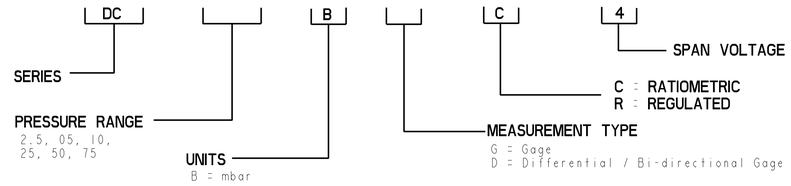
FO-55113-B

REV	DOCUMENT	CHANGED BY	CHECK
C	0036344	SSK 18DEC07	CMH

HONEYWELL PART NUMBER

DC SERIES CHART 2



NOTES

1. REFERENCE CONDITIONS (UNLESS OTHERWISE NOTED): SUPPLY VOLTAGE, Vs = 5 Vdc ±0.1 Vdc TA = 25°C, COMMON MODE LINE PRESSURE = 0 PSIG. PRESSURE MEASUREMENTS ARE WITH PRESSURE APPLIED TO PORT 2
2. HI/LO SPAN IS THE ALGEBRAIC DIFFERENCE BETWEEN OFFSET OUTPUT AND HI OR LO OUTPUTS
3. SHIFT IS WITHIN THE FIRST HOUR OF EXCITATION APPLIED TO THE DEVICE
4. LINEARITY IS DETERMINED USING BEST STRAIGHT LINE CURVE FIT THROUGH ZERO, 1/2 FULL SCALE, AND FULL SCALE; HYSTERESIS IS MECHANICAL ONLY
5. SPAN IS THE ALGEBRAIC DIFFERENCE OF OUTPUT END POINTS (OUTPUT AT SPECIFIED HI AND LOW OUTPUT LIMITS)
6. TOTAL ERROR INCLUDES OFFSET & SPAN ERRORS, ZERO CALIBRATION, TEMPERATURE EFFECT ON ZERO AND SPAN, NONLINEARITY. HYSTERESIS, REPEATABILITY AND STABILITY OVER COMPENSATED TEMPERATURE RANGE.
7. ACCURACY INCLUDES NONLINEARITY, HYSTERESIS AND REPEATABILITY.

ELECTRICAL SPECIFICATIONS

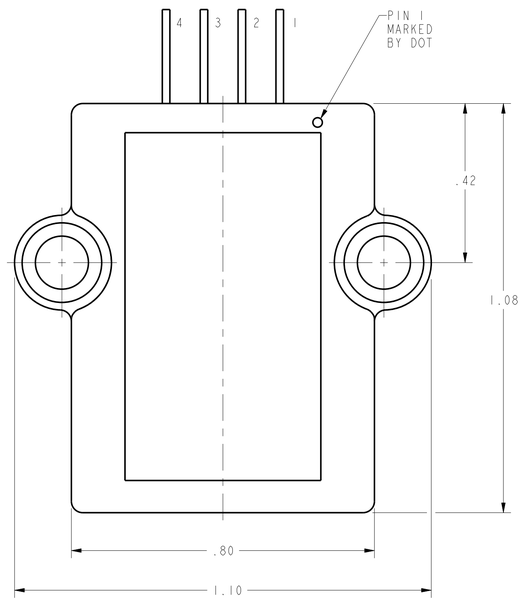
PARAMETER		PRESSURE RANGE (mbar)	MIN	NOM	MAX	UNITS
DIFFERENTIAL	OFFSET VOLTAGE (NULL AT 0 in H2O)	ALL		2.250		V
	SPAN (HI SPAN - LO SPAN) 5			4.250		
	SPAN (P1 > P2) 2			-2.000		
	SPAN (P2 > P1) 2			2.000		
GAGE	OFFSET VOLTAGE (NULL AT 0 in H2O)	ALL		0.250		V
	FULL SCALE OUTPUT (P2 > P1)			4.250		
	SPAN (FULL SCALE OUTPUT - OFFSET) 5			4.000		
TOTAL ERROR 6		2.5		+/- 2	+/- 3	%SPAN
		05		+/- 1.5	+/- 2.5	
		10, 25, 50, 75		+/- 1	+/- 2	%SPAN
OFFSET WARM-UP SHIFT 3		2.5, 05		20		mV
		10, 25, 50, 75		20		mV
OFFSET POSITION SENSITIVITY (+/- 1g)		2.5, 05		10		mV
		10		5		
		25, 50, 75		1		
OFFSET LONG TERM DRIFT (ONE YEAR)		ALL		100		mV
ACCURACY 7		ALL		0.05		%FS

