



26PCCFA2G



Actual product appearance may vary.

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

Features

- Lowest priced sensor with temperature compensation and calibration
- Variety of gage pressure port configurations - easily and quickly modified for your special needs
- Operable after exposure to frozen conditions
- Choice of termination for gage sensors
- Calibrated null and span
- Temperature compensated
- Provides interchangeability
- Can be used to measure vacuum or positive pressure

Description

The factory calibrated 26PC 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 which allows part interchangeability, high performance, reliability, and accuracy. The low power, non-amplified, non-compensated Wheatstone bridge circuit design provides inherently stable mV outputs over 1.0 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

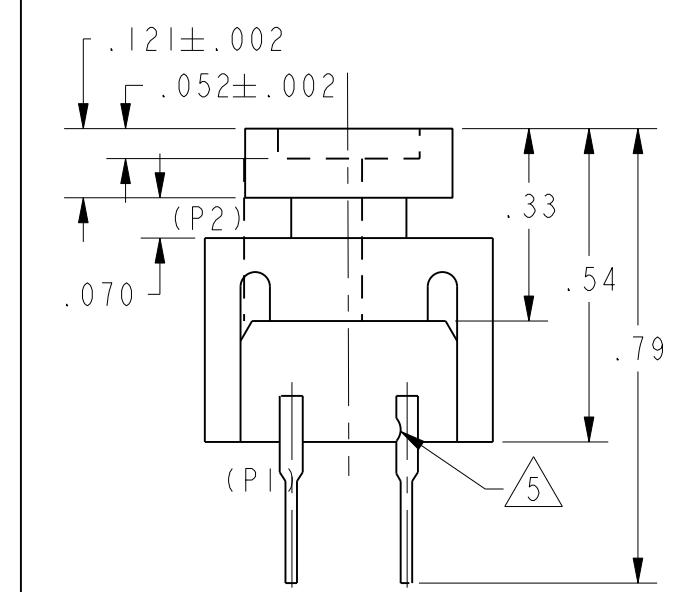
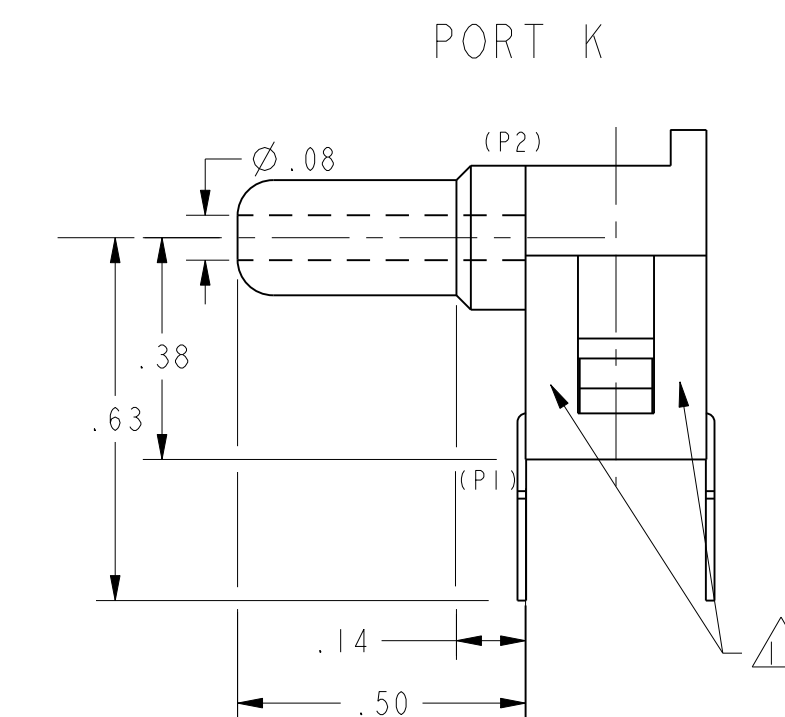
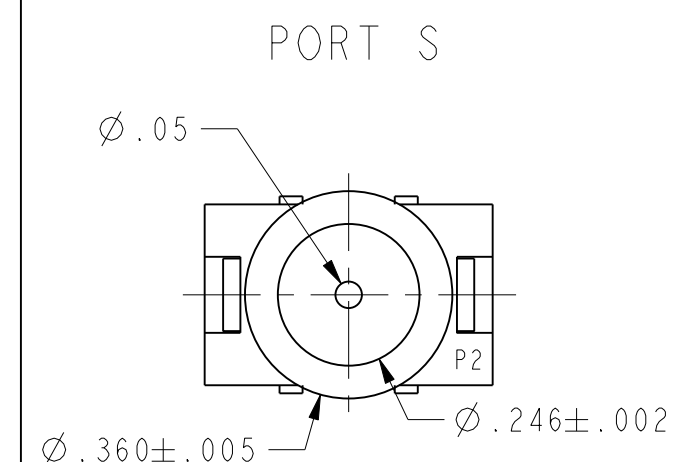
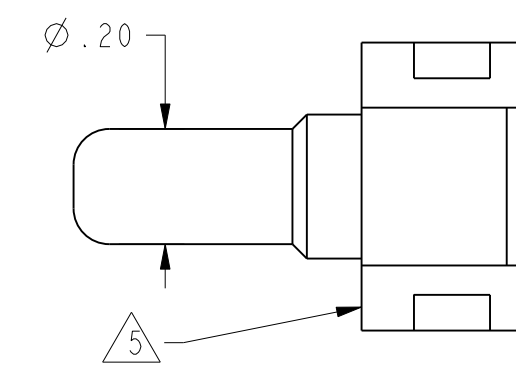
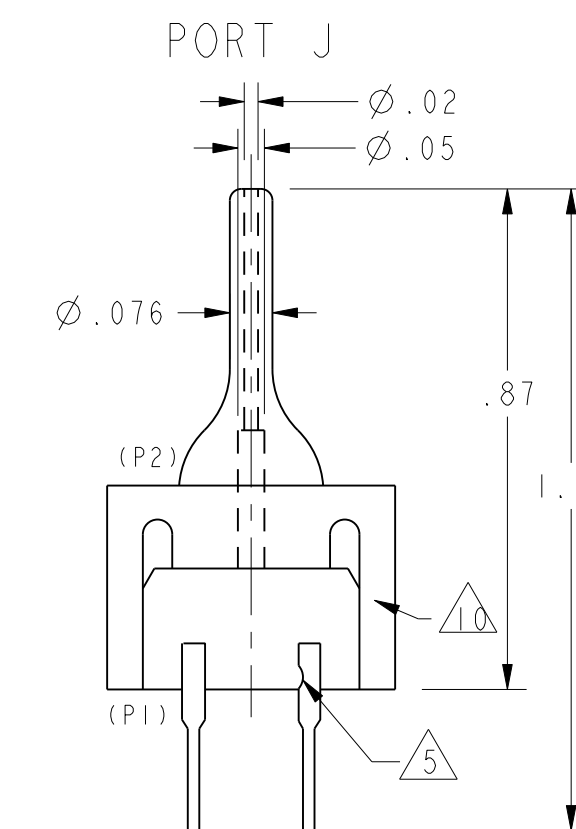
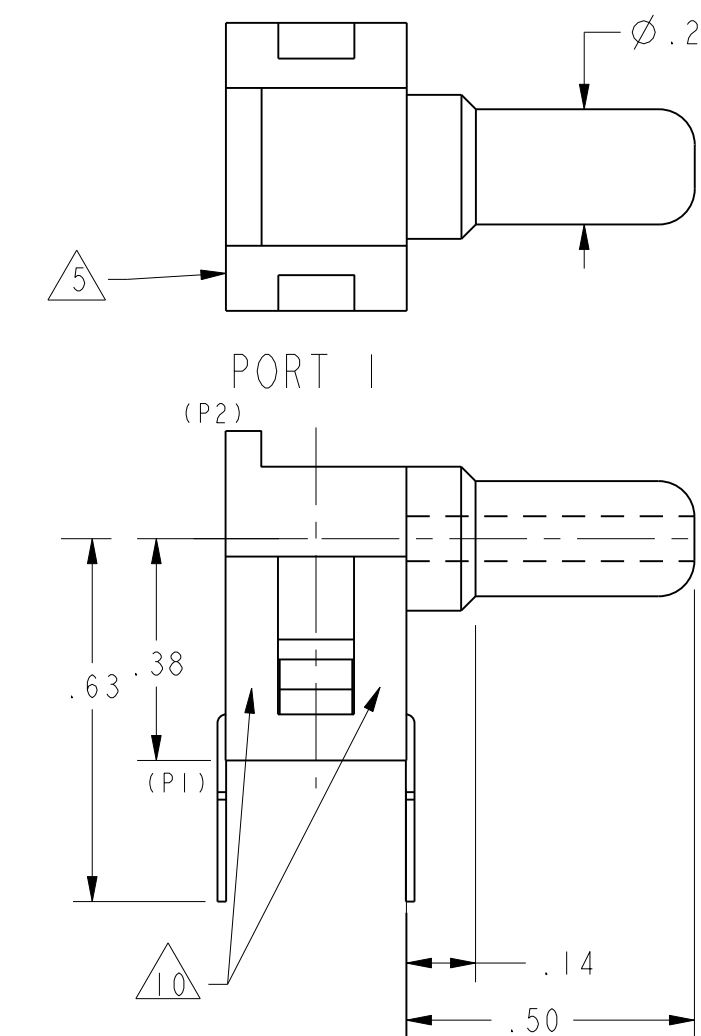
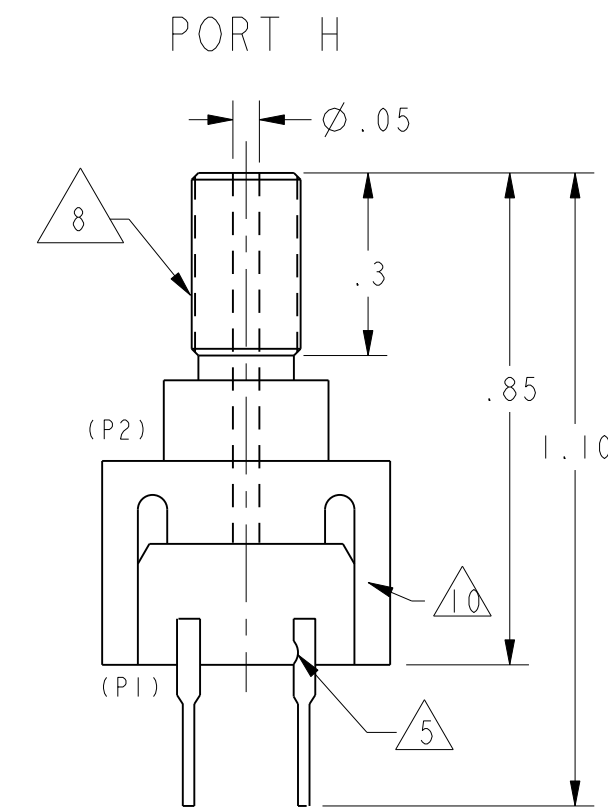
