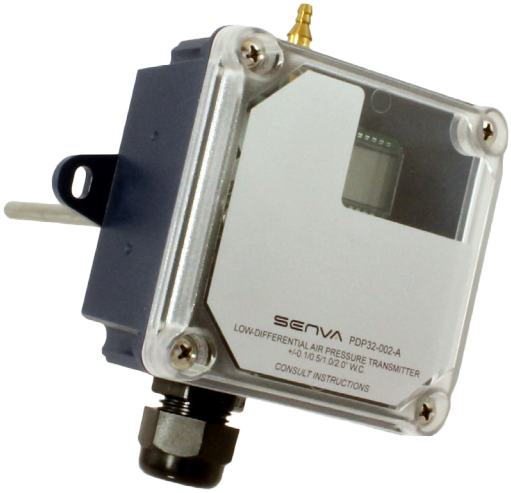
INSTALLATION INSTRUCTIONS

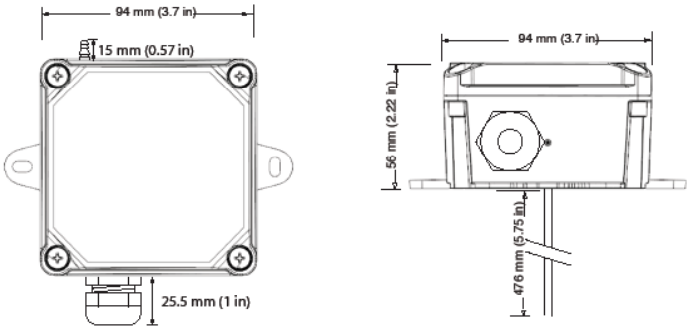
PDP32-002-A
NEMA/IP Duct Mount
Low DP Transmitter w/ pickup tube
0-0.10/0.25/0.50/1.00/2.00" W.C. and 0-.025/.062/.125/.250/.500 kPa



IMPORTANT WARNINGS

- Only qualified trade installers should install this product
- This product is not intended for life-safety applications
- Do not install in hazardous or classified locations
- The installer is responsible for all applicable codes
- De-energize power supply prior to installation or service

DIMENSIONS



INSTALLATION

1. Drill hole in duct just large enough to accomodate built-in pickup tube. Screw mount sensor directly to duct using self-tapping screws provided.

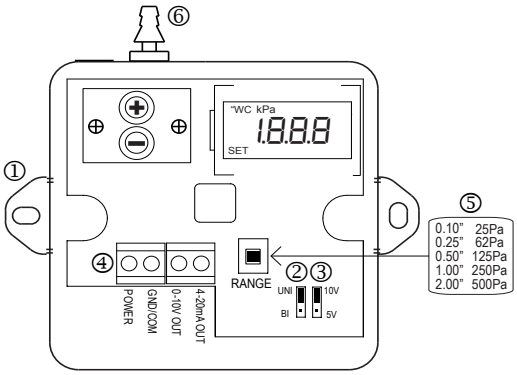
NOTE: This model is NOT position sensitive, and may be installed in any convenient orientation

2. Set jumper for UNI (+) or BI (+/-) operation. In UNI mode, output will be scaled from 0 to full-scale selected range. In BI mode, output will be scaled from minus(-) full-scale to plus(+) full-scale selected range. (e.g. -0.5 to +0.5"W.C.)

3. If voltage output is to be used, set jumper for 5V or 10V output operation.

NOTE: Voltage (5v/10v) and Current (4-20mA) outputs are both provided. No jumper or setting is required to select between these outputs.

4. Wire sensor for voltage or current output as shown:



WIRING:
POWER = Power Supply +
GND/COM = Common (power & signal)
0-10V OUT = Voltage output 5v/10vdc
4-20mA OUT = Current output 4-20mA

(PWR and GND required for both Vdc and mA operation)

5. Hold button for 2 seconds to enter range selection menu (SET will appear on LCD). Tap button to change between ranges. Hold button for 2 seconds once desired range is displayed on LCD.

6. Plumb air line to sensor LO (-) hose barb. Use 1/4" i.d. tubing or larger.

7. Sensor is ready for use. No zero adjustment or calibration is necessary.

IMPORTANT!