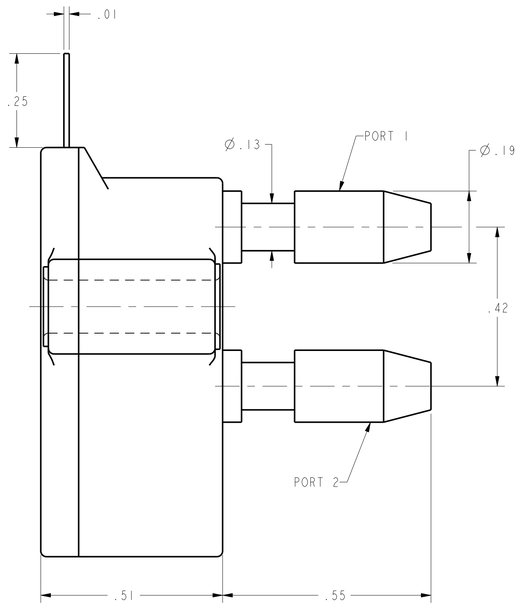
MAXIMUM RATINGS

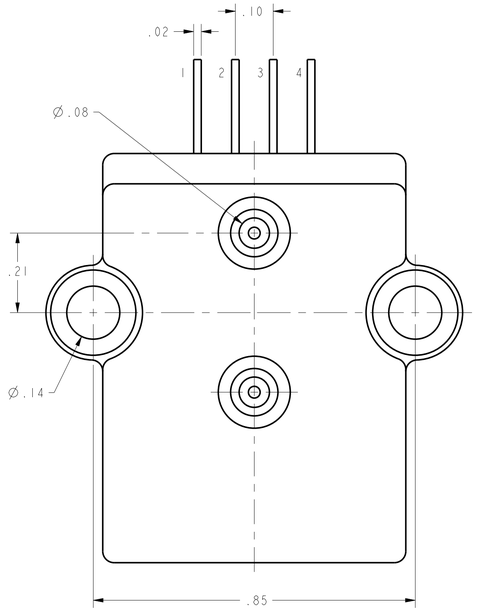
PARAMETER	PRESSURE RANGE (mbar)	MIN	MAX	UNITS
OPERATING TEMPERATURE RANGE		-25	85	°C
STORAGE TEMPERATURE	ALL	-45	125	°C
PROOF PRESSURE (VERIFIED BY TEST)	ALL	5		PSIG
BURST PRESSURE (VERIFIED BY DESIGN)	2.5		125	mbar
	05		250	
	10, 25		375	
	50		750	
	75		1125	
EXCITATION VOLTAGE	ALL	3	16	V
COMMON MODE PRESSURE	ALL		50	PSIG

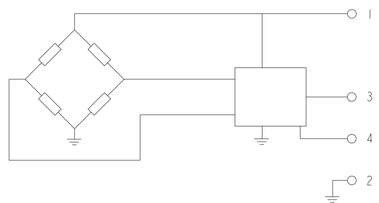
MEDIA CAPABILITY, WETTED MATERIALS
(APPLY CLEAN DRY AIR ONLY)

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
DC2R5BGC4
DC005BGC4
DC010BGC4
(B)
(B)
DC075BGC4
DC2R5BDC4
(B)
DC010BDC4
(B)
DC050BDC4
(B)

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

DESIGN UNITS: INCH
TOLERANCES UNLESS NOTED:

NO PLACES	X	±	0.400
ONE PLACE	.X	±	0.030
TWO PLACE	.XX	±	0.015
THREE PLACE	.XXX	±	0.005
FOUR PLACE	.XXXX	±	0.0005
ANGLES	X	±	3

THIRD ANGLE PROJECTION

DRAWN	SK	11OCT06
CHECK	CMH	11OCT06

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INTERPRET PER ASME Y14.5M-1994
OTHER HONEYWELL ENGINEERING STANDARDS MAY APPLY

Pro/ENGINEER 3D

Honeywell

TITLE: PRESSURE SENSOR

SIZE	TYPE	DRAWING NAME	REV
D	1	DC SERIES CHART 2	C

SCALE 5:1 SHEET 1 OF 1