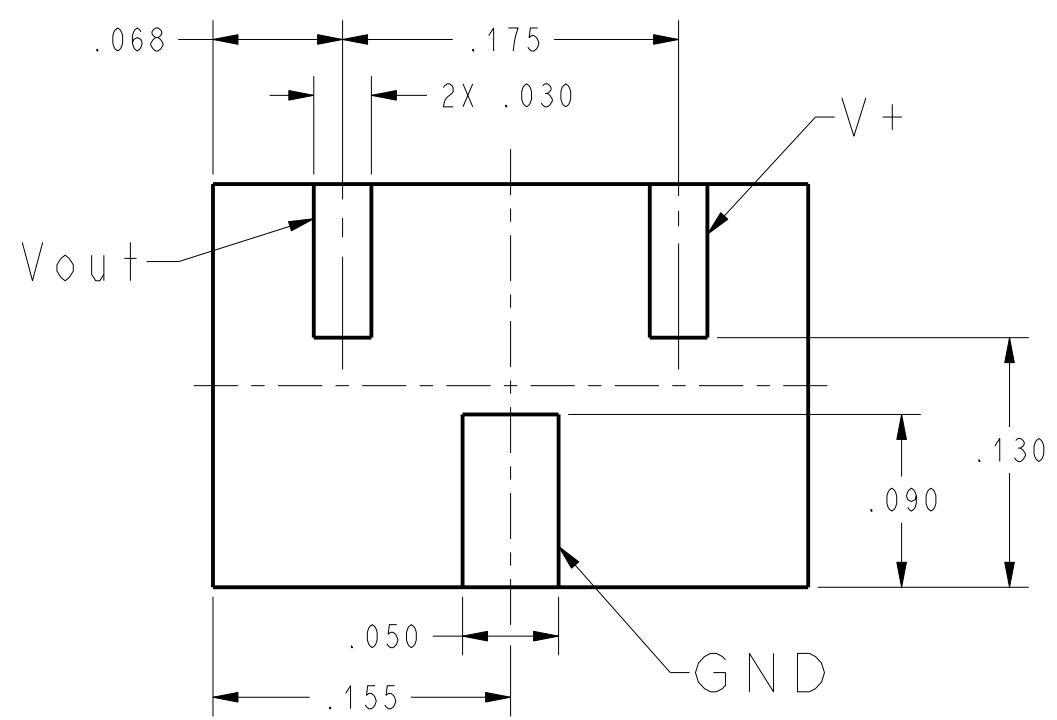
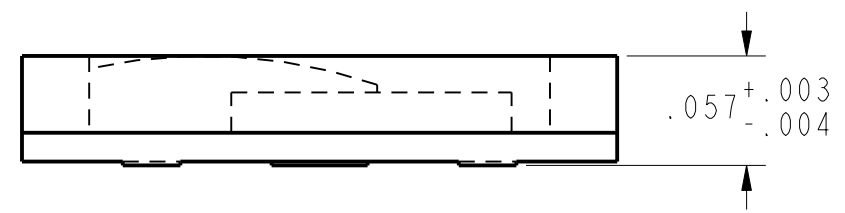
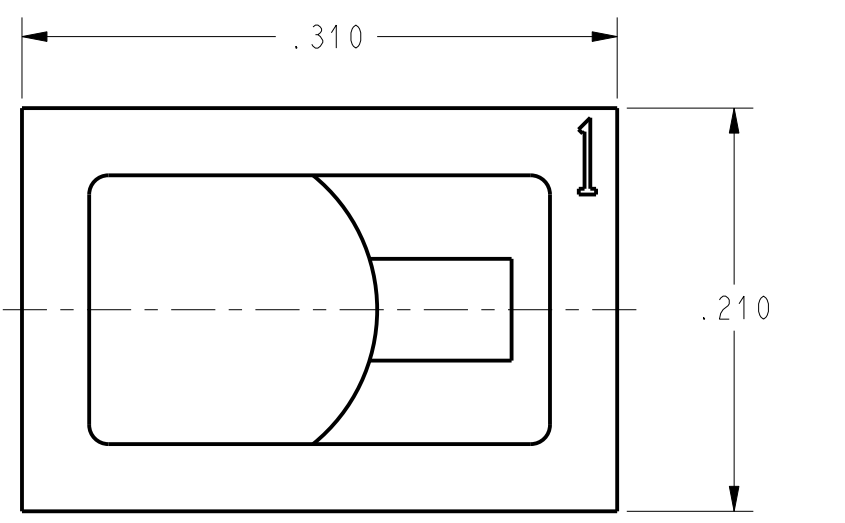


