

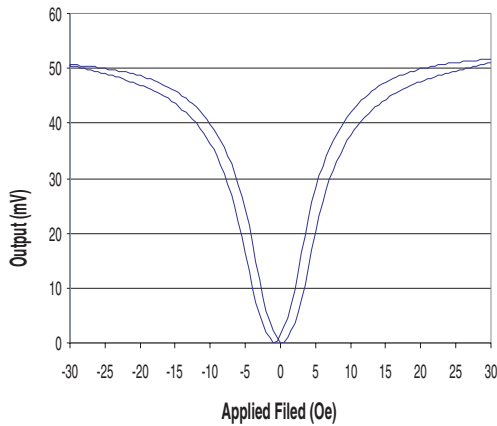
NVE's Giant Magnetoresistive Field Sensors offer unique and unparalleled magnetic sensing capabilities. The high sensitivity and ability to sense static magnetic fields provides superior performance which set them apart from other sensors on the market today. NVE's sensors provide high sensitivity, temperature stability, low power consumption, and small size.

NVE's Sensors can be applied to:

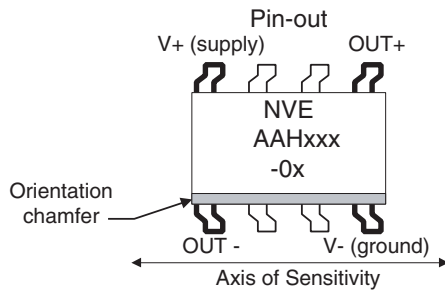
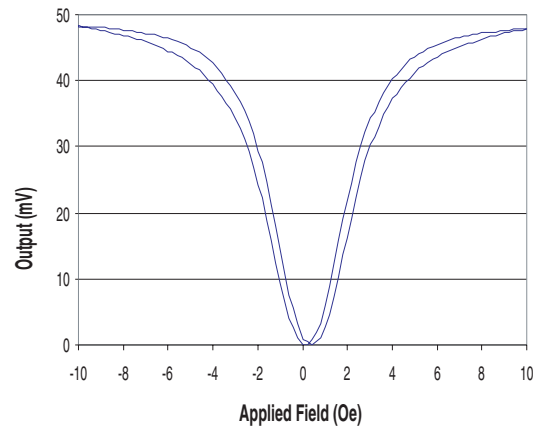
- Proximity Sensing
- Motion, Speed, and Position Sensing
- Current Detection
- Magnetic Media Detection
- Synchronization
- Earth's Field Sensing

Typical Outputs

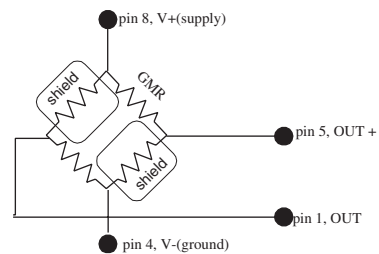
AAH004-00Constant Voltage Source



AAH002-02Constant Voltage Source



Functional Block Diagram



Magnetic Characteristics (2 kΩ ± 20% bridge)

Part Number	Saturation Field (Oe)	Specified Linear Range (lOe)		Sensitivity mV/V/oe		Package ²	Die ³ Size (μm)	Markings NVE
		min	max	min	max			
AAH002-02	6	0.25	3.0	7.5	13	SO8	436x3370	
AAH004-00	15	0.5	7.5	3.2	4.8	TSSOP	411X1458	CBF

General Characteristics of Current Sensor

Property	Min	Nominal	Max	Unit
Input Voltage Range			±25	V
Current Sensing Frequency	DC		>1 ³	MHz
Temperature Range	-50		150	°C
Electrical Offset (V)	-4		4	mV/V
Output at Saturation	35			mV/V
Nonlinearity		4.0		% (unipolar)
Hysteresis		15		% (unipolar)
TCR		+0.30		% / K
TCOI		-0.28		% / K
TCOV		-0.40		% / K
Off-axis Characteristic		Cos. β ⁴		
ESD		400		V pin to pin HBM

Notes:

1. The output is differential. The use of a common ground for power and output will result in an output that is not within specifications.
2. For SO8 package dimensions, see package dimension bulletin.
3. GMR has been tested to 1 MHz.
4. Beta (β) is any angle from sensitive axis.