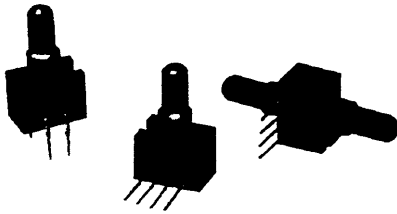


Pressure Sensors

24PC Series

Gage and Differential/Unamplified-Noncompensated

Basic Sensors



FEATURES

- Lowest priced pressure sensor
- Miniature package
- Variety of gage pressure port configurations - easily and quickly modified for your special needs

- Choice of termination for gage sensors
- 2 mA constant current excitation significantly reduces sensitivity shift over temperature*
- Can be used to measure with vacuum or positive pressure

24PC SERIES PERFORMANCE CHARACTERISTICS at 10.0 ± 0.01 VDC Excitation, 25°C

	Min.	Typ.	Max.	Units
Excitation	—	10	12	VDC
Null Offset	-30	0	+30	mV
Null Shift, 25° to 0°, 25° to 50°C	—	±2.0	—	mV
Linearity, P2 > P1, BFSL	—	±0.25	±1.0	%Span
Sensitivity Shift, 25° to 0°, 25° to 50°C	—	±5.0*	—	%Span
Repeatability & Hysteresis	—	±0.15	—	%Span
Response Time	—	—	1.0	msec
Input Resistance	—	5.0 K	—	ohms
Output Resistance	—	5.0 K	—	ohms
Stability over One Year	—	±0.5	—	%Span
Weight	—	2	—	grams

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-40° to +85°C (-40° to +185°F)
Storage Temperature	-55° to +100°C (-67° to +212°F)
Shock	Qualification tested to 150 g
Vibration	Qualification tested to 0 to 2 kHz, 20 g sine
Media (P1 & P2)	Limited only to those media which will not attack polyetherimide, silicon and fluorosilicone seal

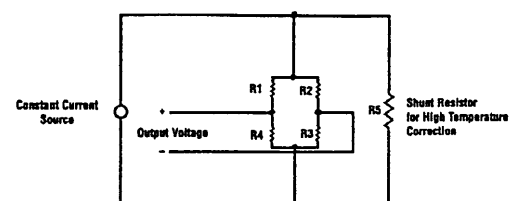
24PC SERIES ORDER GUIDE

Catalog Listing	Pressure Range psi	Span, mV			Sensitivity mV/psi Typ.	Overpressure psi Max.
		Min.	Typ.	Max.		
24PCE Type	0.5	24	35	46	70	20
24PCA Type	1.0	30	45	60	45	20
24PCB Type	5.0	85	115	145	23	20
24PCC Type	15	165	225	285	15	45
24PCD Type	30	240	330	420	11	60
24PCF Type	100	156	225	294	2.25	200
24PCG Type	250	145	212	280	0.85	500

* Non-compensated pressure sensors, excited by constant current instead of voltage, exhibit temperature compensation of Span. Application Note #1 briefly discusses current excitation.

Constant current excitation has an additional benefit of temperature measurement. When driven by a constant current source, a silicon pressure sensor's terminal voltage will rise with increased temperature. The rise in voltage not only compensates the Span, but is also an indication of die temperature.

Constant Current Excitation Schematic



More to go!

723 - 7753
 723 - 7756
 731 - 626 / 638
 " 640 / 651
 " 663 / 675
 " 687 / 699
 " 705 / 717
 " 729 / 730

Gage and Differential/Unamplified-Noncompensated

SENSOR SELECTION GUIDE

2 Product Family	4 Circuit Type	PC Pressure Transducer	A Pressure Range	F* Type of Seal	A Type of Port	2 Termination Style	G Pressure Measurement
2 20PC family	4 Noncom- pensated		A 1 psi B 5 psi C 15 psi D 30 psi E 0.5 psi F 100 psi G 250 psi	F Fluorosilicone	A Straight B Barbed C Luer D Modular H M5 Thread I 90° Port J Needle M 1/4 - 28 UNF Thread	1 1 x 4 2 2 x 2	G Gage D Differential

Example: 24PCAFA2G

Standard, non-compensated 1 psi sensor with fluorosilicone seal, straight port, 2 x 2 terminals, and Gage pressure measurement.
*Other media seal materials may be available.

ACCESSORIES SELECTION GUIDE

Catalog Listing	Description
PC10182	Steel locking (Included with Port Style A, 1 x 4 terminals only)
PC10949	Single hole plastic bracket (Must be separately ordered)

Not all combinations are established.
Contact 800 number before final design.
The following listings are typically stocked in small quantities.

