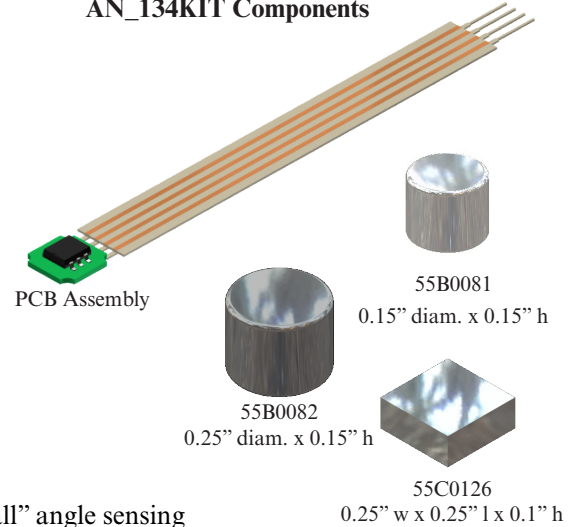


The AN_134KIT consists of a EM-3242 angle sensor mounted on a small 0.25 in. square PCB with a 6 in. flat cable. Also included in the kit are three SmCo24 magnets compatible with the angle sensor; a 0.25 in. diameter magnet, a 0.15 in. diameter magnet and a 0.25 in. square magnet. The sensor works well with smaller magnets, but with less air gap. The Sensor incorporates an “Out of Range” detector circuit and will fault the output to zero volts when the magnet’s strength is either too weak or too strong, see Reference Design RD102_EM3242 for details.

This kit eliminates the need to design a PCB for testing which makes it convenient to evaluate the EM-3242 for compatibility with the user’s applications. See EM-3242 specification for details.

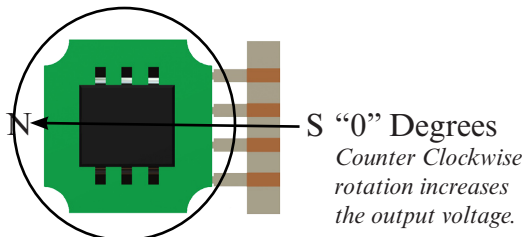
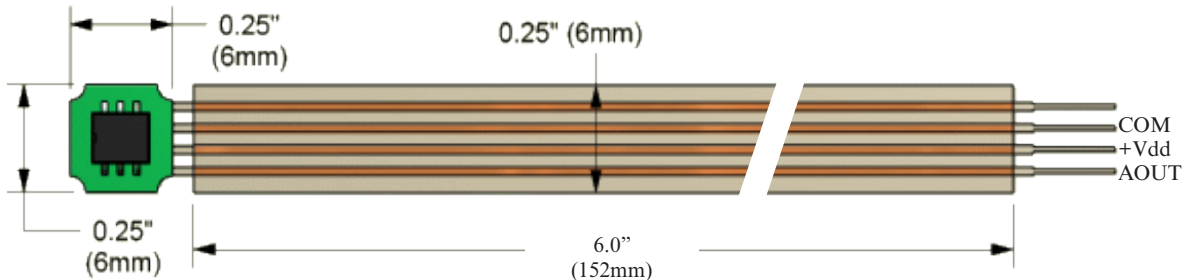
AN_134KIT Components



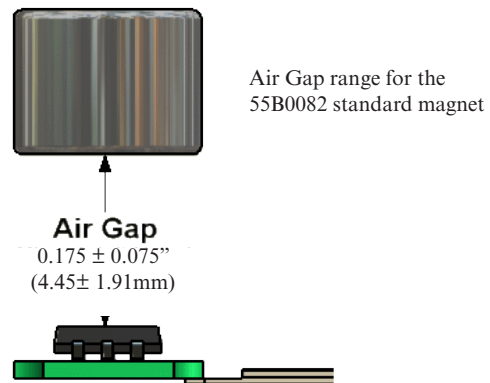
Features

- Non-contact angle sensing. Eliminates wear and enables “through wall” angle sensing
- Senses magnetic field orientation
- Small size 3.6 x 3.0 x 0.8 mm, 6pin SOIC
- Resolution up to 10bits (0.35°)
- Non-linearity 1% at 3V
- Low power- typical 9mA
- Sleep mode- 1µA current draw
- Linear ratio-metric analog output voltage proportional to 0 to 360°
- Single supply (2.7 to 5.5V operating)
- Only one external part required - 0.1µF capacitor
- Very high speed >8,000 RPM
- “Out of range” magnetic field level detection

