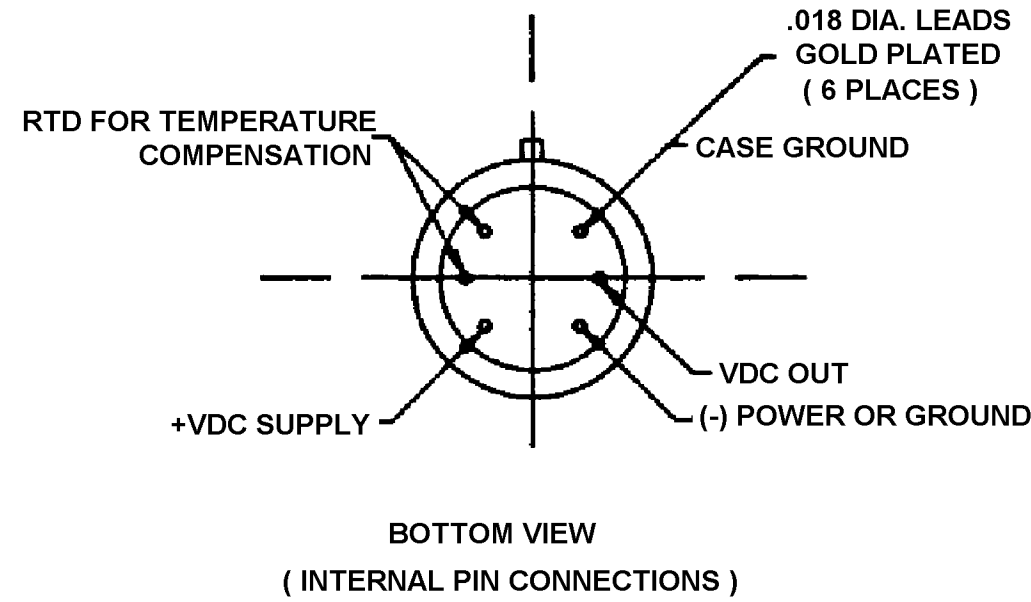
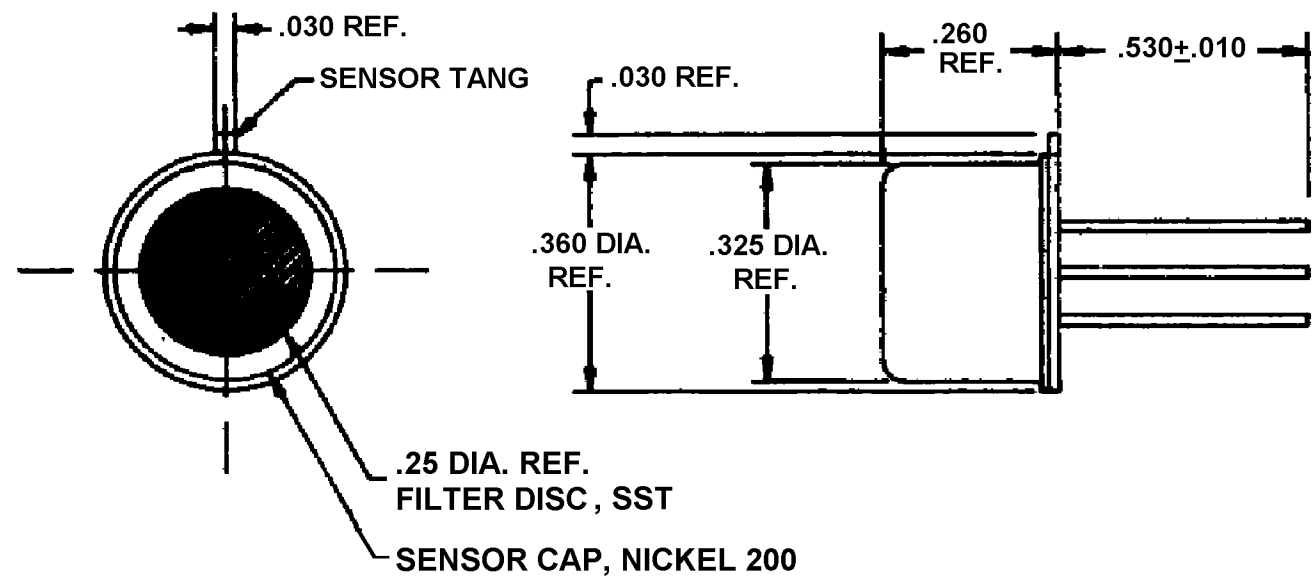


