Model 162

Very Low Differential Pressure Transducer

FEATURES

- Up to 10 PSI Overpressure
- 24 VDC or 24 VAC Excitation
- Voltage or Analog Outputs
- Reverse Wiring Protection
- 1.0% Accuracy (optional 0.25% FS)
- Internal Regulation
- Fire Retardant Case (UL 94 V-0 Approved)
- Meets CE Conformance Standards

APPLICATIONS

- Heating, Ventilation & Air Conditioning
- Energy Management Systems
- Variable Air Volume & Fan Control (VAV)
- Environmental Pollution Control
- Static Dust & Clean Room Pressures
- Oven Pressurization & Furnace Draft Controls

DESCRIPTION

Setra's Model 162 is designed to reduce installation costs while increasing overall operating efficiency. At ±1% full scale accuracy (optional ±0.25%), the 162 provides superior positive and negative pressure sensing required for high efficiency air control systems.

Its small footprint (3.24"W x 3.53"L x 1.3"H) is an ideal fit for the tightest matrix. Installation is easy with an integral mounting bracket, 1/4" O.D. tube pressure connections conveniently located the on the face of the unit, and a screw terminal strip for electrical termination.

SPECIFICATIONS

Performance Data

	Standard	Optional
Accuracy RSS[1] (at constant temp)	±1.0% FS	±0.25% FS
Non-Linearity, BFSL	±0.98% FS	±0.22% FS
Hysteresis	0.10% FS	0.10% FS
Non-Repeatability	0.05% FS	0.05% FS

Thermal Effects[2]	
Compensated Range °F (°C)	0 to +150 (-18 to +65)
Zero Shift %FS/100°F(50°C)	±0.033 (±0.06)
Span Shift %FS/100°F(50°C)	±0.033 (±0.06)
Max. Line Pressure	10 PSI
Overpressure	Up to 10 PSI (range depedent)
Long Term Stability	0.5% FS/YR
Warm-Up Shift	±0.1% FS Total

[1] RSS of Non-Linearity, Non-Repeatability and Hysteresis
[2] Units calibrated at nominal 70°F. Maximum thermal error computed from this datum.

Specifications subject to change without notice

Physical Description

Pressure Fittings	1/4" Fitting
Case	Fire Retardent Glass Filled Polyester (UL 94-V Approved)
Weight	3 oz
Elec. Connection	Screw Terminal Strip

Position Effect[3]	
Range	Zero Offset (%FS/G)
To 0.5 in. W.C.	0.60
To 1.0 in. W.C.	0.50
To 2.5 in. W.C.	0.22
To 5.0 in. W.C.	0.14

[3] Unit is factory calibrated at 0g effect of vertical position.

Pressure Media

Typically air or similar non-conducting gases.

U.S. Patent Nos. 5442962, 6019002, 6014800 and other Patents Pending.

Electrical Data (Voltage)

Circuit	3-Wire (Com, Out, Exc)
Excitation/Output[4]	9 to 30 VDC / 0 to 5 VDC[5] 9 to 30 VAC / 0 to 5 VDC 12 to 30 VAC / 0 to 10 VDC[5]
Output Impedance	<100 ohms
Bidirectional output at zero pressure	2.5 VDC (±50 mV)

[4] Calibrated into 50K ohm load. Operable into 5000 ohms or greater.
[5] Zero & Span (FS) output factory set to within ±50mV (±25 mV for optional accuracies).

Electrical Data (Current)

Circuit	2-Wire
Output[6]	4 to 20 mA[7]
External Load	0 to 800 ohms
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)
Bidirectional output at zero pressure	12 mA

[6] Calibrated at factory with a 24 VDC loop supply voltage and a 250 ohm load.
[7] Zero & Span (FS) output factory set to within ±0.16 mA (±0.08 mA for optional accuracies.).

Environmental Data

Temperature	
Operating °F (°C)8	0 to +150 (-18 to +65)
Storage °F (°C)	-40 to +185 (-40 to +85)

[8] Operating temperature of the electronics only. Pressure media temperatures may be considerably higher or lower.

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ORDERING INFORMATION

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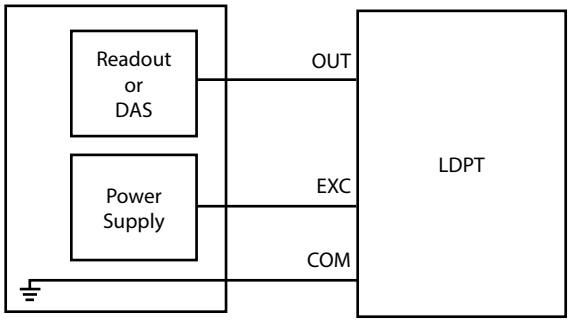
Model - 162	Range Code				Output		Elec. Termination		Accuracy	
	R25WD	0 to 0.25"W.C.	R25WB	±0.25"W.C.	11	4-20 mA	T1	Terminal	C	±1% FS
	0R5WD	0 to 0.5"W.C.	0R5WB	±0.5"W.C.	AB	0-5 V	DR	DinRail	G	±1% FS*
	001WD	0 to 1"W.C.	001WB	±1"W.C.	AC	0-10 V			F	±0.25% FS*
	2R5WD	0 to 2.5"W.C.	2R5WB	±2.5"W.C.						
	005WD	0 to 5"W.C.	005WB	± 0.5"W.C.						
	010WD	0 to 10"W.C.	010WB	±10"W.C.						
	025WD	0 to 25"W.C.	025WB	±25"W.C.						
	040WD	0 to 40"W.C.	040WB	±40"W.C.						
	050WD	0 to 50"W.C.	050WB	±50"W.C.						

*Cal Cert Included

NOTE: F code only available on ranges 1"WC and above.

WIRING



4-20 mA Output

DIMENSIONS