PRESSURE

Product Catalog # : 266
Date : 21 MARCH 2019

LOW DIFFERENTIAL PRESSURE TRANSDUCER
Available in Pascal and Inches of WC Ranges
Model 266

DESCRIPTION

Setra Sensing 266 pressure transducers sense differential or gauge (static) pressure and converts this pressure difference to a proportional electrical output. The 266 is offered with a high level 0-10 VDC and 0-5 VDC output or a 4-20 mA output.

Used in Building Energy Management Systems, these transducers are capable of measuring pressures and flows with the accuracy necessary for proper building pressurization and air flow control.

The 266 Series very low pressure transducers are available for air pressure ranges as low as 0 to ±50 Pa full scale up to 5 kPa full scale. Static accuracy is ±1% full scale in normal ambient temperature environments. The units are temperature compensated to less than ±0.06% FS/°C (±0.033% FS/°F) of thermal error over the temperature range of -18°C to +65°C (0°F to +150°F).

The Model 266 utilizes an all stainless steel micro-tig welded sensor. The tensioned stainless steel diaphragm and insulated stainless steel electrode, positioned close to the diaphragm, form a variable capacitor. Positive pressure moves the diaphragm toward the electrode, increasing the capacitance.

A decrease in pressure moves the diaphragm away from the electrode, decreasing the capacitance. The change in capacitance is detected and converted to a linear DC electrical signal by Setra's unique electronic circuit.

The micro-tig welded tension sensor allows up to 69 kPa overpressure (in either direction) with no damage to the unit. In addition, the sensor parts have matched thermal coefficients, which promote improved temperature performance and excellent long-term stability.

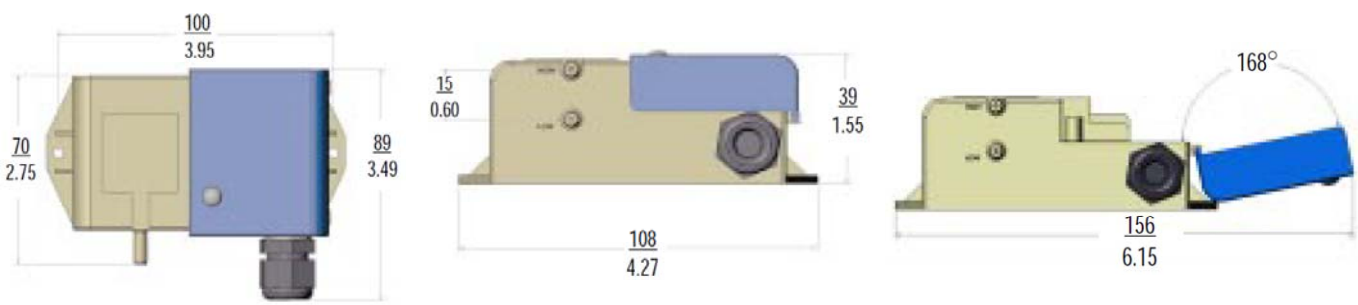
APPLICATIONS

- Heating, Ventilating and Air Conditioning (HVAC)
- Energy Management System
- Variable Air Volume and Fan Control (VAV)
- Environmental Pollution Control
- Fume Hood Control
- Over Pressurization and Furnace Draft Controls

BENEFITS

- 24 VDC/VAC Excitation
- Fully Protected Against Reverse Wiring
- 1% Accuracy Improves Variable Air Volume System Performance
- Fire Retardant Case (UL 94 V-0 Approved)
- Meets CE Conformance Standards

DIMENSIONS



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SPECIFICATIONS

Performance Data	
Accuracy RSS[1] (at constant temp)	±1.0% FS
Non-Linearity, BFSL	±0.98% FS
Hysteresis	±0.10% FS
Non-Repeatability	±0.05% FS
Electrical Data (Current)	
Circuit	2-Wire
Output[2]	4 to 20 mA[3]
Min. Loop Supply Voltage (VDC)	9 + 0.02 x (Resistance of Receiver plus line)
Max. Loop Supply Voltage (VDC)	30 + 0.004 x (Resistance of Receiver plus line)
Environmental Data	
Operating Temperature[4] °C (°F)	-18 to +65 (0 to +150)
Storage Temperature °C (°F)	-40 to +85 (-40 to +185)
Thermal Effects[5]	
Compensated Range °C (°F)	-18 to +65 (0 to +150)
Zero/Span Shift % FS/°C (°F)	±0.06 (±0.033)
Maximum Line Pressure	69 kPa
Overpressure (DP on either side)	Up to 69 kPa (Range Dependant)
Warm-up Shift	±0.1% FS total

