

## P5 Series

# P5 Universal Dry Pressure

1", 5", 5" plus, 10", and 25" W.C. versions with four selectable sub-ranges

1250, 2500, 6250 Pa versions with four selectable sub-ranges

Optional LCD display; LED indicator standard

Dual 0-5/10VDC, 4-20mA (loop and 3-wire)

PATENTED DESIGN



### DESCRIPTION

The P5 universal dry media pressure transmitter accurately measures multiple ranges optimized for building (zone) pressure, filter measurement, and static duct applications. Selectable outputs and uni/bi-directional readings reduce inventory. Innovative probe integrates with unit or can be mounted remotely for static pressure. Optional LCD for panel mount readings and set up. PATENTED DESIGN

### APPLICATIONS

- Building (zone) pressure
- Filter condition measurement
- Duct/static



*Innovative probe. Transforms for duct or remote application.*



*Manual/remote zero. Selectable outputs. Uni/bi directional. Four sub-ranges.*



*High capacity DIN mount saves valuable panel space*



*Conduit Ready*



*Gasketed probe with integrated dampening tip for stable readings*



*Made in the USA and backed by a seven year limited warranty*

**FEATURES**

- Duct, filter, and remote probe applications all in one
- Universal output reduces inventory and call-backs
- Selectable sub-ranges reduces inventory and call-backs
- Zero calibration push button and remote contact input
- Non-position sensitive for easy placement
- Dual DIN mount: Side mount density conserves valuable panel space, flat panel mount for LCD viewable panel mount.
- Conduit ready for for 3/8" flex connectors...no extra parts required
- LED: Power heartbeat, auto-zero complete, 110% over pressure; facilitates locating sensor in ductwork

**ORDERING**

|                                  |                          |   |                                     |                          |                          |
|----------------------------------|--------------------------|---|-------------------------------------|--------------------------|--------------------------|
| P5                               | <input type="checkbox"/> | - | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>Pressure Range</b>            |                          |   | <b>Accuracy</b>                     | <b>Display</b>           | <b>Duct Probe</b>        |
| -0100 = 0-1" w.c. (w/subranges)  |                          |   | 1 = 1.00% of range                  | L = LCD                  | P = Duct Probe           |
| -0500 = 0-5" w.c. (w/subranges)  |                          |   |                                     | X = No Display           | X = No Probe             |
| -0501 = 0-5" w.c. (w/subranges)  |                          |   |                                     |                          |                          |
| -1000 = 0-10" w.c. (w/subranges) |                          |   |                                     |                          |                          |
| -2500 = 0-25" w.c. (w/subranges) |                          |   |                                     |                          |                          |
| -1250Pa = 0-1250Pa (w/subranges) |                          |   |                                     |                          |                          |
| -2500Pa = 0-2500Pa (w/subranges) |                          |   |                                     |                          |                          |
| -6250Pa = 0-6250Pa (w/subranges) |                          |   |                                     |                          |                          |

**Selectable Subranges by Pressure Range**

- 0100 = 0-1" w.c. (Selectable 0.1, 0.25, 0.5, 1.0, ±0.1, ±0.25, ±0.5, ±1.0"WC)
- 0500 = 0-5" w.c. (Selectable 0.1, 0.25, 2.5, 5.0, ±0.1, ±0.25, ±2.5, ±5.0"WC)
- 0501 = 0-5" w.c. (Selectable 0.5, 1.0, 2.5, 5, ±0.5, ±1.0, ±2.5, ±5"WC)
- 1000 = 0-10" w.c. (Selectable 1.0, 2.5, 5.0, 10, ±1.0, ±2.5, ±5.0, ±10"WC)
- 2500 = 0-25" w.c. (Selectable 5.0, 10, 15, 25, ±5.0, ±10, ±15, ±25"WC)
- 1250Pa = 0-1250Pa (Selectable 25, 50, 625, 1250, ±25, ±50, ±625, ±1250 Pa)
- 2500Pa = 0-2500Pa (Selectable 250, 625, 1250, 2500, ±250, ±625, ±1250, ±2500 Pa)
- 6250Pa = 0-6250Pa (Selectable 1250, 2500, 3750, 6250, ±1250, ±2500, ±3750, ±6250 Pa)