HONEYWELL
PART NUMBER
HIH-4602-C

REV	DOCUMENT	CHANGED BY	CHECK
A	0008903	AS 05NOV04	AK



TEMPERATURE SENSOR	
THIN FILM PLATINUM RTD	
1000 ohm ± 0.2% @ 0°C	
Alpha = 0.00375 ohm / ohm / °C	
ACCURACY = ±0.5°C @ 25°C	

OPERATING CHARACTERISTICS
at 5.0 VDC AND 25°C UNLESS OTHERWISE NOTED

SPECIFICATION	MIN	TYP	MAX	UNIT
INTERCHANGEABILITY				
0 to 60%RH	-5		5	% RH
60% to 100%RH	-8		8	% RH
ACCURACY, (BFSL)		±3.5		% RH
ACCURACY, (2nd ORDER CURVE)		±2.5		% RH
HYSTERESIS		3		% RH
REPEATABILITY		±0.5		% RH
SETTLING TIME			70	mS
RESPONSE TIME, 1/e IN SLOW MOVING AIR		50		Sec.
STABILITY, AT 50%RH IN 1 YEAR		1.2		% RH
POWER REQUIREMENTS				
VOLTAGE SUPPLY	4		5.8	VDC
CURRENT SUPPLY			500	µA
VOLTAGE OUTPUT, 1st ORDER CURVE FIT	$V_{out} = (V_{supply})(0.0062 (\text{SENSOR RH}) + 0.16)$ TYP at 25°C			
VOLTAGE OUTPUT, 2nd ORDER CURVE FIT	$V_{out} = 0.00003(\text{SENSOR RH})^2 + 0.0281(\text{SENSOR RH}) + 0.820$, TYP at 25°C			
TEMPERATURE COMPENSATION	$V_{out} = (0.0305 + 0.000044T - 0.0000011T^2)(\text{SENSOR RH}) + (0.9237 - 0.0041T + 0.000040T^2)$, T=TEMPERATURE IN °C			
OPERATING TEMPERATURE	-40	SEE CHART	85	°C
OPERATING HUMIDITY	0	SEE CHART	100	% RH
STORAGE TEMPERATURE	-40		125	°C
STORAGE HUMIDITY		SEE CHART		% RH

DATA PRINTOUT (EXAMPLE)	
MODEL	HIH-4602-C
CHANNEL	92
WAFER	030996M
MRP	337313
CALCULATED VALUES AT 5 V	
Vout @ 0% RH	0.958 V
Vout @ 75.3% RH	3.268 V
LINEAR OUTPUT FOR 2% RH ACCURACY @ 25 °C	
ZERO OFFSET	0.958 V
SLOPE	30.680 mV/%RH
RH	(Vout-ZERO OFFSET)/SLOPE (Vout-0.958)/0.0307
RATIOMETRIC RESPONSE FOR 0 TO 100% RH	
Vout	Vsupply (0.1915 TO 0.8130)

