

FEATURES

- 0...0.5 to 0...250 psi gage or differential
- High impedance bridge
- Miniature package
- Different pinning configurations
- Usable for wet/wet applications⁸

SERVICE

All media compatible with

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

- port 2⁹:
- polyetherimide
 - fluor-silicone
 - silicon



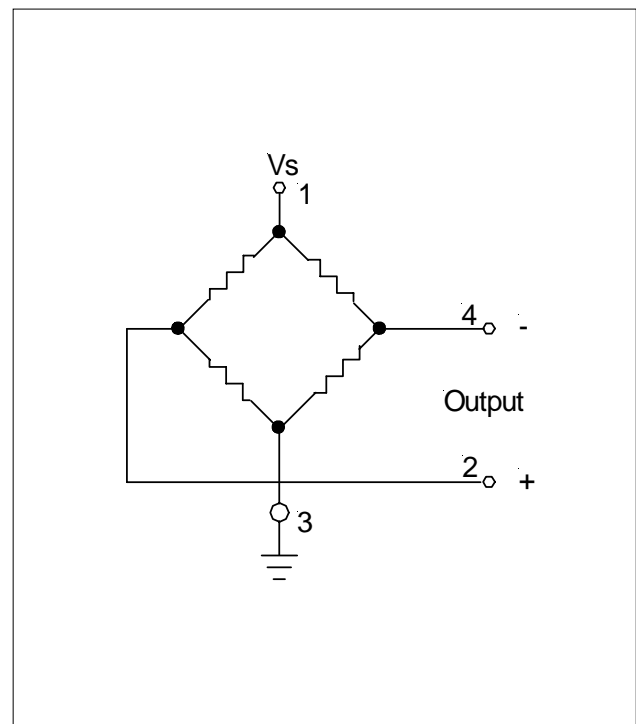
Scale: 1 cm
1 inch

SPECIFICATIONS

Maximum ratings

Supply voltage	12 V
Temperature limits	
Storage	-55 to +100°C
Operating	-40 to +85°C
Lead temperature (10 sec. soldering)	300°C
Humidity limits	0...100 %RH
Vibration (0 to 2000 Hz) (qualification tested)	20 g sine
Mechanical shock (qualification tested)	150 g
Proof pressure ¹	
all 0.5, 1 and 5 psi devices	20 psi
all 15 psi devices	45 psi
all 30 psi devices	60 psi
all 100 psi devices	200 psi
all 250 psi devices	500 psi

ELECTRICAL CONNECTION



PRESSURE SENSOR CHARACTERISTICS

$V_s = 10.0 \pm 0.01 \text{ V}$, $t_{amb} = 25^\circ\text{C}$ (unless otherwise noted)

Listing	Order number	Operating pressure	Full-scale span ²		
			Min.	Typ.	Max.
24PCEFAxx	24PC0035xxA	0 - 0.5 psi (34.5 mbar)	24 mV	35 mV	46 mV
24PCAFAXx	24PC0070xxA	0 - 1 psi (69 mbar)	30 mV	45 mV	60 mV
24PCBFAXx	24PC0350xxA	0 - 5 psi (345 mbar)	85 mV	115 mV	145 mV
24PCCFAxx	24PC1000xxA	0 - 15 psi (1034 mbar)	165 mV	225 mV	285 mV
24PCDFAXx	24PC2000xxA	0 - 30 psi (2068 mbar)	240 mV	330 mV	420 mV
24PCFFAXx	24PC7000xxA	0 - 100 psi (6.9 bar)	156 mV	225 mV	294 mV
24PCGFAXx	24PC17K0xxA	0 - 250 psi (17.2 bar)	145 mV	212 mV	280 mV

COMMON PERFORMANCE CHARACTERISTICS

$V_s = 10.0 \pm 0.01 \text{ V}$, $t_{amb} = 25^\circ\text{C}$ (unless otherwise noted)

Characteristics	Min.	Typ.	Max.	Unit
Zero pressure offset	-30		+30	mV
Temperature effects (0 - 50°C) ⁴	Offset	±2.0		
	Span		-2000	ppm/°C
Temperature effects on bridge impedance ⁴		+2200		
Linearity (P2 > P1, BSL) ³		±0.25	±1.0	% span
Repeatability and hysteresis ⁵		±0.15		
Long term stability ⁷		±0.5		
Input impedance	4.0	5.0	6.0	kΩ
Output impedance	4.0	5.0	6.0	
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.

