

## LINEAR POSITION SENSOR MODULE

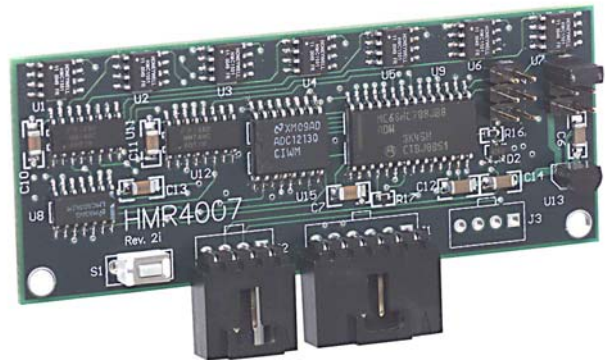
### Features

- 0-69 mm Magnetic Travel (Magnet Dependent)
- Microprocessor Digital and Analog Data Outputs
- 0.1mm Accuracy (Magnet Dependent)
- 0.1mm Repeatability
- -40° to +85°C Operating Temperature Range
- Small PCB Package
- Regulated 5 volt or unregulated 6 to 20 volt DC Supply Compatibility

### General Description

The Honeywell HMR4007 is a high-resolution sensor module capable of measuring extended range linear position. Advantages include high sensitivity so lower cost magnets such as alnico or ceramic can be used, insensitivity to shock and vibration, and ability to withstand large variations in the gap between the sensor and the magnet.

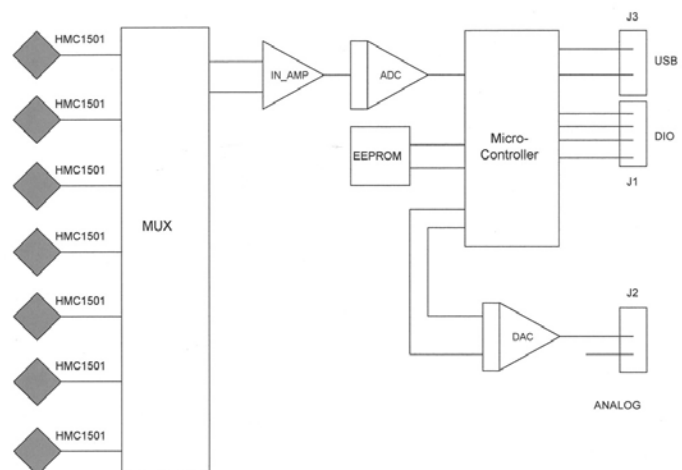
The HMR4007 is manufactured with Honeywell's HMC1501 Magnetic Displacement Sensor ICs, which provide better performance than Hall Effect devices and only needs a magnetic field source greater than 80 gauss.



## APPLICATIONS

- **Linear Displacement**
- **Shaft Position**
- **Potentiometer Replacement**
- **Fluidic Pumps**

Block Diagram



# HMR4007



## Advance Information SPECIFICATIONS

## SENSOR PRODUCTS

Characteristics	Conditions	Min	HMR4001 Typ	Max	Units
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### Linear Position

Range	> 80 gauss at sensor		69.6		mm
Accuracy	> 80 gauss at sensor		0.1		mm
Repeatability	> 80 gauss at sensor		0.1		mm

### Magnetic Field

Strength	Repeatability <0.03% FS	80	-	-	gauss
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### Electrical

Voltage	Unregulated	6	-	28	volts DC
Current Supply	Active Mode - SLEEP pin = 5V (or open)		15		mA mA

### Digital Output

Data Rate	Synchronously Clocked		150kbps		
Error Flag	Normally High		-		

### Analog Output

Range	Ambient Temperature (+23°C), 12-bit DAC	0	-	2.2	volts
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### Physical

Dimensions	circuit board only		1.25 x 3.2		inch
Weight	circuit board only		TBD		grams

### Environment

Temperature	Operating	-40	-	+85	°C
	Storage	-55	-	+125	°C

## Ordering Information

Ordering Number	Product
HMR4001-D00	PCB Module Only

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