

The model 175 Series are low-range differential pressure transducers and transmitters. Each unit features a push-activated ZERO function and an associated LED lamp indicator. With a convenient pushbutton, the zero calibration can be performed without any additional equipment. It significantly reduces time and cost for users. The unique bi-color LED indicates if the transducer is at normal operation, over pressure, or in the process of zero calibration. It also reports if the unit is badly damaged. The enclosure consists of a flame retardant plastic top cover and a stainless steel bottom plate for ruggedness. The pressure ranges from 0.1"WC to 100"WC, unidirectional or bidirectional. The output can be 3-wire 0 to 5V, 0 to 10V, or 2-wire 4 to 20 mA, fully protected against short circuiting and incorrect wiring. All units are temperature compensated. 0.8%, 0.4% and 0.25% accuracy are available. The patented stainless steel diaphragm sensor provides good corrosion resistance, excellent repeatability and long term stability.

Model 175 Specifications

Performance Data	Standard	Optional	Optional
Accuracy* (at room temp)	± 0.80%FS	± 0.4%FS	± 0.25%FS
Non-Linearity (BFSL)	± 0.77%FS	± 0.33%FS	± 0.20%FS
Hysteresis	± 0.20%FS	± 0.10%FS	± 0.10%FS
Non-Repeatability	± 0.10%FS	± 0.10%FS	± 0.10%FS
Thermal Effects (Per °F)	± 0.025%FS	± 0.020%FS	± 0.015%FS
Compensated Range	35 to 170°F (2 to 77°C)		
Maximum Line Pressure	15PSI(100kPa)		
Overpressure	15PSI(100kPa) Proof Pressure. 30PSI(200kPa) Burst Pressure		
Warm-up Time	5 seconds to meet specifications		
Position Effect	Each unit is calibrated in the vertical position. For best accuracy, push the zero of the unit if it is mounted in other position. It is not necessary to adjust the span.		

* RSS of Non-Linearity, Hysteresis, and Non-Repeatability.

Environmental Data and Physical Description

Operating Temperature	0 to 170°F (-18 to 77°C)
Storage Temperature	-65 to 185°F (-54 to 85°C)
LED Indication	Off No Power Green Normal Working Red Over Pressure, or during Zero Calibration process Green/Red Flashing Damaged, Zero Calibration can not be completed
Electrical Termination	Detachable Euro Style Terminal Block, 14-26 AWG
Pressure Fittings	3/16" O.D. Barbed Brass for 1/8" I.D. Push-on Tubing
Output Adjustment	Push button for Zero, Potentiometer for span
Pressure Media	Typically Air or similar non-conducting Gases
Enclosure	Stainless Steel and PC+ABS Alloy, 94V-0 Rated
Weight	Approx. 3.8OZ/108g
Installation	See Diagram 1 for outline and dimensions.

Applications:

- HVAC and VAV Control
- Clean Rooms and Isolation Rooms
- Duct Static Pressure Measurement
- Draft Control and Fume Hood Control
- Furnace Air Flow Control
- Power Plant Air Flow Monitor and Control

Features

- Green/Red Bi-Color LED to Indicate The Working Status
- Push Button Zero Calibration
- 15 PSI Over Pressure
- Detachable Euro Style Terminal Block
- True Zero Output for Voltage Unit
- Incorrect Wiring Protection
- RoHS Compliant

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978-264-2966

Model 175 Specifications

Electrical Data (Voltage)

Circuit 3-Wire (+EXC, -EXC, OUTPUT), Protected from Incorrect Wiring
 Excitation 13-32VDC
 Output* 0-5VDC**, 0-10VDC**
 Output Impedance ≤ 5.0 OHMS

* Calibrate with a 50K OHM load, operable with a load greater than 5K OHM for 0-5VDC output, greater than 10K OHM for 0-10VDC output.

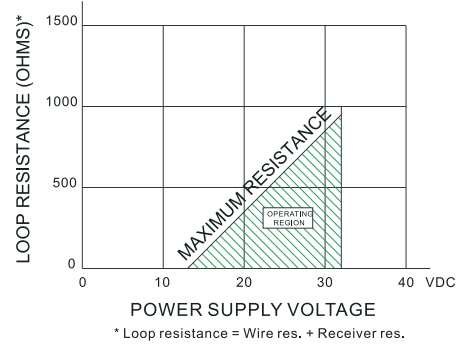
** Span Factory Setting: +/-0.5%FS

Electrical Data (Current)

Circuit 2-Wire (+EXC, -EXC), Protected from Miswiring
 Excitation 13-32VDC (see diagram 2 for maximum loop resistance)
 Output* 4-20mA**
 Bidirectional Output at Zero 12mA as standard
 External Load 0-950 OHM

