

Contactless Pedal Position Sensor Example

www.ams.com



Typical Applications: Acceleration pedal for electronic throttle control systems

- Best-in class stray field immunity
- High-performance, superior durability
- Adherence to the most stringent safety requirements (ISO26262)



For more information, please visit:
www.ams.com/Magnetic-Position-Sensors

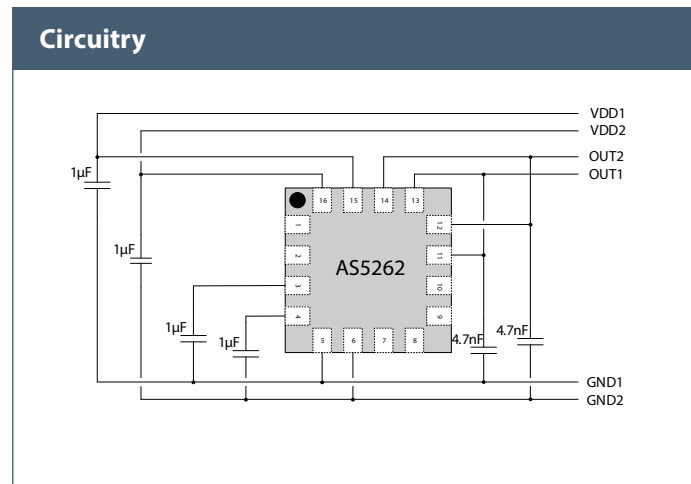
We provide innovative
analog solutions to
the most challenging
applications in sensor
and sensor interfaces,
power management,
and wireless.

General Description

The AS5262 sensor IC solution inside the pedal module is a contactless Hall-based magnetic position sensor that delivers highly accurate angular measurements over a full turn of 360°. The AS5262 (with analog voltage output) offers best-in-class automotive safety features, enabling vehicle manufacturers to qualify for ISO26262 safety compliance. The solution is highly integrated and can be used with a low-cost ferrite magnet.

Also, the AS5262 is tolerant of magnet misalignment and variances in the air gap from one unit to another. As with all of ams' position sensors, the AS5262 comes with proprietary differential-input technology that ensures immunity to magnetic stray fields and makes expensive external shielding unnecessary. Overall, AS5262 sensor solution is ideal for vehicle manufacturers seeking to lower their bill-of-materials and assembly costs.

| Typical Specifications | |
|-----------------------------|---|
| Electrical | |
| Linearity (absolute) | 1% |
| On-axis Rotation Range | programmable |
| Typical Supply Voltage | 5 VDC |
| Failure diagnostics | Broken Wire (GND and VDD) Overvoltage Protection Short circuit Protection |
| Environmental | |
| Automotive qualification | AEC-Q100 grade 0 |
| Operating temperature range | -40° to 150°C (sensor IC) |
| Sensor Details | |
| Name | AS5262 (ams AG) |
| Type | On-axis redundant magnetic position sensor based on Hall-effect technology |

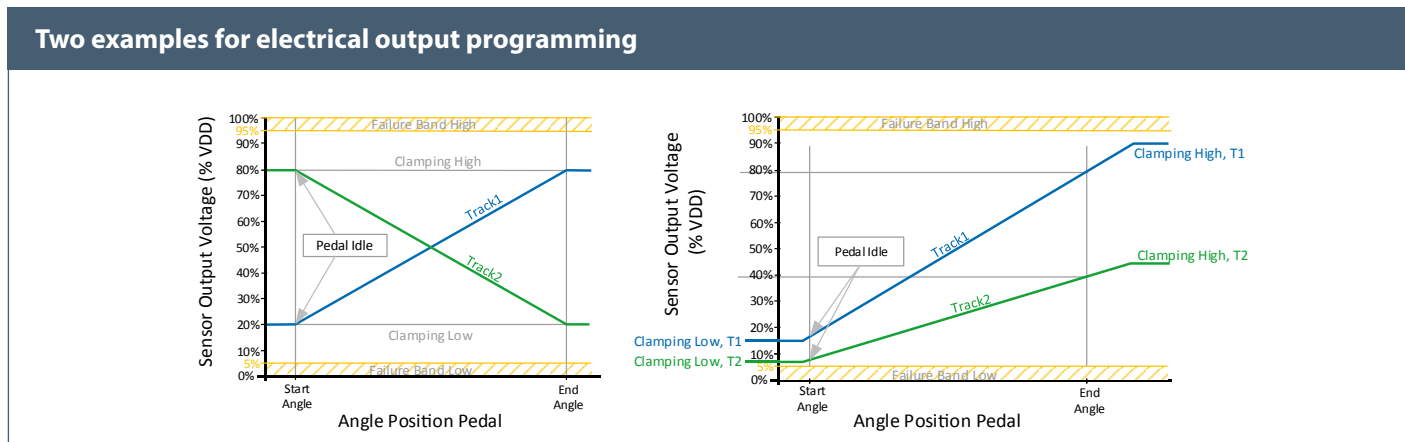


Features/Benefits

- Fully redundant, dual output Hall-effect sensor
- Programmable output signals
- Digital or analog output signals available
- Contactless position sensing
- Failure diagnostics
- Absolute magnetic strayfield Immunity

Recommended Magnet

Specification: Diametric magnetization direction, surface magnetization



www.ams.com
 products@ams.com
 © 01/2015 by ams
 Subject to change without notice

Headquarters
 ams AG
 Tobelbader Strasse 30, 8141 Unterpremstaetten, Austria
 Phone +43 3136 500-0 • Fax +43 3136 525-01

Sales Offices Worldwide
 sales-europe@ams.com
 sales-asia@ams.com
 sales-americas@ams.com