“Touch” Pressure Sensor (Standard & Low Ranges)

Zone Pressure Touch Sensors (ZPT)

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.

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 1KΩ 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.
### Ordering Information (for units without a factory specified range or output)

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZPT-SR-BB-NT-D</td>
<td>Standard Range Unit, Display, No Tube or Probe included</td>
</tr>
<tr>
<td>ZPT-SR-BB-ST-D</td>
<td>Standard Range Unit, Display with Static Pressure Probe</td>
</tr>
<tr>
<td>ZPT-SR-BB-AT-D</td>
<td>Standard Range Unit, Display with Attached Static Probe</td>
</tr>
<tr>
<td>ZPT-LR-BB-NT-D</td>
<td>Low Range Unit, Inches WC, Display, No Tube or Probe included</td>
</tr>
<tr>
<td>ZPT-LR-BB-ST-D</td>
<td>Low Range Unit, Inches WC, Display with Static Pressure Probe</td>
</tr>
<tr>
<td>ZPT-LR-BB-AT-D</td>
<td>Low Range Unit, Inches WC, Display with Attached Static Probe</td>
</tr>
</tbody>
</table>

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 Output** *(required)*

- 4 to 20 mA
- 0 to 5 V
- 0 to 10 V
- 2 to 10 V
- 1 to 5 V

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

**LOW RANGES**

**Pressure Range** *(required)*

**STANDARD RANGES**

- WC Ranges
- Pascal Ranges
- SR71...0 to 1.00
- SR81...0 to 250
- SR72...0 to 2.00
- SR82...0 to 300
- SR73...0 to 2.50
- SR83...0 to 500
- SR74...0 to 3.00
- SR84...0 to 1,000
- SR75...0 to 5.00
- SR85...0 to 1,250
- SR76...-1.00 to 1.00
- SR86...-250 to 250
- SR77...-2.00 to 2.00
- SR87...-300 to 300
- SR78...-2.50 to 2.50
- SR88...-500 to 500
- SR79...-3.00 to 3.00
- SR89...-1,000 to 1,000
- SR80...-5.00 to 5.00
- SR90...-1,250 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)

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

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.

Your Number: ZPT-

Note: The display is always present. If you do not select the display option, the display will show the word “On” rather than the current pressure.