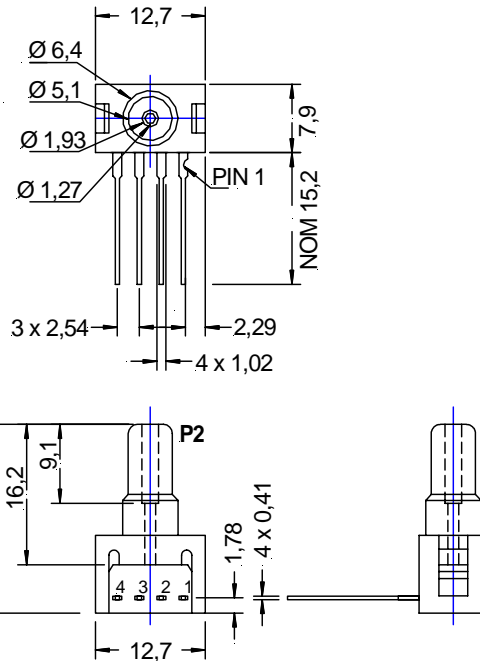
$$\left[V_{\frac{1}{2} \text{ full scale}} - \left\{ \frac{V_{\text{full scale}} - V_{\text{offset}}}{(\text{full scale pressure})} \times (\frac{1}{2} \text{ full scale pressure}) + V_{\text{offset}} \right\} \right] : 2 (V_{\text{full scale}}) \times 100 \%$$

where: V = measured value for each device

4. Error band of the offset voltage, span or bridge impedance 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).
9. **Other sealing materials are available on request.** Minimum order quantities might be required.
10. **Other pressure port styles, like barbed ones, luers, modular, M5, needle style or flow through connection, are available on request.** For these specials see the data sheet "24/26PC specials". Minimum order quantities might be required, call Sensortech for assistance.

OUTLINE DRAWINGS¹⁰

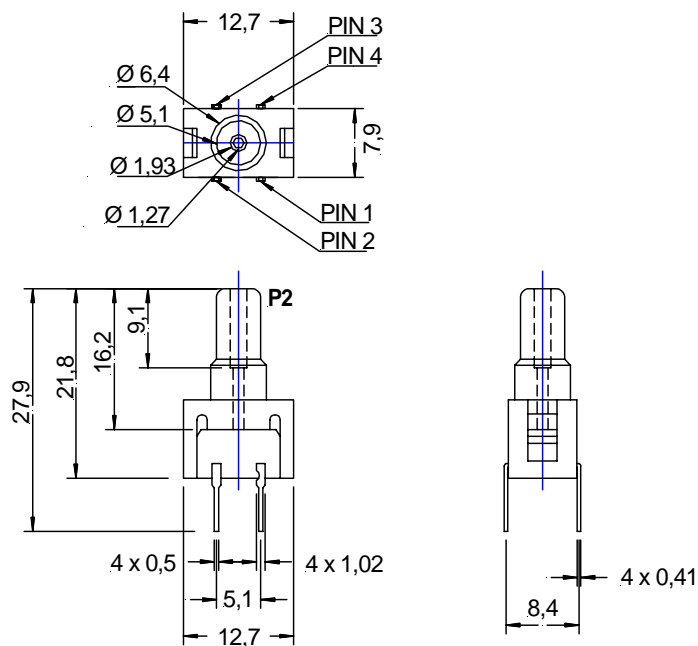
24PCxxxxG6A (single inline pinning, 1 x 4), gage pressure devices



