MINIATURE TEMPERATURE COMPENSATED PRESSURE SENSORS

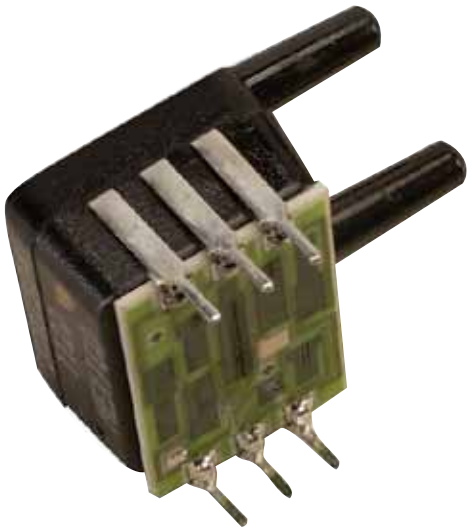
Gage, Absolute or Differential Pressure
5 inH$_2$O to 100 psi
12 mb to 6.9 bar

PXSDX Series

- **Low Cost, Small Size, PC Board Mountable**
- **Micromachined Silicon Technology**
- **High Impedance, Low Current Draw**
- **6-Pin DIP Package**
- **High Impedance, Low Current Draw**
- **For Use with Clean Dry Gases**

The PXSDX sensors are high performance silicon sensors with internally calibrated outputs to allow interchangeability within systems.These temperature compensated sensors give a stable, accurate reading over a range of 0 to 50°C (32 to 122°F). They are intended for applications with non-corrosive, non-ionic gases such as air and many common industrial and laboratory gases.

Shown actual size.



PXSDX-005DV

SPECIFICATIONS

@ 12 Vdc, 25°C (77°F)

Excitation: 12 Vdc typical (20 Vdc maximum)

Output mV (@ 12 Vdc) Ratiometric

5 inH$_2$O: 20.0 ±0.5 mV
10 inH$_2$O: 25.0 ±0.5 mV
1 psi: 18.00 +0.80, -0.18 mV
5 psi: 60 ±0.60 mV
15 to 60 psi: 90.00 ±0.10 mV
100 psi: 100.00 ±1.0 mV

Zero Offset: ±0.3 mV (inH$_2$O Ranges**:** ±1 mV)

Linearity, Hysteresis Error: ±0.1% typical, ±0.25% maximum (inH$_2$O Ranges: ±0.2% typical, ±1% maximum)

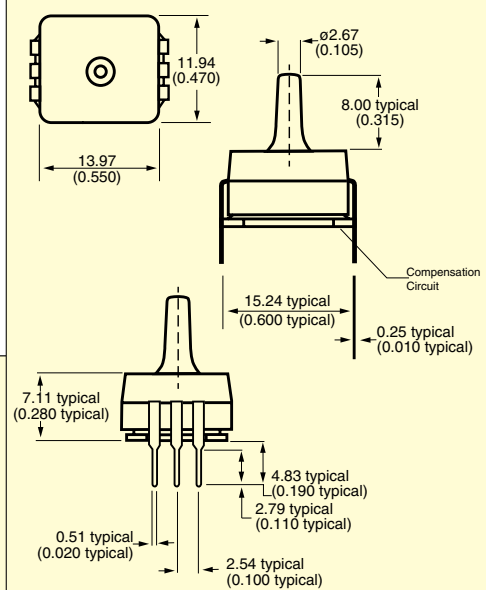
Response Time (90%): 100 µsec

Long Term Stability (1-Year): ±0.1% full scale

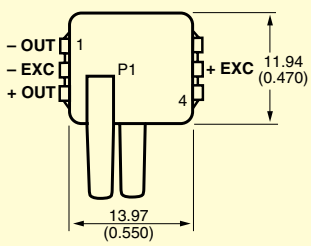
Operating Temperature: -40 to 85°C (-40 to 185°F)

Compensated Temperature: 0 to 50°C (32 to 122°F)