HONEYWELL
PART NUMBER
HIH-4100-001

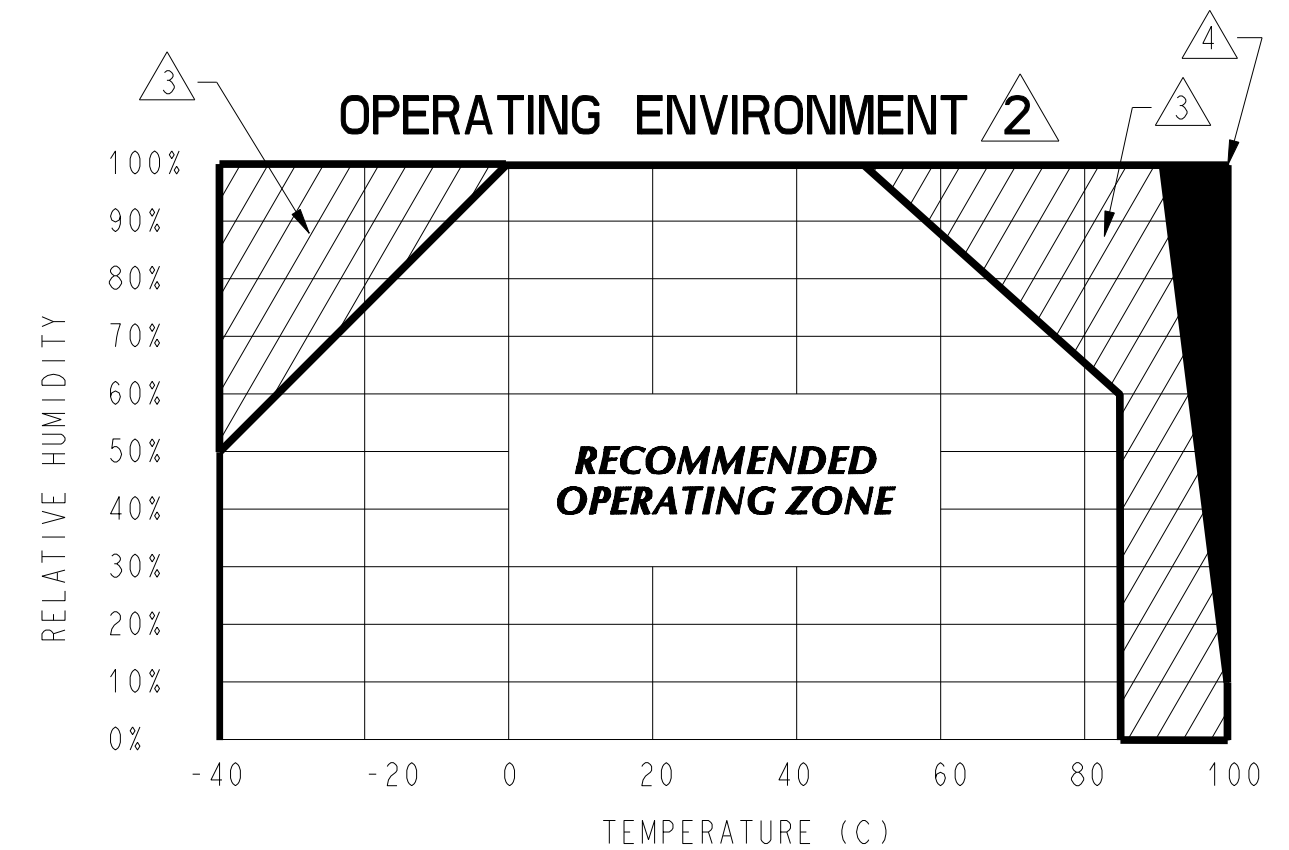
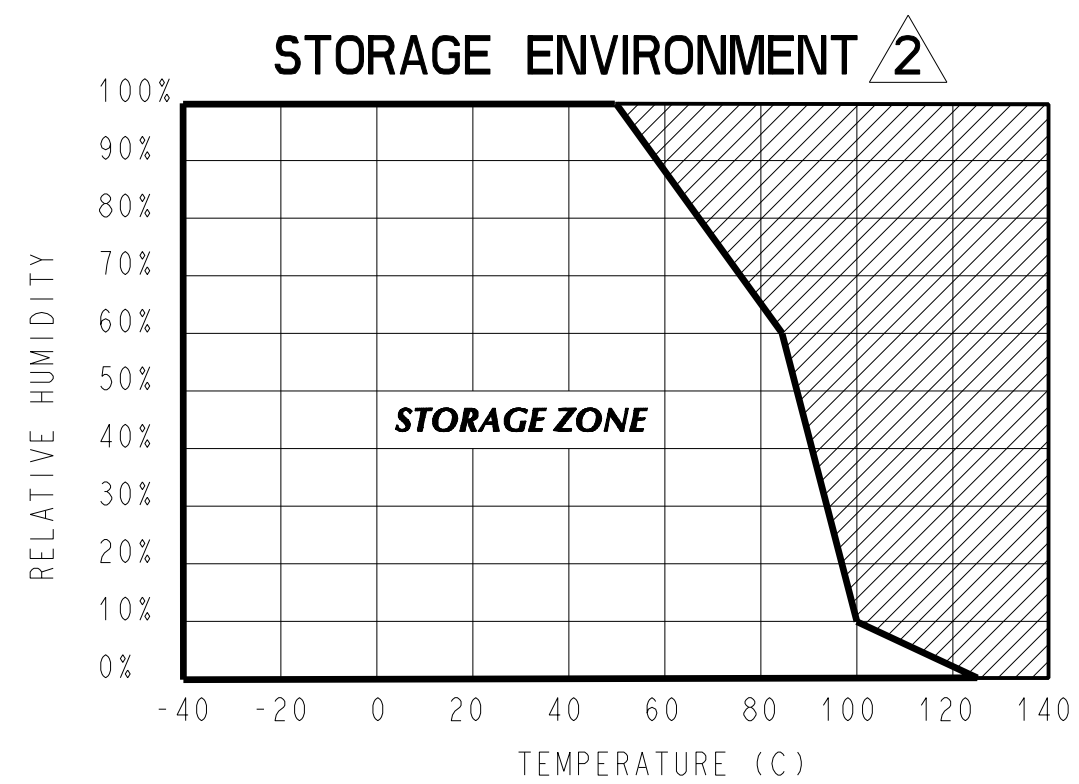
REV	DOCUMENT	CHANGED BY	CHECK
A	0003432	DVM 29MAR04	AK
B	0006074	KR 17JUN04	AK

