

Pressure Sensors

Monolithic Signal Conditioned

4000PC Series



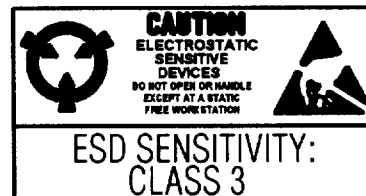
FEATURES

- Operating temperature range –
–45° to +125°C (–49° to +257°F)
- Monolithic design
- Compatible with media from dry air and water to refrigerant coolants and engine fuels
- 0.2% accuracy
- Rugged stainless steel and brass construction

The 4000 PC Series Package allows use in harsh environmental conditions, such as industrial and off-road applications. The sensor is available with a Packard Connector 12078090 or a connector harness with leadwires.

PERFORMANCE CHARACTERISTICS

Pressure Range	±50 mm Hg	0-15 psi	0-100 psi	0-150 psi	0-250 psi
Overpressure, max.	±170 mm Hg	45 psi	200 psi	300 psi	500 psi
Supply Voltage	5 VDC ±0.25				
Supply Current	10 mA max.				
Output Source Current	0.5 mA max.				
Output Sink Current	1.0 mA max.				
Operating Temperature	–45° to +125°C (–49° to +257°F)				
Storage Temperature	–55° to +125°C (–67° to +257°F)				
Hysteresis & Repeatability	0.15% Span, Typ.				
Ratiometricity (at 4.75 to 5.25 Supply Voltage)	±0.25% Span, Typ.				
Output Load Capacitance	0.05 microfarads, max.				
Full Scale					
	–50 mm Hg	0.50 VDC Typ.			
	+50 mm Hg	4.50 ± 0.12 VDC Typ.			
	All other pressure ranges	4.50 VDC Typ.			
Media Compatibility	Media must be compatible with fluorosilicone, fluorocarbon, glass, silicon, stainless steel, invar, Sn/Ni plating or Sn/Ag solder				

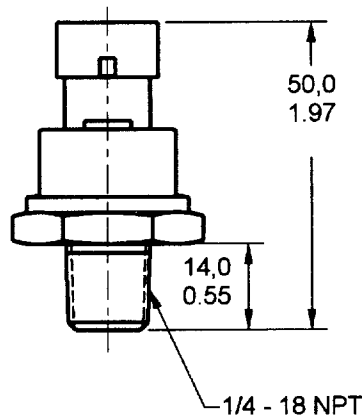


4000PC SERIES ORDER GUIDE

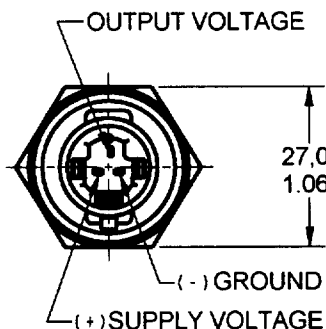
Catalog Listing	Gage Pressure Range	Termination
4040PC001B4D	±50 mm Hg	Packard Connector
4040PC001B5D	±50 mm Hg	Connector with Leadwires
4040PC015G4D	0 to 15 psi	Packard Connector
4040PC015G5D	0 to 15 psi	Connector with Leadwires
4040PC100G4D	0 to 100 psi	Packard Connector
4040PC100G5D	0 to 100 psi	Connector with Leadwires
4040PC150G4D	0 to 150 psi	Packard Connector
4040PC150G5D	0 to 150 psi	Connector with Leadwires
4040PC250G4D	0 to 250 psi	Packard Connector
4040PC250G5D	0 to 250 psi	Connector with Leadwires

MOUNTING DIMENSIONS

(for reference only)



ELECTRICAL CONNECTIONS



Leadwire Color Code

RED – Supply Voltage (+)
BLACK – Ground (–)
GREEN – Output

NOTE:

Output is short circuit protected.

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OUTPUT PERFORMANCE CHARACTERISTICS @ 25°C, 5VDC (unless otherwise noted)

Pressure Range	Null (VDC)	Span (VDC)	Sensitivity, Typ.	Linearity, B.F.S.L. (% Span) Max.	Null Shift (% Span) Max.	Span Shift (% Span) Max.	Combined Null and Span Shift (% Span) Max.	
±50 mm Hg	2.50 ± 0.050	4.00 Typ.	40.0 mV/mm Hg	0.80	+25° to +50°C	±1.50	±1.50	—
					+25° to 0°C	±1.50	±1.50	—
					+25° to -18°C	±2.00	±0.75	±2.00
					+25° to +63°C	±2.00	±0.75	±2.00
0 to 15 psi	0.50 ± 0.11	4.00 ± 0.11	266.6 mV/psi	0.20	+25° to -45°C	±2.75	±1.00	±3.00
					+25° to +85°C	±2.75	±1.00	±3.00
					+25° to +125°C	—	—	—
					+25° to -18°C	±1.25	±0.75	±1.50
0 to 100 psi	0.50 ± 0.04	4.00 ± 0.09	40.0 mV/psi	0.10	+25° to +63°C	±1.25	±0.75	±1.50
					+25° to -45°C	±2.00	±1.00	±2.50
					+25° to +85°C	±2.00	±1.00	±2.50
					+25° to +125°C	±3.00	±2.00	±3.00
0 to 150 psi	0.50 ± 0.04	4.00 ± 0.07	26.6 mV/psi	0.10	+25° to -18°C	±0.75	±0.75	±0.75
					+25° to +63°C	±0.75	±0.75	±0.75
					+25° to -45°C	±1.00	±1.00	±1.00
					+25° to +85°C	±1.00	±1.00	±1.00
0 to 250 psi	0.50 ± 0.04	4.00 ± 0.07	16.0 mV/psi	0.10	+25° to +125°C	±1.50	±1.50	±1.50
					+25° to -18°C	±0.75	±0.75	±0.75
					+25° to +63°C	±0.75	±0.75	±0.75
					+25° to -45°C	±1.00	±1.00	±1.00
					+25° to +85°C	±1.00	±1.00	±1.00
					+25° to +125°C	±2.00	±2.00	±3.00

Amplified

PERFORMANCE SPECIFICATIONS, TEMPERATURE/ACCURACY

Temperature Range	Total Accuracy (% Span) Max.			
	0 to 15 psi	0 to 100 psi	0 to 150 psi	0 to 250 psi
25°C	±0.4 (RSS)	±0.2 (RSS)	±0.2 (RSS)	±0.2 (RSS)
-18° to +63°C	±4.0	±2.5	±2.0	±2.0
-45° to +85°C	±4.0	±2.5	±2.0	±2.0
-45° to +125°C		±3.0	±2.5	±3.0

Note 1: Accuracy at 25°C is defined as RSS error for linearity, hysteresis, and repeatability.

Note 2: 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.

PC-15191 4000PC CONNECTOR HARNESS (for reference only)

