

Patent

Rev. 05/30/14

# Features & Options

- Measures Air and Non-Corrosive Gasses
- Multiple Color LED Pressure Indication
- Free NIST Certificate Included with Each Pressure Unit
- Simple Auto-Zero Process
- Reverse Wiring Protection
- Single Pressure Range and Single Output Range
- 3 Year Warranty

BAPI's Fixed Range Pressure Sensor (FRP) is an economical solution for any cost-conscious application. The FRP features one factory-set pressure range and one factory-set output range. A single button is used to auto-zero the unit.

Fixed Range Pressure Sensor in the BAPI-Box

A colored LED indicates the pressure status:

Red – over pressure Green – top half of span Amber – center of span Blue – bottom half of span Purple – under pressure

## 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:

18 to 28 VAC, 0.4 VA max 9 to 32 VDC with 0 to 5V output, 10 mA max 13 to 32 VDC with a 0 to 10V out, 10mA max

### Accuracy at 72°F

±1% for pressures ≤ 0.25" WC (62.5 Pa) ±0.5% for pressures > 0.25" WC (62.5 Pa)

### Temperature Error

0.01<sup>°</sup>/<sub>0</sub> FS/°F (0.02% FS/°C) (±5.0 in WC [1,250 Pa] @ -4 to 140°F [-20 to 60°C])

0.04% FS/°F (0.07% FS/°C) (±1.0 in WC [250 Pa] @ -4 to 140°F [-20 to 60°C])

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

Stability: 0.15% FS per year

### Overpressure

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

Wiring\*: 3-wires, AC or DC powered, Voltage out

\***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.

Humidity: 0 to 95% RH, non-condensing

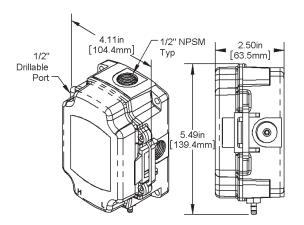
**Port Connection:** 1 High Pressure & 1 Low Pressure for push-on 1/4" tubing (1/8" to 3/16" I.D.)

Enclosure Material: UV-resistant Polycarbonate, UL94, V-0

Enclosure Rating: IP66, NEMA 4

### Mounting:

Four external tabs with holes for #10 screws





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Ordering	Infor	rmation	Fixed R	ange Pressure in a BA	PI-Box, F	actory Ranges		
ZPS				- U				
Ou	Itput	Range						
-	-05	0 to 5 V						
-	-10	0 to 10 V						
-	-12	2 to 10 V						
-	-15	1 to 5 V						
	Pressure Range     -FR(range)   Standard Pressure Ranges - replace (range) with option # shown below							
			Option	Range (inches W.C.)		Option	<u>n Range (Pascals)</u>	
			51	0 to 0.10		61	0 to 30	
			52	0 to 0.25		62	0 to 50	
			53	0 to 0.50		63	0 to 100	
			55	0 to 1.00		65	0 to 250	
			91	0 to 1.25		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	
			56	-0.10 to 0.10		66	-30 to 30	
			57	-0.25 to 0.25		67	-50 to 50	
			58	-0.50 to 0.50		68	-100 to 100	
			60	-1.00 to 1.00		70	-250 to 250	
			96	-1.25 to 1.25		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.)	<u>C.)*</u>		Custom Range (Pascals)**	
			CI	[x.xx to y.yy]*		CP	[xxxx to yyyy]**	
	Enclosure Style (Must Select One)   -BB BAPI-Box Enclosure - IP66 rated, UV-resistant polycarbonate   Static Pressure Probe (Must Select One)							
							lycarbonate	
				-NT				
				-ST	Static Pressure Measurement Probe Included (not attached) Attached Static Pressure Probe (Not available with Back Mount [-BM])			
				-AT				
	Back Mounting Options (Omit if not re						,	
					Back Mount (pressure ports run out the back, not			
					-BM		ached Static Pressure Probe [-AT]	
XAMPL	E		•		•	*		
ZPS -	-05	-FR51	-BB	-NT				
xample	Part N	Number: ZPS-	05-FR51-BI	B-NT				
our Par	our Part Number:							

\* For custom W.C. ranges, x.xx and y.yy can be any pressure from -5.00 to 5.00 inches W.C. If x.xx is greater than y.yy the output will be reverse acting. The difference between x.xx and y.yy must be greater than 0.10 inches W.C. A minimum of 50 pieces per order is required.

\*\* For custom Pascal ranges, xxxx and yyyy can be any pressure from -1,250 to 1,250 Pascals. If xxxx is greater than yyyy the output will be reverse acting. The difference between xxxx and yyyy must be greater than 25 Pascals. A minimum of 50 pieces per order is required.

Note: Other mounting options are available. Contact your BAPI representative for more information and minimum order quantities.