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

SPECIFICATION	MIN	TYP	MAX	UNITS
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		15		Sec.
STABILITY, AT 50%RH IN 1 YEAR		1.2		% RH
POWER REQUIREMENTS				
① VOLTAGE SUPPLY	4		5.8	VDC
CURRENT SUPPLY			500	µA
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 ②	0	SEE CHART	100	% RH
STORAGE TEMPERATURE	-50		125	°C
STORAGE HUMIDITY ②		SEE CHART		% RH



- 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 RATIO-METRIC TO SUPPLY VOLTAGE
 - 6 - MAXIMUM PEAK SMT REFLOW TEMPERATURE OF 230°C FOR 20 SECONDS
 - 7 - SMT REFLOW PROCESS RESULTS IN AN IRREVERSIBLE SHIFT OF 1.5% RH TYP
 - 8 - EXTENDED EXPOSURE TO >=90% CAUSES A REVERSIBLE SHIFT OF 3% RH
 - 9 - THIS SENSOR IS LIGHT SENSITIVE AND SHOULD BE SHIELDED FROM BRIGHT BRIGHT LIGHT TO ACHIEVE BEST PERFORMANCE
 - 10- EPOXY TO BE FLUSH OR UNDERFLUSH WITH TOP SURFACE OF PACKAGE.



DESIGN UNITS: INCH	DRAWN	DVM	29 MAR 04	Honeywell
TOLERANCES UNLESS NOTED:	CHECK	AK	29 MAR 04	
NO PLACE .X ± 0	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
ONE PLACE .X ± 0.0				HUMIDITY, SENSOR
TWO PLACE .XX ± 0.01	INTERPRET PER ASME Y14.5M-1994 OTHER HONEYWELL ENGINEERING STANDARDS MAY APPLY			SIZE
THREE PLACE .XXX ± 0.005				C I
FOUR PLACE .XXXX ± 0.0005	Pro/ENGINEER 3D			DRAWING NAME
ANGLES X ± 0				HIH-4100-001
				REV
				B
				SHEET 1 OF 1