Unamplified

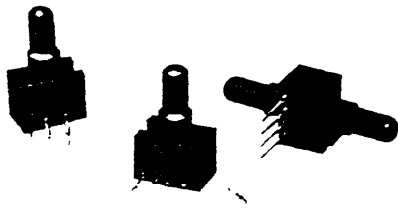
73-021-810

Pressure Sensors

24PC Series

Gage and Differential/Unamplified-Noncompensated

Basic Sensors



FEATURES

- Lowest priced pressure sensor
- Miniature package
- Variety of gage pressure port configurations - easily and quickly modified for your special needs

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24PC SERIES PERFORMANCE CHARACTERISTICS at 10.0 ±0.01 VDC Excitation, 25°C

	Min.	Typ.	Max.	Units
Excitation	---	10	12	VDC
Null Shift, 25° to 0°, 25° to 50°C	---	±0.5	---	mV
Null Offset	-30	0	+30	mV
Linearity, P2 > P1, BFSL	---	±0.25	---	% Span
Sensitivity Shift, 25° to 0°, 25° to 50°C	---	±5.0*	---	% Span
Repeatability & Hysteresis	---	±0.15	---	% Span
Response Time	---	---	1.0	msec
Input Resistance	---	5.0 K	---	ohms
Output Resistance	---	5.0 K	---	ohms
Stability over One Year	---	±0.5	---	% Span
Weight	---	2	---	grams

* Can be significantly reduced with constant current excitation (2 mA).

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-40° to +85°C (-40° to +185°F)
Storage Temperature	-55° to +100°C (-67° to +212°F)
Shock	Qualification tested to 150 g
Vibration	Qualification tested to 0 to 2 kHz, 20 g sine
Media (P1 & P2)	Limited only to those media which will not attack polyetherimide, silicon and fluorosilicone seal

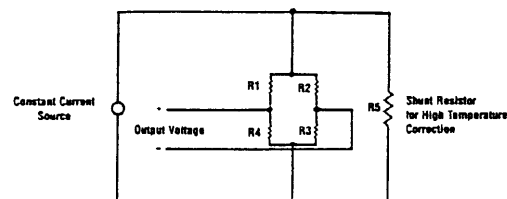
24PC SERIES ORDER GUIDE

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		Min.	Typ.	Max.			
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24PCA Type	1.0	30	45	60	45	20	±1.0
24PCB Type	5.0	85	115	145	23	20	±1.0
24PCC Type	15	165	225	285	15	45	±1.0
24PCD Type	30	240	330	420	11	60	±1.0
24PCF Type	100	156	225	294	23	200	±1.0
24PCG Type	250	145	212	280	0.85	500	±1.0

* Non-compensated pressure sensors, excited by constant current instead of voltage, exhibit temperature compensation of Span. Application Note #1 briefly discusses current excitation. 24PC Series sensors were tested over four different current excitation levels. When compared to voltage excitation data, the 2 mA units exhibited an improvement in Span performance over temperature of 7 to 1, without adding any extra components.

Constant current excitation has an additional benefit of temperature measurement. When driven by a constant current source, a silicon pressure sensor's terminal voltage will rise with increased temperature. The rise in voltage not only compensates the Span, but is also an indication of die temperature.

Constant Current Excitation Schematic



Pressure Sensors

24PC Series

Gage and Differential/Unamplified-Noncompensated

SENSOR SELECTION GUIDE

2 Product Family	4 Circuit Type	PC Pressure Transducer	A Pressure Range	F* Type of Seal	A Type of Port	2 Termination Style	G Pressure Measurement
2 20PC family	4 Standard, non-compen- sated		A 1 psi B 5 psi C 15 psi D 30 psi E 0.5 psi F 100 psi G 250 psi	F Fluorosilicone	A Straight B Barbed C Luer D Modular H M5 Thread I 90° Port J Needle M ¼ - 28 UNF Thread	1 1 x 4 2 2 x 2	G Gage D Differential

Example: 24PCAFA2G

Standard, non-compensated 1 psi sensor with fluorosilicone seal, straight port, 2 x 2 terminals, and Gage pressure measurement.

*Other media seal materials may be available.

ACCESSORIES SELECTION GUIDE

Catalog Listing	Description
PC10182	Steel locking (Included with Port Style A, 1 x 4 terminals only)
PC10949	Single hole plastic bracket (Must be separately ordered)

Not all combinations are established. Contact 800 number before final design. The following listings are typically stocked in small quantities.

