



Features & Options

- 10 Field Selectable Pressure Ranges
- 3 Field Selectable Outputs
- 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)
- Free NIST Certificate Included with Each Pressure Unit

BAPI's Zone Pressure Sensor with Display 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 optional LCD display 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.

5
YEAR
WARRANTY

Patent
Pending



ZPS 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 Ω minimum

Accuracy for Standard Pressure Ranges at 72°F:

$\pm 0.25\%$ of range

Accuracy for Low Pressure Ranges at 72°F:

$\pm 0.5\%$ of range for the three lowest unidirectional and bidirectional ranges

$\pm 0.25\%$ of range all other ranges

Stability: $\pm 0.25\%$ 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.)

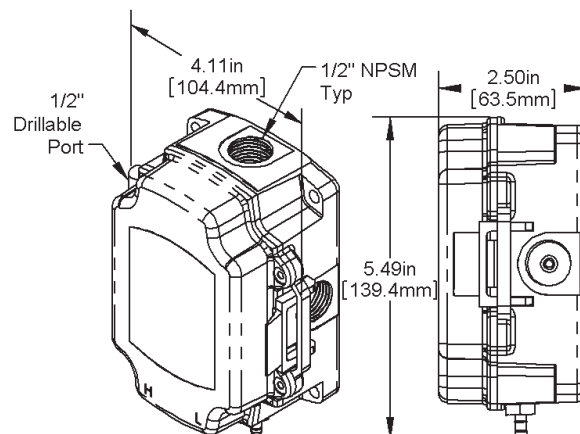
Enclosure Material:

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)

PART NUMBER	DESCRIPTION
ZPS-SR-BB-NT-D-IN...	Standard Range Unit, Inches WC, Display, No Tube or Probe included
ZPS-SR-BB-NT-D-PA .	Standard Range Unit, Pascals, Display, No Tube or Probe included
ZPS-SR-BB-ST-D-IN...	Standard Range Unit, Inches WC, Display with Static Pressure Probe
ZPS-SR-BB-ST-D-PA..	Standard Range Unit, Pascals, Display with Static Pressure Probe
ZPS-SR-BB-AT-D-IN...	Standard Range Unit, Inches WC, Display with Attached Static Probe
ZPS-SR-BB-AT-D-PA..	Standard Range Unit, Pascals, Display with Attached Static Probe
ZPS-LR-BB-NT-D-IN...	Low Range Unit, Inches WC, Display, No Tube or Probe included
ZPS-LR-BB-NT-D-PA..	Low Range Unit, Pascals, Display, No Tube or Probe included
ZPS-LR-BB-ST-D-IN...	Low Range Unit, Inches WC, Display with Static Pressure Probe
ZPS-LR-BB-ST-D-PA..	Low Range Unit, Pascals, Display with Static Pressure Probe
ZPS-LR-BB-AT-D-IN...	Low Range Unit, Inches WC, Display with Attached Static Probe
ZPS-LR-BB-AT-D-PA..	Low Range Unit, Pascals, Display with Attached Static Probe

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 ZPS Pressure Option Selection Guide

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

#1: Pressure Output (required)

- 20..... 4 to 20 mA
- 05..... 0 to 5 V
- 10..... 0 to 10 V
- 12..... 2 to 10 V
- 15..... 1 to 5 V

#2: Pressure Range (required)

LOW RANGES

WC Ranges	Pascal Ranges
LR51 .. 0 to 0.10	LR61 0 to 30
LR52 .. 0 to 0.25	LR62 0 to 50
LR53 .. 0 to 0.50	LR63 0 to 100
LR54 .. 0 to 0.75	LR64 0 to 175
LR55 .. 0 to 1.00	LR65 0 to 250
LR56 .. -0.10 to 0.10	LR66 -30 to 30
LR57 .. -0.25 to 0.25	LR67 -50 to 50
LR58 .. -0.50 to 0.50	LR68 -100 to 100
LR59 .. -0.75 to 0.75	LR69 -175 to 175
LR60 .. -1.00 to 1.00	LR70 -250 to 250

#2: Pressure Range continued...

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

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

Example Number: ZPS - (05) - (SR72) - (BB-ST) - (D)

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

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

Your Number: ZPS-