Pressure Media	
Typically air or similar non-conducting gases.	
Electrical Data (Voltage)	
Circuit	3-Wire (Com, Out, Exc)
Excitation/Output[6]	12 to 30 VDC/VAC / 0 to 10 VDC[7]; 9 to 30 VDC/VAC / 0 to 5 VDC[7]
Bidirectional output at zero pressure	25 VDC (50 mV)
Output Impedance	100 Ohms
Physical Description	
Case	Fire Retardant Glass Filled Polyester (UL94 V-0 Approved)
Electrical Connection	Screw Terminal Strip
Pressure Fittings	6.2 mm
Weight	150 grams (5.3 oz.)
Compliance	CE

1 RSS of Non-Linearity, Hysteresis, and Non-Repeatability.
2 Calibrated at factory with a 24 VDC loop supply voltage and a 250 ohm load.
3 Zero output factory set to within ±0.16 mA (±0.08 mA for optional accuracies).
Span (Full Scale) output factoy set to within ±0.16 mA (±0.08mA for optional accuracies.)
4 Operating temperature limits of the electronics only. Pressure media temperatures may be considerably higher or lower.
5 Units calibrated at nominal 20˚C. Maximum thermal error computed from this datum.
6 Calibrated into a 50K ohm load, operable into a 5000 ohm load or greater.
7 Zero output factory set to within ±50mV (±25 mV for optional accuracies).
Span (Full Scale) output factory set to within ±50mV (±25 mV for optional accuracies)

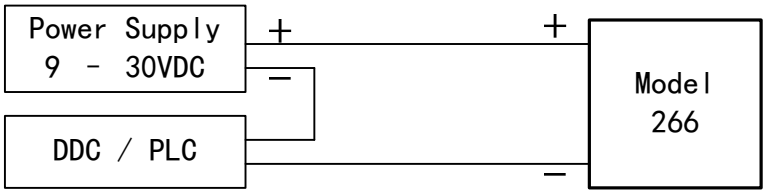
ORDERING INFORMATION (Model 266)

2 6 6 1 — [ ][ ][ ][ ][ ] — [ ][ ] — T 1 — C

Model	Ranges		Excitation/Output	Elec. Termination	Accuracy
2661 = 266	**Pascals**		**AC** = 24 VDC/VAC / 0-10 VDC	**T1** = Terminal Strip	**C** = ±1% FS
	050LD = 0 to 50	**050LB** = 0 to ±50	**AB** = 24 VDC/VAC / 0-5 VDC		
	100LD = 0 to 100	**100LB** = 0 to ±100	**11** = 24 VDC / 4-20 mA		
	250LD = 0 to 250	**250LB** = 0 to ±250			
	500LD = 0 to 500	**500LB** = 0 to ±500			
	750LD = 0 to 750	**25CLB** = 0 to ±2500			
	10CLD = 0 to 1000				
	25CLD = 0 to 2500				
	50CLD = 0 to 5000				
	Inches of WC				
	025WD = 0 to 0.25	**025WB** = 0 to ±0.25			
	005WD = 0 to 0.5	**005WB** = 0 to ±0.5			
	001WD = 0 to 1	**001WB** = 0 to ±1			
	250WD = 0 to 2.5	**250WB** = 0 to ±2.5			
	50CWD = 0 to 5	**05CWB** = 0 to ±5			
	10CWD = 0 to 10	**10CWB** = 0 to ±10			
	25CWD = 0 to 25				
	D = Unidirectional	**B = Bidirectional**			

Example: 2661750LD11T1C
Differential Pressure Transducer, Range: 0 to 750 Pa, Unidirectional, Output: 4 to 20 mA, Terminal Strip Electrical Connection, Accuracy: ±1%

WIRING DIAGRAM



Note: Setra quality standards are based on ANSI-Z540-1. The calibration of this product is NIST traceable.