

#### FEATURES

- Pressure ranges from 0 ...  $\pm 50$  mmHg to 0 ... 500 psi gage
- High accuracy
- TTL power supply
- Ratiometric 0.5 to 4.5 V output
- Dual-Inline pinning for easy PCB-mounting
- Excellent media compatibility



#### MEDIA COMPATIBILITY

P1: dry gases only

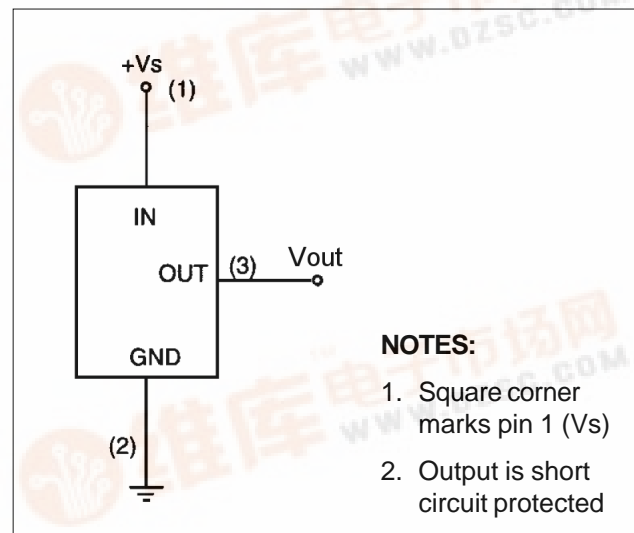
P2: all media compatible with glass, silicon, stainless steel, Invar, Sn/Ni plating or Sn/Ag solder

#### SPECIFICATIONS

##### Maximum ratings

Supply voltage ( $V_s$ )	4.75 ... 5.25 V
Output current	
Source	0.5 mA
Sink	1.0 mA
Output load capacitance	10 nF
Temperature limits	
Operating	-45 to +125°C
Storage	-55 to +125°C
Compensated	-45 to +125°C
Humidity (non-condensing)	0 - 95 %RH

#### ELECTRICAL CONNECTION



**PRESSURE RANGE SPECIFICATIONS**(unless otherwise noted,  $V_s = 5.00\text{ V}$ ,  $R_L > 100\text{ k}\Omega$ ,  $t_{\text{amb}} = 25^\circ\text{C}$ )

Part number	Operating pressure range	Proof pressure <sup>1</sup>	Sensitivity (typ.)
40PC001B2A	0 ... $\pm 50$ mmHg	170 mmHg	40.0 mV/mmHg
40PC006G2A	0 ... 300 mmHg	650 mmHg	13.33 mV/mmHg
40PC015G2A	0 ... 15 psig	45 psi	266.7 mV/psi
40PC015V2A	0 ... -15 psig	30 psi	-266.7 mV/psi
40PC030G2A	0 ... 30 psig	60 psi	133.3 mV/psi
40PC100G2A	0 ... 100 psig	200 psi	40.0 mV/psi
40PC150G2A	0 ... 150 psig	300 psi	25.7 mV/psi
40PC250G2A	0 ... 250 psig	500 psi	16.0 mV/psi
40PC500G2A	0 ... 500 psig	1000 psi	8.0 mV/psi

**Specification notes:**

1. Proof pressure is the maximum pressure which may be applied without causing damage to the sensing element.
2. Non-linearity - the maximum deviation of measured output at constant temperature, from "Best Straight Line" through three points (offset pressure, full scale pressure and 1/2 full scale pressure).
3. Thermal effects tested and guaranteed in the specified temperature ranges relative to 25°C. All specifications shown are relative to 25°C.
4. Span is the algebraic difference between lowest and highest specified pressure.
5. Total accuracy is the maximum deviation from the 25°C reference transfer function at any pressure or temperature over the specified ranges. This calculation includes null, span, linearity, hysteresis, repeatability, null shift and span shift.
6. Response time for 0 to full-scale pressure step change, readings taken at 10 % and 90 % of full-scale pressure.

