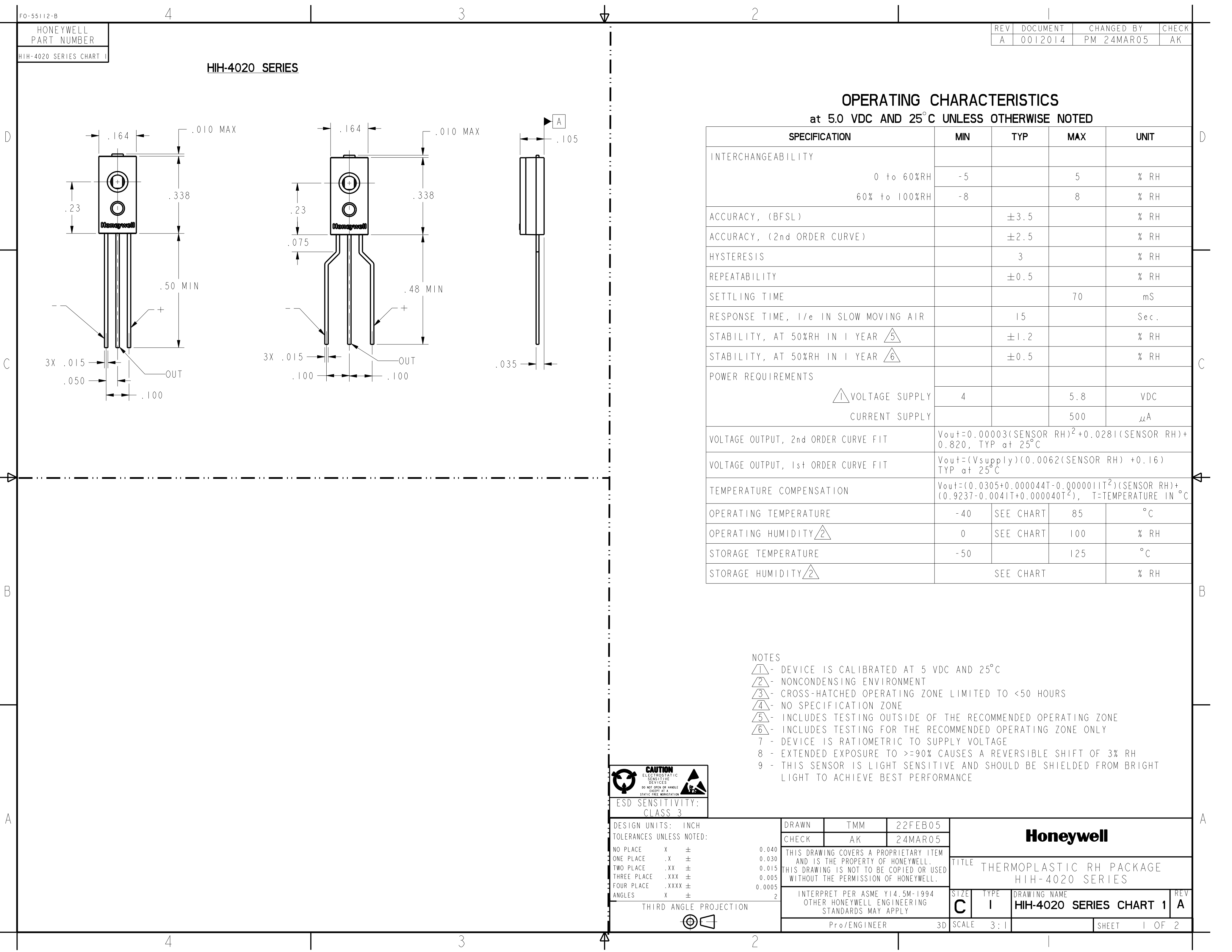


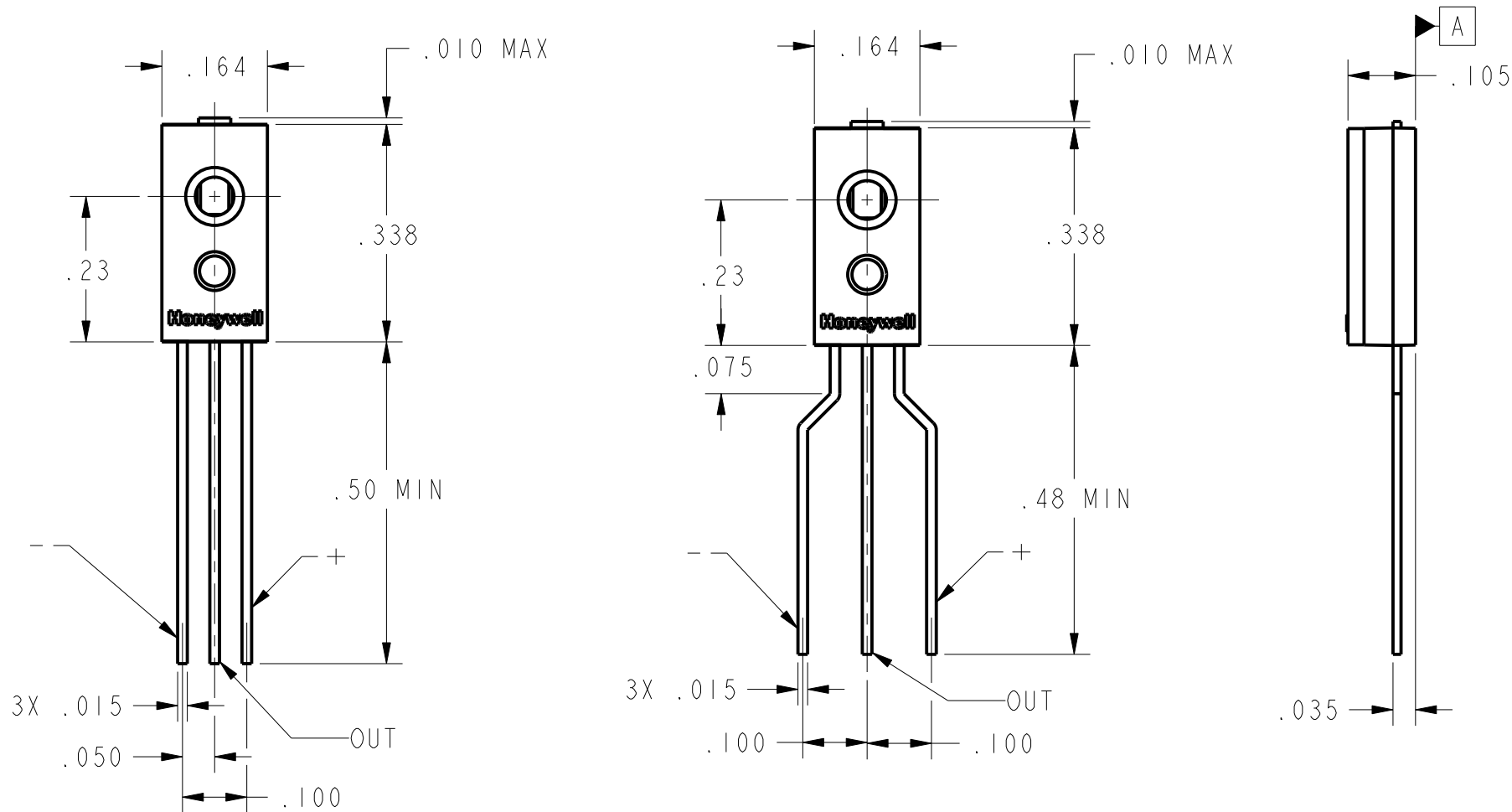


FO-55112-B

HONEYWELL
PART NUMBER

HIH-4020 SERIES CHART 1

HIH-4020 SERIES



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		15		Sec.
STABILITY, AT 50%RH IN 1 YEAR $\triangle 5$		±1.2		% RH
STABILITY, AT 50%RH IN 1 YEAR $\triangle 6$		±0.5		% RH
POWER REQUIREMENTS	$\triangle 1$ VOLTAGE SUPPLY	4	5.8	VDC
	CURRENT SUPPLY		500	μ A
VOLTAGE OUTPUT, 2nd ORDER CURVE FIT	$V_{out}=0.00003(SENSOR\ RH)^2+0.0281(SENSOR\ RH)+0.820$, TYP at 25°C			
