

Honeywell Sensing and Control

26PCBFA6D



Actual product appearance may vary.

Pressure Sensors: Measurement Type: Gage, Vacuum Gage, Wet/Wet Differential; Signal Conditioning: Unamplified; Pressure Range: ± 5.0 psi;

Port Style: Straight

Features

- True wet/wet differential sensing
- Lowest priced sensor with temperature compensation and calibration
- Operable after exposure to frozen conditions
- · Calibrated null and span
- Temperature compensated
- Provides interchangeability
- Can be used to measure vacuum or positive pressure

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

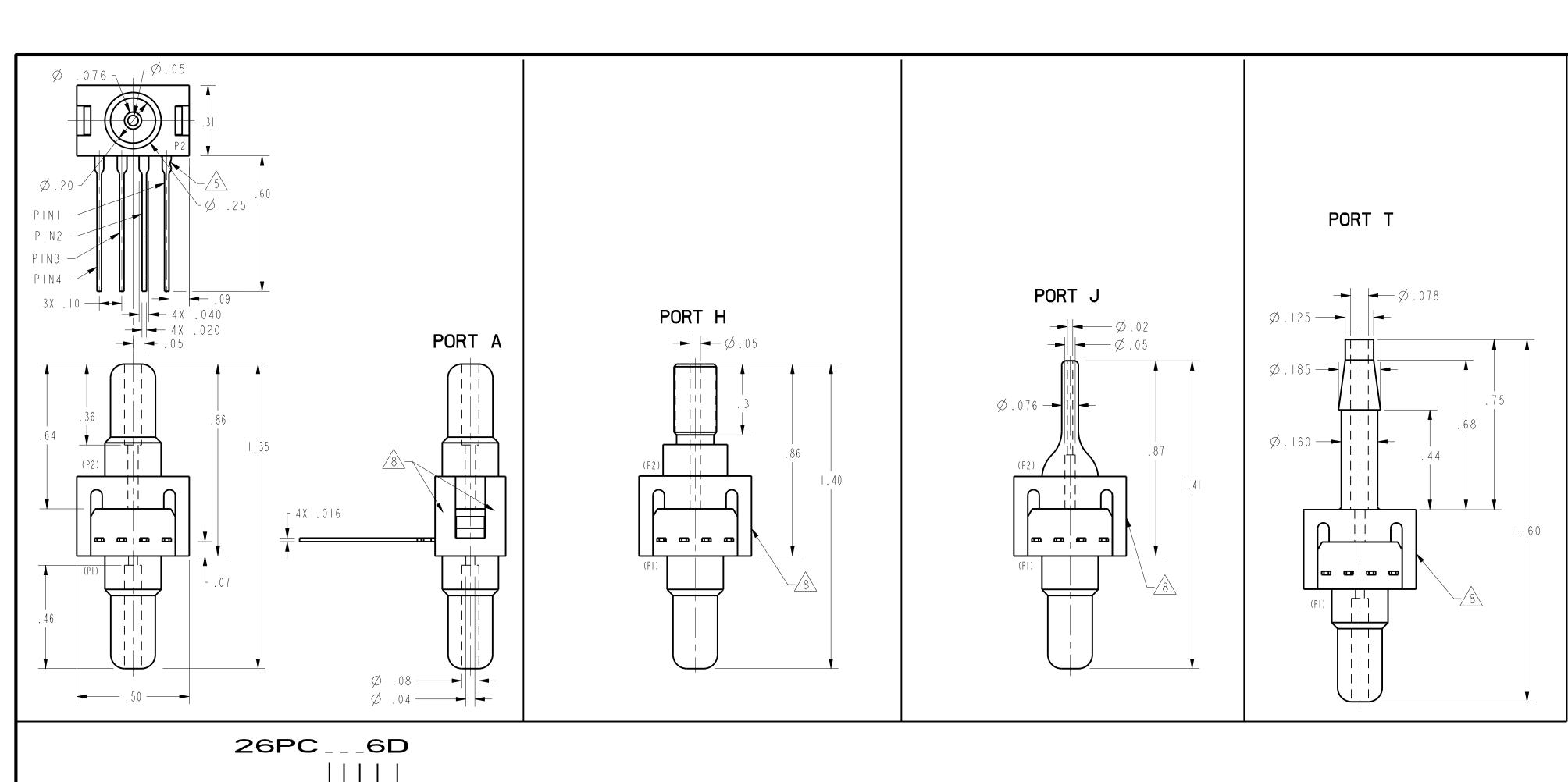
Analytical Instrumentation

Gas chromatography

Description

The factory calibrated 26PC Series miniature pressure sensors provide reliable differential 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 to 250 psi sensing ranges.

Product Specifications								
Measurement Type	Wet-Wet Differential/Gage/ Vacuum Gage							
Signal Conditioning	Unamplified							
Pressure Range	± 5.0 psi							
Maximum Overpressure	20.0 psi							
Supply Voltage	10.0 Vdc typ., 16.0 Vdc max.							
Compensated	Yes							
Output Calibration	Yes							
Response Time	1 ms max.							
Termination	PCB; 1 x 4; 0.600 in							
Port Style	Straight							
Package Style	Honeywell - 20PC							
Linearity	0.40% span typ., 0.50% span max.							
Typical Sensitivity	10 mV/psi							
Full Scale Span	50 mVdc typ.							
Null Offset	0 mV typ.							
