

# ***P158***

## ***Refrigeration***

### ***Pressure Transducers***



#### ***Typical 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

#### ***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

#### ***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 overpressures 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.

## Technical Specifications

Note: Performance Specifications with  $5\text{V} \pm 0.002\text{Vdc}$  supply at  $25^\circ\text{C}$

Pressure Ranges:	0 – 100 PSI through 0 – 1,000 PSI Absolute or Sealed Gage
Proof Pressure:	3x (FSO) (100 through 300 PSI) 2x (FSO) (400 through 750 PSI)
Burst Pressure:	5x (100 through 300 PSI) 2250 PSI (400 through 750 PSI)
Supply Voltage:	$5.0 \pm .5\text{V}$
Supply Current:	5 mA (Max)
Linearity Error:	$\pm 0.5\%$ of Full Span Max.
Response Time:	15ms Max to 63% of F.S. Pressure with Step Change on Input
<b>Output Voltage</b>	
Zero/Null Pressure:	$0.50 \pm 0.08\text{Vdc}$
Full Pressure:	$4.50 \pm 0.08\text{Vdc}$
Ratiometricity:	$\pm 0.51\%$ of Span
Total Error Band:	2.0% of Span ( $-20^\circ\text{C}$ to $+100^\circ\text{C}$ )
Output Impedance:	$< 100\ \Omega$
Operating Temperature:	$-30^\circ\text{C}$ to $+100^\circ\text{C}$
Storage Temperature:	$-40^\circ\text{C}$ to $+135^\circ\text{C}$
Service Life:	10 Million Full Pressure Cycles
Vibration:	10G's P-P Sinusoidal, from 10-2000 Hz
Ingress Protection:	IP67
Shock:	75 G's $\frac{1}{2}$ Sine Wave
Stability:	$\pm 0.5\%$ of Full Span over 1-Year
Weight:	100 grams (Max)
Electrical Termination:	Packard Electric Metri-Pack 150 Series
Pressure Connection:	See "How to Order"
Output Load:	$> 25\text{k}\ \Omega$
Over-Voltage Protection:	16 Vdc
Reverse Polarity Protection:	-5 Vdc
Main Housing Material:	CA3600 Brass



Before installation and operation, ensure that the appropriate pressure sensor has been selected in terms of pressure range, design and specific measuring conditions. Non-compliance can result in serious injury and/or damage to the equipment.

Warning: The product information contained in this catalogue is given purely as information and does not constitute a representation, warranty or any form of contractual commitment. Kavlico reserve the right to modify their products without notice. It is imperative that we should be consulted over any particular use or application of our products and it is the responsibility of the buyer to establish, particularly through all the appropriate tests, that the product is suitable for the use or application. Under no circumstances will our warranty apply, nor shall we be held responsible for any application (such as any modification, addition, deletion, use in conjunction with other electrical or electronic components, circuits or assemblies, or any other unsuitable material or substance) which has not been expressly agreed by us prior to the sale of our products.

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## How to Order

### P158 Pressure Transducer

#### Pressure Range

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

P158 - 500 - S - F - 1 - A

Example: P158 - 500 - S - F - 1 - A

Description: P158 Pressure Transducer, 0 - 500 PSIS (Sealed Gage), with Ethylene Propylene Seal Material, 1/4 - 18 NPT Pressure Connection, and Mating Connector

**Don't see what you want?**

Call us at +1 (619) 710-2068 to customize this product to meet your application-specific needs!



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

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