

### FEATURES

- Pressure ranges from 0...± 2.5 "H<sub>2</sub>O to -20...120 cm H<sub>2</sub>O gage or differential
- 1...6 V output
- Output ratiometric to supply voltage
- Precision temperature compensated and calibrated
- PCB terminals



### SERVICE

Port P2: Wetted materials:  
polyester housing, epoxy adhesive,  
silicon, borosilicate glass,  
silicon-to-glass bond

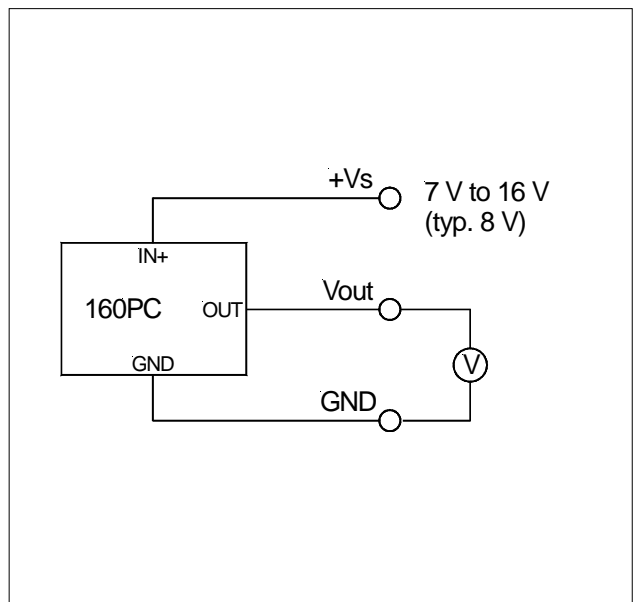
Port P1: Dry gases only

### SPECIFICATIONS

#### Maximum ratings

Supply voltage	7...16 V
Maximum load current	
Source	10 mA
Temperature limits	
Storage	-55 to 125°C
Operating	-40 to 85°C
Compensated	
All 163PC/164PC devices	5 to 45°C
All others	-18 to 63°C
Lead temperature (10 sec. soldering)	315 °C
Shock (half sine, 6 msec.)	50 g
Vibration (10 to 2000 Hz)	10 g
Proof pressure <sup>1</sup>	
All -20...120 cm H <sub>2</sub> O devices	350 cm H <sub>2</sub> O
All others	5 psi

### ELECTRICAL CONNECTION



### COMMON PERFORMANCE CHARACTERISTICS

Characteristics		Min.	Typ.	Max.	Unit	
Operating pressure	gage devices	162PC01G <sup>2</sup>	0	1	psi	
	differential/gage devices <sup>2</sup>	162PC01D	0	1		
		164PC01D76	0	5		
		164PC01D37	0	10		
	differential, pressure/vacuum devices	163PC01D75	-2.5		2.5	"H <sub>2</sub> O
		163PC01D36	-5		5	
		163PC01D48	-20		120	cm H <sub>2</sub> O
Ratiometricity error <sup>3</sup>	7...8 V, 8...9 V		±0.50		%FSS	
	9...12 V		±2.00			
Stability over one year			±0.50			
Response time				1	ms	
Current consumption			8.0	20.0	mA	

#### Specification notes:

1. Proof pressure is the maximum pressure which may be applied without causing damage to the sensing element.
2. Higher pressure applied to P2. Output signal increases when pressure at P2 increases.
3. Ratiometricity refers to the output voltage being directly proportional to the supply voltage. All devices are calibrated at 8 V supply voltage (except 163PC01D48) to provide a 1...6 V (5 V Span) output swing. For example, if supply increases by 50% to 12 V, the output voltage increases by 50% to 1.5...9 V (7.5 V Span).
4. Full scale span is the algebraic difference between the positive full scale output and the zero pressure offset. For all 163PC devices it is the algebraic difference between the positive full scale output and the output at lowest specified pressure.
5. Non-linearity refers to the **Best Straight Line** fit measured for offset, full scale and 1/2 full scale pressure.
6. All specifications shown are relative to 25°C.

