

Rev. 04/10/10

## Features & Options

- 5 Field Selectable Pressure Ranges (from 0-5 to 0-30 W.C. or 0-1,250 to 0-7,400 Pascals)
- 3 Field Selectable Outputs, 4-20 mA, 0-5 or 0-10 VDC
- Inches of Water Column (W.C.) or Pascal Operation
- Simple Auto-Zero Process
- Three Year Warranty



Patent Pending



**BAPI-Box (BB)  
Enclosure**

BAPI's High Pressure 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. It comes in an IP66-rated BAPI-Box enclosure and with 5 pressure ranges from 0-5 to 0-30 WC (0-1,250 to 0-7,400 Pascals).

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 Pressure Ranges and Outputs are 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). The unit also features short circuit proof outputs and reverse polarity protected inputs to perform under real world conditions.

The optional Static Pressure Probe Assembly connects to the high port of the unit and includes a built in surge damper for more stable readings.

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

### 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-H-IN	... High Pressure, No Display, inches of W.C. ranges, No Tube or Probe included
ZPS-BB-ST-H-IN	... High Pressure, No Display, inches of W.C. ranges with Static Pressure Probe
ZPS-BB-AT-H-IN	... High Pressure, No Display, inches of W.C. ranges with Attached Static Tube
ZPS-BB-NT-H-PA	.. High Pressure, No Display, Pascal ranges, No Tube or Probe included
ZPS-BB-ST-H-PA	.. High Pressure, No Display, Pascal ranges with Static Pressure Probe
ZPS-BB-AT-H-PA	.. High Pressure, No 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 (up to 30" W.C.)

## Zone Pressure Sensors (ZPS)

C11

Rev. 03/15/10

### Enclosure Specifications

**Material:** Polycarbonate

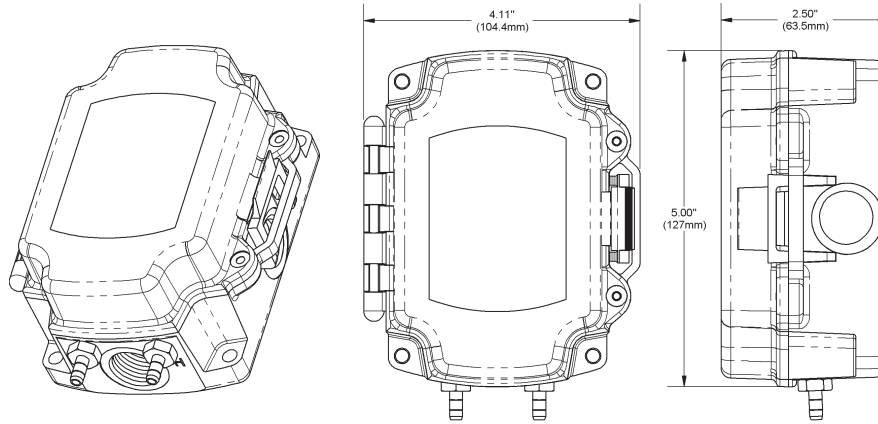
**Encl. Rating:** IP66

**Environmental Operation Range:**

Temperature: -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**

<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			
<b>ZPS</b>					
<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>Optional Back Mount (Omit if not required)</b>					
-BM	Back Mount (wires and pressure ports run out the back)				
EXAMPLE					
ZPS	-20	-SR01	-BB	-NT	-BM
Example Part Number: ZPS-20-SR01-BB-NT-BM					
<b>Your Part Number:</b>					