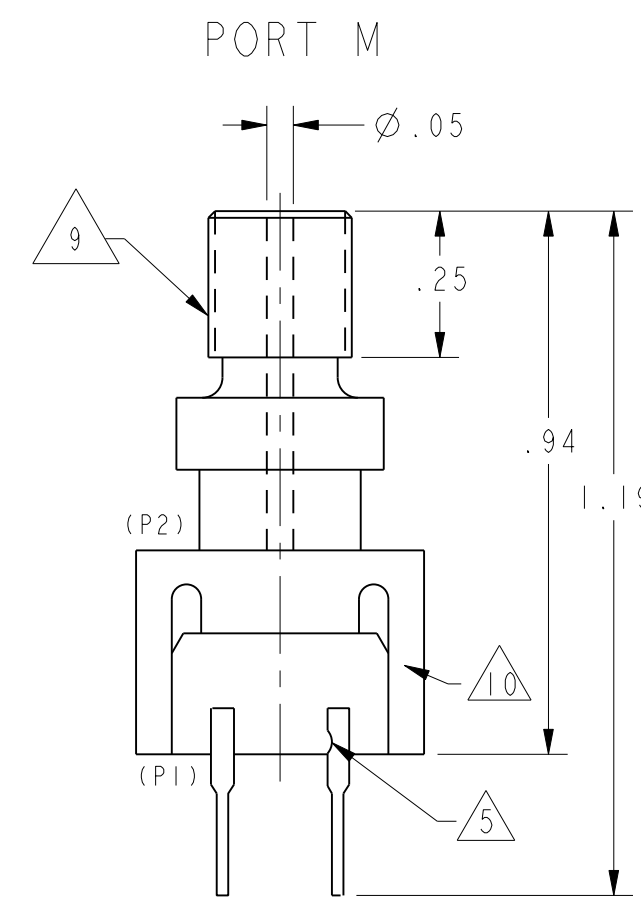
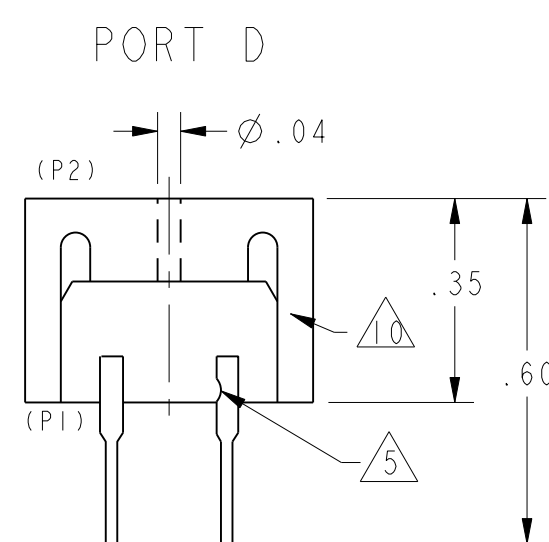
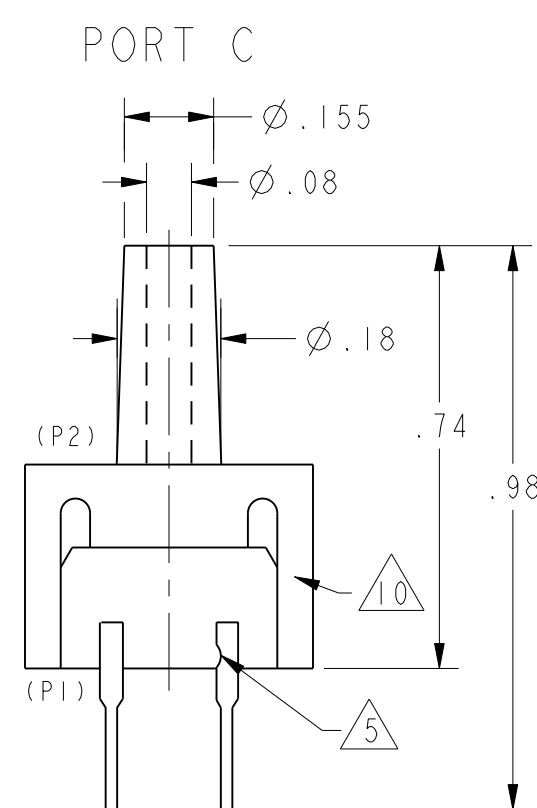
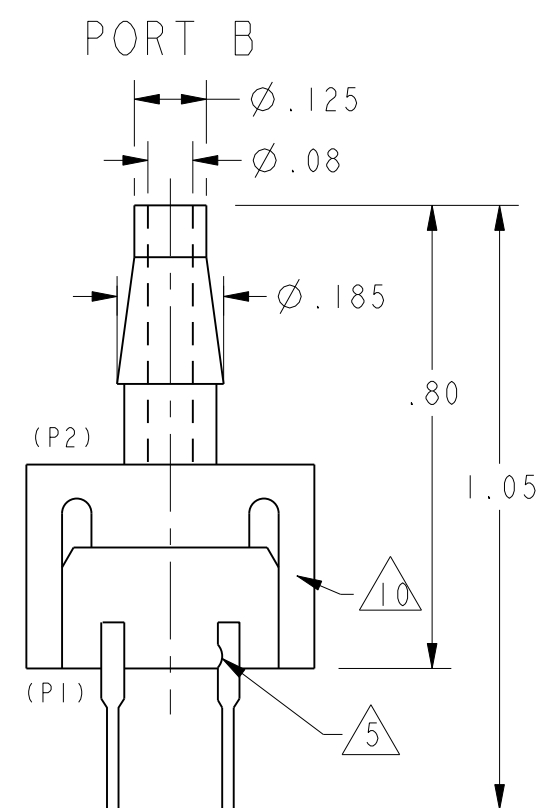
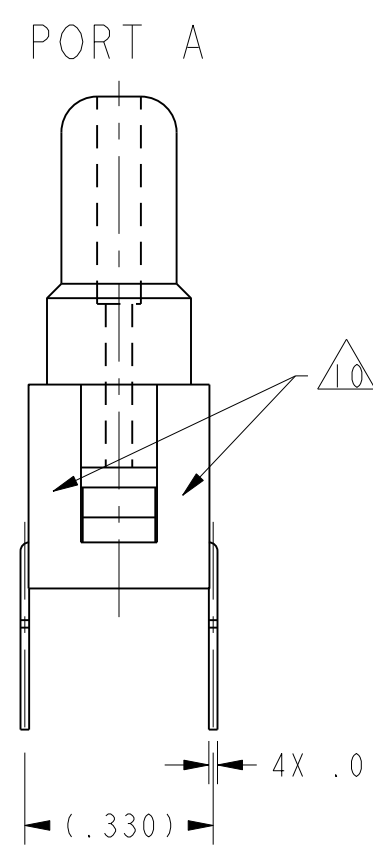
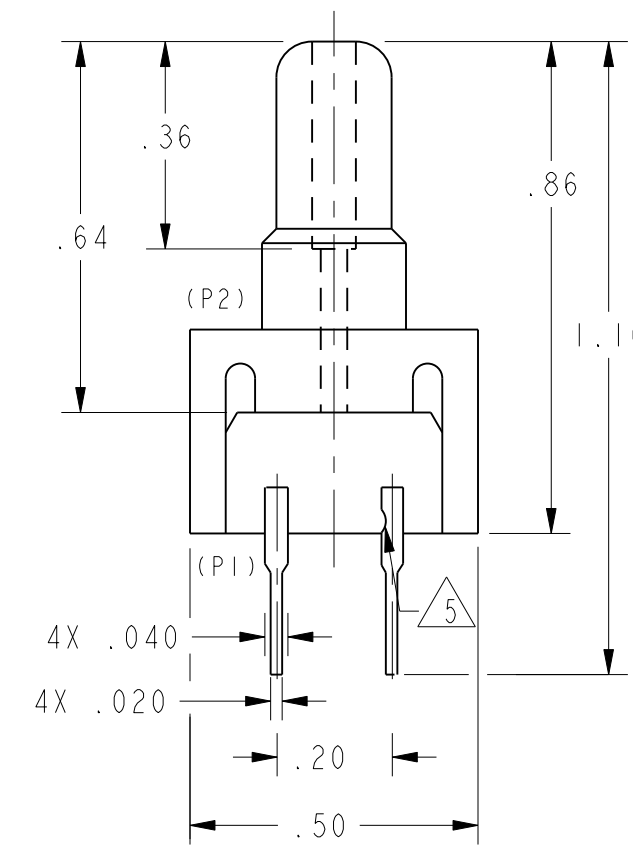
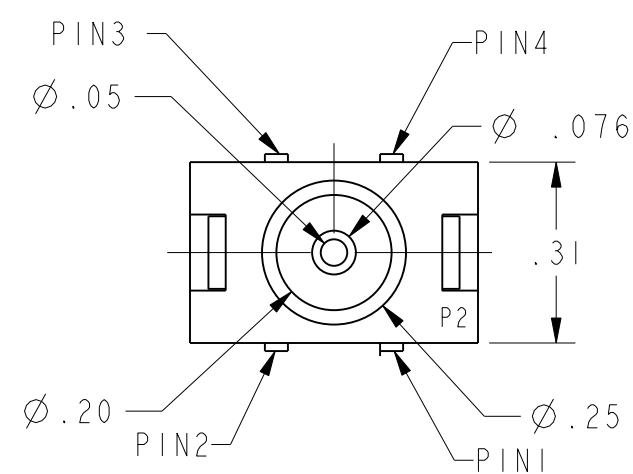
Industrial Instrumentation