Null Shift over Temperature	± 0.5 mV typ., ± 1.0 mV max.							
Span Shift Over Temperature	\pm 1.0% span typ., \pm 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							



LASER BRAND /8\ 6AF6D 26PCAFA6D 26PCDFA6D 6DF6D 6FF6D 6CF6D 26PCBFA6D 6BF6D 6CF6D STYLE
(D) DIFFERENTIAL 26PCFNH6D 6FN6D TERMINATION 6GF6D (6) | X 4 (.60 | N.) 26PCGNH6D 6GN6D 26PCBVA6D 6BV6D (A) STRAIGHT 26PCCVA6D 6CV6D (H) 5mm THREAD (J) SMALL NEEDLE (T) LONG BARBED (F) FLUOROSILICONE (N) NEOPRENE (70 DURO) (V) VITON — PRESSURE (A) I PSI (B) 5 PSI (C) 15 PSI (D) 30 PSI (F) 100 PSI (G) 250 PSI

RATED OPERATING PRESSURE AND OUTPUT AT 0 PSI

6 - SENSOR IS OPERATIONAL OVER VACUUM PRESSURE RANGE

8 CATALOG LISTING AND DATE CODE HERE. ALTERNATE FORMAT OF CATALOG LISTING BRAND IS THE ENTIRE CATALOG LISTING

FOR 10 SECONDS MAXIMUM)

5 PIN I IS IDENTIFIED BY NOTCH IN LEAD

7 - RATIOMETRIC TO SUPPLY VOLTAGE

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

METRIC	INCHES
0,4	.016
0,41 0,51 1,02	.020
1,02	. 040
1,3	. 05
1,8	. 07
1,93	.016 .020 .040 .05 .07 .076
1,98	. 078
2,0	. 08
2,3	.09
2,5	. 10
3,18	. 125
4,06	. 160
4,70	. 185
5,1	. 20
6,4	. 25
1,3 1,8 1,93 1,98 2,0 2,3 2,5 3,18 4,06 4,70 5,1 6,4 7,9 9,1 11,2 11,7 12,7 15,3 16,5 17,3 19,1 21,8	. 31
9,	. 36
11,2	. 44
11,7	. 46
12,7	. 50
15,3	. 60
16,5	. 64
11,3	. 68
19,1	. 15
21,8 22,1 34,3 35,6 35,8 40,6	. 125 . 160 . 185 . 20 . 25 . 31 . 36 . 44 . 46 . 50 . 60 . 64 . 68 75 . 86 . 87
24.7	. 81
34,3	1.35
33,6	. 40 . 4
33,8	1.41
40,6	1.60

