"Touch" Pressure Sensor

Zone Pressure Touch Sensors (ZPT)

Rev. 10/14/14

Features & Options

- Touch Interface Through the Cover, No More Dip Switches
- Field Selectable Output, Pressure Ranges and WC or Pascal Operation
- Free NIST Certificate Included with Each Pressure Unit
- 21 Field Selectable Pressure Ranges
- Adjustable Pressure Endpoints for Custom Pressure Ranges

BAPI's Zone Pressure "Touch" (ZPT) 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 pressure sensor with excellent accuracy, repeatability and stability.

The touch interface allows for quick and easy menu driven set up of all parameters including auto zero, pressure ranges, output ranges, W.C. or Pascal operation, and display format of pressure, percent output or "On". You can also use the interface to create custom ranges.

The LCD helps with troubleshooting because it displays the actual differential pressure over the entire operational range (-5 to +5 inches W.C. or -1,250 to 1,250 Pascals) regardless of which individual pressure range is selected for output to the system controller.

Patent Pending

Touch Pressure Sensor in the BAPI-Box

ZPT 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.

Specifications

Power:
7 to 40 VDC (4 to 20 mA Output)
7 to 40 VDC or 18 to 32 VAC (0 to 5 or 1 to 5 VDC Output)
13 to 40 VDC or 18 to 32 VAC (0 to 10 or 2 to 10 VDC Output)

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

Load Resistance:
4 to 20 mA Output 850 Ω Maximum @ 24 VDC
0 to 5 VDC or 0 to 10 VDC output 1KΩ minimum

Accuracy at 72°F: ±0.25% of range

Stability: ±0.25% F.S. per year

Environmental Operation Range:
-4 to 140°F (-20 to 60°C)

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

Temperature Error:
0.01% FS/°F (0.02% FS/°C) (±5.0" W.C. @ -4 to 140°F [-20 to 60°C])

Overpressure: Proof: 27.68 in W.C (1 PSI),
Burst: 41.52 in W.C. (1.5 PSI)

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

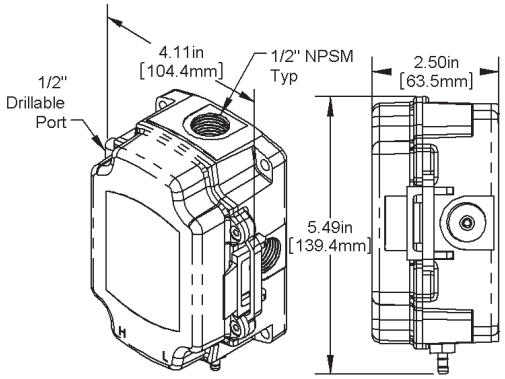
Humidity: 0 to 95% RH, non-condensing

Port Connection:
1 High Pressure & 1 Low Pressure
for push-on 1/4" 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.

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

Part Number	Description	List Price
ZPT-SR-BB-NT-D	... Zone Pressure Touch sensor, Standard Ranges, No Tube/Probe included	..... $320
ZPT-SR-BB-ST-D	... Zone Pressure Touch sensor, Standard Ranges, with Static Pressure Probe	..... $320
ZPT-SR-BB-AT-D	... Zone Pressure Touch sensor, Standard Ranges, with Attached Static Tube	..... $320

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
ZPT								**$320**	**$_____**
	Output Range (Must Select One)								
	-20	4 to 20 mA	(7 to 40 VDC Supply ONLY)						
	-05	0 to 5 V	(7 to 40 VDC Supply or 18 to 32 VAC Supply)						
	-10	0 to 10 V	(13 to 40 VDC Supply or 18 to 32 VAC Supply)						
	-12	2 to 10 V	(13 to 40 VDC Supply or 18 to 32 VAC Supply)						
	-15	1 to 5 V	(7 to 40 VDC Supply or 18 to 32 VAC Supply)						
		Pressure Range (Must Select One)							
		-SR(range)	Standard Pressure Ranges - *replace (range) with option # shown below*						
			Option / **Range *(inches W.C.)*** / **Option** / **Range *(Pascals)***						
			71 0 to 1.00 / **81** 0 to 250						
			72 0 to 2.00 / **82** 0 to 300						
			73 0 to 2.50 / **83** 0 to 500						
			74 0 to 3.00 / **84** 0 to 1,000						
			75 0 to 5.00 / **85** 0 to 1,250						
			76 -1.00 to 1.00 / **86** -250 to 250						
			77 -2.00 to 2.00 / **87** -300 to 300						
			78 -2.50 to 2.50 / **88** -500 to 500						
			79 -3.00 to 3.00 / **89** -1,000 to 1,000						
			80 -5.00 to 5.00 / **90** -1,250 to 1,250						
			Custom Range *(W.C.)* *** / Custom Range *(Pascals)* ***					**$30**	
			CI [x.xx to y.yy]* / **CP** [xxxx to yyyy]**					**Net Add*****	
			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 Probe (Not available with Back Mount [-BM])				**$0**	
					LCD Display (Optional, See note ** below)**				
					-D LCD Display			**$0**	
						Back Mounting Options (Optional, omit if not required)			
						-BM Back Mount (pressure ports run out the back, not available with Attached Static Pressure Probe [-AT])		**$0**	
EXAMPLE									
ZPT	**-20**	**-SR71**	**-BB**	**-NT**	**-D**	**-BM**		**Total =**	**$_____**
Example Part Number: ZPT-20-SR71-BB-NT-D-BM									
Your Part Number:									

While field technicians can easily set up custom ranges in the field, BAPI will setup custom ranges in our factory. See the notes below for additional information and fees.

*For custom W.C. ranges, x.xx and y.yy can be any pressure from -5.00 to +5.00 inches W.C. However, y.yy - x.xx must be at least ±1 inch. (Example: ZPT-20-SRCI[0.00 to 3.50]-BB-NT-D-BM)

**For custom Pascal ranges, xxxx and yyyy can be any pressure between -1250 to +1250 Pascals. However, yyyy - xxxx must be at least ±250 Pascals. (Ex: ZPT-20-SRCP[0 to 750]-BB-NT-D-BM)

***There is a net add of $30 for custom ranges. Multipliers do not apply to net adds. Custom Ranges include a certification of 3 points within the custom pressure range.

****If you do not wish to view the current pressure on the display, simply leave off the "-D" in the part number. Instead of showing the current pressure, the display will show the word "on".