

CATALOG LISTING
SS94A2

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PARAMETER	MIN	TYP	MAX	UNITS	CONDITIONS/REMARKS
SUPPLY VOLTAGE	6.6	8.0	12.6	VOLTS	-40°C TO +125°C
SUPPLY CURRENT		13	30	mA	MAX @ 12.6 V @ -40°C
OUTPUT CURRENT			1	mA	SINKING OR SOURCING
OUTPUT SPAN		.625 V _S		VOLTS	-500G TO +500G @ 25°C $\nabla/5$
SENSITIVITY	4.90	5.0	5.10	mV/g	@ 8.0 V _S & 25°C
LINEARITY	-1.5	-.8	0	% OF SPAN	DEV FROM STR LINE THRU -500 AND +500
V _{OUT} @ 0 GAUSS	3.960	4.000	4.040	VOLTS	25°C
TEMP ERROR-NULL	-.02		+.02	%/°C	-40°C TO +125°C
TEMP ERROR-GAIN	-.02		+.02	%/°C	-40°C TO +125°C

Block diagram of a Hall effect sensor circuit. The circuit consists of three main blocks: a HALL SENSOR, an AMPLIFIER, and an output driver. The HALL SENSOR block has two inputs connected to $V_s (+)$ and $V_- (-)$. Its output is connected to the AMPLIFIER block. The AMPLIFIER block's output is connected to the input of the output driver block, which contains a differential pair of transistors. The output driver block has three outputs: $V_s (+)$, OUTPUT (0), and $V_- (-)$.

Graph showing Output Voltage (V OUT) versus Gauss for the ADXL045. The output voltage is linearly related to the magnetic field strength.

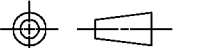
Gauss	Output Voltage (V OUT)
-500	1.5
0	4.0
+500	6.5



- ① CENTERLINE OF HALL CELL (IC) ONLY.
THE LOCATION OF THE CERAMIC COVER IS NOT SPECIFIED
- ② THE + MAGNETIC FLUX IS IN THIS DIRECTION (THIS ASSUMES THE CONVENTION THAT THE DIRECTION OF THE EXTERNAL FLUX OF A MAGNET IS FROM THE NORTH TO THE SOUTH POLE OF THE MAGNET)
- 3 - THE DEVICE CANNOT BE DAMAGED BY MAGNETIC OVERDRIVE
- 4 - OUTPUT TYPE - RATIOMETRIC
- ⑤ THE OUTPUT IS CLAMPED AT 9.0 VDC MINIMUM, 9.5 VDC TYPICAL
- ⑥ THIS SIDE COATED WITH CONDUCTIVE MATERIAL WHICH IS ELECTRICALLY CONNECTED TO (-) TERMINAL

ANSI Y14.5M-1982 APPLIES

THIRD ANGLE PROJECTION



SCALE 5 : 1

DO NOT SCALE PRINT

**UNLESS OTHERWISE SPECIFIED
TOLERANCES ARE**

ONE PLACE	(.0)	$\pm .030$
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TWO PLACE (.00) $\pm .015$ THREE PLACE (.000) $\pm .005$

ANGLES $\pm$

WEIGHT