**40PC001B2A PERFORMANCE CHARACTERISTICS**

(unless otherwise noted,  $V_s = 5.00\text{ V}$ ,  $R_L > 100\text{ k}\Omega$ ,  $t_{amb} = 25^\circ\text{C}$ )

Characteristics		Min.	Typ.	Max.	Unit
Operating pressure		-50		+50	mmHg
Zero pressure offset		2.45	2.50	2.55	V
Span <sup>4</sup>			4.0		
Output	at -50 mmHg		0.5		
	at +50 mmHg		4.5		
Thermal effects (0 to 50°C) <sup>3</sup>	Offset			±1.50	%FSS
	Span			±1.50	
Non-linearity (BSL) <sup>2</sup>				±0.8	
Hysteresis and repeatability			±0.15		
Ratiometricity error ( $V_s = 4.75 \dots 5.25\text{ V}$ )			±0.25		
Current consumption (no load)				10.0	mA
Response time <sup>6</sup>			1		ms

**40PC006G2A PERFORMANCE CHARACTERISTICS**

(unless otherwise noted,  $V_s = 5.00\text{ V}$ ,  $R_L > 100\text{ k}\Omega$ ,  $t_{amb} = 25^\circ\text{C}$ )

Characteristics		Min.	Typ.	Max.	Unit
Operating pressure		0		300	mmHg
Zero pressure offset		0.45	0.50	0.55	V
Span <sup>4</sup>		3.95	4.00	4.05	
Full scale output			4.5		
Thermal effects <sup>3</sup>	Offset	-18 to +63°C		±1.25	%FSS
		-45 to +125°C		±2.75	
	Span	-18 to +63°C		±0.75	
		-45 to +125°C		±2.0	
	Combined offset and span	-18 to +63°C		±1.5	
		-45 to +125°C		±4.0	
Total accuracy <sup>6</sup>				±4.0	
Non-linearity (BSL) <sup>2</sup>				±0.2	
Hysteresis and repeatability			±0.15		
Ratiometricity error ( $V_s = 4.75 \dots 5.25\text{ V}$ )			±0.25		
Current consumption (no load)				10.0	mA
Response time <sup>6</sup>			1		ms

### 40PC015G2A PERFORMANCE CHARACTERISTICS

(unless otherwise noted,  $V_s = 5.00\text{ V}$ ,  $R_L > 100\text{ k}\Omega$ ,  $t_{amb} = 25^\circ\text{C}$ )

Characteristics			Min.	Typ.	Max.	Unit
Operating pressure			0		15	psig
Zero pressure offset			0.39	0.50	0.61	V
Span <sup>4</sup>			3.89	4.00	4.11	
Full scale output				4.5		
Thermal effects <sup>3</sup>	Offset	-18 to +63°C			±2.0	%FSS
		-45 to +85°C			±2.75	
	Span	-18 to +63°C			±0.75	
		-45 to +85°C			±1.0	
	Combined offset and span	-18 to +63°C			±2.0	
		-45 to +85°C			±3.0	
Total accuracy <sup>5</sup>					±4.0	
Non-linearity (BSL) <sup>2</sup>					±0.2	
Hysteresis and repeatability				±0.15		
Ratiometricity error ( $V_s = 4.75 \dots 5.25\text{ V}$ )				±0.25		
Current consumption (no load)					10.0	mA
Response time <sup>6</sup>				1		ms

### 40PC015V2A PERFORMANCE CHARACTERISTICS

(unless otherwise noted,  $V_s = 5.00\text{ V}$ ,  $R_L > 100\text{ k}\Omega$ ,  $t_{amb} = 25^\circ\text{C}$ )

Characteristics			Min.	Typ.	Max.	Unit
Operating pressure			0		-15	psig
Zero pressure offset			0.46	0.50	0.54	V
Span <sup>4</sup>			3.9	4.0	4.1	
Full scale output				4.5		
Thermal effects <sup>3</sup>	Offset	-18 to +25°C			±0.75	%FSS
		-45 to +85°C			±1.0	
	Span	-18 to +25°C			±2.0	
		+25 to +85°C			±1.25	
	Combined offset and span	-45 to +25°C			±2.25	
		-18 to +25°C			±1.5	
		+25 to +85°C			±1.0	
		-40 to +25°C			±1.75	
Total accuracy <sup>5</sup>					±2.25	
Non-linearity (BSL) <sup>2</sup>					±0.3	
Hysteresis and repeatability				±0.15		
Ratiometricity error ( $V_s = 4.75 \dots 5.25\text{ V}$ )				±0.25		
Current consumption (no load)					10.0	mA
Response time <sup>6</sup>				1		ms