GENERAL OPERATING CHARACTERISTICS (ELECTRICAL PERFORMANCE AT 10.00 ±0.01 VDC EXCITATION, 25 °C)																			
PRESSURE RANGE (PSI)		0 -	TOL MI	10.0	0 - 5		0 - 15			0 - 30			0 - 100			0 - 250			
	MIN	NOM	MAX	MIN	NOM	МАХ	MIN	NOM	MAX	MIN	NOM	МАХ	MIN	NOM	МАХ	MIN	NOM	MAX	UNITS
SPAN (P2>PI) /I	14.7	16.7	18.7	47	50	53	97	100	103	95	100	103	95	100	105	143	150	157	mV
NULL OFFSET	-1.5	0	+1.5	-1.5	0	+1.5	-1.5	0	+1.5	-1.5	0	+1.5	-2.0	0	+2.0	-2.0	0	+2.0	mV
		TYP	MAX		TYP	MAX		TYP	MAX		TYP	MAX		TYP	MAX		TYP.	MAX	UNITS
LINEARITY (BFSL, P2>PI)		0.25	0.5		0.4	0.5		0.25	0.5		0.1	0.2		0.4	0.6		0.5	0.7	%SPAN
NULL SHIFT (0 TO 25 °C, 25 TO 50 °C) /2		±0.5	<u>±1.0</u>			<u>± 1,0</u>		± 0.5	<u>+ I.O</u>		上0.75	<u> </u>		±1.0	±2.0		±1.0	±2.0	mV
SPAN SHIFT (0 TO 25 °C, 25 TO 50 °C) P2>P1 /2		±1.0	±2.0			± 1.5			<u>± 1.5</u>		±0.75	生 1.5		±0.5	土1.5		±0.5	±1.5	%SPAN
REPEATABILITY AND HYSTERESIS OVERPRESSURE (P2>P1; P1>P2)		上0.5	2.0	-	上0.2	2.0		± 0.2	15		土 🗸	C 0		±0.2	200		±0.20	E A A	%SPAN
	M I NI	NOM	20	1111 T		20			45			60			200			500	PSI
ALL PRESSURE RANGES	MIN	NOM	MAX	UNIT	2														
EXCITATION VOLTAGE	F F1/	10	16	VDC	4														
INPUT RESISTANCE	5.5K	1.5K	11.5K	OHMS															
OUTPUT RESISTANCE	1.5K	2.5K	3.0K		4														
RESPONSE TIME			1.0	m s	4														
TEMPERATURE RANGES					-														
	° ((-67° F	TO +2	2 2° F)														
OPERATE -40 °C TO +85 °			70 + 8		1														
COMPENSATED 0 TO +50 °C (+3			22 ° F)	1														

ANSI YI4.5M-1982 APPLIES

CIRCUIT DIAGRAM	
Vcc \	OUTPUT "A" INCREASES AS P2 PRESSURE INCREASES
OUTPUT A OUTPUT B	OUTPUT "B" DECREASES AS P2 PRESSURE INCREASES JT

⊕ ─ □ -DO NOT SCALE PRINT UNLESS OTHERWISE SPECIFIED TOLERANCES ARE ONE PLACE (.0) +.030

26PC SERIES CHART 4

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CATALOG LISTING FED. MFG. CODE 91929 MICRO SWITCH BRIDGE PRESSURE SENSOR a Honeywell Division

TWO PLACE (.00) +.015 THREE PLACE (.000) +.005 26PC SERIES CHART ANGLES

SPAN IS THE ALGEBRAIC DIFFERENCE BETWEEN OUTPUT AT MAXIMUM