- Robotics
- Pressure valves
- Leak detection
- Air compressors

Analytical Instrumentation

- Gas chromatography

Product Specifications	
Measurement Type	Differential, Gage
Signal Conditioning	Unamplified
Pressure Range	± 15.0 psi
Maximum Overpressure	45.0 psi
Supply Voltage	10.0 Vdc typ., 16.0 Vdc max.
Compensated	Yes
Output Calibration	Yes
Response Time	1 ms max.
Termination	PCB; 2 x 2
Port Style	Straight
Package Style	Honeywell - 20PC
Linearity	0.25% span typ., 0.50% span max.
Typical Sensitivity	6.67 mV/psi
Full Scale Span	100 mV typ.
Null Offset	0 mV typ.
Null Shift over Temperature	± 0.5 mV typ., ± 1.0 mV max.
Span Shift Over Temperature	± 1.0% span typ., ± 1.5% span max.
Repeatability & Hysteresis Error	± 0.20 % span typ.
Input Resistance	5.5 kOhm min., 7.5 kOhm typ., 11.5 kOhm max.
Output Resistance	1.5 kOhm min., 2.5 kOhm typ., 3.0 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]
Compensated Temperature Range	0 °C to 50 °C [32 °F to 122 °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	26PC



GENERAL OPERATING CHARACTERISTICS (ELECTRICAL PERFORMANCE AT 10.00 ± 0.01 VDC EXCITATION, 25°C)																			
OPERATING PRESSURE RANGE (PSIG)	0 - 1 (A)			0 - 5 (B)			0 - 15 (C)			0 - 30 (D)			0 - 100 (F)			0 - 250 (G)			
	MIN	NOM	MAX	MIN	NOM	MAX	MIN	NOM	MAX	MIN	NOM	MAX	MIN	NOM	MAX	MIN	NOM	MAX	
SPAN (P2>P1)	14.7	16.7	18.7	47	50	53	97	100	103	97	100	103	mV	95	100	105	143	150	157
NULL OFFSET	-1.5	0	+1.5	-1.5	0	+1.5	-1.5	0	+1.5	-1.5	0	+1.5	mV	-2.0	0	+2.0	-2.0	0	+2.0
LINEARITY (BFSL, P2>P1)	0.25 0.5			0.4 0.5			0.25 0.5			0.1 0.2			%SPAN	0.4 0.6			0.5 0.7		
NULL SHIFT (0 TO 25°C, 25 TO 50°C)	±0.5 ±1.0			±0.5 ±1.0			±0.5 ±1.0			±0.75 ±1.5			mV	±1.0 ±2.0			±1.0 ±2.0		
SPAN SHIFT (0 TO 25°C, 25 TO 50°C) P2>P1	±1.0 ±2.0			±1.0 ±1.5			±0.75 ±1.5			±0.75 ±1.5			%SPAN	±0.5 ±1.5			±0.5 ±1.5		
REPEATABILITY AND HYSTERESIS	±0.5			±0.2			±0.2			±.2			%SPAN	±0.2			±0.2		
OVERPRESSURE (P2>P1; P1>P2)	20			20			45			60			PSI	200			500		
ALL PRESSURE RANGES	MIN	NOM	MAX	UNITS															
EXCITATION VOLTAGE	10 16			VDC															
INPUT RESISTANCE	5.5K 7.5K 11.5K			OHMS															
OUTPUT RESISTANCE	1.5K 2.5K 3.0K			OHMS															
RESPONSE TIME	1.0			ms															
TEMPERATURE RANGES																			
STORAGE	-55°C TO +100°C (-67°F TO +212°F)																		
OPERATE	-40°C TO +85°C (-40°F TO +185°F)																		
COMPENSATED	0 TO +50°C (+32°F TO +122°F)																		
OPERATE	-20°C TO +85°C																		

