

HONEYWELL
PART NUMBER
DC SERIES CHART 1

DC N C 4

SERIES

PRESSURE RANGE
0.05, .001, .002, .005,
0.10, .020, .030

UNITS
N = inches H2O

MEASUREMENT TYPE
C : RATIO-METRIC
R : REGULATED

SPAN VOLTAGE

G = GAGE
D = Differential / Bi-directional Gage

NOTES

REFERENCE CONDITIONS (UNLESS OTHERWISE NOTED): SUPPLY VOLTAGE, $V_s = 5 \text{ Vdc} \pm 0.01 \text{ Vdc}$
 $T_A = 25^\circ\text{C}$, COMMON MODE LINE PRESSURE = 0 PSIG. PRESSURE MEASUREMENTS ARE WITH PRESSURE APPLIED TO PORT 2

H/I/O SPAN IS THE ALGEBRAIC DIFFERENCE BETWEEN OFFSET OUTPUT AND HI OR LO OUTPUTS 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 (1/4 H2O)	MIN	NOM	MAX	UNITS
DIFFERENTIAL	OFFSET VOLTAGE (NULL AT 0 in H2O)		2.250		V
	SPAN (HI SPAN - LO SPAN)		4.000		
	SPAN (P1 > P2)	ALL	-2.000		
	SPAN (P2 > P1)		2.000		
GAGE	OFFSET VOLTAGE (NULL AT 0 in H2O)		0.250		V
	FULL SCALE OUTPUT (P2 > P1)		4.250		
	SPAN (FULL SCALE OUTPUT - OFFSET)	ALL	4.000		
TOTAL ERROR	0.05, .01, .02		+/- 2	+/- 3	ISPAN
	05, 10, 20, 30		+/- 1	+/- 2	ISPAN
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		mV
	10, 20, 30		1		mV
OFFSET LONG TERM DRIFT (ONE YEAR)	ALL		100		mV
ACCURACY	ALL		0.05		%FS

MAXIMUM RATINGS				
PARAMETER	PRESSURE RANGE (1/4 H2O)	MIN	MAX	UNITS
OPERATING TEMPERATURE RANGE		-25	85	°C
STORAGE TEMPERATURE	ALL	-45	125	°C
PROOF PRESSURE (VERIFIED BY TEST)		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

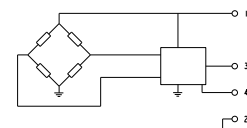
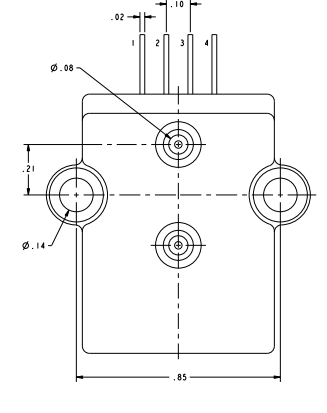
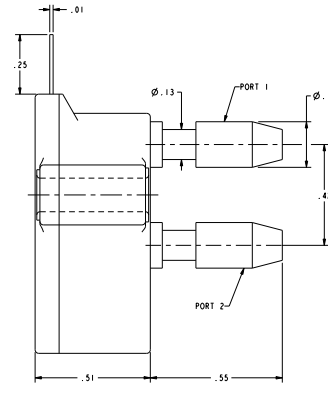
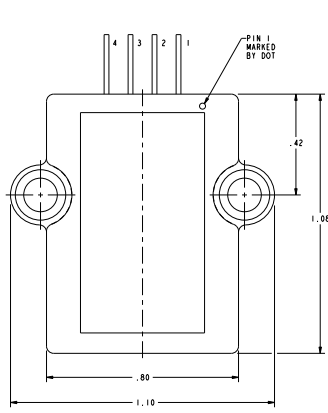
MEDIA CAPABILITY, WETTED MATERIALS
 (APPLY CLEAN DRY AIR ONLY)

PRESSURE: SILICON DIAPHRAGM, GLASS FILLED PORT 2
 NYLON, AND ALUMINA CERAMIC.
 (1/4)H2O PRESSURE MEASURING PORT

PRESSURE: SILICON DIAPHRAGM, GLASS FILLED PORT 1
 NYLON, AND ALUMINA CERAMIC.
 (1/4)H2O THE VENT PORT

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

RATIO-METRIC OUTPUT:
 THE OUTPUT VOLTAGE OF THE SENSOR IS NOMINALLY RATIO-METRIC, 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



- CATALOG LISTINGS**
- DC001NDC4
 - DC002NDC4
 - DC003NDC4
 - DC010NDC4
 - DC020NDC4
 - DC030NDC4
 - DC050NDC4
 - DC001NGC4
 - DC002NGC4
 - DC003NGC4
 - DC010NGC4
 - DC020NGC4
 - DC030NGC4

EQUIVALENT CIRCUIT

PIN OUT	
1	EXCITATION
2	COMMON
3	VEHICLE
4	NOT FOR CUSTOMER USE. DO NOT CONNECT.

DESIGN UNITS: INCH	DRAWN: SK	11 OCT 06	
TOLERANCES UNLESS NOTED:	CHECK: CMH	11 OCT 06	
NO PLACES .1	0.004	THIS DRAWING CONVEYS A PROPRIETARY ITEM AND IS THE PROPERTY OF HONEYWELL.	Pressure Sensor DC SERIES CHART 1
ONE PLACE .1	0.008	THIS DRAWING IS NOT TO BE COPIED OR USED WITHOUT THE PERMISSION OF HONEYWELL.	
TWO PLACE .01	0.015	INTERPRET PER ASME Y14.5M-1994 OTHER HONEYWELL ENGINEERING STANDARDS MAY APPLY.	SIZE: D TYPE: I DRAWING NAME: DC SERIES CHART 1 REV: B
THREE PLACE .001	0.005		THIRD ANGLE PROJECTION Pro/ENGINEER 3D SCALE: S:1 SHEET: 1 OF 1