

- NOTES**
- REFERENCE CONDITIONS (UNLESS OTHERWISE NOTED): SUPPLY VOLTAGE,  $V_s = 15$  Vdc,  $T_A = 25^\circ\text{C}$ , COMMON MODE LINE PRESSURE = 0 PSIG. PRESSURE MEASUREMENTS ARE WITH PRESSURE APPLIED TO PORT 2
  - HI/LO SPAN IS THE ALGEBRAIC DIFFERENCE BETWEEN OFFSET OUTPUT AND HI OR LO OUTPUTS
  - SHIFT IS RELATIVE TO  $25^\circ\text{C}$
  - SHIFT IS WITHIN THE FIRST HOUR OF EXCITATION APPLIED TO THE DEVICE
  - LINEARITY IS DETERMINED USING BEST STRAIGHT LINE CURVE FIT THROUGH ZERO, 1/2 FULL SCALE, AND FULL SCALE; HYSTERESIS IS MECHANICAL ONLY
  - SPAN IS THE ALGEBRAIC DIFFERENCE OF OUTPUT END POINTS (OUTPUT AT SPECIFIED HI AND LOW OUTPUT LIMITS)
  - TOTAL ERROR INCLUDES OFFSET & SPAN ERRORS, ZERO CALIBRATION, TEMPERATURE EFFECT ON ZERO AND SPAN, NONLINEARITY, HYSTERESIS, REPEATABILITY AND STABILITY OVER COMPENSATED TEMPERATURE RANGE.
  - ACCURACY INCLUDES NONLINEARITY, HYSTERESIS AND REPEATABILITY.

**ELECTRICAL SPECIFICATIONS**

PARAMETER	PRESSURE RANGE (in H2O)	MIN	NOM	MAX	UNITS
DIFFERENTIAL	OFFSET VOLTAGE (NULL AT 0 in H2O)		3.500		V
	SPAN (HI SPAN - LO SPAN)		5.000		
	SPAN (P1 > P2)	ALL	-2.500		
	SPAN (P2 > P1)		2.500		
GAGE	OFFSET VOLTAGE (NULL AT 0 in H2O)		0.250		V
	FULL SCALE OUTPUT (P2 > P1)		5.250		
	SPAN (FULL SCALE OUTPUT - OFFSET)		5.000		
TOTAL ERROR	0.05, .01, .02		+/- 2	+/- 3	%SPAN
	.05, 10, 20, 30		+/- 1	+/- 2	%SPAN
OFFSET WARM-UP SHIFT	0.05, .01, .02		20		mV
	.05, 10, 20, 30		20		mV
OFFSET POSITION SENSITIVITY (+/- 1g)	0.05, .01, .02		10		mV
	.05		5		
	10, 20, 30		1		
OFFSET LONG TERM DRIFT (ONE YEAR)	ALL		100		mV
ACCURACY	ALL		0.05		%FS

**MAXIMUM RATINGS**

PARAMETER	PRESSURE RANGE (in H2O)	MIN	MAX	UNITS
OPERATING TEMPERATURE RANGE		-25	85	$^\circ\text{C}$
STORAGE TEMPERATURE	ALL	-45	125	$^\circ\text{C}$
PROOF PRESSURE (VERIFIED BY TEST)	ALL	5		PSIG
BURST PRESSURE (VERIFIED BY DESIGN)	0.05, .01, .02		100	in H2O
	.05, 10		150	
	20		300	
	30		450	
EXCITATION VOLTAGE	ALL	3	16	V
COMMON MODE PRESSURE	ALL		50	PSIG