Outline Drawings

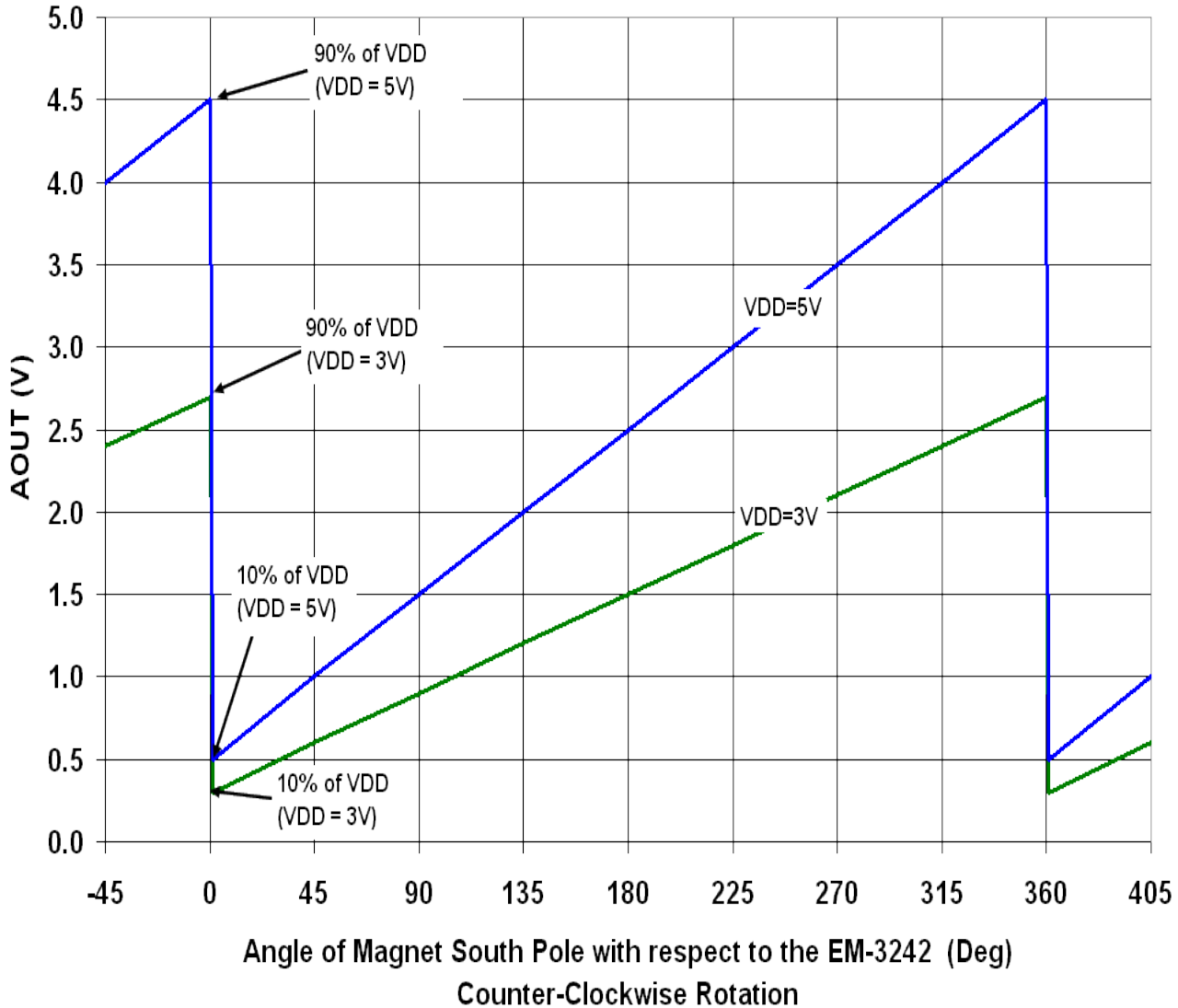


Magnet Field Orientation Through Sensor

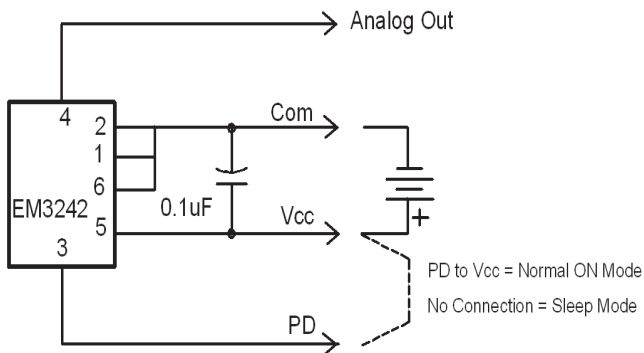


Revision Date: 15 DEC 2009

EM-3242 Angle Sensor Output vs. Rotation Angle



AN_134KIT Connection Diagram



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