



24PCCFA6G



Actual product appearance may vary.

Pressure Sensors: Measurement Type:
Gage, Vacuum Gage; Signal
Conditioning: Unamplified; Pressure
Range: ± 15.0 psi; Port Style: Straight

Features

- Miniature package
- Variety of gage pressure port configurations - easily and quickly modified for special needs
- Operable after exposure to frozen conditions
- Choice of termination for gage sensors
- 2 mA constant current excitation significantly reduces sensitivity shift over temperature
- Can be used to measure vacuum or positive pressure

Description

The 24PC Series miniature pressure sensors provide reliable gage pressure sensing performance in a compact package. The sensor features a proven sensing technology that utilizes a specialized piezoresistive micro-machined sensing element. The low power, non-amplified, non-compensated Wheatstone bridge circuit design provides inherently stable mV outputs over 0.5 psi through 250 psi sensing ranges.

Potential Applications

Medical

- Oxygen and nitrogen gas distribution in hospitals
- Dental chairs

Environmental

- Water control valves
- Instrumentation
- Irrigation equipment
- Filter monitoring equipment

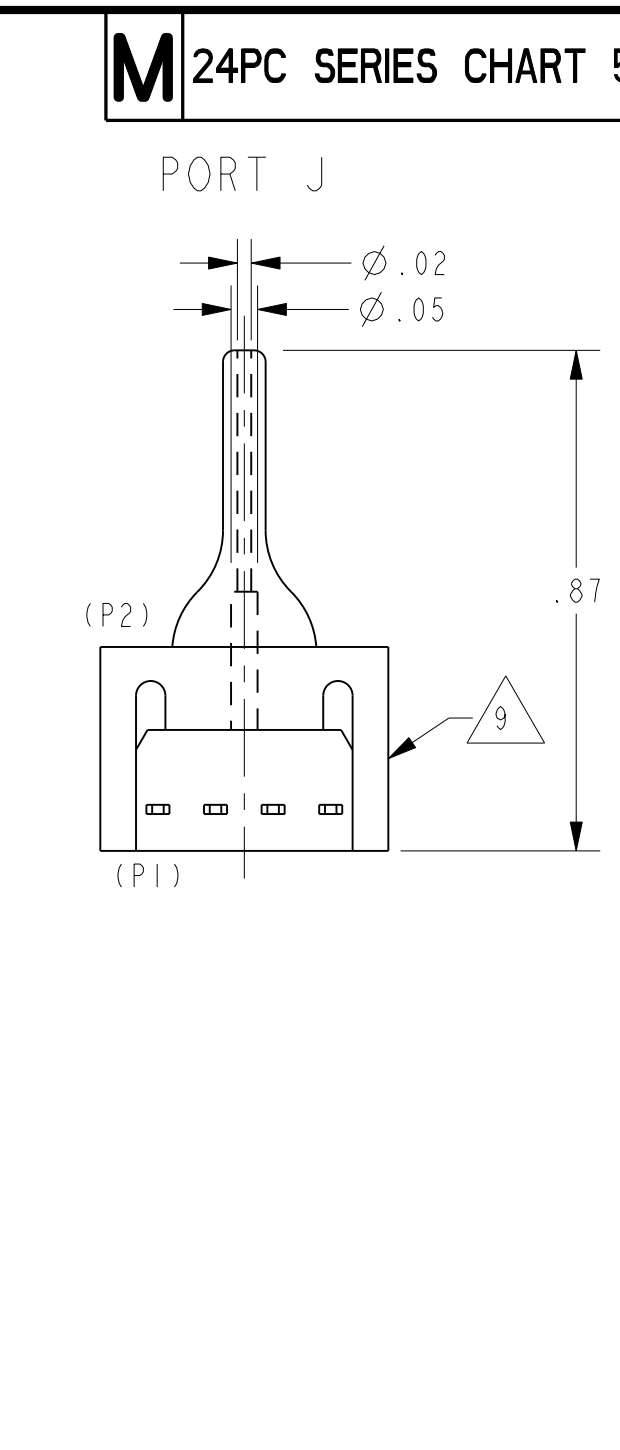