NOTES

- ① - DEVICE IS CALIBRATED AT 5 VDC AND 25°C
- ② - NONCONDENSING ENVIRONMENT
- ③ - CROSS-HATCHED OPERATING ZONE LIMITED TO <50 HOURS
- ④ - NO SPECIFICATION ZONE
- 5 - DEVICE IS RATIOMETRIC TO SUPPLY VOLTAGE
- 6 - EXTENDED EXPOSURE TO >=90% CAUSES A REVERSIBLE SHIFT OF 3% RH
- 7 - THIS SENSOR IS LIGHT SENSITIVE AND SHOULD BE SHIELDED FROM BRIGHT LIGHT TO ACHIEVE BEST PERFORMANCE



DESIGN UNITS: INCH TOLERANCES UNLESS NOTED:	DRAWN AS 05NOV04	Honeywell	
NO PLACE X ± 0.040 ONE PLACE .X ± 0.030 TWO PLACE .XX ± 0.015 THREE PLACE .XXX ± 0.005 FOUR PLACE .XXXX ± 0.0005 ANGLES X ± 2	CHECK AK 05NOV04		
THIRD ANGLE PROJECTION	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
⊕	INTERPRET PER ASME Y14.5M-1994 OTHER HONEYWELL ENGINEERING STANDARDS MAY APPLY	RH SENSOR IN TO-5 CAN HIH-4602 SERIES	
RASTER	SCALE 3:1	DRAWING NAME	REV
		HIH-4602-C	A
		SHEET 1 OF 2	

