# Series 286 New Product Brief

Multi-turn Hall Effect rotary position sensors are designed for the most demanding applications in the industrial, medical, transportation and other markets. With over 20 years of experience in noncontacting solutions for automotive applications, CTS is now bringing this technology to industrial grade rotary position sensors with the release of the Series 286 multi-turn Hall Effect rotary position sensor. Quality, performance and reliability are core aspects of this series of rotary position sensors.



Single-turn non-contacting Hall effect rotary position sensors have seen success in many applications that require long life and reliability, even in harsh environments. The next step in this development is the multi-turn sensor, which can keep track of positions and numbers of turns beyond 360 degrees, as well as long linear runs. This valuable combination of range with high reliability is a must in the growing area of Industry 4.0, IIoT and others.

#### **Features**

- » Non-contacting Hall Effect technology
- » Multi-turn capability, 3600°w 10 turns
- » Rotational Life: 10M
- » Precision linearity (±0.5%)
- » Precision hysteresis (0.2% V<sub>sup</sub>)
- » Wide operating temperature range (-40°C to +125°C)
- » IP67 rated
- » 5.0 VDC
- » Internal magnetic shield
- » ROHS and REACH compliant\*
- \*ROHS3 Directive 2015/863 Amendments of Annex II on March 31, 2015.

# **Benefits**

- » High resolution
- » Extended field deployment
- » Allows for consistent and precise position sensing
- » Suitable for use in extreme cold, hot, wet, and dusty environments
- » Protection against EMI

# **Custom/Value Added Options**

(Available Upon Request)

- » Electrical and mechanical angle customization
- » Shaft and Bushing diameter & length customization
- » Termination, wire length options
- » Cable/connector customization
- » Custom Mounting

# **Product Fit & Applications**

This product series is best suited for applications where high resolution and high reliability are critical. The value of this product can be benefited in the following market segments:

#### Industrial

- » Wheel balancing equipment
- » Flow valves
- » Forklifts, stationary lifts

#### Medical

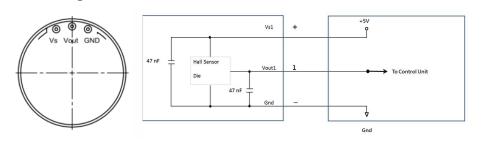
- »Portable Ultrasound
- »Respiratory care
- »Mobility equipment

# Transportation

- » Cycle/Scooters
- » Agriculture equipment
- » Construction equipment
- »Work and leisure offroad vehicles

# **Basic Construction** Plastic Sleeve bearings O-Ring Seal Rotor with **Embedded Magnet** Hall Effect Element Internal EMI Shield

### **Circuit Diagram**



CTS (NYSE: CTS) is a leading designer and manufacturer of products that Sense, Connect and Move. CTS manufactures sensors, actuators and electronic components in North America, Europe and Asia, and supplies these products to OEMs in the aerospace, communications, defense, industrial, information technology, medical and transportation markets.