**40PC030G2A PERFORMANCE CHARACTERISTICS**

(unless otherwise noted,  $V_s = 5.00\text{ V}$ ,  $R_L > 100\text{ k}\Omega$ ,  $t_{amb} = 25^\circ\text{C}$ )

Characteristics			Min.	Typ.	Max.	Unit
Operating pressure			0		30	psig
Zero pressure offset			0.46	0.50	0.54	V
Span <sup>4</sup>			3.92	4.00	4.08	
Full scale output				4.5		
Thermal effects <sup>3</sup>	Offset	-18 to +63°C			±1.5	%FSS
		-45 to +85°C			±2.0	
		-45 to +125°C			±2.25	
	Span	-18 to +63°C			±1.5	
		-45 to +85°C			±2.0	
		-45 to +125°C			±2.25	
	Combined offset and span	-18 to +63°C			±2.0	
		-45 to +125°C			±2.25	
	Total accuracy <sup>5</sup>					
Non-linearity (BSL) <sup>2</sup>					±0.3	
Hysteresis and repeatability				±0.15		
Ratiometricity error ( $V_s = 4.75 \dots 5.25\text{ V}$ )				±0.25		
Current consumption (no load)					10.0	mA
Response time <sup>6</sup>				1		ms

**40PC100G2A PERFORMANCE CHARACTERISTICS**

(unless otherwise noted,  $V_s = 5.00\text{ V}$ ,  $R_L > 100\text{ k}\Omega$ ,  $t_{amb} = 25^\circ\text{C}$ )

Characteristics			Min.	Typ.	Max.	Unit
Operating pressure			0		100	psig
Zero pressure offset			0.46	0.50	0.54	V
Span <sup>4</sup>			3.91	4.0	4.09	
Full scale output				4.5		
Thermal effects <sup>3</sup>	Offset	-18 to +63°C			±1.25	%FSS
		-45 to +85°C			±2.0	
		-45 to +125°C			±3.0	
	Span	-18 to +63°C			±0.75	
		-45 to +85°C			±1.0	
		-45 to +125°C			±2.0	
	Combined offset and span	-18 to +63°C			±1.5	
		-45 to +85°C			±2.5	
		-45 to +125°C			±3.0	
Total accuracy <sup>6</sup>					±3.0	
Non-linearity (BSL) <sup>2</sup>					±0.1	
Hysteresis and repeatability				±0.15		
Ratiometricity error ( $V_s = 4.75 \dots 5.25\text{ V}$ )				±0.25		
Current consumption (no load)					10.0	mA
Response time <sup>6</sup>				1		ms

### **40PC150G2A PERFORMANCE CHARACTERISTICS**

(unless otherwise noted,  $V_s = 5.00\text{ V}$ ,  $R_L > 100\text{ k}\Omega$ ,  $t_{amb} = 25^\circ\text{C}$ )

Characteristics			Min.	Typ.	Max.	Unit
Operating pressure			0		150	psig
Zero pressure offset			0.46	0.50	0.54	V
Span <sup>4</sup>			3.93	4.0	4.07	
Full scale output				4.5		
Thermal effects <sup>3</sup>	Offset	-18 to +63°C			±0.75	%FSS
		-45 to +85°C			±1.0	
		-45 to +125°C			±1.5	
	Span	-18 to +63°C			±0.75	
		-45 to +85°C			±1.0	
		-45 to +125°C			±1.5	
	Combined offset and span	-18 to +63°C			±0.75	
		-45 to +85°C			±1.0	
		-45 to +125°C			±1.5	
Total accuracy <sup>5</sup>					±2.5	
Non-linearity (BSL) <sup>2</sup>					±0.1	
Hysteresis and repeatability				±0.15		
Ratiometricity error ( $V_s = 4.75 \dots 5.25\text{ V}$ )				±0.25		
Current consumption (no load)					10.0	mA
Response time <sup>6</sup>				1		ms