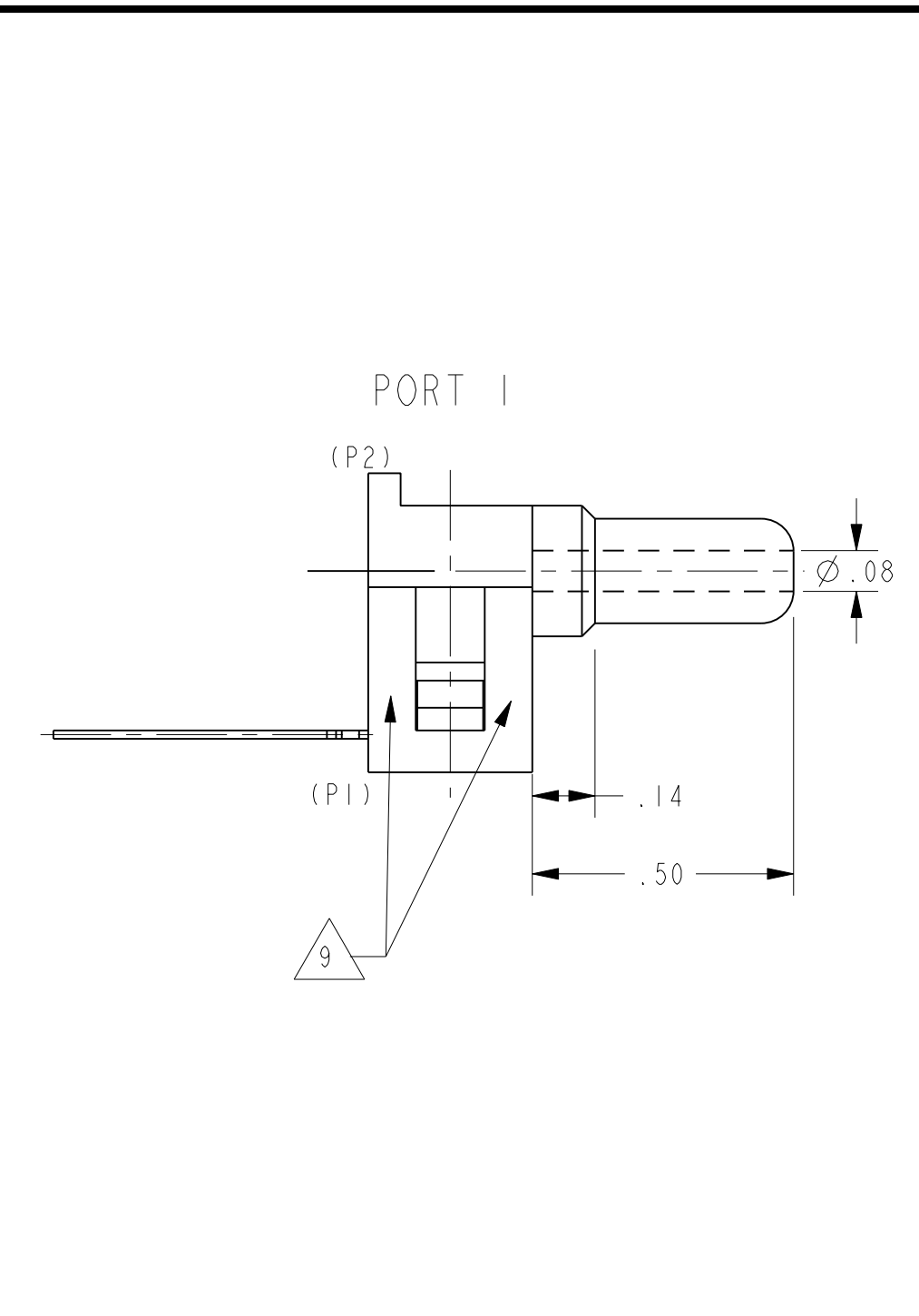
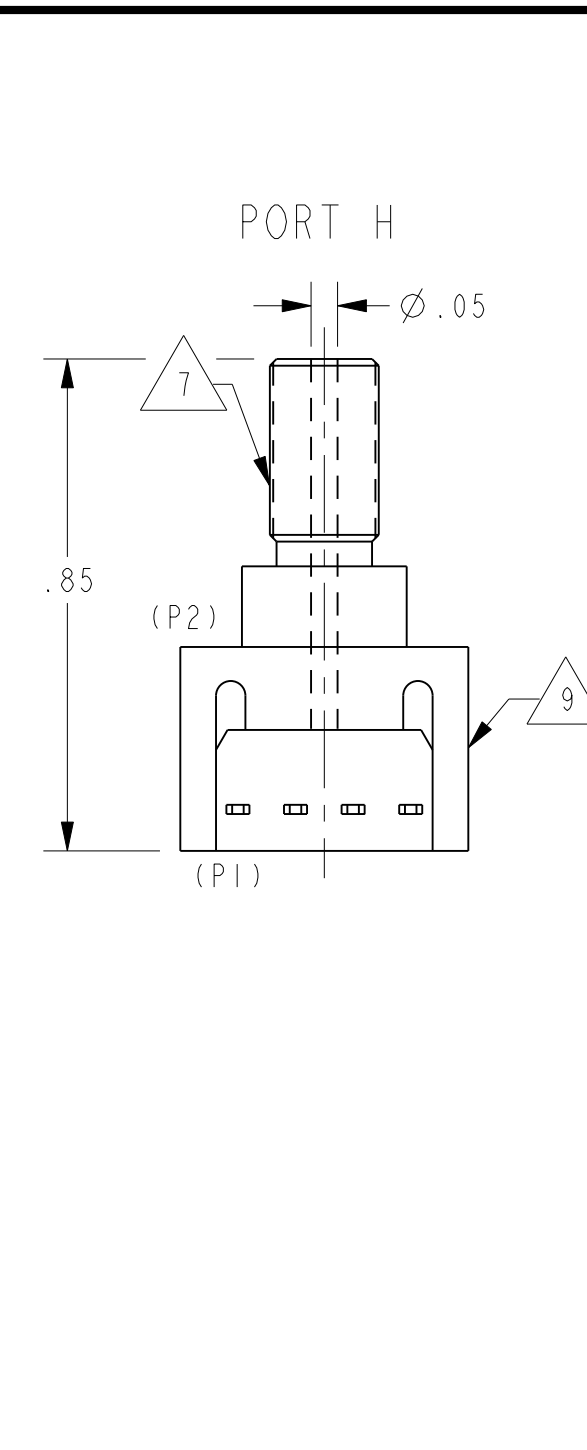
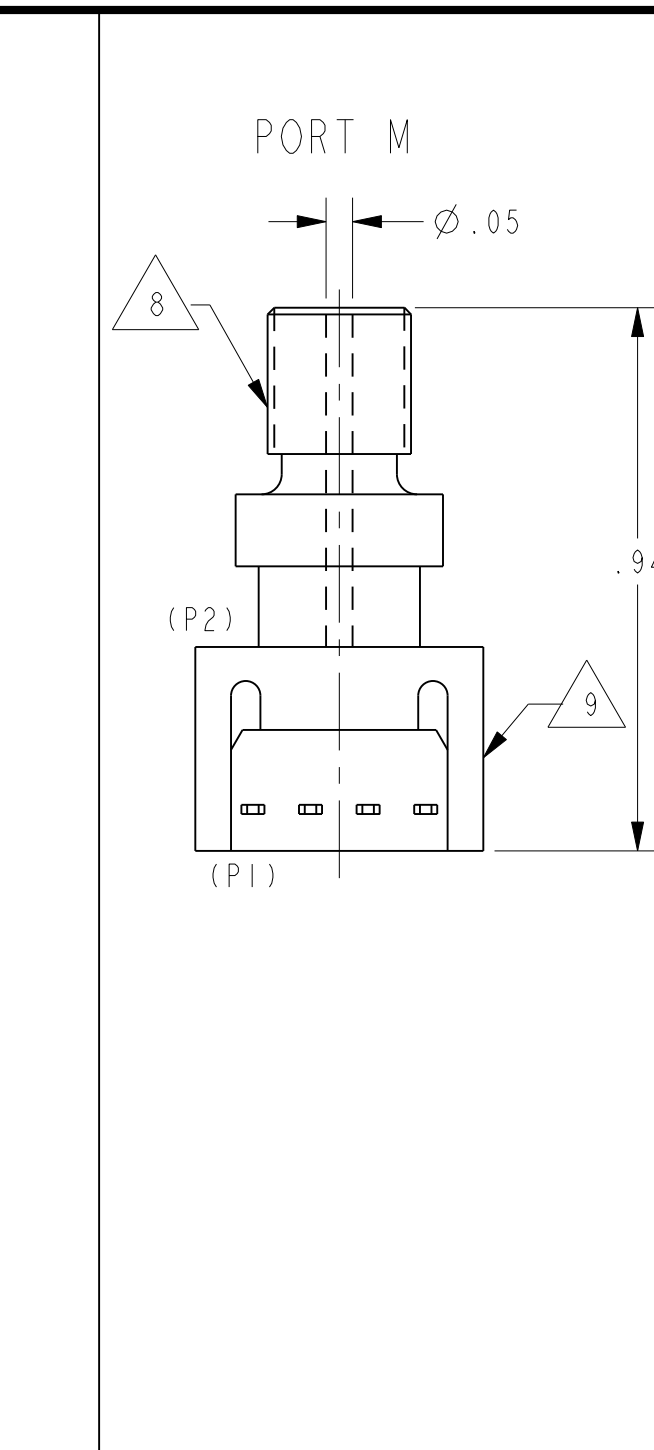
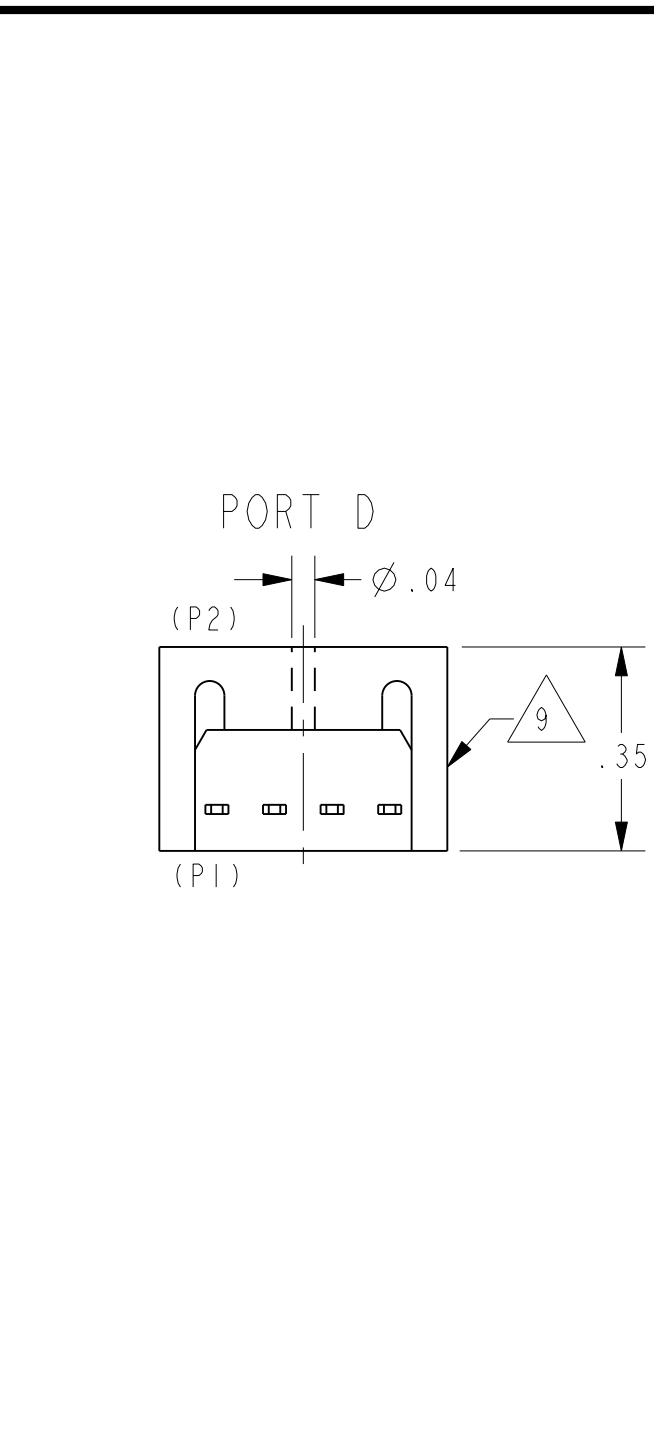
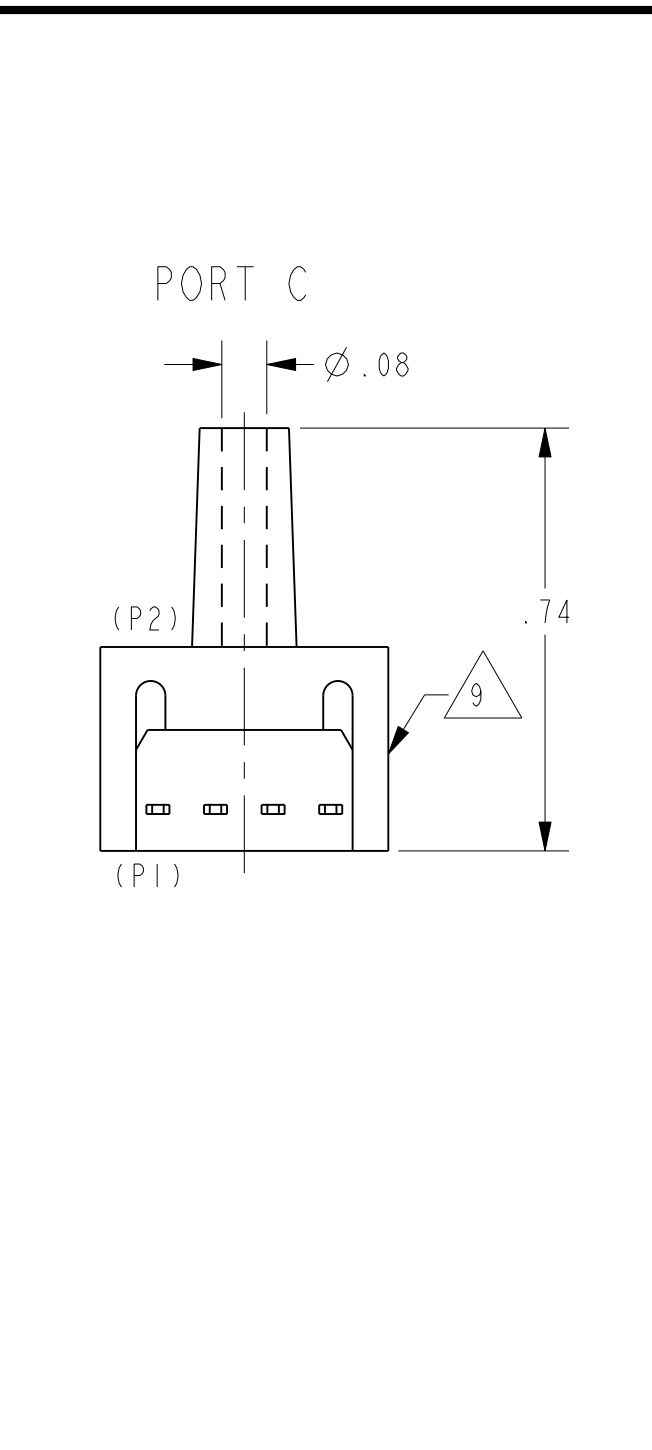
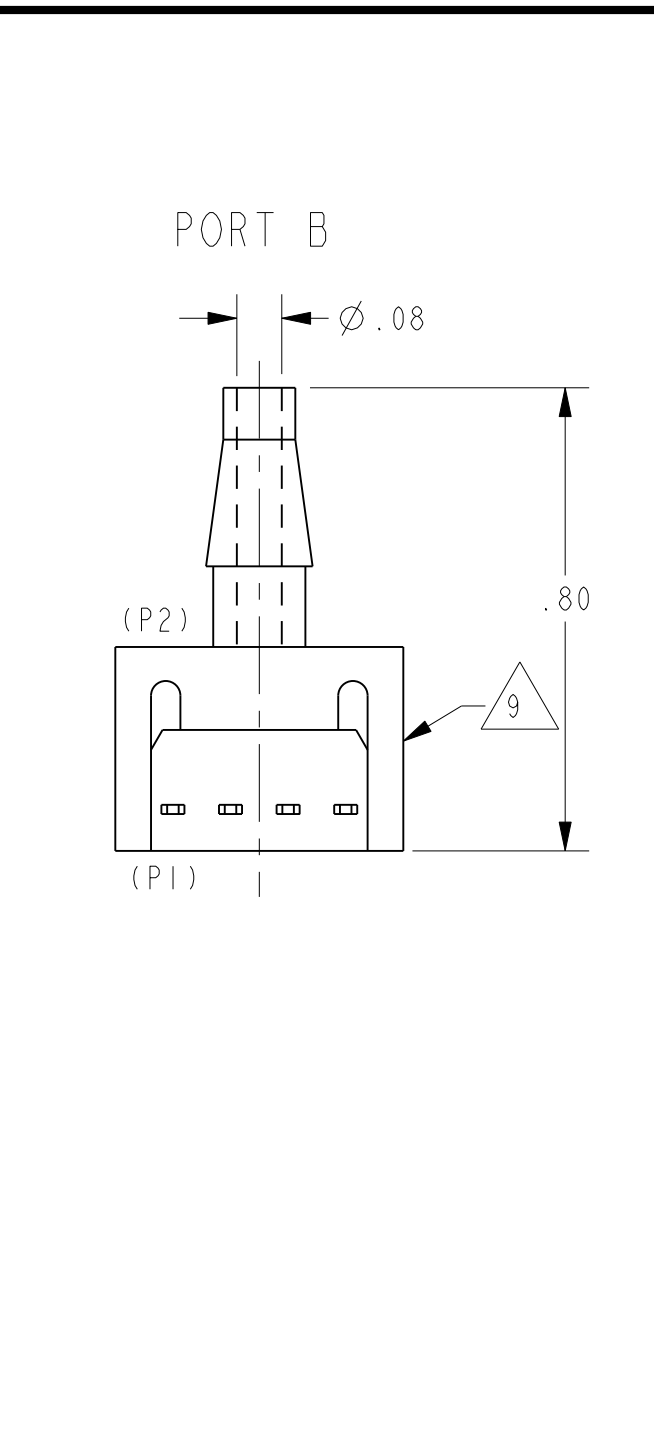
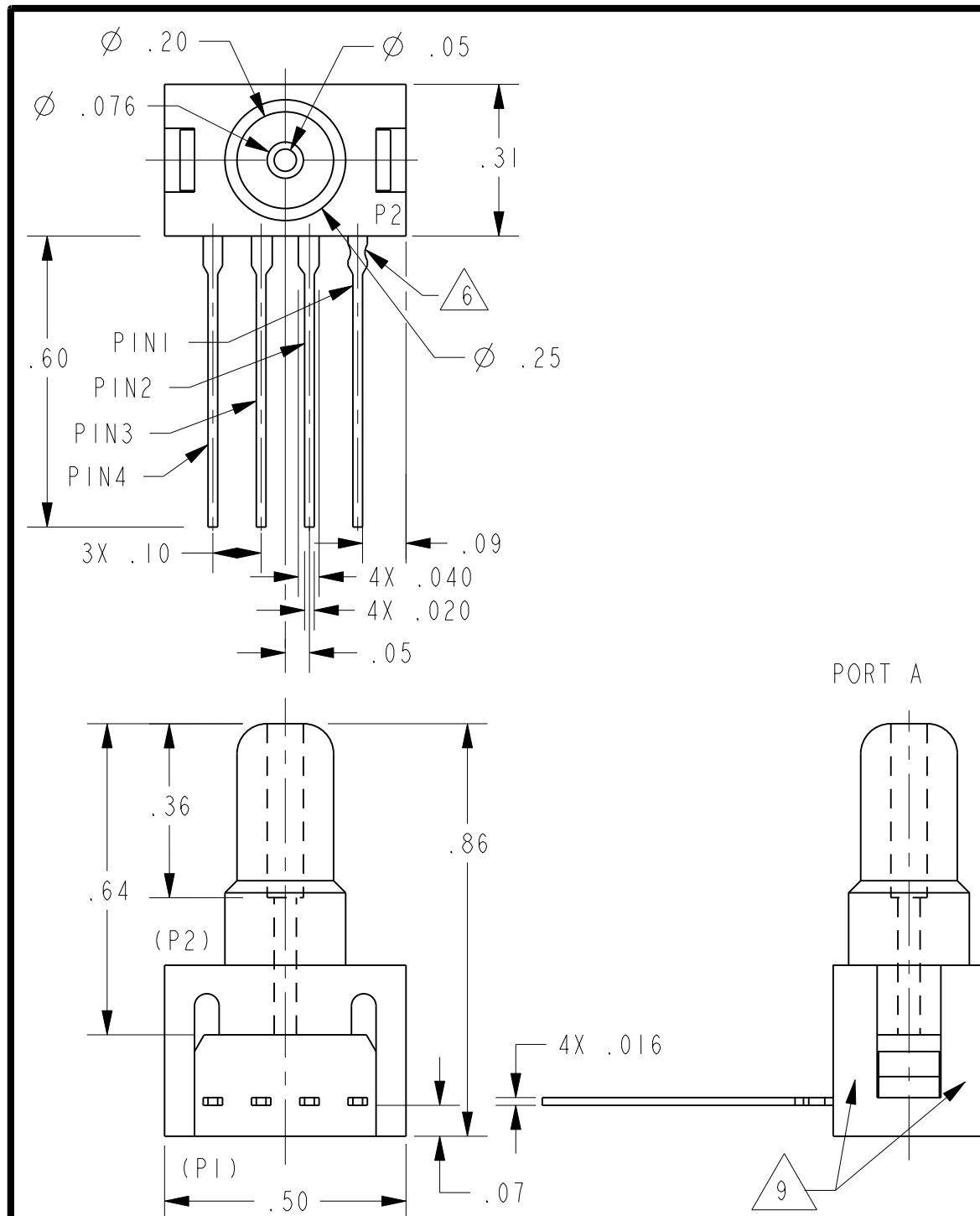
Industrial Instrumentation