**PRESSURE COMPATIBILITY:**

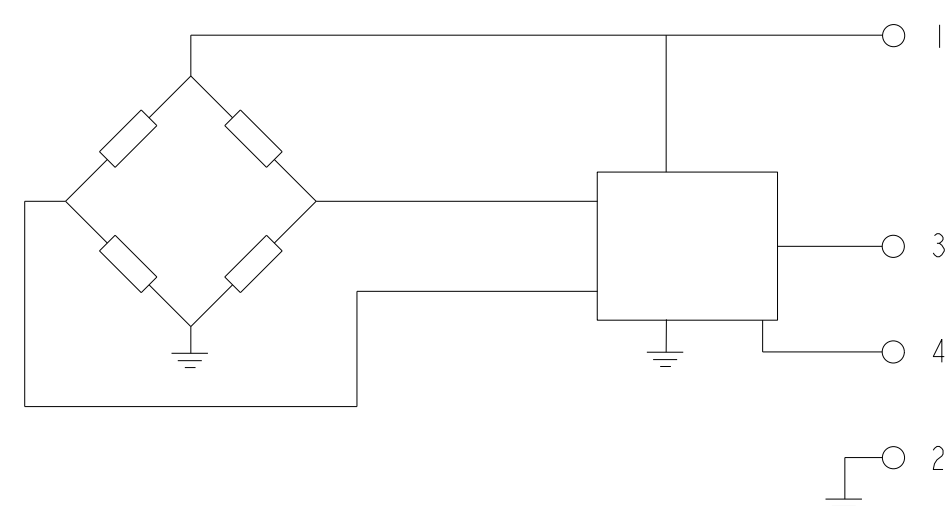
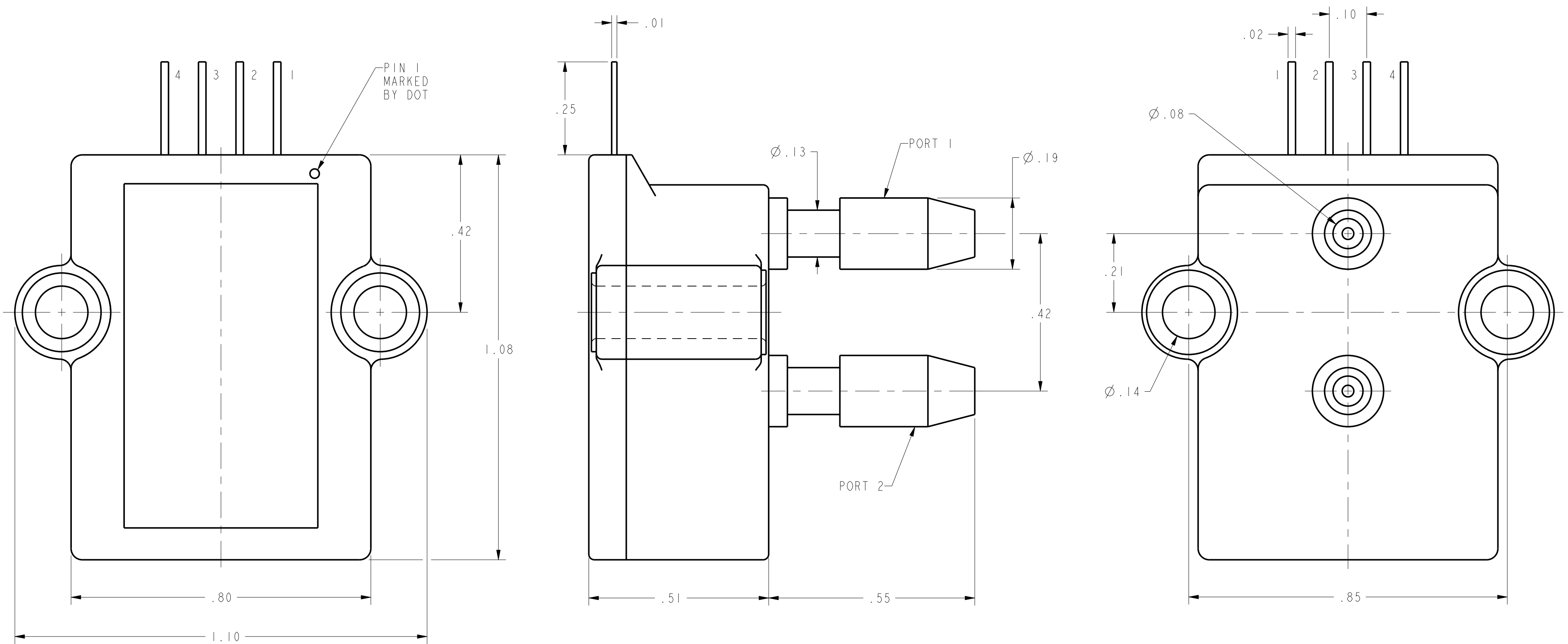
MEASURES DIFFERENTIAL OR GAGE PRESSURE ONLY WITH POSITIVE PRESSURE TO PORT 2. THERE WILL BE A SMALL OUTPUT VOLTAGE BETWEEN THE ACTUAL OFFSET VOLTAGE AND GROUND PROPORTIONAL TO VACUUM IF APPLIED TO PORT 2