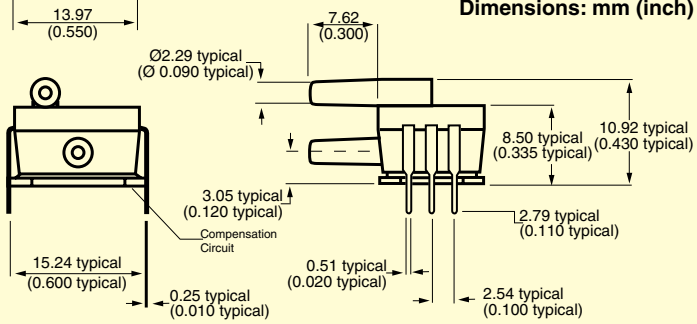
Gage/Absolute Models



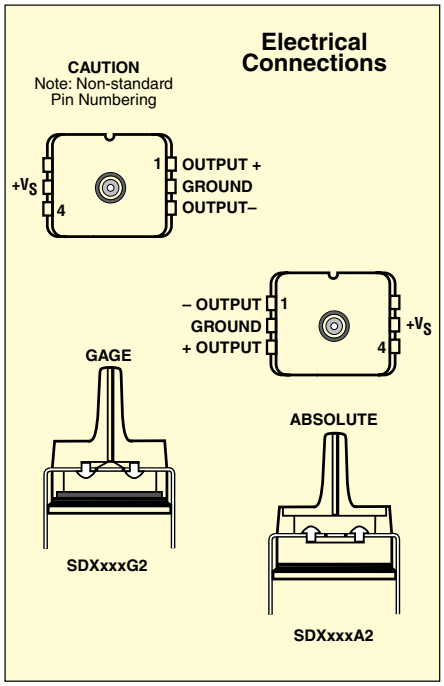
Differential Models



Dimensions: mm (inch)



Electrical Connections



Thermal Effects

Zero Shift: ±0.2 mV typical ±0.5 mV maximum (inH_2O Ranges: ±0.2% typical, ±0.6% maximum)

Span Shift: ±0.4% full scale typical ±1.0% FS maximum (inH_2O Ranges: ±0.2% typical, ±1% maximum)

Input Impedance: 4 kΩ

Output Impedance: 4 kΩ

Proof Pressure:

inH_2O Ranges: 193 inH_2O (7 psi)

1 and 5 psi (g and d) Ranges: 30 psi

15 psi (g and d) Ranges: 30 psi

15 psia Range: 30 psia

30 psi (g and d) Ranges: 60 psi

30 psia Range: 60 psia

100 psi (g and d) Ranges: 150 psi

100 psia Range: 150 psia

Common Mode Pressure:

inH_2O Ranges:
50 psi maximum
150 psi maximum

Lead Soldering Temperature: 250°C (482°F) maximum

Weight: 2 g (0.06 oz)

Notes: *P1 is top port and absolute models have top port only of the differential package. D4 is differential and absolute A2 is gage pressure.*

To Order

RANGE		MODEL NO.	DESCRIPTION
psi	bar		
GAGE PRESSURE			
0 to 1 psi	0 to 69 mb	**PXSDX-001GV**	1 psig miniature pressure sensor
0 to 5	0 to 345 mb	**PXSDX-005GV**	5 psig miniature pressure sensor
0 to 15	0 to 1 bar	**PXSDX-015GV**	15 psig miniature pressure sensor
0 to 30	0 to 2	**PXSDX-030GV**	30 psig miniature pressure sensor
0 to 100	0 to 7	**PXSDX-100GV**	100 psig miniature pressure sensor
ABSOLUTE PRESSURE			
0 to 15	0 to 1 bar	**PXSDX-015AV**	15 psia miniature pressure sensor
0 to 30	0 to 2	**PXSDX-030AV**	30 psia miniature pressure sensor
0 to 100	0 to 7	**PXSDX-100AV**	100 psia miniature pressure sensor
DIFFERENTIAL PRESSURE			
0 to 5 inH_2O	0 to 12 mb	**PXSDX-005WCDV**	5 inH_2O miniature pressure sensor
0 to 10 inH_2O	0 to 25 mb	**PXSDX-010WCDV**	10 inH_2O miniature pressure sensor
0 to 1 psi	0 to 69 mb	**PXSDX-001DV**	1 psid miniature pressure sensor
0 to 5	0 to 345 mb	**PXSDX-005DV**	5 psid miniature pressure sensor
0 to 15	0 to 1 bar	**PXSDX-015DV**	15 psid miniature pressure sensor
0 to 30	0 to 2	**PXSDX-030DV**	30 psid miniature pressure sensor
0 to 100	0 to 7	**PXSDX-100DV**	100 psid miniature pressure sensor

Ordering Examples: PXSDX-030GV, *30 psig gage pressure range miniature pressure sensor with 90 mV output @ 12 Vdc.*

PXSDX-015AV, *15 psia absolute pressure range miniature pressure sensor with 90 mV output @ 12 Vdc.*

PXSDX-001DV, *1 psid differential pressure range miniature pressure sensor with 18 mV output @ 12 Vdc.*

BRIDGE/STRAIN GAGE SIGNAL CONDITIONER

Field Rangeable Isolated Voltage or Current Outputs

DMD4059 Series

- **Standard DIN Rail Mounting**
- **Drives up to Four 350 Ω Bridges**
- **Non-Interactive Zero and Span**
- **Fast Setup–Over 100 I/O Ranges**
- **Removable Connectors**
- **Full 3-Way Isolation**
- **Output Test Button**
- **Adjustable Excitation, 1 to 10 Vdc**

The DMD4059 accepts an input from 1 to 4 full Wheatstone strain bridge sensors, pressure transducers or load cells. It provides filtering, amplifies, and converts the millivolt input signal into the selected dc voltage or current output that is linear to the input.

DMD4059 bridge/strain gage signal conditioner.