

Zone Pressure Sensors (ZPS)

Rev. 03/23/11

Features & Options

- Field Selectable Pressure and Output Ranges
- 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
- IP66 rated BAPI-Box Enclosure
- Accommodates 1/8" I.D. to 5/32" I.D. Tubing
- Three Year Warranty

Patent Pending

BAPI-Box (BB)
Enclosure

BAPI's Zone Pressure Sensor with Display 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 pressure sensor specifically developed for low pressure. The sensor design inherently provides excellent accuracy, repeatability and stability – even at low pressures.

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

Pressure Sensor with Attached Static Tube

The unit is available in a BAPI-Box with an Attached Static Tube, therefore it doesn't require two trades to install the unit. Choose the (-AT) option in the Static Pressure Probe section of the ordering grid at right.



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 kΩ minimum
- 4-20 mA Output - 850 Ω 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:

- ±1% on 0 to 0.1 range and ±0.1 range,
- ±0.5% on other ranges

Stability: ±2 % F.S. (full scale) per year

Temperature Error:

- Zero - ±0.025% F.S. per °C,
- Span - max ±0.03% F.S. per °C

Overpressure: Proof - 5 PSI, Burst - 10 PSI

Wiring:

- 2 (loop powered) or 3 (AC powered) wires¹

Enclosure Material: Polycarbonate

Enclosure Rating: IP66, NEMA4

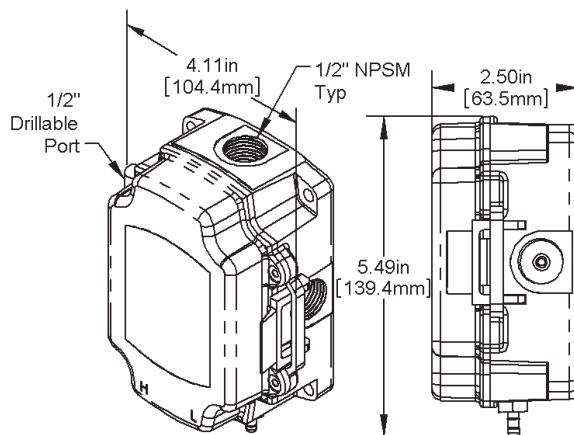
Environmental Operation Range:

- 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

Dimensions: 5" x 4.11" x 2.5"

127mm x 104.4mm x 63.5mm



¹BAPI 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.



Pressure Sensor with Display C5

Zone Pressure Sensors (ZPS)

Rev. 03/23/11

Datasheets without List Prices are available on our website at www.bapihvac.com

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

Part Number	Description	List Price
ZPS-BB-NT-D-IN	BAPI-Box with Display, inches of W.C. ranges, No Tube/Probe included	\$340
ZPS-BB-ST-D-IN	BAPI-Box with Display, inches of W.C. ranges with Static Pressure Probe	\$340
ZPS-BB-AT-D-IN	BAPI-Box with Display, inches of W.C. ranges with Attached Static Tube	\$340
ZPS-BB-NT-D-PA	BAPI-Box with Display, Pascal ranges, No Tube or Probe included	\$340
ZPS-BB-ST-D-PA	BAPI-Box with Display, Pascal ranges with Static Pressure Probe	\$340
ZPS-BB-AT-D-PA	BAPI-Box with Display, Pascal ranges with Attached Static Tube	\$340

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

Part numbers for units with a factory specified range or output

Ordering Information	List Price	Your Order				
Zone Pressure Sensor with Display						
ZPS	\$340	\$ _____				
Output Range						
-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)					
Pressure Range						
-SR(range) Standard Pressure Ranges - replace (range) with option # shown below						
Option	Range (inches W.C.)	Option				
01	0 to 0.10	11				
02	0 to 0.25	12				
03	0 to 1.00	13				
04	0 to 2.50	14				
05	0 to 5.00	15				
06	-0.10 to 0.10	16				
07	-0.25 to 0.25	17				
08	-1.00 to 1.00	18				
09	-2.50 to 2.50	19				
10	-5.00 to 5.00	20				
<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; text-align: center;">Custom Range (W.C.) ***</td> <td style="width: 50%; text-align: center;">Custom Range (Pascals) ***</td> </tr> <tr> <td style="text-align: center;">CI [x.xx to y.yy]*</td> <td style="text-align: center;">CP [xxxx to yyyy]**</td> </tr> </table>			Custom Range (W.C.) ***	Custom Range (Pascals) ***	CI [x.xx to y.yy]*	CP [xxxx to yyyy]**
Custom Range (W.C.) ***	Custom Range (Pascals) ***					
CI [x.xx to y.yy]*	CP [xxxx to yyyy]**					
Enclosure Style (Must Select One)						
-BB	BAPI-Box Enclosure - IP66 rated, UV-resistant polycarbonate	\$0				
Static Pressure Probe (Must Select One)						
-NT	No Tube or Probe Included	\$0				
-ST	Static Pressure Measurement Probe Included (not attached)	\$0				
-AT	Attached Static Pressure Measurement Probe (BAPI-Box Units Only)	\$0				
LCD Display						
-D	LCD Display	\$0				
Back Mount Option (Omit if not required)						
-BM	Back Mount (wires and pressure ports run out the back)	\$0				
EXAMPLE						
ZPS	-20	-SR01				
	-BB	-NT				
	-D	-BM				
Example Part Number: ZPS-20-SR01-BB-NT-D-BM						
Your Part Number:						
		Total = \$ _____				

*For custom W.C. ranges, x.xx and y.yy can be any pressure from -5.00 to +5.00 inches W.C. However, x.xx must be less than y.yy and y.yy - x.xx must be at least .1 inches. (Example Part #: ZPS-20-SRCI[0.00 to 3.00]-BB-NT-D-BM)

**For custom Pascal ranges, xxxx and yyyy can be any pressure from -1250 to +1250 Pascals. However, xxxx must be less than yyyy and yyyy - xxxx must be at least 25 Pascals. (Example Part #: ZPS-20-SRCP[0 to 100]-BB-NT-D-BM)

***There is a net add of \$100 for custom ranges. Multipliers do not apply to net adds. Custom Ranges include a certification of 3 points within the custom pressure range.

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 2-3.*