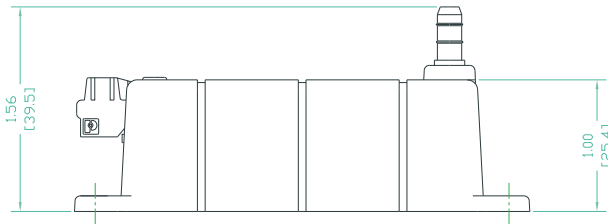
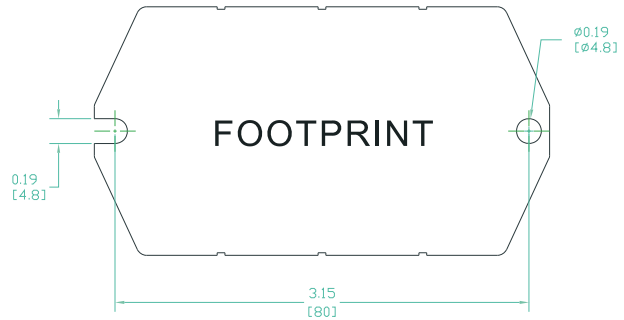
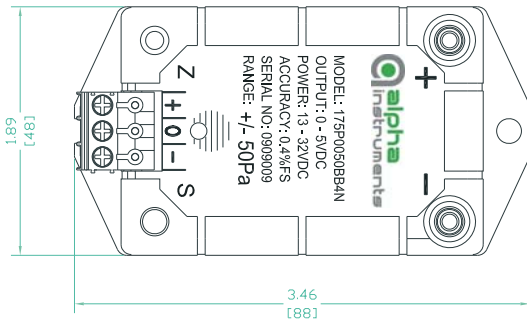
* Calibrated with a 250 OHM load and a 24VDC supply voltage

** Span Factory Setting: +/-0.5%FS



* Loop resistance = Wire res. + Receiver res.

Diagram 2



DIMENSIONS ARE IN: INCH [mm]
 * A VOLTAGE OUTPUT UNIT IS SHOWN.

Diagram 1

Ordering Information

Code all blocks in table.

Example: 175W00R1DA8N for 175 Transmitter, 0~0.1 in. WC Range, Unidirectional, 4-20mA Output, 0.8% Accuracy, No Calibration Certificate.

Model	Unit	Range	Pressure Type	Output	Accuracy	Certificate
175	P: Pascal W: in. W.C.	NNNN	Differential D: Unidirectional B: Bidirectional	A: 4-20mA B: 0-5VDC C: 0-10VDC	8: 0.8%FS 4: 0.4%FS 2: 0.25%FS	Y (with) N (without)
Pressure Unit/Range/Type						
in. W.C. (Unidirectional)		in. W.C. (Bidirectional)		Pascal (Unidirectional)	Pascal (Bidirectional)	
W00R1D=0~0.1 in. W.C.		W0R05B=0~ ± 0.05 in. W.C.		P0025D=0~25 Pa	P12R5B=0~ ± 12.5 Pa	
W0R25D=0~0.25 in. W.C.		W00R1B=0~ ± 0.1 in. W.C.		P0050D=0~50 Pa	P0025B=0~ ± 25 Pa	
W00R5D=0~0.5 in. W.C.		W0R25B=0~ ± 0.25 in. W.C.		P0100D=0~100 Pa	P0050B=0~ ± 50 Pa	
W0001D=0~1 in. W.C.		W00R5B=0~ ± 0.5 in. W.C.		P0250D=0~250 Pa	P0100B=0~ ± 100 Pa	
W02R5D=0~2.5 in. W.C.		W0001B=0~ ± 1 in. W.C.		P0500D=0~500 Pa	P0250B=0~ ± 250 Pa	
W0005D=0~5 in. W.C.		W02R5B=0~ ± 2.5 in. W.C.		P1000D=0~1000 Pa	P0500B=0~ ± 500 Pa	
W0010D=0~10 in. W.C.		W0005B=0~ ± 5 in. W.C.		P2500D=0~2500 Pa	P1250B=0~ ± 1250 Pa	
W0025D=0~25 in. W.C.		W0010B=0~ ± 10 in. W.C.		P5000D=0~5000 Pa	P2500B=0~ ± 2500 Pa	
W0050D=0~50 in. W.C.		W0025B=0~ ± 25 in. W.C.		P100CD=0~10000 Pa	P5000B=0~ ± 5000 Pa	
W0100D=0~100 in. W.C.		W0050B=0~ ± 50 in. W.C.		P250CD=0~25000 Pa	P125CB=0~ ± 12500 Pa	

* Specifications subject to change without notice. If you don't see what you need here, please contact us.

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