

Model P155

Stainless Steel Pressure Transducer



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FEATURES

- Dry & Wet Media
- 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
- Many OEM Options

- 10 Year Minimum Shelf Life
- Sensor Lifetime in Millions of Cycles
- Outstanding Shock & Vibration Tolerance
- Made in U.S.A.

APPLICATIONS

The **Model P155** pressure transducer is specifically designed for pressure measurements 0-15 through 0-1000 PSI. The stainless steel housing and ceramic diaphragm withstand exposure to compatible liquid and gaseous media.

Excited by 5 Vdc, the **P155** provides a 0.5 through 4.5 Vdc linear signal output proportional to pressure.

Typical applications include steam sterilizers, laboratory test apparatus, marine, agricultural chemical equipment, refrigeration and HVAC systems,

hydraulic systems, gas tank pressure monitoring, level measurement, test equipment, pressure measurement of aggressive fluids, injection molding, atmospheric pressure, spraying equipment, printing pressures, coolant pressures, weighing equipment and off-shore drilling rigs.

OPERATION

Key to the high performance of the **P155** pressure transducer is Kavlico's ceramic, variable capacitance sensing element with

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

Kavlico for automotive, diesel engine, 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 company, Kavlico is committed to total customer satisfaction. Each and every pressure sensor is tested for conformance to its applicable specifications prior to shipment.

OEM DESIGNS

The design of application specific sensors to meet demanding OEM requirements is Kavlico's primary function. Using the broadest range of sensing technologies, we provide components with greater EMI and over-voltage protection. Solid state switching functions and voltage regulators can be built into Kavlico sensors for use with unregulated power.

Solutions for tomorrow's sensing applications...Today™

Model P155

DS-P155-8/98

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SPECIFICATIONS

Pressure Ranges:	0-15 through 0-1000 PSIA/PSIG
Proof Pressure (PSI):	5x(15-75), 3x(100-300), 2x(500-1000)
Burst Pressure (PSI):	10x(15-75), 5x(100-300), 4x(500-1000)
Supply Voltage:	5.000
Output Voltage (Ratiometric):	0.500 (± 0.060) Vdc at 0 PSI 4.500 (± 0.060) Vdc at Full Scale
Supply Current:	5mA MAX. at 5 Vdc
Output Impedance:	100 Ohms MAX.
Temp. Error (0°C to +85°C):	Zero $\pm 0.02\%$ of Span per °C MAX. Span $\pm 0.02\%$ of Span per °C MAX.
Temp. Error (-30°C to +100°C):	Zero $\pm 0.04\%$ of Span per °C MAX. Span $\pm 0.04\%$ of Span per °C MAX.

Span is the algebraic difference between end points (zero and full scale output).

INSTALLATION

The case of this device is not connected to the ground lead. Three lead wires Red (Supply Voltage), Black (Ground), Green (Output) provide electrical connection to power and instrumentation. Teflon tape or suitable sealant may be used on NPT pressure fittings in suitable amounts so as not to interfere with a good ground connection to chassis.

HOW TO ORDER

A typical order number has six codes, separated by two hyphens

P155 Pressure Transducer

Pressure Range	
15	0-15 PSI
30	0-30 PSI
50	0-50 PSI
75	0-75 PSI
100	0-100 PSI
150	0-150 PSI
300	0-300 PSI
500	0-500 PSI
750	0-750 PSI
1000	0-1000 PSI

Reference	
A	Absolute
G	Gage

Seal Material	
B	Buna-N (Nitrile)
C	Neoprene
D	Fluorocarbon (Viton)*
E	Fluorosilicone
F	Ethylene-Propylene
	-40 to +120°C
	-34 to +120°C
	-17 to +125°C
	-40 to +125°C
	-40 to +125°C

Pressure Connection	
1	1/4-18 NPT Male
2	3/8-24 UNF-2A Male
3	3/8-24 UNF-2B Female
4	1/8 NPT Male

Electrical Connector	
A	With mating connector, 12" leads 16 AWG

P155 - 15 A - E 1 A

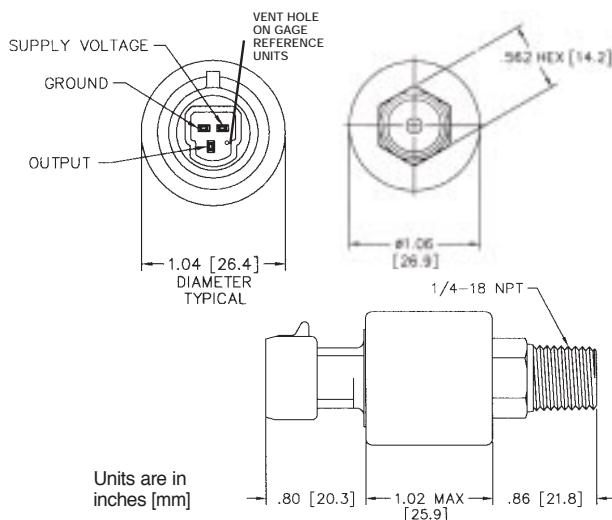
Example: P155-15A-E1A

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

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

Operating Temp:	See seal material in "How To Order"
Linearity:	$\pm 0.5\%$ of Span MAX.
Hysteresis and Repeatability:	$\pm 0.05\%$ of Span MAX.
Response Time:	10 mSec at 63% full scale
Wetted Materials:	Stainless steel housing, 96% alumina ceramic sensing element. See seal material in "How to Order"
Vibration:	10G's peak to peak sinusoidal
Shock:	75G's, 1/2 sine wave
Operating Life:	10 million cycles minimum at full operating pressure
Weight:	3.5 oz. MAX.
Elec. Termination:	Integral weatherproof connector, Packard Electric Metri-Pack 150 Series
Recommended Interface Impedance:	25K Ohm MIN. resistance between transducer output and ground

OUTLINE DRAWING



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.

*VITON is a trademark of E.I. DuPont



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