

P158

Refrigeration Pressure Transducers

Description

The model P158 is based on Kavlico's ceramic capacitive technology with a custom ASIC. The Brass housing surrounds a pressure transducer designed specifically for refrigeration applications. It can endure the high vibration, broad temperature ranges and humidity conditions found in refrigeration systems while withstanding high over- pressures and pressure pulsations without damage or degradation.

The P158 package has a built-in Metri-Pack 150, electrical connector and supports male and female process connections. The P158 is offered with seal materials that are suitable for many of the latest refrigerants such as R134a, R22, R123, R12, including many of the proprietary blends, and associated lubricants.

Features

- SAE female Process Connection with Built-in Schrader Deflator
- Linear Amplified Output
- Temperature Compensated
- Superior Long Term Stability
- Excellent Repeatability/Hysteresis
- EMI/RFI Rejection
- Low Power Consumption
- Ten Million Cycle Life Expectancy
- Outstanding Shock & Vibration Performance
- Over Voltage, Reverse Polarity and Short Circuit Protection



Applications

- High and Low Side Pressure Measurements in Refrigeration Systems
- Product Refrigeration
- Refrigerant Recovery
- Transport Refrigeration
- Environmental Test Equipment

Standard Full Scale Pressure Ranges

0-100, 150, 300, 400, 500 and 750 PSIA, PSIS

Technical Specifications

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

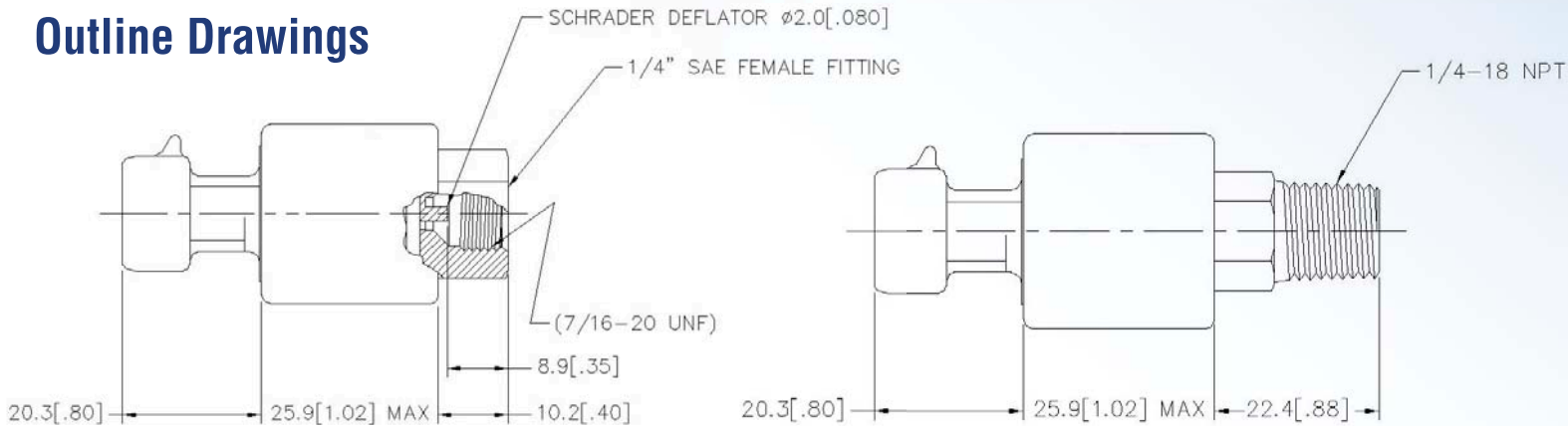
Pressure Ranges:	0 – 100 PSI through 0 – 1,000 PSI Absolute or Sealed Gage	Output Impedance:	< 100 Ω
Proof Pressure:	3x (FSO) (100 through 300 PSI) 2x (FSO) (400 through 750 PSI)	Operating Temperature:	-30°C to + 100°C
Burst Pressure:	5x (100 through 300 PSI) 2250 PSI (400 through 750 PSI)	Storage Temperature:	-40°C to + 135°C
Supply Voltage:	5.0 ± .5 V	Service Life:	10 Million Full Pressure Cycles
Supply Current:	5 mA (Max)	Vibration:	10G's P-P Sinusoidal, from 10-2000 Hz
Linearity Error:	±0.5% of Full Span Max.	Shock:	75 G's ½ Sine Wave
Response Time:	15ms Max to 63% of F.S. Pressure with Step Change on Input	Stability:	±0.5% of Full Span over 1-Year
Output Voltage:		Weight:	100 grams (Max)
Zero/Null Pressure:	0.50 ±0.08 Vdc	Electrical Termination:	Packard Electric Metri-Pack 150 Series
Full Pressure:	4.50 ±0.08 Vdc	Pressure Connection:	See "How to Order"
Ratiometricity:	±0.51% of Span	Recommended Interface Impedance:	Min. Load 25 kΩ
Total Error Band:	≤ 2.0% of Span (-20°C to 100°C)	Over-Voltage Protection:	16 Vdc
		Reverse Polarity Protection:	-5 Vdc
		Material - Main Housing:	CA3600 Brass



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Outline Drawings



How to Order

P158 Pressure Transducer

Pressure Ranges

100	0 – 100 PSI
150	0 – 150 PSI
300	0 – 300 PSI
400	0 – 400 PSI
500	0 – 500 PSI
750	0 – 750 PSI

Reference

A	Absolute
S	Sealed Gage

Seal Material

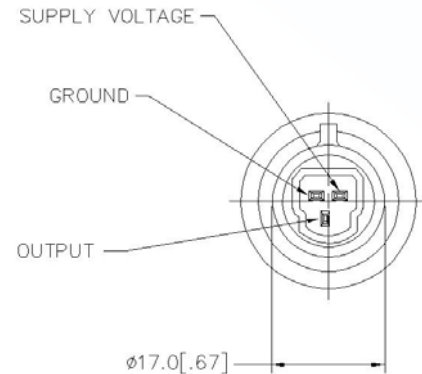
C	Neoprene	-40 to 125°C
F	Ethylene Propylene	-40 to 121°C
H	HNBR	-30 to 135°C

Pressure Connection

1	1/4-18 NPT (External Threads)
2	1/4 SAE Female Flare w/ Schrader Deflator (7/16-20 UNF internal threads)
4	1/8-27 NPT

Electrical Connection

A	With mating connector, w/12", 18 AWG leads
C	Without mating connector



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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.

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P158 500 S F 1 A

Example: P158-500S-FIA

Contact Kavlico for accuracy options, custom packaging, alternative pressure ranges, pressure connections or other OEM or application specific requirements.



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