

FEATURES

- Ranges from 0.5 to 30 inch H₂O gage or differential
- Precision temperature compensated
- Calibrated offset and span
- Extremely low position sensitivity
- Excellent long term stability

MEDIA COMPATIBILITY

To be used with non-corrosive, non-ionic working fluids such as clean dry air, dry gases and the like.

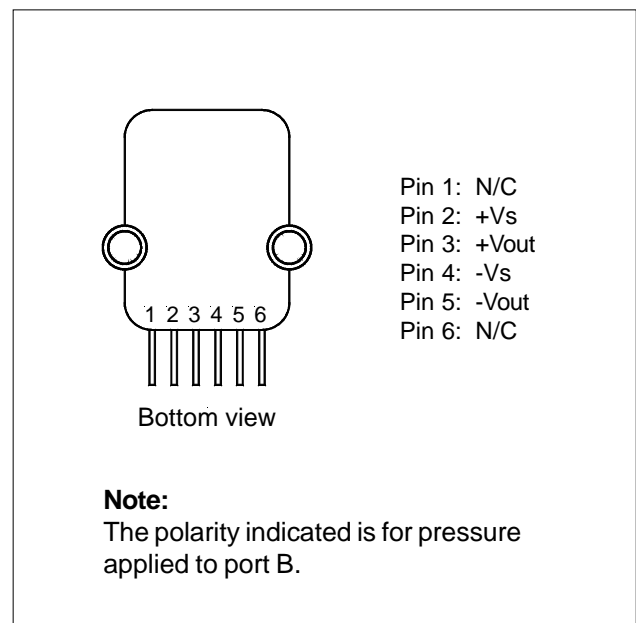


SPECIFICATIONS

Maximum ratings

Supply voltage V_s	16 V _{DC}
Lead temperature (soldering 2-4 sec.)	270 °C
Temperature ranges	
Compensated	0...50 (70) °C
Operating	-25...85 °C
Storage	-40...125 °C
Humidity limits (non-condensing)	0...95 % RH
Common mode pressure	10 psig

ELECTRICAL CONNECTION



PLO Series

Precision very low pressure sensors / mV-output

PRESSURE SENSOR CHARACTERISTICS¹

Part no.	Operating pressure	Proof pressure ²	Burst pressure ³
PLOH0x5D	0 ... 0.5 "H ₂ O	0 ... 100 "H ₂ O	0 ... 200 "H ₂ O
PLOH001D	0 ... 1 "H ₂ O	0 ... 100 "H ₂ O	0 ... 200 "H ₂ O
PLOH002D	0 ... 2 "H ₂ O	0 ... 100 "H ₂ O	0 ... 200 "H ₂ O
PLOH005D	0 ... 5 "H ₂ O	0 ... 200 "H ₂ O	0 ... 300 "H ₂ O
PLOH010D	0 ... 10 "H ₂ O	0 ... 200 "H ₂ O	0 ... 300 "H ₂ O
PLOH020D	0 ... 20 "H ₂ O	0 ... 200 "H ₂ O	0 ... 500 "H ₂ O
PLOH030D	0 ... 30 "H ₂ O	0 ... 200 "H ₂ O	0 ... 800 "H ₂ O

PERFORMANCE CHARACTERISTICS¹

PLOH0x5D

Characteristics	Min.	Typ.	Max.	Unit
Zero pressure offset			±0.5	mV
Full scale span (FSS) ⁴	9.0	10.0	11.0	
Combined non-linearity and hysteresis ⁵		±0.05	±0.25	%FS
Temperature effects (0...50 °C) ⁶	Offset		±250	μV
	Span		±200	
Offset warm-up shift ⁷		±100		
Offset position sensitivity (±1 g)		±5		
Offset long term stability (one year)		±200		
Input resistance		4.5		kΩ
Output resistance		1.5		
Response time ⁸		100		μsec

PLOH001D, PLOH002D

Characteristics	Min.	Typ.	Max.	Unit
Zero pressure offset			±0.5	mV
Full scale span (FSS) ⁴	9.0	10.0	11.0	
Combined non-linearity and hysteresis ⁵		±0.05	±0.25	%FS
Temperature effects (0...50 °C) ⁶	Offset		±250	μV
	Span		±200	
Offset warm-up shift ⁷		±100		
Offset position sensitivity (±1 g)		±50		
Offset long term stability (one year)		±200		
Input resistance		4.5		kΩ
Output resistance		1.5		
Response time ⁸		100		μsec

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PERFORMANCE CHARACTERISTICS¹ (cont.)

