra's Model 526 pressure transducer is designed with a thicker diaphragm for robust industrial and submersible applications that require exceptional stability and high accuracy.

Depending upon the electrical connection selected, when coupled with the Model 526 enclosure, which is fabricated in 316 SS/17-4 PH SS, this unit is rated for IP30, IP65, IP68 operation.

The Model 526's modular design is offered in a wide choice of millivolt, voltage or current outputs over almost any pressure range, and a variety of pressure and electrical connections, enabling this unit to be custom configured for an OEM application.

Principle of Operation:

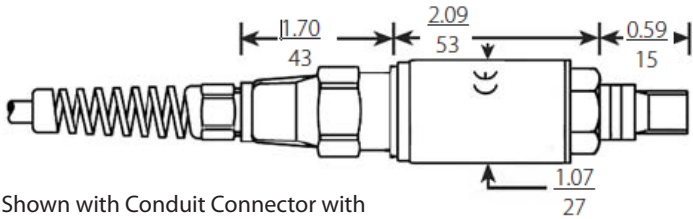
Using the well proven Wheatstone Bridge Principle, a chemical vapor is deposited in thin layers of silicon and silicon dioxide onto a stainless steel sensor to form a very sensitive and accurate polysilicon strain gauge. The elements of the strain gauge are fused together at the atomic level, assuring the strength and integrity of the bond, which exceeds the adhesives used in common bonded strain gauge pressure sensors. A custom designed ASIC performs signal amplification and temperature compensation. This technology offers the user the option of configurable output and pressure ranges, sets the zero and span tolerance, and ensures interchangeability from unit to unit.

SPECIFICATIONS

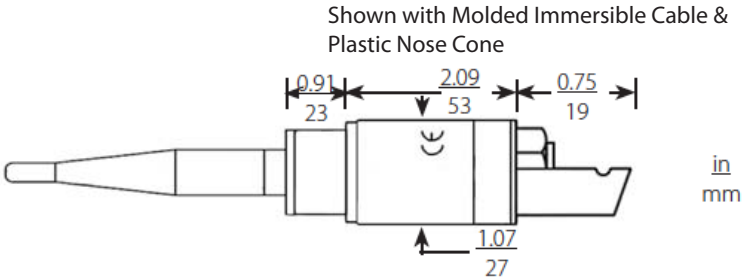
Performance Data		Environmental Data		Electrical Data (Voltage)	
Accuracy RSS ¹ (at constant temp)	$\pm 0.25\%$ FS, $\pm 0.15\%$ FS Optional	Operating and Storage Temperature ³ °F/°C		Circuit	3-Wire (Exc, Out, Com)
Thermal Effect ²		for Elec. Code E1	-40 to +260 (-40 to +125)	Excitation	1.5 VDC Above Span to 35 VDC @ 6mA ⁴
Compensated Range F ² (°C)	-5 to +180 (-20 to +80)	for Elec. Code N1	-5 to +180 (-20 to +80)	Output ⁵	0 to 5VDC, 0 to 10VDC, 0.5 to 5.5 VDC, 1 to 5 VDC, 1 to 6 VDC, 1 to 11 VDC
Accuracy $\pm 0.25\%$ FS Zero/Span Shift %FS/100°F (%FS/50°C)	0.8 (1.5)	for Elec. Code NA	-5 to +125 (-20 to +50)	Current Consumption ⁶	Approx. 6 mA @ 7.5 VDC output
Accuracy $\pm 0.15\%$ FS Zero/Span Shift %FS/100°F (%FS/50°C)	0.5 (1.0)	Vibration	70g Peak to Peak Sinusoidal, 5 to 2000 Hz (Random)	Electrical Data (Millivolt)	
Response Time	0.5 milliseconds	Acceleration	100g Stead Acceleration in any direction 0.32% F	Circuit	4-Wire (+Exc, -Out, +Out, -Exc)
Long Term Stability	0.2% FS/year	Shock	20g, 11ms per MIL-STD-810E; Method 516.4 Procedure	Excitation	10 VDC (15 VDC Max) Regulated
Proof Pressure	2 x FS (<1.5 x FS for 400 BAR, >=5000 PSI)	Physical Description		Output ⁷	100 mV (10mV/V)
Burst Pressure	>35 x FS <= 100 PSI (6 BAR) >20 x FS <= 1000 PSI (60 BAR) >5 x FS <= 6000 PSI (400 BAR)	Case	316 Stainless Steel, 17-4 Stainless Steel	Bridge Resistance	2600-6000 Ohms
		Ratings	IP65 for Elec Codes B3, B1, E2; IP68 for Elec Code UA (Max. Depth 200 Meters H ₂ O)	Electrical Data (Current)	
Pressure Media		Wetted Parts	17-4 PH Stainless Steel	Circuit	2-Wire
Liquids or gases compatible with 17-4 PH Stainless Steel Note: Hydrogen not recommended for use with 17-4 PH Stainless Steel		Weight	3.5 Oz (100g)	Output ⁸	4 to 20 mA ⁹

