



Features & Options

- 5 Field Selectable Pressure Ranges & 3 Field Selectable Outputs
- Optional LCD Shows Pressure Over the Entire Operational Range Regardless of Which Individual Pressure Range is Selected
- Inches of Water Column (W.C.) or Pascal Operation
- Free NIST Certificate Included with Each Pressure Unit
- Simple Auto-Zero Process
- Three Year Warranty

BAPI's High Pressure Sensor is an accurate, rugged and economical solution for measuring duct/building static pressure, room-to-room differential pressure or air velocities/volumes. The heart of the unit is a micro-machined silicon sensor with excellent accuracy, repeatability and stability.

The LCD aids in troubleshooting 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 controller.

The unit comes in a rugged, IP66-rated enclosure with short circuit proof outputs and reverse polarity protected inputs. The unit accepts standard 1/8" or 5/32" I.D. tubing to the 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).

Patent Pending



High Pressure Sensors

Sensor with Attached Static Tube

The unit is available with an Attached Static Tube so 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 40 VDC (4 to 20 mA output)
7 to 40 VDC or 18 to 28 VAC (0 to 5 VDC output)
13 to 40 VDC or 18 to 28 VAC (0 to 10 VDC output)

Load Resistance:

0 to 5 VDC or 0 to 10 VDC Output - 1 kΩ minimum
4 to 20 mA Output - 850 Ω max @ 24 VDC

Power Consumption:

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

Accuracy at 72 °F: ±0.25% on all ranges

Stability: ±0.25 % F.S. (full scale) per year

Temperature Error:

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

Environmental Operation Range: 32 to 140°F (0 to 60°C)

Storage Temperature: -40 to 203°F (-40 to 95°C)

Overpressure: Proof: 2 PSI, Burst: 3 PSI

Wiring: 2 wires (4 to 20mA Current loop)*
3 wires (AC or DC powered, Voltage out)*

Humidity: 0 to 95% RH, non-condensing

Port Connection:

1 High Pressure & 1 Low Pressure for push-on 1/4-inch tubing (1/8" to 3/16" I.D.)

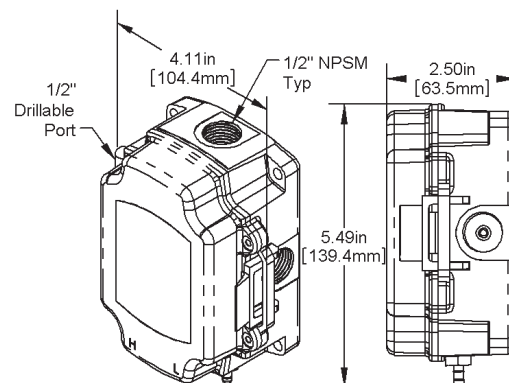
Enclosure Material:

UV-resistant Polycarbonate, UL94, V-0

Enclosure Rating: IP66, NEMA 4

Mounting:

Four external tabs with holes for #10 screws



*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 (for units without a factory specified range or output)

PART NUMBER DESCRIPTION

- ZPS-HR-BB-NT-D-IN ... BAPI-Box High Pressure with Display, W.C. ranges, No Tube or Probe included
- ZPS-HR-BB-ST-D-IN.... BAPI-Box High Pressure with Display, W.C. ranges with Static Pressure Probe
- ZPS-HR-BB-AT-D-IN.... BAPI-Box High Pressure with Display, W.C. ranges with Attached Static Tube
- ZPS-HR-BB-NT-D-PA .. BAPI-Box High Pressure with Display, Pascal ranges, No Tube or Probe included
- ZPS-HR-BB-ST-D-PA .. BAPI-Box High Pressure with Display, Pascal ranges with Static Pressure Probe
- ZPS-HR-BB-AT-D-PA .. BAPI-Box High Pressure with Display, Pascal ranges with Attached Static Tube
- ZPS-HR-BB-NT-IN BAPI-Box High Pressure without Display, W.C. ranges, No Tube or Probe included
- ZPS-HR-BB-ST-IN BAPI-Box High Pressure without Display, W.C. ranges with Static Pressure Probe
- ZPS-HR-BB-AT-IN BAPI-Box High Pressure without Display, W.C. ranges with Attached Static Tube
- ZPS-HR-BB-NT-PA BAPI-Box High Pressure without Display, Pascal ranges, No Tube or Probe included
- ZPS-HR-BB-ST-PA BAPI-Box High Pressure without Display, Pascal ranges with Static Pressure Probe
- ZPS-HR-BB-AT-PA BAPI-Box High Pressure without Display, Pascal ranges with Attached Static Tube

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		Zone Pressure Sensor in a BAPI-Box, High Pressure Ranges			
ZPS					
	Output Range				
	-20	4 to 20 mA	(7 to 40 VDC Supply ONLY)		
	-05	0 to 5 V	(7 to 40 VDC Supply or 18 to 28 VAC Supply)		
	-10	0 to 10 V	(13 to 40 VDC Supply or 18 to 28 VAC Supply)		
	Pressure Range				
	-HR(range)	High Pressure Ranges - <i>replace (range) with option # shown below</i>			
		Option	Range (inches W.C.)	Option	Range (Pascals)
		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
	Enclosure Style				
	-BB	BAPI-Box Enclosure - IP66 rated, UV-resistant polycarbonate			
	Optional Static Pressure Probe				
	-NT	No Tube or Probe Included			
	-ST	Static Pressure Probe Included (not attached)			
	-AT	Attached Static Pressure Probe (Not available with Back Mount [-BM])			
	Optional LCD Display (Omit if not required)				
	-D	LCD Display			
	Back Mounting Options (Omit if not required)				
	-BM	Back Mount (wires and pressure ports run out the back, not available with Attached Static Pressure Probe [-AT])			
EXAMPLE					
ZPS	-20	-HR31	-BB	-NT	-D -BM
Example Part Number: ZPS-20-HR31-BB-NT-D-BM					
Your Part Number:					