mass: 2 g

dimensions in mm

24PCxxxxG2A (dual inline pinning, 2 x 2), gage pressure devices



mass: 2 g

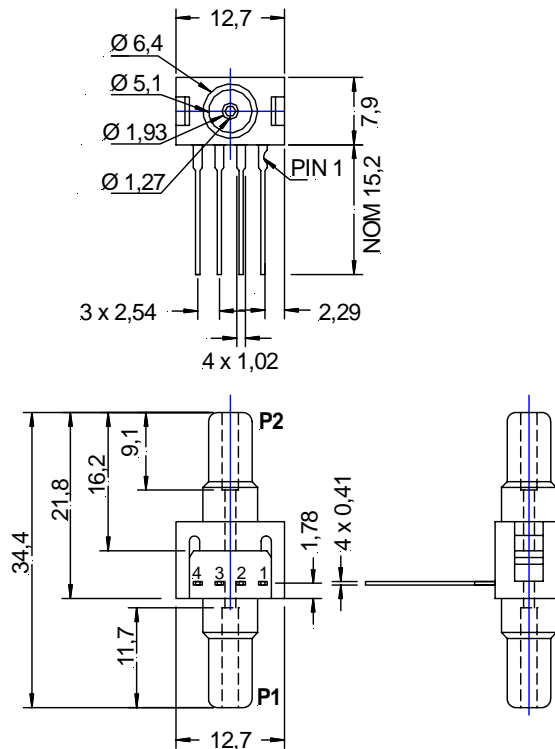
dimensions in mm

24PC Series (psi) Unamplified, uncompensated pressure sensors

Honeywell

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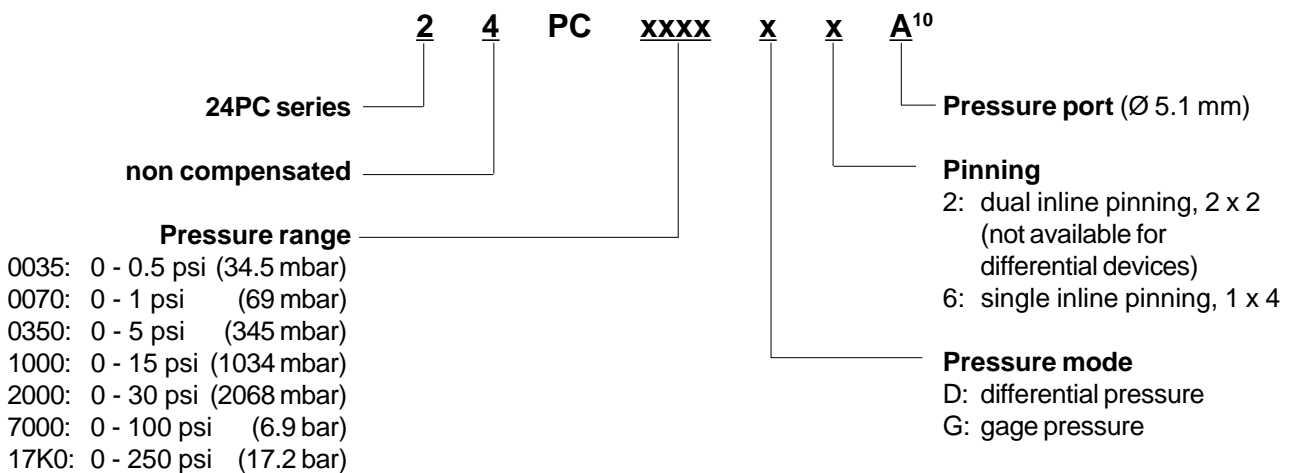
24PCxxxxD6A (single inline pinning, 1 x 4), differential pressure devices



mass: 2 g

dimensions in mm

ORDERING INFORMATION



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