**RATIOMETRIC OUTPUT:**

THE OUTPUT VOLTAGE OF THE SENSOR IS NOMINALLY RATIOMETRIC, PROPORTIONAL, TO THE EXCITATION VOLTAGE. FOR THIS MODEL SENSOR ALL SPECIFICATIONS WILL CHANGE PROPORTIONALLY TO ANY CHANGES IN THE EXCITATION VOLTAGE. THE EXCITATION MAY VARY BETWEEN 3 TO 16 VOLTS. ALL SPECIFICATIONS WILL NOMINALLY BE CHANGED BY A RATIO OF  $V_{EXCITATION}/5.0$  VOLTS. FOR EXAMPLE: IF THE EXCITATION VOLTAGE IS 3.0 VOLTS THEN BOTH THE FULL SCALE OUTPUT VOLTAGE AND THE OFFSET VOLTAGE WOULD BE 3/5TH THE SPECIFIED VALUE

**MEDIA CAPABILITY, WETTED MATERIALS**  
(APPLY CLEAN DRY AIR ONLY)

PRESSURE PORT 2 (HIGH)	SILICON DIAPHRAGM, GLASS FILLED NYLON, AND ALUMINA CERAMIC. PRESSURE MEASURING PORT
PRESSURE PORT 1 (LOW)	SILICON DIAPHRAGM, GLASS FILLED NYLON, AND ALUMINA CERAMIC. THE VENT PORT



**EQUIVALENT CIRCUIT**

**PIN OUT**

1	$V_{EXCITATION}$
2	COMMON
3	$V_{OUTPUT}$
4	NOT FOR CUSTOMER USE. DO NOT CONNECT.

**CATALOG LISTINGS**

- DC0R5NGR5
- DC001NGR5
- DC002NGR5
- DC005NGR5
- DC010NGR5
- DC020NGR5
- DC0R5NDR5
- DC001NDR5
- DC002NDR5
- DC005NDR5
- DC020NDR5
- DC030NDR5

DESIGN UNITS: INCH	DRAWN: SK	12OCT06	<b>Honeywell</b>
TOLERANCES UNLESS NOTED:	CHECK: CMH	12OCT06	
NO PLACES .x ± 0.400	THIS DRAWING COVERS A PROPRIETARY ITEM AND IS THE PROPERTY OF HONEYWELL. THIS DRAWING IS NOT TO BE COPIED OR USED WITHOUT THE PERMISSION OF HONEYWELL.		TITLE: PRESSURE SENSOR
ONE PLACE .x ± 0.030	INTERPRET PER ASME Y14.5M-1994 OTHER HONEYWELL ENGINEERING STANDARDS MAY APPLY.		SIZE: D TYPE: I DRAWING NAME: DC SERIES CHART 5 REV: D
TWO PLACE .xx ± 0.015	THIRD ANGLE PROJECTION		SCALE: 5:1
THREE PLACE .xxx ± 0.005	Pro/ENGINEER 3D		SHEET 1 OF 1
FOUR PLACE .xxxx ± 0.0005			
ANGLES x ± 3			