VOLTAGE OUTPUT, 1st ORDER CURVE FIT	$V_{out}=(V_{supply})(0.0062(SENSOR\ RH) +0.16)$ TYP at 25°C			
TEMPERATURE COMPENSATION	$V_{out}=(0.0305+0.000044T-0.0000011T^2)(SENSOR\ RH)+(0.9237-0.0041T+0.000040T^2)$, T=TEMPERATURE IN °C			
OPERATING TEMPERATURE	-40	SEE CHART	85	°C
OPERATING HUMIDITY $\triangle 2$	0	SEE CHART	100	% RH
STORAGE TEMPERATURE	-50		125	°C
STORAGE HUMIDITY $\triangle 2$	SEE CHART			% RH

NOTES

- $\triangle 1$ - DEVICE IS CALIBRATED AT 5 VDC AND 25°C
 $\triangle 2$ - NONCONDENSING ENVIRONMENT
 $\triangle 3$ - CROSS-HATCHED OPERATING ZONE LIMITED TO <50 HOURS
 $\triangle 4$ - NO SPECIFICATION ZONE
 $\triangle 5$ - INCLUDES TESTING OUTSIDE OF THE RECOMMENDED OPERATING ZONE
 $\triangle 6$ - INCLUDES TESTING FOR THE RECOMMENDED OPERATING ZONE ONLY
7 - DEVICE IS RATIO METRIC TO SUPPLY VOLTAGE
8 - EXTENDED EXPOSURE TO >=90% CAUSES A REVERSIBLE SHIFT OF 3% RH
9 - THIS SENSOR IS LIGHT SENSITIVE AND SHOULD BE SHIELDED FROM BRIGHT LIGHT TO ACHIEVE BEST PERFORMANCE



ESD SENSITIVITY:
CLASS 3

DESIGN UNITS: INCH
TOLERANCES UNLESS NOTED:

