FEATURES

- **0...50 mbar to 0...1 bar gage or differential**

- **High impedance bridge**

- **True surface mount miniature package**

- **Usable for wet/wet applications[8]**

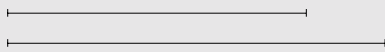## SERVICE

All media compatible with

port 1:   - polyphtalamide
          - silver-filled silicone
          - silicon nitride

port 2:   - polyphtalamide
   - fluor-silicone
          - silicon

Scale:	1 cm
	1/2 inch

SPECIFICATIONS

Maximum ratings

Supply voltage	16 V
Temperature limits	
Storage	-55 to +100°C
Operating	-40 to +85°C
Lead temperature (10 sec. soldering)	260°C
Humidity limits	0...100 %RH
Vibration (MIL-STD-202, Meth. 213)	150 g half sine 11 ms
Mechanical shock (qualification tested)	150 g
Proof pressure[1]	
all 50, 100, 250 mbar devices	1.4 bar
1 bar devices	3.0 bar

ELECTRICAL CONNECTION

SENSORTECHNICS

www.sensortechnics.com
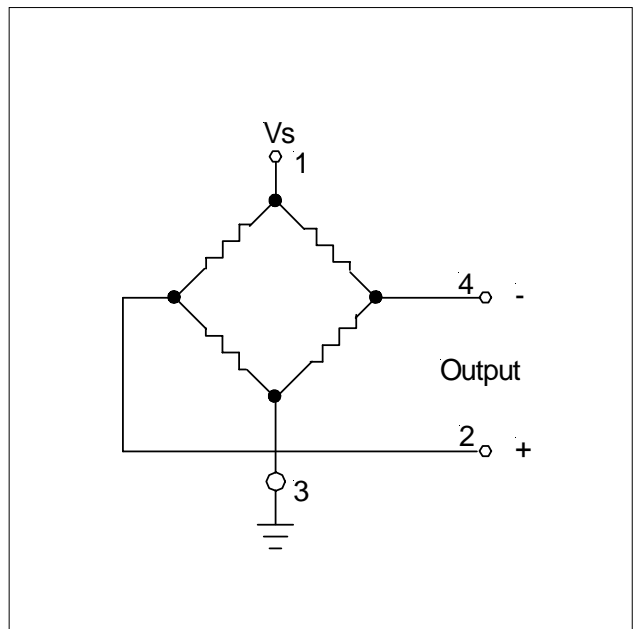
26PC SMT Series *(mbar)*
Temp. compensated and calibrated pressure sensors

PRESSURE SENSOR CHARACTERISTICS
V_s = 10.0 ± 0.01 V, t_{amb} = 20°C (unless otherwise noted)

Part number	Operating pressure	Full-scale span (P2 > P1)[2]			Sensitivity typ.
		Min.	Typ.	Max.	
26PC0050DSMT	0 - 50 mbar	10.6 mV	12.1 mV	13.6 mV	242 µV/mbar
26PC0100DSMT	0 - 100 mbar	21 mV	24 mV	27 mV	242 µV/mbar
26PC0250DSMT	0 - 250 mbar	34 mV	36 mV	38.5 mV	145 µV/mbar
26PC01K0DSMT	0 - 1000 mbar	93 mV	97 mV	101 mV	97 µV/mbar

COMMON PERFORMANCE CHARACTERISTICS
V_s = 10.0 ± 0.01 V, t_{amb} = 25°C (unless otherwise noted)

Characteristics			Min.	Typ.	Max.	Unit
Zero pressure offset			-2		+2	mV
Temperature effects (0 - 50°C)[4]	Offset				±1.0	
	Span	26PC0050DSMT		±1.5	±4.5	% span
		26PC0100DSMT		±1.5	±4.5	
		26PC0250DSMT		±1.0	±1.7	
		26PC01K0DSMT		±0.75	±1.5	
Linearity (P2 > P1, BSL)[3]		26PC0050DSMT		±0.4	±1.6	
		26PC0100DSMT		±0.5	±1.75	
		26PC0250DSMT		±0.3	±1.0	
		26PC01K0DSMT		±0.5	±1.0	
Repeatability and hysteresis[5]				±0.2		
Long term stability[7]				±0.5		
Input impedance			5.5	7.5	11.5	kΩ
Output impedance			1.5	2.5	3.0	
Response time[6]					1.0	ms

Specification notes:

1. The maximum specified pressure which may be applied to the sensor without causing a permanent change in the output characteristics.
2. Span is the algebraic difference between the output voltage at full-scale pressure and the output at zero pressure. Span is ratiometric to the supply voltage.
3. Linearity (BSL), the deviation of measured output at constant temperature (25°C) from "Best Straight Line" determined by three points, offset pressure, full-scale pressure and half full-scale pressure.