Forming a "drip-loop" (allowing tubing to dip below the level of the sensor hose barbs) is recommended to protect the sensor from damage caused by condensation.

Do NOT blow into the sensor to test. Condensation from breath can cause permanent damage.

Use 1/4" i.d. or larger tubing.

SPECIFICATIONS

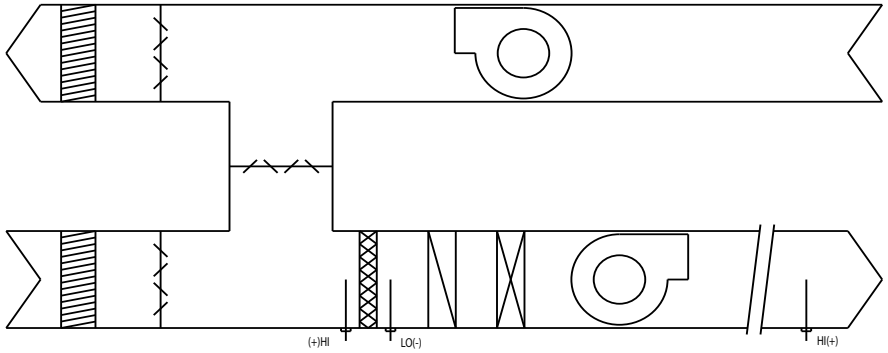
Power supply		12-30vdc/24vac (1), 30mA max. 15-30vdc/24vac required for 10v f.s. output
Outputs	dual 3-wire transmitters	3-wire 0-5v/10v and 4-20mA
Output scaling	PDP32-002-A, selectable ranges	0-2" (0.10/0.25/0.50/1.00/2.00"W.C.) 0-0.500 kPa (.025/.062/.125/.250/.500 kPa) uni or bi-directional (jumper selectable)
Operating Temperature	Operating range	32 to 122ºF (0 to 50ºC)
Media Compatibility		Dry, oil-free air. Nitrogen.
Sensor Type		Silicon Ceramic Diaphragm
Sensor Performance	Position Effects	None. Position insensitive
	Zero Drift	None
	Accuracy	+/-0.25% of full scale BFSL
	Total Band Error	+/-2.5% of full scale
	Maximum Working Pressure	135"W.C.
	Maximum Over Pressure	270"W.C.
	Burst Pressure	415"W.C.
	Maximum Common Mode Pressure	1400"W.C.
Enclosure	PDP32	IP65 polystyrene with integral gasket. Built-in static pressure pickup tube

(1) One side of transformer secondary is connected to signal common. Dedicated transformer is recommended.

TYPICAL APPLICATIONS

Filter Status: Install a static pressure pickup tube on each side of the filter and plumb with flexible tubing to the HI(+) and LO(-) pressure ports of the sensor. Set sensor to UNI mode.

Duct Static: Install a static pressure pickup tube approximately 2/3 of the way down the discharge air duct and plumb to HI(+) port for positively pressurized ducts. Set sensor to UNI mode. (Higher pressure models available.)



Building Static: Plumb HI(+) port to inside and LO(-) port to outside. Set sensor to BI mode to monitor positive and negative building pressure. Be sure to protect outside air sampling pickup or fitting from ingress of mostuire or other contaminants.

Room Pressure: Plumb HI(+) port to room and LO(-) port to ambient (outside of room). Set sensor to BI mode to monitor positive and negative room pressure.

Velocity: Use a pitot tube and plumb HI(+) port to total pressure (Pt) connection and LO(-) port to static pressure (Ps) connection to directly read Pt-Ps = Pv. Apply correction constant provided by pitot tube manufacturer.

CALIBRATION

Senva PDP sensors are factory calibrated. No field calibration is necessary or recommended.

TROUBLESHOOTING

Symptom	Solution
No output	Check wiring. Ensure power supply meets requirements.
Device is not zeroed with no pressure applied	Hold the range selector button for 10 seconds to erase factory settings. Then hold button for 10 seconds to re-zero.
Pressure reading error	Verify control panel software is configured for correct output scaling.
	Verify switch and jumper settings.
	Verify tubing is not pinched or leaking.
	Possible contamination. Ensure sensor is used only on dry air or nitrogen.
	Use 1/4" i.d. or larger tubing.

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