### **40PC250G2A PERFORMANCE CHARACTERISTICS**

(unless otherwise noted,  $V_s = 5.00\text{ V}$ ,  $R_L > 100\text{ k}\Omega$ ,  $t_{amb} = 25^\circ\text{C}$ )

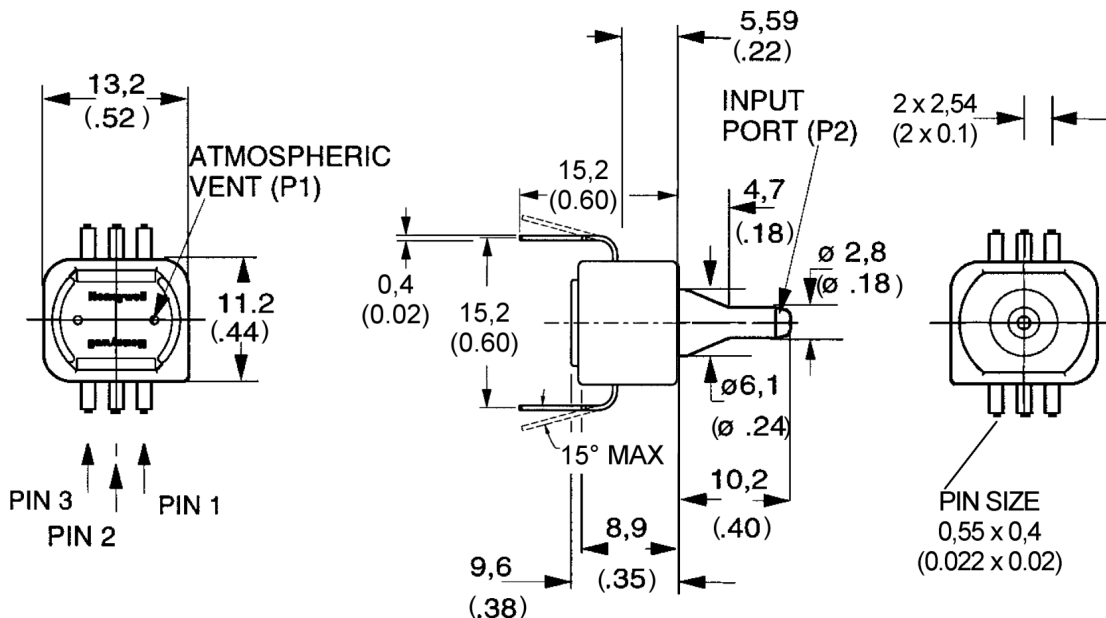
Characteristics			Min.	Typ.	Max.	Unit
Operating pressure			0		250	psig
Zero pressure offset			0.46	0.50	0.54	V
Span <sup>4</sup>			3.93	4.0	4.07	
Full scale output				4.5		
Thermal effects <sup>3</sup>	Offset	-18 to +63°C			±0.75	%FSS
		-45 to +85°C			±1.0	
		-45 to +125°C			±2.0	
	Span	-18 to +63°C			±0.75	
		-45 to +85°C			±1.0	
		-45 to +125°C			±2.0	
	Combined offset and span	-18 to +63°C			±0.75	
		-45 to +85°C			±1.0	
		-45 to +125°C			±3.0	
Total accuracy <sup>5</sup>					±3.0	
Non-linearity (BSL) <sup>2</sup>					±0.1	
Hysteresis and repeatability				±0.15		
Ratiometricity error ( $V_s = 4.75 \dots 5.25\text{ V}$ )				±0.25		
Current consumption (no load)					10.0	mA
Response time <sup>6</sup>				1		ms

**40PC500G2A PERFORMANCE CHARACTERISTICS**

(unless otherwise noted,  $V_s = 5.00\text{ V}$ ,  $R_L > 100\text{ k}\Omega$ ,  $t_{amb} = 25^\circ\text{C}$ )