24PC ORDER GUIDE

Catalog Listing
24PCAFA1D
24PCAFA1G
24PCBFA1D
24PCBFA1G
24PCCFA1D
24PCCFA1G
24PCDFA1D
24PCDFA1G
24PCEFA1D
24PCEFA1G
24PCFFA1G
24PCFFM1G
24PCGFA1G
24PCGFFM1G

Unamplified

Pressure Sensors

24/26PC Series

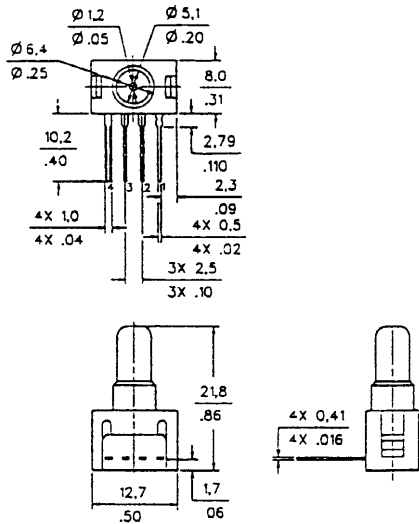
Gage and Differential/Unamplified

MOUNTING DIMENSIONS (for reference only)

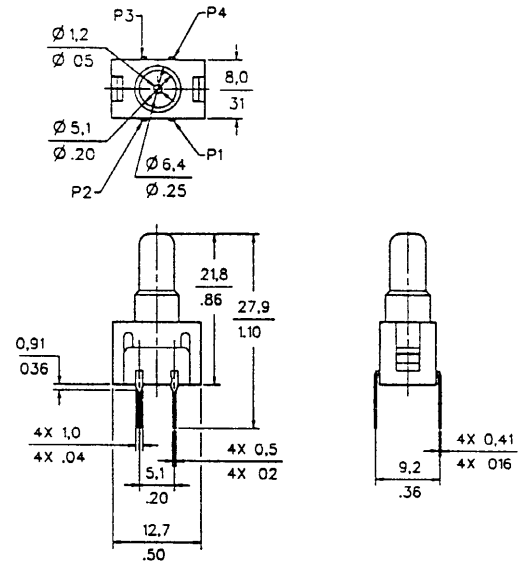
GAGE SENSOR

Pressure is applied to port P2.
Port P1 vents to ambient pressure.

"1 x 4" Termination (Style 1), Port Style A, Straight
Pin 1 is notched, and is shown at the right of the package.
Pin 2 is next to pin 1, etc.

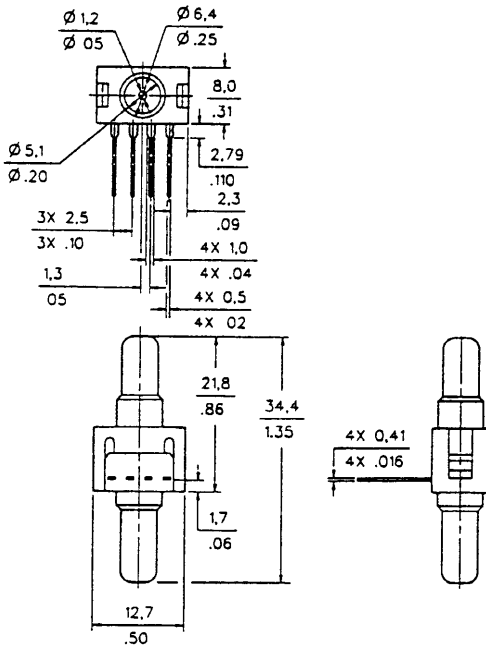


"2 x 2" Termination (Style 2), Port Style A, Straight
Pin 1 is notched, and is shown at lower right corner.
Pins 2, 3 and 4 are clockwise.



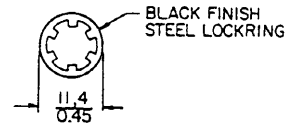
DIFFERENTIAL SENSOR

Straight Port, 1 x 4 termination (Style 2) ONLY
Port P1 is near terminals.

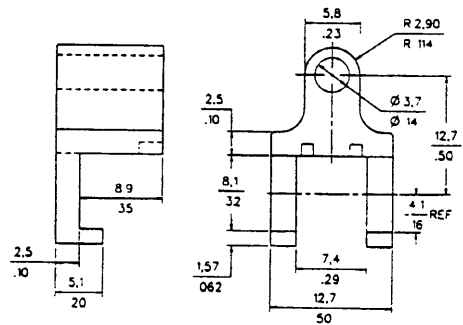


ACCESSORIES

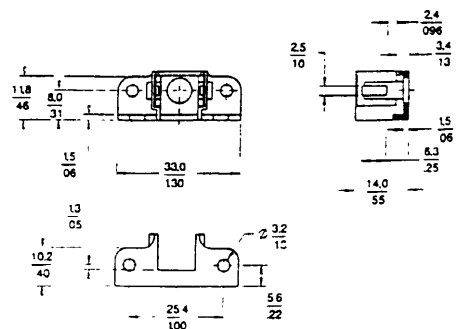
Lockring (included with A port)
PC10182



Single hole Plastic Bracket (purchase separately)
PC10949



Dual Port Plastic Bracket (purchase separately)
PC15015





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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