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

THIRD ANGLE PROJECTION



DRAWN	TMM	22FEB05
CHECK	AK	24MAR05

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

Pro/ENGINEER

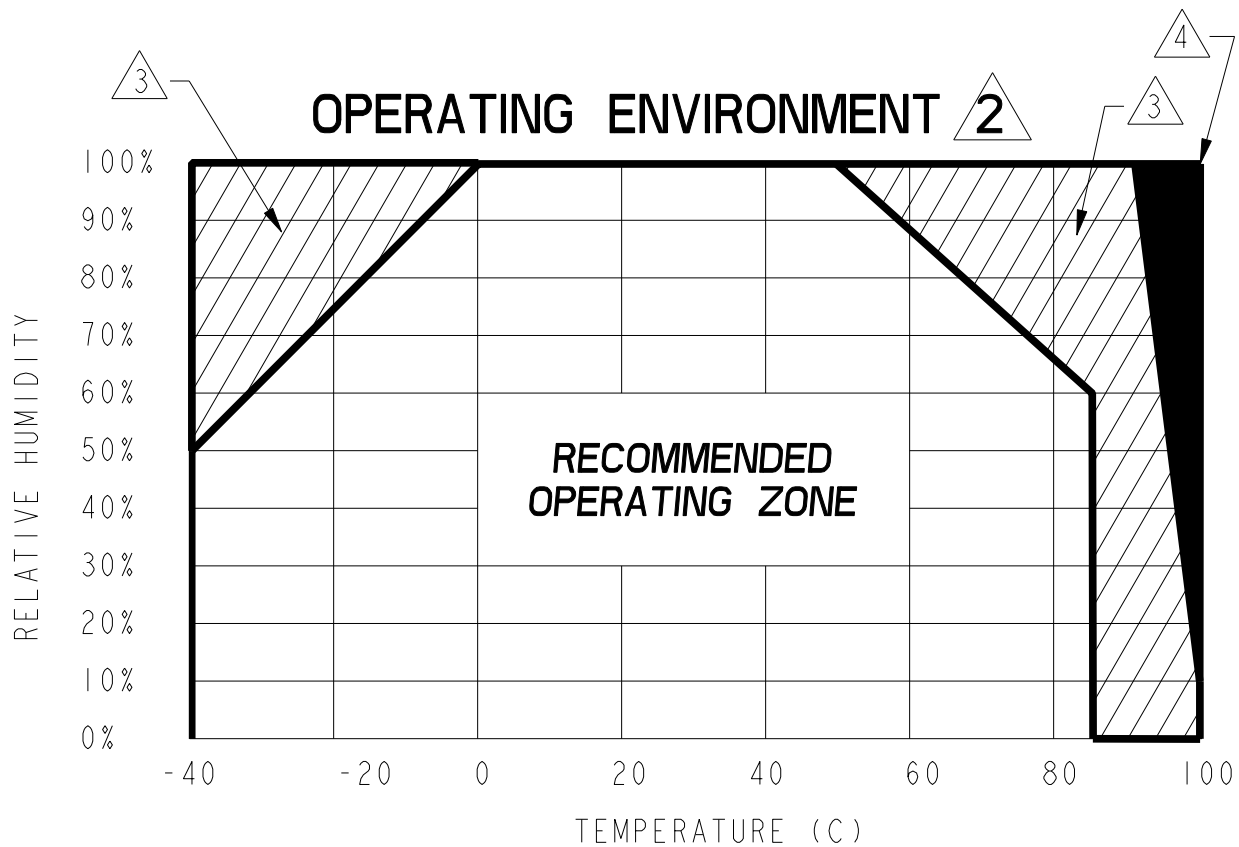
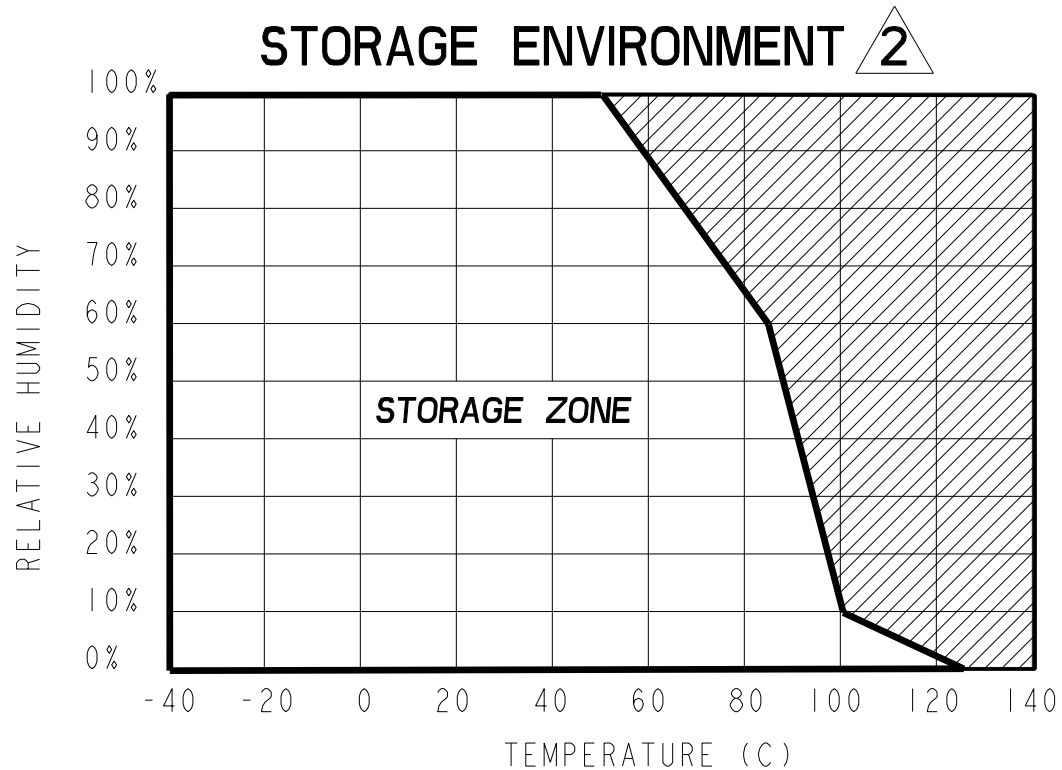
DRAWN	TMM	22FEB05
CHECK	AK	24MAR05