26PC_F_2G

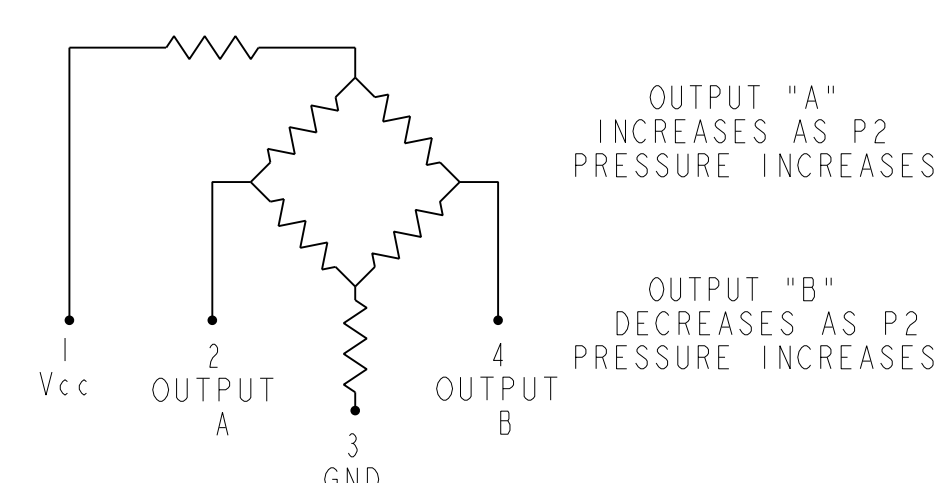
- STYLE
- (G) GAGE
- TERMINATION
- (2) 2 X 2 (FORMED)
- PORT
- (A) STRAIGHT
- (B) BARB
- (C) LUER
- (D) MODULAR
- (H) 5 mm THREAD
- (I) 90° PORT
- (J) SMALL NEEDLE
- (K) -90°
- (M) 1/4-28 THD
- (S) MANIFOLD MOUNT
- SEAL
- (F) FLUOROSILICONE
- (E) EPDM
- OPERATING PRESSURE
- (A) 1 PSI
- (B) 5 PSI
- (C) 15 PSI
- (D) 30 PSI
- (F) 100 PSI
- (G) 250 PSI

NOTES

- △ SPAN IS THE ALGEBRAIC DIFFERENCE BETWEEN OUTPUT AT MAXIMUM RATED OPERATING PRESSURE AND OUTPUT AT 0 PSI
- △ TEMPERATURE ERROR IS CALCULATED WITH RESPECT TO 25°C
- 3 - INPUT MEDIA LIMITED ONLY TO THOSE MATERIALS THAT WILL NOT ATTACK SILICON, THE HOUSING MATERIAL OR SEAL MATERIAL
- 4 - TERMINALS ARE PLATED FOR SOLDERING (LIMIT SOLDERING TO 315°C FOR 10 SECONDS MAXIMUM)
- △ PIN 1 IS IDENTIFIED BY NOTCH IN LEAD
- 6 - SENSOR IS OPERATIONAL OVER VACUUM PRESSURE RANGE
- 7 - RATIOMETRIC TO SUPPLY VOLTAGE#
- 8 - 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:
Ø .300±.003 X ∇ .040
- 9 - 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:
Ø .360±.003 X ∇ .040±.002
- △ CATALOG LISTING AND DATE CODE HERE. ALTERNATE FORMAT OF CATALOG LISTING BRAND IS THE ENTIRE CATALOG LISTING
- △ FOR CATALOG LISTINGS WITH EPDM SEALS ONLY

METRIC	INCHES
0.38	.015
0.51	.020
0.76	.030
1.02	.040
1.3	.05
1.93	.076
2.0	.08
3.6	.14
5.1	.20
6.4	.25
7.9	.31
8.4	.33
8.9	.35
9.1	.36
9.7	.38
12.7	.50
15.2	.60
16.0	.63
16.3	.64
18.8	.74
20.4	.80
21.6	.85
21.8	.86
22.1	.87
23.9	.94
24.9	.98
26.7	1.05
27.9	1.10
28.2	1.11
30.2	1.19

CIRCUIT DIAGRAM



OUTPUT "A" INCREASES AS P2 PRESSURE INCREASES

OUTPUT "B" DECREASES AS P2 PRESSURE INCREASES

THIRD ANGLE PROJECTION

SCALE 3 : 1

DO NOT SCALE PRINT
UNLESS OTHERWISE SPECIFIED TOLERANCES ARE

ONE PLACE (.0) ±.030
TWO PLACE (.00) ±.015
THREE PLACE (.000) ±.005
ANGLES ±

WEIGHT 2 OZ.

THIS DRAWING COVERS A PROPRIETARY ITEM AND IS THE PROPERTY OF MICRO SWITCH, A DIVISION OF HONEYWELL. THIS DRAWING IS NOT TO BE COPIED OR USED WITHOUT THE APPROVAL OF MICRO SWITCH.

FED. MFG. CODE 91929

MICRO SWITCH
a Honeywell Division

BRIDGE PRESSURE SENSOR

26PC SERIES CHART 3