$$\left[V_{\frac{1}{2}\ full\ scale} - \left\{ \frac{V_{full\ scale} - V_{offset}}{(full\ scale\ pressure)} \times (\frac{1}{2}\ full\ scale\ pressure) + V_{offset} \right\} \right] : 2\ (V_{full\ scale}) \times 100\ \%$$
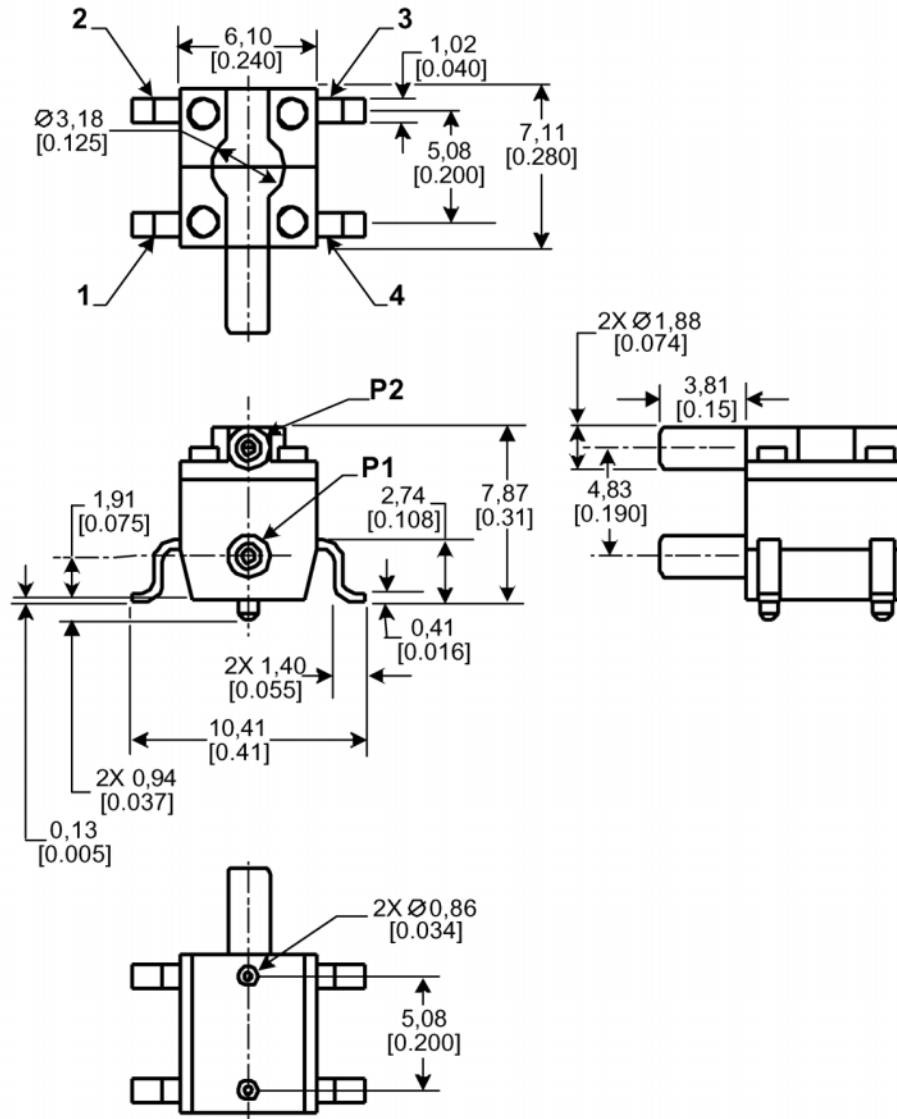
where: V = measured value for each device

4. Error band of the offset voltage, and span in the specified temperature range, relative to the 25°C reading.
5. Repeatability, the deviation in output readings for successive application of any given input pressure (all other conditions remaining constant. Hysteresis, the error defined by the deviation in output signal obtained when a specific pressure point is approached first with increasing pressure, then with decreasing pressure or vice versa (all other conditions remaining constant).
6. Response time for 0 to full-scale pressure step change, readings taken at 10 % and 90 % of full-scale pressure.
7. Long term stability of offset and span over a period over one year.
8. The sensors might be used on both ports, for media compatible with the components, specified under "Service" (page 1).

SENSORTECHNICS

www.sensortechnics.com

OUTLINE DRAWING

mass: 0.5 g

dimensions in mm (inches)

SUGGESTED LAND PATTERN
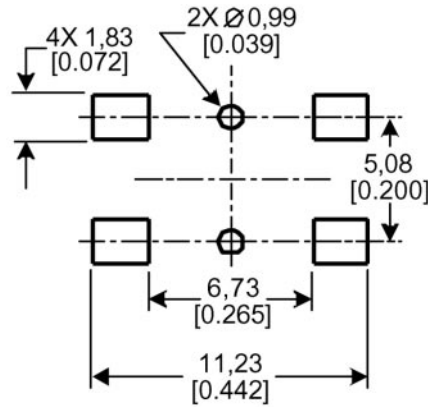
dimensions in mm (inches)

ORDERING INFORMATION

2	6	PC	xxxx	D	SMT

26PC series — 2

compensated — 6

SMT package

Differential pressure

Pressure range

0050:	0 - 50 mbar
0100:	0 - 100 mbar
0250:	0 - 250 mbar
01K0:	0 - 1000 mbar

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