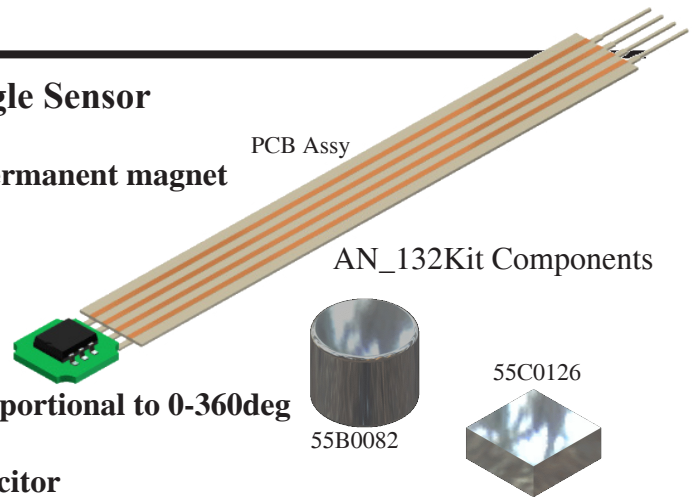


## ASAHI KASEI EMD - EM3241 Non-Contact Angle Sensor

### Engineer Evaluation Kit

#### FEATURES of the EM3241 Non-Contact Angle Sensor

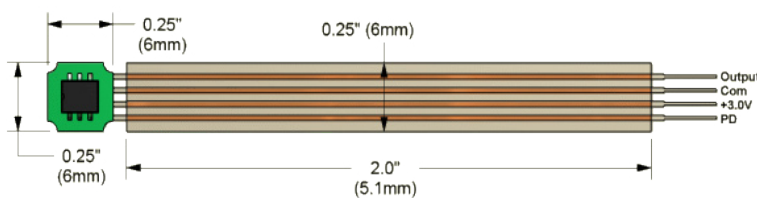
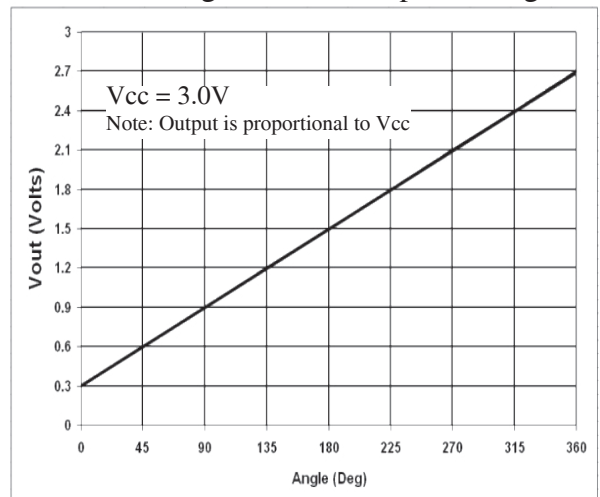
- Non-Contact Angle Sensing
- Senses magnetic field orientation of a small permanent magnet
- Small Size 3.6 x 3.0 x 0.8 mm - 6pin SOIC
- Resolution of up to 9 bits (0.7 deg)
- Non-linearity - 1%
- Low Power -Typ. 10mA @3.0V
- Sleep Mode - 1uA current draw
- Linear ratio-metric analog output voltage proportional to 0-360deg
- Single 3V supply (2.7 to 5.25 V operating)
- Only one external part required - 0.1uF Capacitor
- Very High Speed > 12K RPM



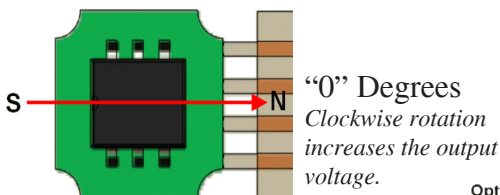
#### GENERAL DESCRIPTION

The AN\_132KIT consists of a EM3241 angle sensor mounted on a small 0.25" square PCB with a 2 inch flat cable. Also included in kit are two SmCo24 magnets compatible with the angle sensor, a 0.25" dia. magnet and a 0.25" square magnet. The sensor works well with smaller magnets but with less air gap. This kit eliminates the need to design a PCB for testing which makes it convenient to evaluate the EM3241 for compatibility to the user's applications. See EM3241 specification for details.

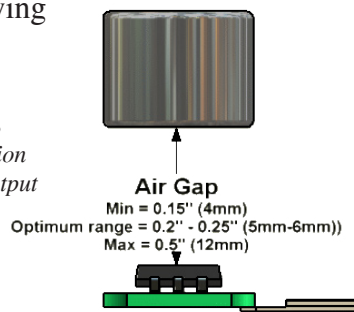
EM3241 Angle Sensor, Output vs Angle



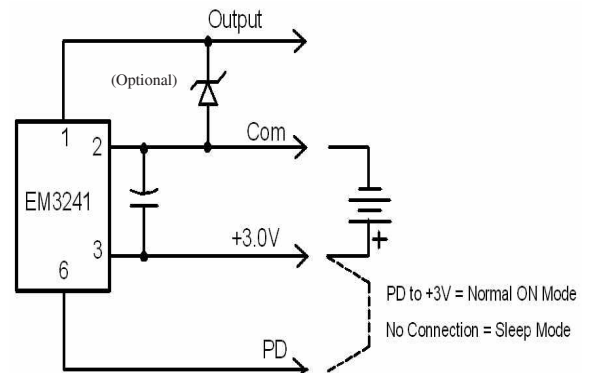
Outline Drawing



Magnet Field Orientation



Air Gap range for standard RD and SQ magnets



Connection Diagram - AN\_132KIT

Revision Date: 03 May 2007 AN\_132KIT