

# INSTALLATION INSTRUCTIONS

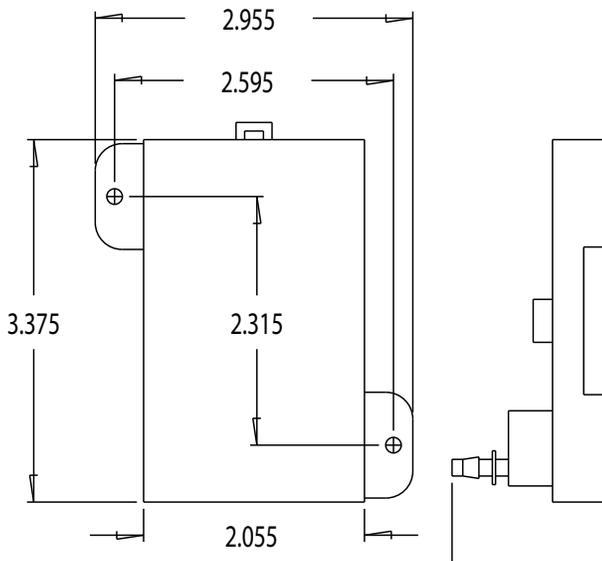
## PDP30-2500 Pa (2500/1250/250) PDP30-7000 Pa (7k/5k/1.25k) DIN/Panel Mount Low DP Transmitters



### 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



#### PRODUCT APPLICATION LIMITATION:

Senva products are not designed for life or safety applications. Senva products are not intended for use in critical applications such as nuclear facilities, human implantable device or life support. Senva is not liable, in whole or in part, for any claims or damages arising from such uses.

### INSTALLATION

1. Install sensor on standard 35mm DIN rail, or panel mount using screw tabs and self-tapping screws provided.

NOTE: This model is position sensitive, and must be installed in the orientation shown below.

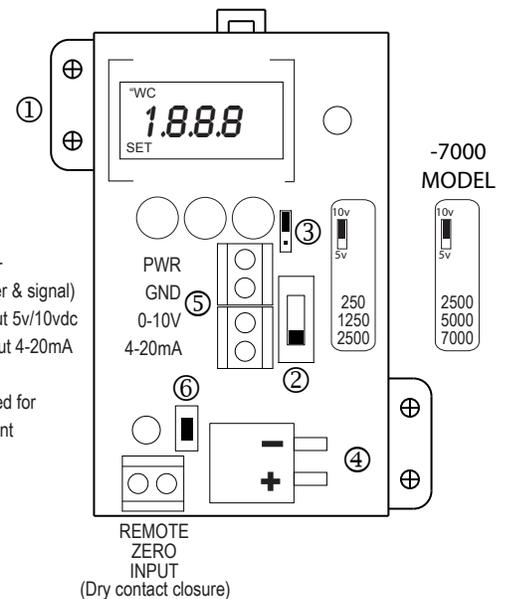
2. Move slide switch to select desired pressure range.

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. Plumb air lines to sensor hose barbs. + and - ports are labeled on the sensor. Take care to avoid damaging the hose barb fittings.

5. Wire sensor for voltage or current output as shown.



#### WIRING:

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

(PWR and GND required for both Voltage and Current output operation)

6. Apply power to sensor. With no pressure applied, press the ZERO button for 2-seconds. (For best results, temporarily connect HI and LO pressure ports together while zeroing.)

### 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.

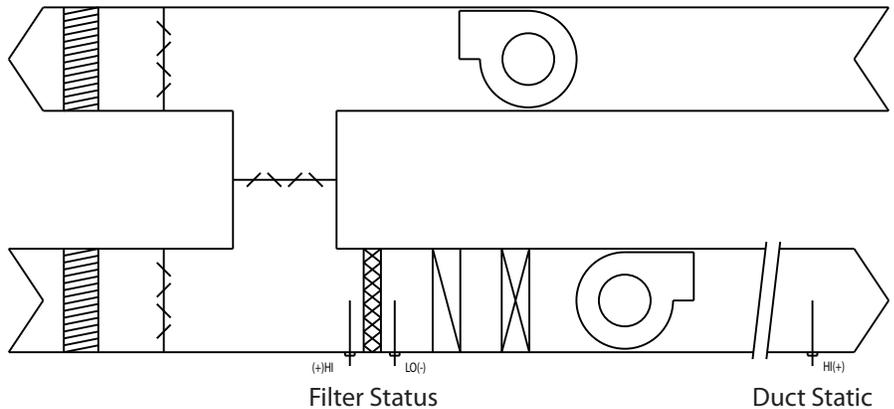
## SPECIFICATIONS

Power supply		12-30vdc/24vac <sup>(1)</sup> , 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	PDP30-2500, selectable ranges	0-2500/1250/250 Pa uni-directional only
	PDP30-7000, selectable ranges	0-7000/5000/2500 Pa uni-directional only
Operating Temperature	Calibrated range	50 to 140°F (10-60°C)
Media Compatibility		Dry, oil-free air. Nitrogen.
Sensor Type		Integrated, micromachined silicon piezo
Accuracy	Combined linearity, hysteresis, temp error	2.5% F.S.
	Auto-zero input	Pushbutton and contact closure input
Enclosure	PDP30	Open frame, 52mm DIN base for 35mm rail

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

## TYPICAL APPLICATIONS

**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.)



**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  $P_t - P_s = P_v$ . Apply correction constant provided by pitot tube manufacturer.

## TROUBLESHOOTING

Symptom	Solution
No output	Check wiring. Ensure power supply meets requirements.
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.

## CALIBRATION

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