### INDIVIDUAL PERFORMANCE CHARACTERISTICS

#### 162PC...G

Gage devices ( $V_s = 8.00 \pm 0.01$  V,  $t_{amb} = 25^\circ\text{C}$ )

Characteristics	Min.	Typ.	Max.	Unit
Zero pressure offset	0.95	1.00	1.05	V
Full scale span <sup>4</sup>	4.85	5.00	5.15	
Full scale output	5.90	6.00	6.10	
Non-linearity (BSL, P2 < P1) <sup>5</sup>			±1.00	%FSS
Repeatability and hysteresis		±0.15		
Thermal effects <sup>6</sup> Combined offset and span	-18 to 63 °C -40 to 85 °C		±1.0 ±2.0	

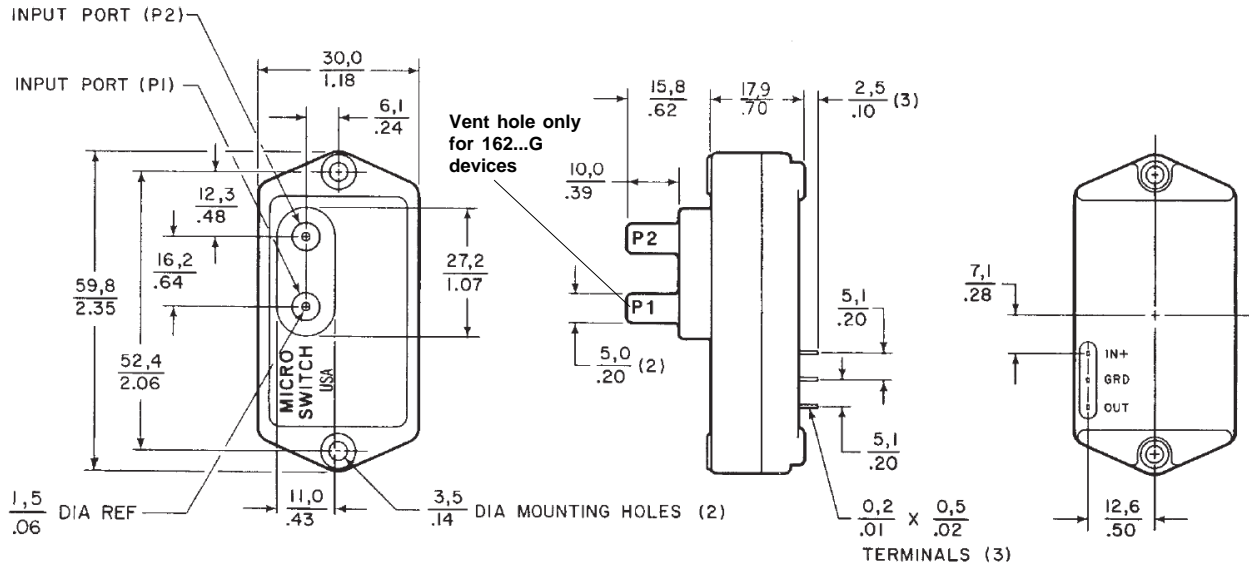
#### 162PC...D, 164PC...D

Differential/Gage devices ( $V_s = 8.00 \pm 0.01$  V,  $t_{amb} = 25^\circ\text{C}$ )

Characteristics	Min.	Typ.	Max.	Unit
Zero pressure offset	0.95	1.00	1.05	V
Full scale span <sup>4</sup>	4.85	5.00	5.15	
Full scale output	5.90	6.00	6.10	
Non-linearity (BSL, P2 > P1) <sup>5</sup>			±2.00	%FSS
Repeatability and hysteresis	5, 10 "H <sub>2</sub> O devices 1 psi devices	±0.25 ±0.15		
Thermal effects <sup>6</sup> Combined offset and span	5 to 45 °C	5 "H <sub>2</sub> O devices 10 "H <sub>2</sub> O devices	±1.25 ±1.00	
	-18 to 63 °C -40 to 85 °C	1 psi devices 1 psi devices	±1.00 ±2.00	



### OUTLINE DRAWING



mass: approx. 28 g

dimensions in mm (inches)

### ORDERING INFORMATION

Operating pressure	Part number	
	One input port (Gage devices)	Two input ports (Differential devices)
<b>Gage devices</b> 0...1 psi	162PC01G	
<b>Differential/Gage devices</b> 0...1 psi 0...5 "H <sub>2</sub> O 0...10 "H <sub>2</sub> O		162PC01D 164PC01D76 164PC01D37
<b>Differential, pressure/vacuum devices</b> 0...±2.5"H <sub>2</sub> O 0...±5 "H <sub>2</sub> O -20...120 cm H <sub>2</sub> O		163PC01D75 163PC01D36 163PC01D48

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