D

D

C

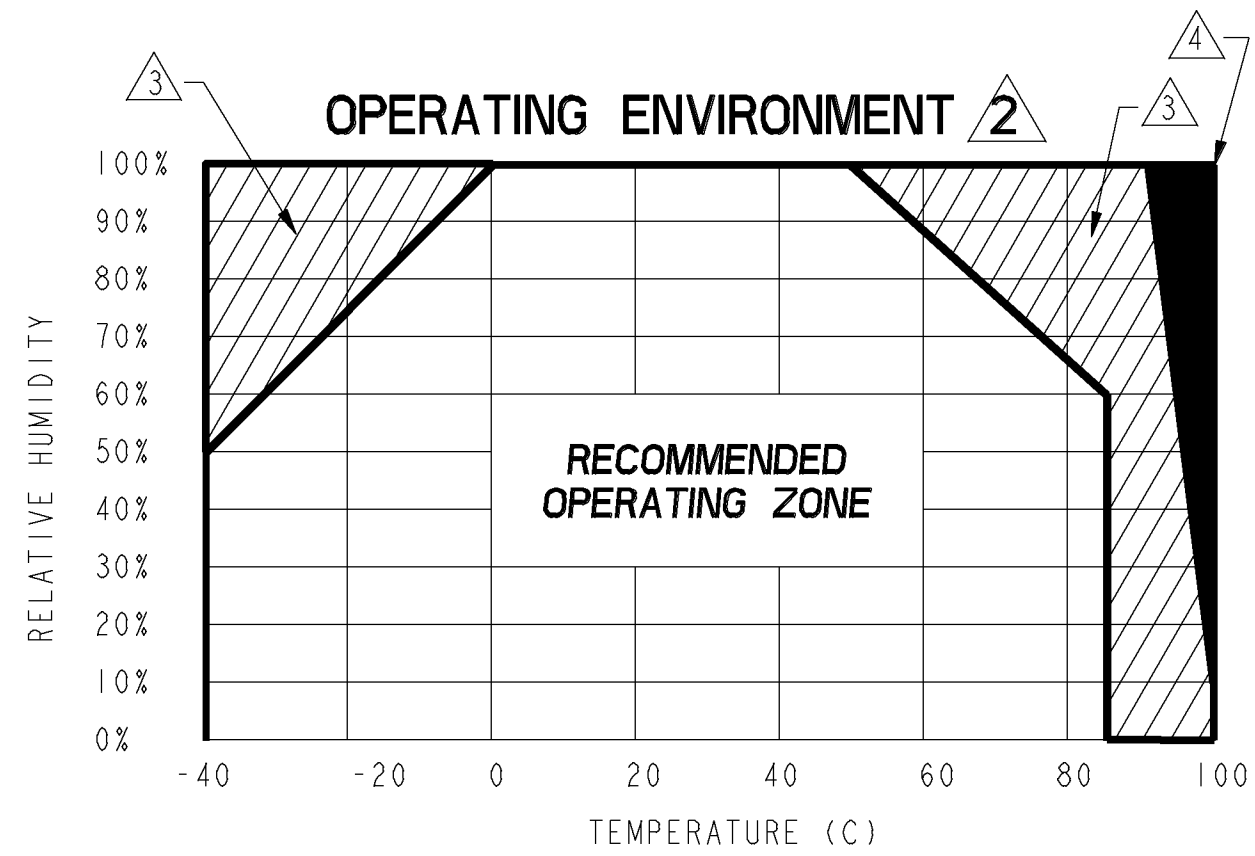
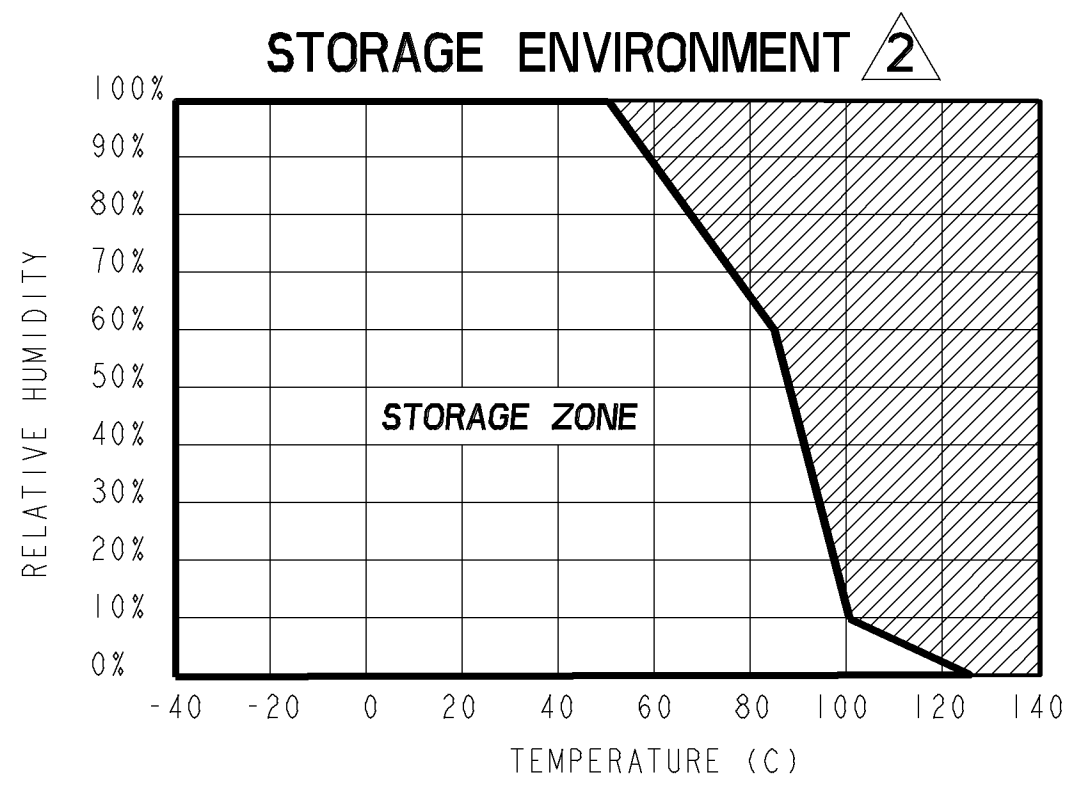
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		SIZE	DWG TYPE	DRAWING NAME	REV
		C	I	HH-4602-C	A
SCALE		3:1	SHEET	2 OF 2	