- Robotics
- Pressure valves
- Leak detection
- Air compressors

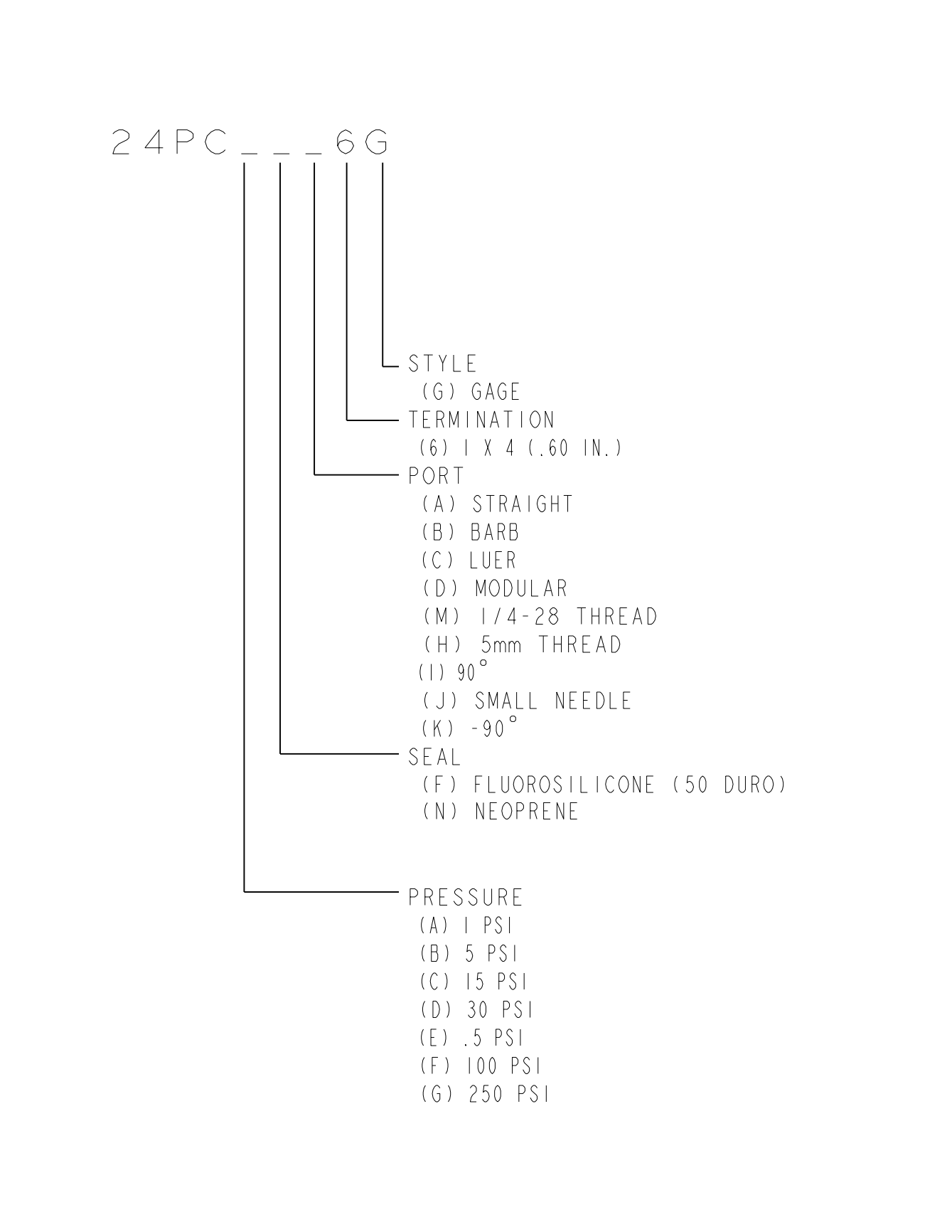
Analytical Instrumentation

- Gas chromatography

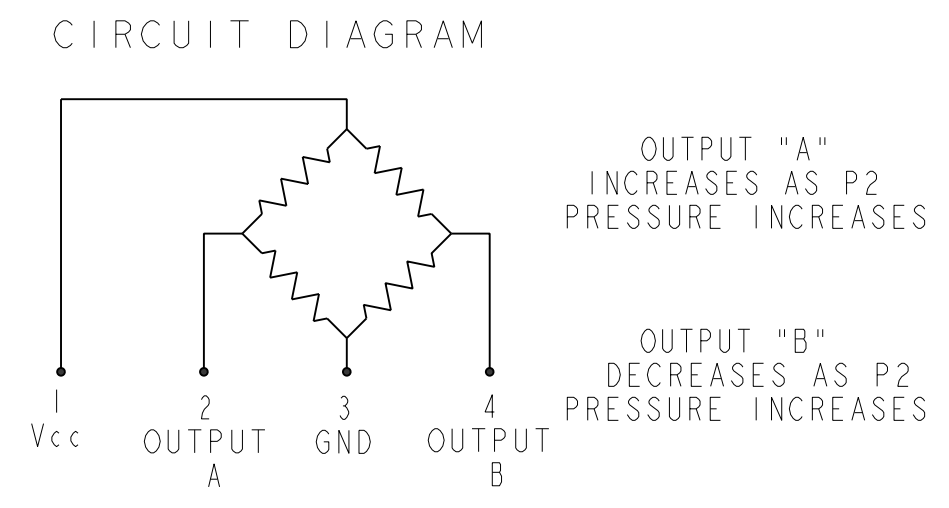
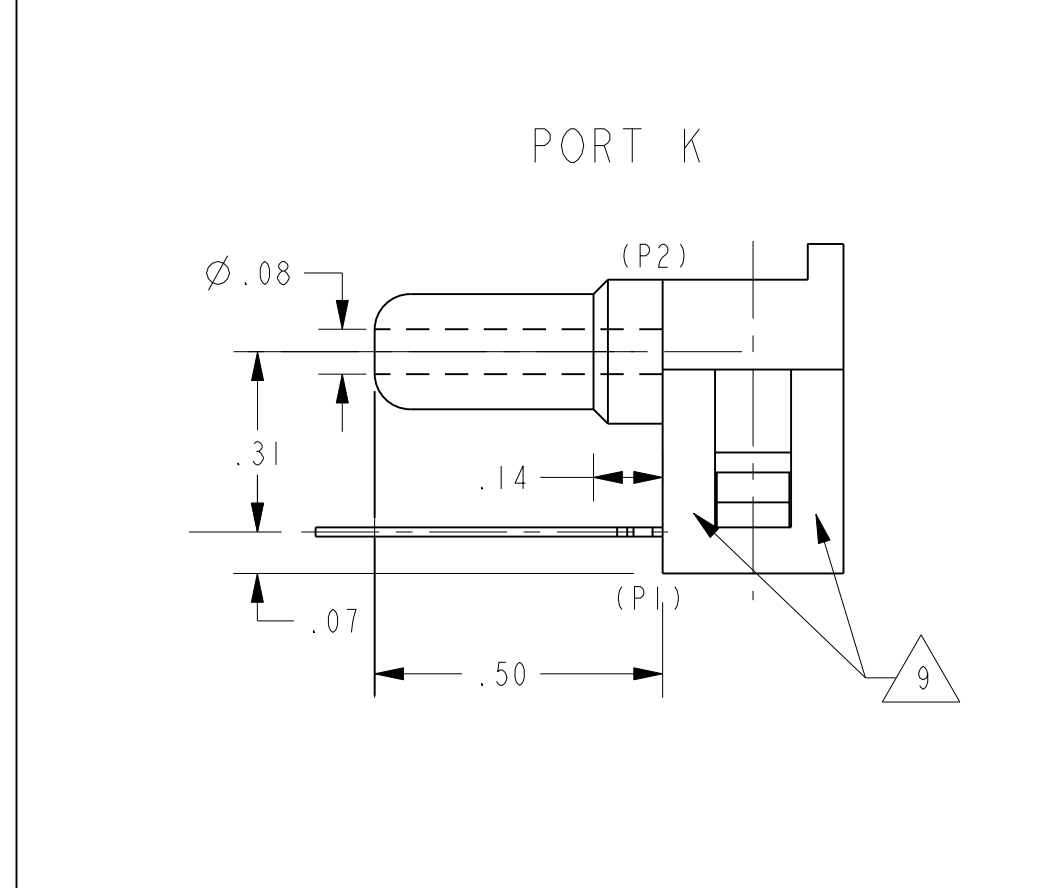
Product Specifications	
Measurement Type	Vacuum Gage, Gage
Signal Conditioning	Unamplified
Pressure Range	± 15.0 psi
Maximum Overpressure	45.0 psi
Supply Voltage	10.0 Vdc typ., 12.0 Vdc max.
Compensated	No
Output Calibration	No
Response Time	1 ms max.
Termination	PCB; 1 x 4; 0.600 in
Port Style	Straight
Package Style	Honeywell - 20PC
Linearity	± 0.25% span typ., ± 1.0% span max. (P2 > P1)
Typical Sensitivity	15 mV/psi
Full Scale Span	225 mV typ.
Null Offset	0 mV typ.
Null Shift over Temperature	± 2.0 mV typ.
Span Shift Over Temperature	± 5.0% span typ.
Repeatability & Hysteresis Error	± 0.15 % span typ.
Input Resistance	4.0 kOhm min., 5.0 kOhm typ., 6.0 kOhm max.
Output Resistance	4.0 kOhm min., 5.0 kOhm typ., 6.0 kOhm max.
Shock	Qualification tested to 150 g
Vibration	MIL-STD-202 Method 213 (150 g half sine 11 ms)
Weight	2 g [0.07 oz]
Operating Temperature Range	-40 °C to 85 °C [-40 °F to 185 °F]
Storage Temperature Range	-55 °C to 100 °C [-67 °F to 212 °F]
Media Compatibility	Limited to media which will not attack polyetherimide, silicon, flourosilicone, silicone, EPDM and neoprene seals.
UNSPSC Code	411121
UNSPSC Commodity	411121 Transducers
Availability	Global
Series Name	24PC