Characteristics		Min.	Typ.	Max.	Unit
Operating pressure		0		500	psig
Zero pressure offset		0.46	0.50	0.54	V
Span <sup>4</sup>		3.91	4.0	4.09	
Full scale output			4.5		
Thermal effects <sup>3</sup>	Offset	-18 to +63°C		±1.0	%FSS
		-45 to +85°C		±1.5	
		-45 to +125°C		±2.5	
	Span	-18 to +63°C		±0.75	
		-45 to +85°C		±1.0	
		-45 to +125°C		±1.5	
	Combined offset and span	-18 to +63°C		±1.0	
		-45 to +85°C		±1.75	
		-45 to +125°C		±3.0	
Total accuracy <sup>5</sup>				±3.0	
Non-linearity (BSL) <sup>2</sup>				±0.2	
Hysteresis and repeatability			±0.15		
Ratiometricity error ( $V_s = 4.75 \dots 5.25\text{ V}$ )			±0.25		
Current consumption (no load)				10.0	mA
Response time <sup>6</sup>			1		ms

**OUTLINE DRAWING**



mass: 4 g

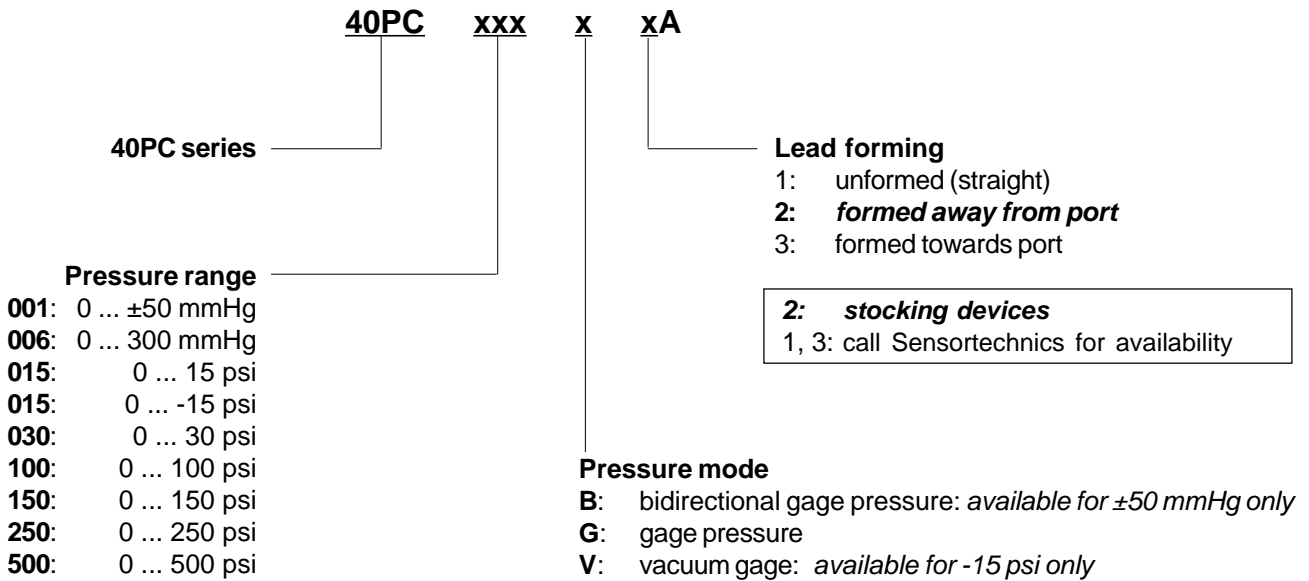
dimensions in mm (inches)

# 40PC Series

查询"40PC100G2A"供应商  
Fully signal conditioned pressure transducer

# Honeywell

## ORDERING INFORMATION



Sensortechncs reserves the right to make changes to any products herein. Sensortechncs does not assume any liability arising out of the application or use of any product or circuit described herein, neither does it convey any license under its patent rights nor the rights of others.