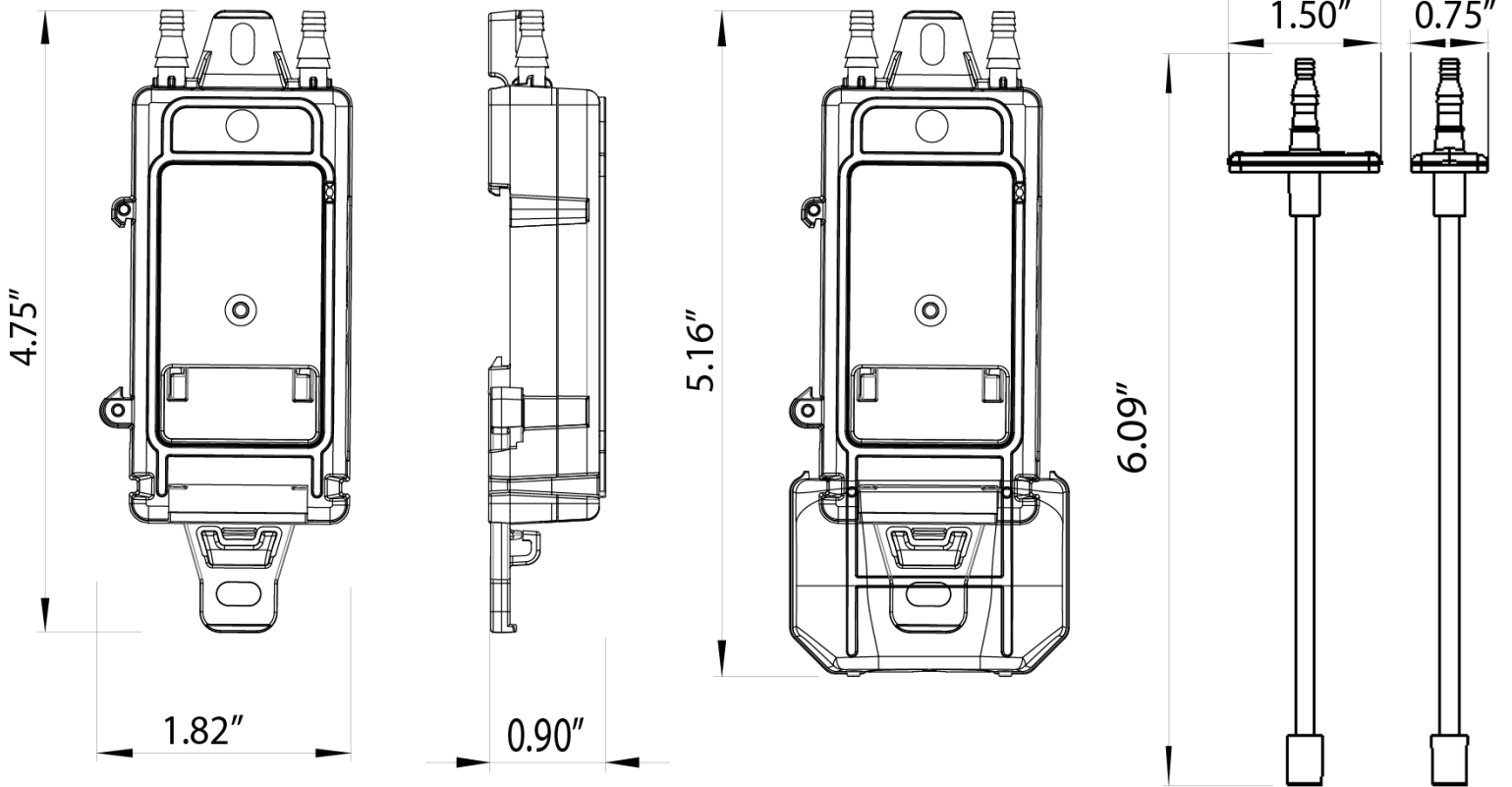
*Example part number P5-0500-1LP*

*Universal pressure sensor, 0-5" full scale range (selectable sub-ranges) with LCD and Duct Probe.*

**Additional Remote Probes Available**

- RP-6 Remote/duct probe, 6"
- RP-6 remote probe with integrated dampener for accurate measurements.
- Accepts both 1/8" and 1/4" tubing.
- **Note:** One probe comes standard with "P" product

