

Model P4050

Barometric Pressure Transducer



DS-P4050-8/02



FEATURES

- Mounts on Wire Harness
- Superior Long Term Stability
- Excellent Repeatability/Hysteresis
- EMI/RFI Protection
- Low Power Consumption
- Linear Amplified Output
- Temperature Compensated Over Wide Range
- Over-voltage, Reverse Polarity & Short Circuit Protection
- 10 Year Minimum Shelf Life
- Outstanding Shock & Vibration Tolerance
- Made in U.S.A.

APPLICATIONS

The **Model P4050** barometric pressure transducer is specifically designed for ambient pressure measurements from 5.8 to 15.95 PSI absolute.

Supplied with 5 Vdc, the **P4050** provides a 0.5 through 4.5 Vdc linear signal output proportional to pressure.

Typical applications include weather stations, engine controls, surgical lasers, aircraft cabin/cockpit pressure, and any application where ambient air pressure has to be monitored.

OPERATION

Key to the high performance of the **P4050** barometric pressure transducer is Kavlico's piezoresistive (PRT) sensing element with programmable

ASIC on hybrid circuit for reliable signal conditioning and maximum electronic integration. This same technology is successfully used by

Kavlico for automotive, diesel engines, compressors, medical and HVAC applications. Millions of Kavlico sensors are in use worldwide.

QUALITY

Kavlico's sophisticated manufacturing practices have earned the highest quality awards from its customers.

As an ISO 9001 registered and QS 9000 compliant company, Kavlico is committed to total customer satisfaction. Each and every sensor is tested for conformance to its applicable specifications prior to shipment.

OEM DESIGNS

Kavlico's primary function is the design of application specific sensors to meet demanding high volume OEM requirements. Using capacitive, piezoresistive and single chip sensing technologies, Kavlico offers a wide variety of custom outputs, housings, pressure and electrical connections, ranges and environmental protection configurations.

Solutions for tomorrow's sensing applications...Today

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SPECIFICATIONS

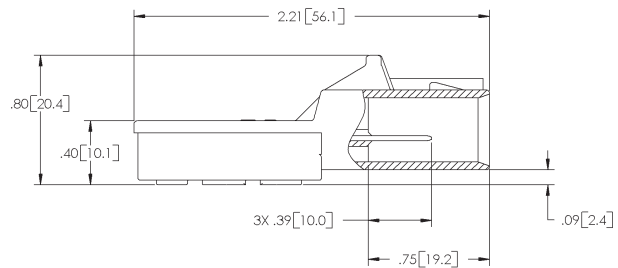
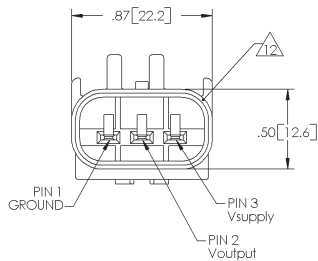
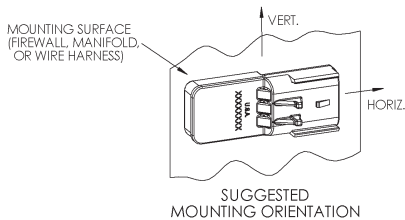
Note: Performance Specifications with 5 ±0.002 Vdc power supply at 25°C

Pressure Ranges:	5.8 to 15.95 PSIA
Proof Pressure:	32 PSIA
Burst Pressure:	48 PSIA
Supply Voltage:	5.00± 0.25 Vdc
Output Voltage (Ratiometric):	0.500 (±0.60) Vdc at 5.8 PSIA 4.500 (±0.60) Vdc at 15.95 PSIA
Supply Current:	7mA MAX.
Output Impedance:	100 Ohms MAX.
Accuracy:	
(25°C to 105°C)	±1% of Span MAX.
(40°C to 125°C)	±2% of Span MAX.

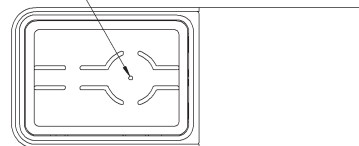
Operating Temp:	-40°C to +125°C
Response Time:	5 mSec at 63% full scale
Housing Materials:	Zytel®, (33% Glass Filled)
Vibration:	10G's peak to peak sinusoidal (10 to 2000Hz)
Shock:	75G's, 1/2 sine wave, 11ms
Operating Life:	10 million cycles minimum at full operating pressure
Elec. Termination:	Integral connector, mates with Framatome P/N 54200308
Recommended Interface Impedance:	25K Ohm MIN. resistance between transducer output and ground
Weight:	0.5 oz.

Span is the algebraic difference between end points (5.8 and 15.95 PSIA output)
Accuracy includes errors due to calibration, linearity, repeatability, hysteresis and temperature.

OUTLINE DRAWING



INPUT PRESSURE HYDROPHOBIC FILTER



Warranty: Kavlico warrants that its products will be free from defective materials and workmanship for a period of one (1) year from date of delivery to the original purchaser and that its products will conform to Kavlico's specifications or standards. Any product found to be defective will be replaced or repaired at the sole option of Kavlico

Note: Kavlico reserves the right to change its specifications at any time without notice. Kavlico is not expert in the customer's technical field and therefore does not warrant the suitability of its product for the application selected by the customer.

Kavlico products are manufactured or covered by one or more of the following patents: 4329732, 4388668, 4398426, 4425799, 4426673, 4617607, 4680971, 4735098, 4974117, 5315877, 5329819, 5540086 with other U.S. and foreign patents pending.

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Contact Kavlico for alternative pressure ranges, pressure connections or voltage ranges.

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