Series 285 New Product Brief

Non-contacting Hall Effect rotary position sensors are designed for the most demanding applications in the industrial, medical, and transportation markets. With over 20 years of experience in non-contacting solutions for automotive applications, CTS is now bringing this technology to industrial grade rotary position sensors with the release of the Series 285 Non-Contacting Rotary Position Sensor. Quality, performance and reliability are core aspects of this series of rotary position sensors.



Precision rotary position sensors have been used in many applications with traditional contacting technologies. The introduction of non-contacting technology into this product has improved product performance to provide longer life and compatibility in harsh environments. Improved performance results in higher reliability, better quality and longer deployment in the field while reducing associated maintenance and replacement costs. Demand for reduced maintenance cost, reduced equipment down-time, and increase in equipment efficiency leads equipment designers to technologies that are more dependable and will provide reliable performance.

Features

- » Non-contacting Hall Effect technology
- » Rotational Life: 10M (sleeve bearing) or 50M (ball bearing)
- » Precision linearity (±0.5% and ±0.25% options)
- » Precision hysteresis (0.2% V_{sup})
- » Wide operating temperature range (-40°C to +125°C)
- » Seal options (IP 50, 54, and 67)
- » 5.0 VDC and 3.3 VDC options
- » Internal magnetic shield
- » ROHS and REACH compliant*

*ROHS3 Directive 2015/863 Amendments of Annex II on March 31, 2015.

Product Fit & Applications

This product series is best suited for applications where the reliability and long life associated with non-contacting technology are required, and where customers understand the value proposition of this product in the following market segments:

- » Wheel balancing equipment

- » Draw wire position sensors

Medical

»Patient platform »Dental chair »Mobility equipment

Transportation

- » Cycle/Scooters
- » Agriculture equipment
- » Construction equipment
- » Light rail

Benefits

- » Elimination of wearing electrical contacting parts
- » Extended field deployment
- » Allows for consistent and precise position sensing » Suitable for use in extreme cold, hot, wet, and dusty environments

O-Ring Seal

Rotor with Embedded Magnet

Hall Effect Element

Internal EMI Shield

- » Power option flexibility
- » Protection against EMI

Custom/Value Added Options

(Available Upon Request)

- » Electrical and mechanical angle customization
- » Shaft and Bushing diameter & length customization
- » Output options (i.e. PWM, SSI, SPI, CANbus, etc.)
- » Terminal options
- » Cable/connector customization
- » Dual output option

Industrial

- » Flow valves
- » Pneumatic control valves
- » Material handling
- » Riding mower



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Plastic Sleeve Bushing/Ball bearings

Basic Construction