

Rev. 04/10/10

## Features & Options

- 5 Field Selectable Pressure Ranges and Outputs
- LCD Displays Pressure Over the Entire Operational Range Regardless of Which Individual Pressure Range is Selected
- Inches of Water Column (W.C.) or Pascal Operation
- Simple Auto-Zero Process
- Three Year Warranty

BAPI's Zone Pressure Sensor is an accurate, rugged and economical solution for measuring and reporting duct/building static pressure, room-to-room differential pressure or air velocities/volumes. The heart of the unit is a micro-machined silicon capacitive pressure sensor specifically developed for low pressure. The capacitive sensor design inherently provides excellent accuracy, repeatability and stability – even at low pressures.

The LCD model offers an additional level of troubleshooting and monitoring capability over the standard model by displaying the actual differential pressure over the entire operational range (0 to 30 W.C. or 0 to 7,400 Pascals) regardless of which individual pressure range is selected for output to the system controller.

The unit is available in a rugged, IP66-rated enclosure with short circuit proof outputs and reverse polarity protected inputs to perform under real world conditions. The unit installs quickly by connecting standard 1/8" or 5/32" I.D. tubing to the two pressure ports. The various Output Ranges and Pressure Ranges are all field selectable with DIP switches, and the auto-zeroing process is very simple (flip a switch, wait five seconds, flip it back and walk away).

\*Some items may not be CE compliant, call BAPI for additional information.



Patent Pending



**BAPI-Box (BB)  
Enclosure**

### Pressure Sensor with Attached Static Tube

The unit is available with an Attached Static Tube (-AT), therefore it doesn't require two trades to install the unit.



## Ordering Information (for units without a factory specified range or output)

Part Number	Description
ZPS-BB-NT-D-H-IN	High Pressure with Display, inches of W.C. ranges, No Tube or Probe included
ZPS-BB-ST-D-H-IN	High Pressure with Display, inches of W.C. ranges with Static Pressure Probe
ZPS-BB-AT-D-H-IN	High Pressure with Display, inches of W.C. ranges with Attached Static Tube
ZPS-BB-NT-D-H-PA	High Pressure with Display, Pascal ranges, No Tube or Probe included
ZPS-BB-ST-D-H-PA	High Pressure with Display, Pascal ranges with Static Pressure Probe
ZPS-BB-AT-D-H-PA	High Pressure with Display, Pascal ranges with Attached Static Tube

Note: Pressure Range and Output Range for these units will be selected in the field.

## Specifications

### Power:

- 7 to 45 VDC (4-20 mA output)
- 7 to 45 VDC or 7 to 32 VAC (0-5 VDC output)
- 13 to 45 VDC or 13 to 32 VAC (0-10 VDC output)

### Load Resistance:

- 0-5 VDC or 0-10 VDC Output - 1 k $\Omega$  minimum
- 4-20 mA Output - 850  $\Omega$  max @ 24 VDC

### Power Consumption:

- 4.9 mA max DC at 0-5 VDC or 0-10 VDC Output
- 0.12 VA max AC at 0-5 VDC or 0-10 VDC Output
- 20 mA max, DC only at 4-20 mA Output

**Accuracy:**  $\pm 0.5\%$  on all ranges

**Stability:**  $\pm 2\%$  F.S. (full scale) per year

### Temperature Error:

- Zero -  $\pm 0.025\%$  F.S. per  $^{\circ}\text{C}$ ,
- Span - max  $\pm 0.03\%$  F.S. per  $^{\circ}\text{C}$

**Overpressure:** Proof - 5 PSI, Burst - 10 PSI

### Wiring:

- 2 (loop powered) or 3 (AC powered) wires<sup>1</sup>



# High Pressure Sensor with Display (up to 30" W.C.)

## Zone Pressure Sensors (ZPS)

C9

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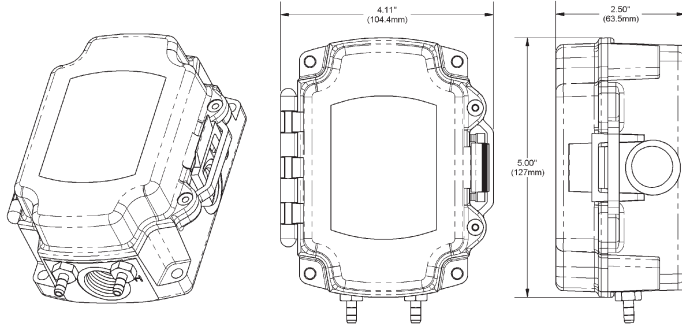
### Enclosure Specifications

**Material:** Polycarbonate

**Encl. Rating:** IP66

**Environmental Operation Range:**

Temp.: -13 to 176 °F (-25 to 80 °C)  
 32 to 140 °F (0 to 60 °C) compensated range  
 Humidity: 0 to 95% RH, non-condensing



**BAPI-Box Enclosure**

**Having Trouble Fitting Your Pressure Sensor Into Small Spaces?**

BAPI's EZ pressure sensor has all the functionality of larger units with only 1/3rd of the footprint. It's also the easiest sensor on the market to install.

*For more info, see pgs C2-C3.*

<sup>1</sup>BAPI recommends that you do not run wiring for the pressure transmitter in the same conduit as line voltage wiring or with wiring used to supply highly inductive loads such as motors, generators, and coils.

**Note:** Mount unit with the pressure fittings on the bottom to prevent condensation from entering the sensor.

Ordering Information		High Pressure Zone Pressure Sensor with Display				
ZPS						
	<b>Output Range</b>					
	-20	4 to 20 mA	(7 to 45 VDC Supply ONLY)			
	-05	0 to 5 V	(7 to 45 VDC Supply or 7 to 32 VAC Supply)			
	-10	0 to 10 V	(13 to 45 VDC Supply or 13 to 32 VAC Supply)			
	<b>Pressure Range</b>					
	-SR(range)	Standard Pressure Ranges - replace (range) with option # shown below				
		<b>Option</b>	<b>Range (inches W.C.)</b>	<b>Option</b>	<b>Range (Pascals)</b>	
		31	0 to 5	41	0 to 1,250	
		32	0 to 10	42	0 to 2,500	
		33	0 to 15	43	0 to 4,000	
		34	0 to 25	44	0 to 6,000	
		35	0 to 30	45	0 to 7,400	
	<b>Enclosure Style</b>					
	-BB	BAPI-Box Enclosure - IP66 rated, UV-resistant polycarbonate				
		<b>Optional Static Pressure Probe</b>				
		-NT	No Tube or Probe Included			
		-ST	Static Pressure Measurement Probe Included (not attached)			
		-AT	Attached Static Pressure Measurement Probe (BAPI-Box Units Only)			
		<b>LCD Display</b>				
		-D	LCD Display			
		<b>Back Mounting Options (Omit if not required)</b>				
		-BM	Back Mount (wires and pressure ports run out the back)			
<b>EXAMPLE</b>						
ZPS	-20	-SR01	-BB	-NT	-D	-BM
Example Part Number: ZPS-20-SR01-BB-NT-D-BM						
<b>Your Part Number:</b>						