CATALOG LISTING	BRAND DESIGNATION
24PCFFH6G	4FF6G
24PCEFH6G	4EF6G
24PCCFH6G	4CF6G
24PCEFA6G	4EF6G
24PCFA6G	4AF6G
24PCBFA6G	4BF6G
24PCBFD6G	4BF6G
24PCBFH6G	4BF6G
24PCCFA6G	4CF6G
24PCDFA6G	4DF6G
24PCFFA6G	4FF6G
24PCEFD6G	4EF6G
24PCAFD6G	4AF6G
24PCAFB6G	4BF6G
24PCBFB6G	4BF6G
24PCCFB6G	4CF6G
24PCCFD6G	4CF6G
24PCDFB6G	4DF6G
24PCDFC6G	4DF6G
24PCDND6G	4DN6G
24PCFFB6G	4FF6G
24PCFFC6G	4FF6G
24PCFFD6G	4FF6G
24PCFFM6G	4FF6G
24PCFND6G	4FN6G
24PCGFA6G	4GF6G
24PCGFB6G	4GF6G
24PCGFH6G	4GF6G
24PCGM6G	4GF6G
24PCGND6G	4GN6G
24PCGNH6G	4GN6G
24PCEFJ6G	4EF6G
24PCAND6G	4AN6G
24PCBND6G	4BN6G
24PCDFD6G	4DF6G
24PCAFH6G	4AF6G
24PCEFM6G	4EF6G
24PCCFM6G	4CF6G
24PCAFJ6G	4AF6G
24PCDFH6G	4DF6G



GENERAL OPERATING CHARACTERISTICS (ELECTRICAL PERFORMANCE AT 10.00±0.01 VDC EXCITATION, 25°C)					
PARAMETERS	PRESSURE RANGES (PSI)	MIN	TYP	MAX	UNITS
NULL OFFSET	ALL	-30	0	+30	mV
NULL SHIFT Δ 0° TO 25°C OR 25° TO 50°C			±1.0		
SPAN Δ P2 > P1	0 TO .5 G	25	35	45	
	0 TO 1 G	30	45	60	
	0 TO 5 G	85	115	145	
	0 TO 15 G	165	225	285	
	0 TO 30 G	240	330	420	
	0 TO 100 G	156	225	294	
	0 TO 250 G	145	212	280	
SENSITIVITY SHIFT Δ 0° TO 25°C OR 25° TO 50°C P2 > P1 AT 10 VDC AT 2 mA	ALL				%SPAN
			±5.0		
LINEARITY P2 > P1 (BFSL) P1 > P2	ALL		.2	1.0	
REPEATABILITY & HYSTERESIS			±.5		
STABILITY OVER 1 YEAR EXCITATION VOLTAGE	ALL		±1.5		
INPUT RESISTANCE		4.0K	5.0K	6.0K	OHMS
OUTPUT RESISTANCE		4.0K	5.0K	6.0K	OHMS
(P1 > P2) (P2 > P1) OVERPRESSURE AT 25°C	0 TO .5 G			20	PSI
	0 TO 1 G			20	
	0 TO 5 G			20	
	0 TO 15 G			45	
	0 TO 30 G			60	
	0 TO 100 G			200	
	0 TO 250 G			500	
TEMPERATURE STORAGE	ALL	-55° TO +100°C (-67°F TO +212°F)			
TEMPERATURE OPERATE	ALL	-40° TO +85°C (-40°F TO +185°F)			



METRIC	INCHES
0.41	.016
0.51	.020
1.02	.040
1.3	.05
1.8	.07
2.0	.08
2.3	.09
2.5	.10
3.6	.14
5.1	.20
6.4	.25
7.9	.31
8.9	.35
12.7	.50
15.3	.60
18.8	.74
20.4	.80
21.6	.85
21.8	.86
22.1	.87
23.9	.94

NOTES

- SPAN IS THE ALGEBRAIC DIFFERENCE BETWEEN END POINTS (OUTPUT AT MINIMUM AND MAXIMUM PRESSURE)
- TEMPERATURE ERROR IS CALCULATED WITH RESPECT TO 25°C AND EXPRESSES THE DEVIATION THAT COULD OCCUR AS TEMPERATURE IS RAISED OR LOWERED TO LIMITS INDICATED
- INPUT MEDIA LIMITED ONLY TO THOSE MATERIALS THAT WILL NOT ATTACK POLYESTER, SILICON, BUNA-N OR FLUROSILICONE
- TERMINALS ARE PLATED FOR SOLDERING
- LIMIT SOLDERING TO 315° FOR 10 SECONDS MAX
- PIN 1 IS IDENTIFIED BY NOTCH IN LEAD
- M5 THREADED PRODUCT: RECOMMENDED TORQUE FOR SEALING: 4 IN-LBS DO NOT EXCEED 6 IN-LBS OF TORQUE
- SIZE 007 O-RING O-RING COUNTERBORE DIMENSIONS: $\varnothing .300 \pm .003 \times \nabla .040$
- 1/4-28 UNF THREADED PRODUCT: RECOMMENDED TORQUE FOR SEALING: 8 IN-LBS DO NOT EXCEED 12 IN-LBS OF TORQUE
- SIZE 009 O-RING O-RING COUNTERBORE DIMENSIONS: $\varnothing .360 \pm .003 \times \nabla .040 \pm .002$
- BRAND 5 DIGIT LISTING AND 6 DIGIT DATE CODE (YYYYWW). ALTERNATE FORMAT OF CATALOG LISTING BRAND IS THE ENTIRE CATALOG LISTING