DIMENSIONS



**Warning:** The datasheet is designed for reference only. Refer to installation instructions that accompany the product and heed all safety instructions. Product improvement is a continuing process at Senva. Changes may occur to products without prior notice.

| SPECIFICATIONS        |                               |   |
|-----------------------|-------------------------------|---|
| Power Supply          |                               | 12-30VDC/24VAC(1), 30mA max   |
| Output type           | Selectable outputs            | 4-20mA loop powered, 4-20 mA 3-wire, 0-5VDC, 0-10VDC  |
| Output scaling        | P5-0100                       | 0-1" (Selectable 0.1, 0.25, 0.5, 1.0, $\pm 0.1$ , $\pm 0.25$ , $\pm 0.5$ , $\pm 1.0$ "WC)           |
|                       | P5-0500                       | 0-5" (Selectable 0.1, 0.25, 2.5, 5.0, $\pm 0.1$ , $\pm 0.25$ , $\pm 2.5$ , $\pm 5.0$ WC)            |
|                       | P5-0501                       | 0-5" (Selectable 0.5, 1.0, 2.5, 5, $\pm 0.5$ , $\pm 1.0$ , $\pm 2.5$ , $\pm 5$ "WC)                 |
|                       | P5-1000                       | 0-10" (selectable 1.0, 2.5, 5.0, 10, $\pm 1.0$ , $\pm 2.5$ , $\pm 5.0$ , $\pm 10$ "WC)              |
|                       | P5-2500                       | 0-25" (selectable 5.0, 10, 15, 25, $\pm 5.0$ , $\pm 10$ , $\pm 15$ , $\pm 25$ " WC)                 |
|                       | P5-1250Pa                     | 0-1250 Pa (selectable 25, 50, 625, 1250, $\pm 25$ , $\pm 50$ , $\pm 625$ , $\pm 1250$ Pa)           |
|                       | P5-2500Pa                     | 0-2500 Pa (selectable 250, 625, 1250, 2500, $\pm 250$ , $\pm 625$ , $\pm 1250$ , $\pm 2500$ Pa)     |
|                       | P5-6250Pa                     | 0-6250 Pa (selectable 1250, 2500, 3750, 6250, $\pm 1250$ , $\pm 2500$ , $\pm 3750$ , $\pm 6250$ Pa) |
| Operating Temperature | Operating range               | -4 to 140F (-20 to 60°C)  |
|                       | Compensated range             | -4 to 140F (-20 to 60°C)  |
| Media compatibility   |                               | Dry, oil-free air, N2   |
| Sensor Type           |                               | MEMS silicon piezoresistive; precision calibrated   |
| Sensor Performance    | Accuracy                      | $\pm 1.0\%$ of selected range (combined linearity and hysteresis)                                   |
|                       | Zero Tolerance                | Included in accuracy specification  |
|                       | Span Tolerance (3)            | $\pm 1.00\%$  |
|                       | Zero Drift (1 year)           | 0.004"Wc/year max. 0.4% for units >0.5"w.c.   |
|                       | Auto-zero input               | Push-button and contact closure   |
|                       | Thermal Shift (Zero and Span) | 0.02% FSO/°C (0.01%FSO/°F) measured from 22°C (72°F)  |
|                       | Overpressure                  | up to 5" models: 41.5"w.c.; 10" models: 133"w.c.; 25" models: 332"w.c.                              |
|                       | Max Static Line Pressure      | up to 5" models: 41.5"w.c.; 10" models: 133"w.c.; 25" models: 332"w.c.                              |
|                       | Burst Pressure                | up to 5" models: 83"w.c.; 10" models: 166"w.c.; 25" models: 415"w.c.                                |
|                       | Position Sensitivity          | Non-position sensitive  |
|                       | Auto-zero input               | Push-button and N.O. contact closure  |
| Agency                | Compliance                    | CE, RoHS  |
| Enclosure             | Flammability                  | UL94 5VB  |
|                       | Environmental                 | NEMA 1  |

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

(2) Accuracy includes non-linearity, hysteresis, and repeatability at 70°F.

(3) Span tolerance is  $\pm 1\% \pm 0.005$ inWC for models less than 0.10inWC or equivalent pressure range.

\* Product improvement is a continual process at Senva and product features and specification may change without prior notice. Refer to instructions that accompany the product for installation and wiring.