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TITLE THERMOPLASTIC RH PACKAGE
HIH-4020 SERIES

SIZE	TYPE	DRAWING NAME	REV
C	I	HIH-4020 SERIES CHART 1	A

SCALE 3:1 SHEET 1 OF 2



PRODUCT DESCRIPTION	
CATALOG LISTING	DESCRIPTION
HIH-4020-001	COVERED INTEGRATED CIRCUIT HUMIDITY SENSOR, 0.100 IN LEAD PITCH SIP
HIH-4020-002	COVERED INTEGRATED CIRCUIT HUMIDITY SENSOR, 0.050 IN LEAD PITCH SIP
HIH-4020-003	COVERED INTEGRATED CIRCUIT HUMIDITY SENSOR, 0.100 IN LEAD PITCH SIP WITH CALIBRATION AND DATA PRINTOUT
HIH-4020-004	COVERED INTEGRATED CIRCUIT HUMIDITY SENSOR, 0.050 IN LEAD PITCH SIP WITH CALIBRATION AND DATA PRINTOUT
HIH-4021-001	COVERED, FILTERED INTEGRATED CIRCUIT HUMIDITY SENSOR, 0.100 IN LEAD PITCH SIP
HIH-4021-002	COVERED, FILTERED INTEGRATED CIRCUIT HUMIDITY SENSOR, 0.050 IN LEAD PITCH SIP
HIH-4021-003	COVERED, FILTERED INTEGRATED CIRCUIT HUMIDITY SENSOR, 0.100 IN LEAD PITCH SIP WITH CALIBRATION AND DATA PRINTOUT
HIH-4021-004	COVERED, FILTERED INTEGRATED CIRCUIT HUMIDITY SENSOR, 0.050 IN LEAD PITCH SIP WITH CALIBRATION AND DATA PRINTOUT

DATA PRINTOUT (EXAMPLE)	
MODEL	HIH-4020-001
CHANNEL	92
WAFER	030996M
MRP	337313
CALCULATED VALUES AT 5 V Vout @ 0% RH Vout @ 75.3% RH	0.958 V 3.268 V
LINEAR OUTPUT FOR 2% RH ACCURACY @ 25 °C ZERO OFFSET SLOPE RH	0.958 V 30.680 mV/%RH (Vout-ZERO OFFSET)/SLOPE (Vout-0.958)/0.0307
RATIOMETRIC RESPONSE FOR 0 TO 100% RH Vout	Vsupply (0.1915 TO 0.8130)

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SIZE	DWG TYPE	DRAWING NAME	REV
C	I	HIH-4020 SERIES CHART 1	A
SCALE	3:1	SHEET	2 OF 2