Model 526

Submersible Pressure Transducer



Shown with Conduit Connector with Cable & 1/8-27 NPT Pressure Fitting



Shown with Molded Immersible Cable & Plastic Nose Cone

in
mm

ORDERING INFORMATION

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Model	Range				Pressure		Pressure Fitting		Output		Elec. Term.		Accuracy		Options	
5261 = 526	015P	15 PSI	001B	1 BAR	G	Gauge	1M	1/8-27 NPT Male	BP	100 mV	B3	10-6 Baronet Connector	F	0.25% FS	B	ATEX Intrinsic Safe
	030P	30 PSI	0R6B	1.6 BAR	C	Compound*	1F	1/8-27 NPT Female	11	4-20 mA	UA	Molded Immersible Cable (1 meter). Consult factory for additional lengths.	S	0.15% FS, Opt.		
	060P	60 PSI	2R5B	2.5 BAR	A	Absolute*	2M	1/4-18 NPT Male	28	1-6 VDC						
	100P	100 PSI	004B	4 BAR	*Compound and absolute ranges are available through 300 PSI only.		J7	7/16-20 UNF Male SAE#4 (J1926-2)	2R	1-11 VDC					B1	8-4 Bayonet Conn.
	150P	150 PSI	006B	6 BAR			G2	G 1/4 Male	27	1-5 VDC	A2	1/2" Conduit Conn. w/ 1 Meter (3.28ft) flying leads				
	200P	200 PSI	010B	10 BAR			G3	G 1/4 Female	24	0.5-5.5 VDC						
	300P	300 PSI	016B	16 BAR					Submersible Units		2B	0-5 VDC	E2	Large DIN 43650 Conn w. Mating Plug		
	500P	500 PSI	025B	25 BAR			W1	Plastic Nose Cone	2C	0-10 VDC						
	600P	600 PSI	040B	40 BAR			W2	Stainless Steel Sink Weight Nose Cone	29	0.2-10.2 VDC						
	10CP	1000 PSI	060B	60 BAR					22	0.1-5-1 VDC						
	15CP	1500 PSI	100B	100 BAR												
	15CP	1500 PSI	100B	100 BAR												
	20CP	2000 PSI	160B	160 BAR												
	30CP	3000 PSI	250B	250 BAR												
	40CP	4000 PSI	400B	400 BAR												
	50CP	5000 PSI	600B	600 BAR												
	60CP	6000 PSI														
	000P	14.7 TO 0 PSI	135P	14.7 TO 135 PSI												
	015P	14.7 TO 15 PSI	185P	14.7 TO 185 PSI												
	045P	14.7 TO 45 PSI	285P	14.7 TO 285 PSI												

Ordering example: Part No. 5261030PG1M11E2F - For a Model 526 Pressure Transducer, 30 PSI, Gauge Pressure, 1/8-27 NPT Male Pressure Fitting, 4-20 mA Output, Large Din Plug w/ Mate, 0.25% Accuracy.