# "Touch" Pressure Sensor (Standard & Low Ranges)

Zone Pressure Touch Sensors (ZPT)

Rev. 12/13/17



## Features & Options

- Touch Interface Through the Cover, No More Dip Switches
- Field Selectable Output, Pressure Ranges and WC or Pascal Units
- Free NIST Certificate Included with Each Pressure Unit
- Standard Range (-5 to +5 WC or -1,250 to +1,250 Pascals) or Low Range (-1.0 to +1.0 WC or -250 to +250 Pascals)
- Custom Pressure Ranges Can be Created in the Field

BAPI's Zone Pressure "Touch" (ZPT) sensor is an accurate, rugged and economical solution for measuring building pressure, air velocities and 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 set up of all parameters including pressure ranges, output ranges and WC or Pascal units. The interface can even be used to create custom ranges in the field.

The LCD helps with troubleshooting because it displays the actual differential pressure over the entire operational range regardless of which individual pressure range is selected for output to the system controller.





**Touch Pressure Sensor** 

## 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 V Output) 13 to 40 VDC or 18 to 32 VAC (0 to 10 or 2 to 10 V 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 V or 0 to 10 V output  $1K\Omega$  minimum

Accuracy for Standard Pressure Ranges at 72°F: ±0.25% of range

### Accuracy for Low Pressure Ranges at 72°F:

±0.5% of range for the three lowest unidirectional and bidirectional ranges

±0.25% of range all other ranges

Stability: ±0.25% F.S. per year

# **Environmental Operation Range:**

14°F to 140°F (-10°C to 60°C)

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

#### **Temperature Error for Standard Ranges:**

0.01% FS/°F (0.02% FS/°C)

(±5.0" W.C. @ 14 to 140°F [-10 to 60°C])

### **Temperature Error for Low Ranges:**

0.04% FS/°F (0.07% FS/°C)

(±1.0" W.C. @ 14 to 140°F [-10 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:**

1/4" tubing (1/8" to 3/16" I.D.)

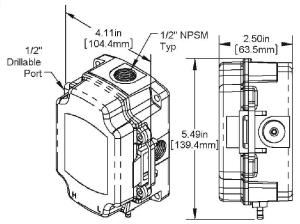
#### **Enclosure Material:**

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.





# "Touch" Pressure Sensor (Standard & Low Ranges)

Zone Pressure Touch Sensors (ZPT)

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	<u>DESCRIPTION</u>	<b>LIST PRICE</b>
ZPT-SR-BB-NT-D	Standard Range Unit, Display, No Tube or Probe included	\$350
ZPT-SR-BB-ST-D	Standard Range Unit, Display with Static Pressure Probe	\$350
ZPT-SR-BB-AT-D	Standard Range Unit, Display with Attached Static Probe	\$350
	Low Range Unit, Inches WC, Display, No Tube or Probe included	
ZPT-LR-BB-ST-D	Low Range Unit, Inches WC, Display with Static Pressure Probe	\$350
ZPT-LR-BB-AT-D	Low Range Unit, Inches WC, Display with Attached Static Probe	\$350

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

For units with a factory specified range or output, use Selection Guide below

# Standard and Low Range Touch Pressure Option Selection Guide

ZPT-(#1)-(#2)-(#3)-(#4)

#1: Pressure 0	utput	(required)
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204	to 20 mA
050	to 5 V
100	to 10 V
122	to 10 V
151	to 5 V

#### **#2: Pressure Range** (required)

#### LOW RANGES

WC Ranges LR510 to 0.10	Pascal Ranges LR610 to 30
LR52 0 to 0.25 LR53 0 to 0.50	LR62 0 to 50 LR63 0 to 100
LR540 to 0.75	LR640 to 175
LR550 to 1.00	LR65 0 to 250
LR560.10 to 0.10	LR6630 to 30
LR570.25 to 0.25	LR6750 to 50
LR580.50 to 0.50	LR68100 to 100
LR590.75 to 0.75 LR601.00 to 1.00	LR69175 to 175 LR70250 to 250

Factory set Custom Ranges are available for these units. Contact your BAPI representative for ordering.

#### #2: Pressure Range continued...

#### STANDARD RANGES

<u>vvC Ranges</u>	<u>Pascai Ranges</u>
SR710 to 1.00	SR810 to 250
SR72 0 to 2.00	SR820 to 300
SR73 0 to 2.50	SR830 to 500
SR740 to 3.00	SR840 to 1,000
SR75 0 to 5.00	SR850 to 1,250
SR761.00 to 1.00	SR86250 to 250
SR772.00 to 2.00	SR87300 to 300
SR782.50 to 2.50	SR88500 to 500
SR793.00 to 3.00	SR891,000 to 1,000
SR805.00 to 5.00	SR901,250 to 1,250

## #3: Static Pressure Tube (required)

BB-NT.. No Tube included BB-ST.. Static Pressure Tube included BB-AT .. Attached Static Pressure Probe

#4: Display (optional)

D.....LCD (See Note below)

**Note:** The display is alway present. If you do not select the display option, the display will show the word "On" rather than the current pressure.

Example Number: ZPT - ( **05** ) - ( **SR72** ) - ( **BB-ST** ) - ( **D** )

Actual Number (with parenthesis removed): ZPT-05-SR72-BB-ST-D

Description: 0-5 V Output, 0 to 2" WC Pressure Range, Touch Unit with Static Tube and Display.

List Price: \$350 for all units

Your Number: ZPT-