PLOH005D

Characteristics	Min.	Typ.	Max.	Unit
Zero pressure offset			±0.5	mV
Full scale span (FSS) ⁴	19.0	20.0	21.0	
Combined non-linearity and hysteresis ⁵		±0.05	±0.25	%FS
Temperature effects (0...50 °C) ⁶	Offset		±150	µV
	Span		±200	
Offset warm-up shift ⁷		±50		
Offset position sensitivity (±1 g)		±10		
Offset long term stability (one year)		±100		
Input resistance		4.5		kΩ
Output resistance		1.5		
Response time ⁸		100		µsec

PLOH010D, PLOH020D, PLOH030D

Characteristics	Min.	Typ.	Max.	Unit
Zero pressure offset			±0.5	mV
Full scale span (FSS) ⁴	19.0	20.0	21.0	
Combined non-linearity and hysteresis ⁵		±0.05	±0.25	%FS
Temperature effects (0...70 °C) ⁶	Offset		±150	µV
	Span		±200	
Offset warm-up shift ⁷		±50		
Offset position sensitivity (±1 g)		±5		
Offset long term stability (one year)		±100		
Input resistance		4.5		kΩ
Output resistance		1.5		
Response time ⁸		100		µsec

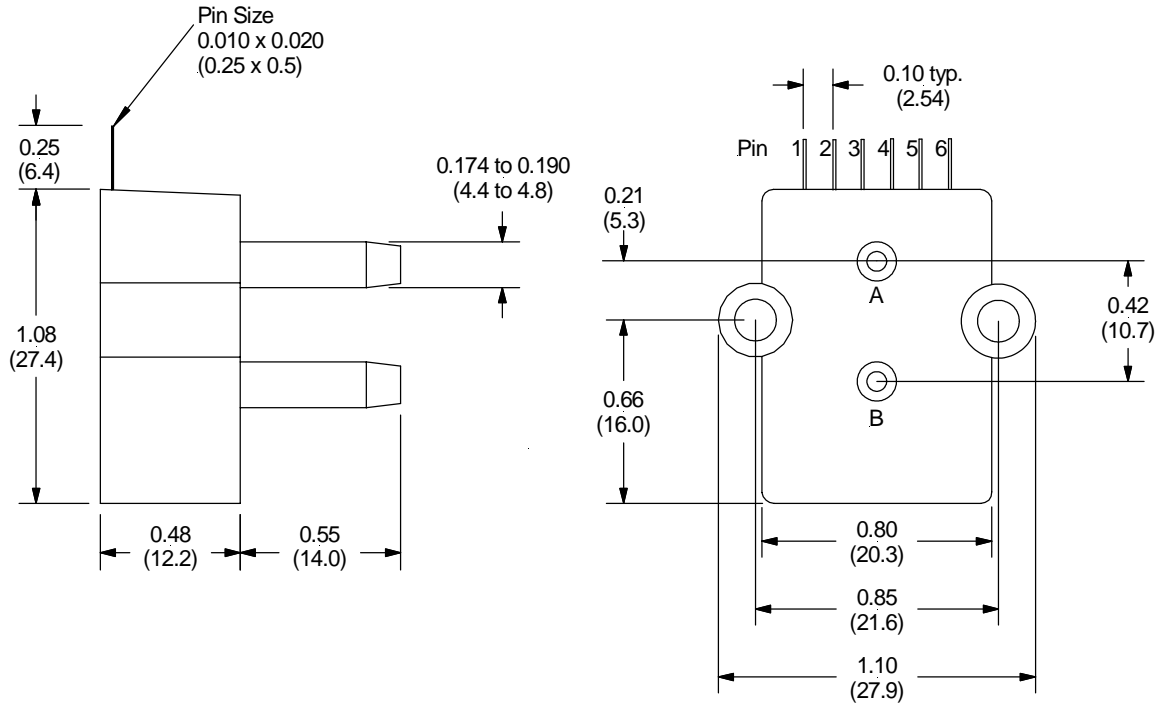
Specification notes:

1. Reference conditions: supply voltage $V_S = 12\text{ V}$, $T_A = 25^\circ\text{C}$, common-mode pressure 0, positive pressure applied to port B.
2. Proof pressure is the maximum pressure which may be applied without causing durable shifts of the electrical parameters of the sensing element.
3. Burst pressure is the maximum pressure which may be applied without causing damage to the sensing element or leading to leaks of the housing.
4. Full scale span is the algebraic difference between the output voltage at full-scale pressure at the output at zero pressure. The span is ratiometric to the supply voltage.
5. Non-linearity refers to the **Best Straight Line** fit measured for offset pressure, full-scale pressure and ½ full-scale pressure.
6. Shifts relative to 25°C.
7. Shifts within the first hour of excitation applied to the sensor.
8. Response time for a 0 bar to full-scale span pressure step change, 10 % to 90 % rise time.

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PHYSICAL DIMENSIONS



dimensions in inches (mm)

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