

Technical Brief

Series 292 Product Brief

CTS Optical Encoders are designed for applications requiring reliability and accuracy in the medical, industrial, professional audio and lighting, and transportation markets. Providing durability, accuracy and extended field deployment are core performance characteristics taken into account in the design of CTS optical encoders. Customers will benefit from using the Series 292 optical encoder in applications while saving on reduced service and replacement costs.



Author:
Chuck Manzano
Senior Product Manager
Chuck.Manzano@ctscorp.com
CTS Corporation

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Rotary Encoders

Rotary encoders with traditional contacting technologies have been used in a growing number of applications in recent years. The introduction of optical technology into rotary encoders has improved product performance to provide longer life, enhanced reliability and durability. Improved performance results in higher reliability, better quality and longer deployment in the field while reducing equipment down time, service and replacement costs associated with equipment maintenance.

Features

- Optical non-contacting technology
- 2-bit quadrature output
- Rotational Life: 3M (1M with detent)
- Resolution: 24 PPR
- Wide operating temperature: -10°C to +85°C
- Seal rating: IP50
- 5.0 VDC and 3.3 VDC options
- RoHS and REACH compliant*

*RoHS3 Directive 2015/863
Amendments of Annex II on March 31, 2015.

Benefits

- Elimination of wearing electrical contacting parts
- Extended field deployment
- Power option flexibility
- Hollow shaft design allows for added switch or LED in the center of the unit
- Internal Schmitt trigger and pull-up resistor reduces the number of external components required

Custom/Value Added Options

- Ring/actuator length customization
 - Resolution options
 - Detent options
 - Terminal options
 - Cable/connector customization
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- (Other options available upon request)

Product Fit & Applications

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

Transportation

- Navigation Controls
- HVAC Controls
- Infotainment Controls

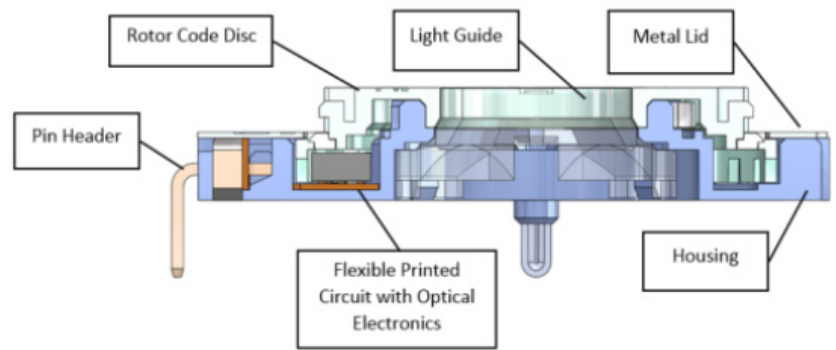
Medical Equipment

- Ultrasound Scanners
- CT Scanners
- MRI Control Panels
- X-Ray Control Panels

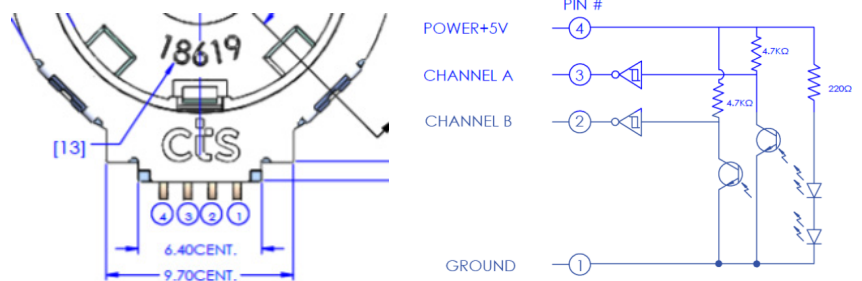
Professional Audio

- Audio Mixing Desks
- Broadcast Mixers
- Light Control Mixers

Basic Construction



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.



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