

## Features

- True power-on system
- Straight line connector
- Output over J1939 CAN subset
- Various column mounting proposals

## Applications

- Electronic stability control
- Electronic brake force distribution
- Lane departure warning
- Trailer sway control
- Rear axle steering

## Preliminary Non-Contacting Steering Angle Sensor for Commercial Vehicles

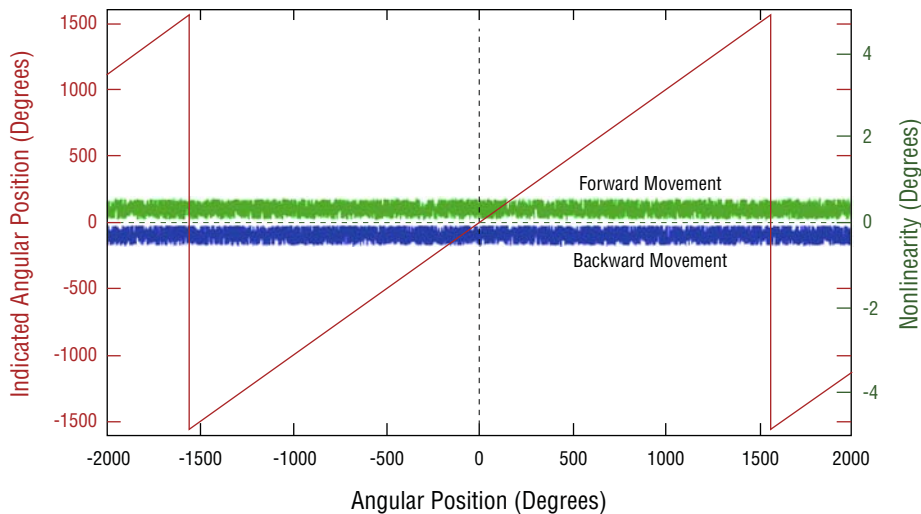
### Introduction

The Bourns® Non-Contacting Steering Angle Sensor is specifically designed for commercial vehicle steering applications. The sensor is based on two magneto-resistive (AMR) sensor chips. Each of them converts an angle position of a permanent magnet into two analog signals (one sine and one cosine signal). A highly-efficient algorithm within the sensor's microprocessor calculates the absolute angular position of the steering system. This sensor takes into account the increased steering angular range used in commercial vehicles as well as larger voltage range and higher overvoltage protection requirements which are needed during start-up.

### Electrical Interface Specifications

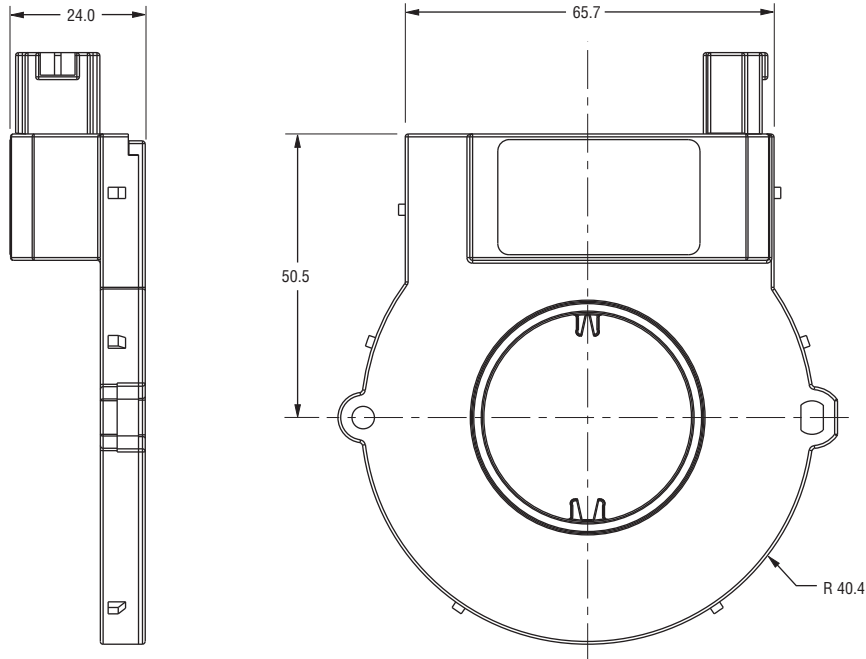
Angular Position	
Range .....	±1540 °
Resolution.....	0.1 °
Linearity .....	±2.5 °
Angular Speed	
Range .....	±2000 °/s
Data and Control Interface	
CAN J1939 (Optional CAN 2.0B).....	500 kbit/s
Data Rate.....	10 ms
Optional Zero Position .....	Adjustable at every mechanical position through CAN command
Diagnostic and Error Handling.....	Via CAN bus
ASIL-B Compliant version in development	
Optional secure version with 2nd microcontroller (for ASIL-D rated systems)	
Firmware Upgrade.....	Via CAN bus (Optional OBD programmable)
Power Supply	
Voltage Supply.....	12 V (Optional 24 V)
Overvoltage Protection .....	8-32 V
Current Consumption.....	50 mA (no idle current required)
Temperature Range.....	-40 °C to +85 °C

### Typical Output Characteristic



Specifications are subject to change without notice.  
 The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.  
 Users should verify actual device performance in their specific applications.

Design and Mechanical Interface Proposal



Final design and housing are subject to change and customer preferences.

DIMENSIONS: MM

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