

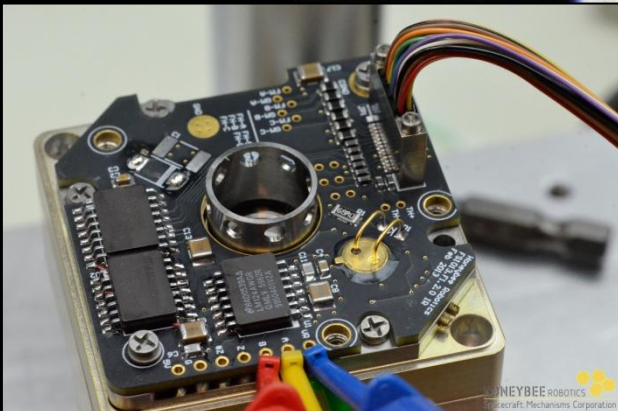
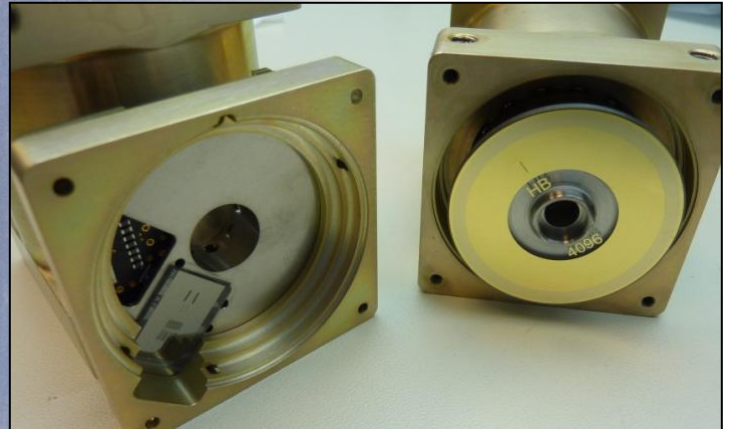
# Optical Encoder

## Description

Honeybee's hollow shaft rotary encoder offers high resolution in a small package. Developed for HBR's Microsat class control moment gyro, the encoder offers differential A, B, and index tracks. The diffractive encoder also offers clean analog signals which can be used for interpolation to offer up to 21 bits of resolution. Parts are screened to NASA EEE-INST-002 Level 1.

The design is scalable and can accommodate larger form factors (thru bore, track pitch diameter).

Specification	Data
Type	Rotary Incremental with index
Configuration	Hollow shaft
Size (not incl. bearing assembly)	Disc: Ø38mm Circuit Card: 46x46 mm Height: 8.5mm
Thru Bore	Ø12mm
Line Count	8192 cycles/rev 32k counts/rev (15 bit)
Interpolation Option	Up to 64x (21 bit)
Accuracy	<30 seconds
Interface	RS422 A, B, X (differential)
On Board Temperature	Yes
Egress Connector	25 Pin 17 available for motor pass-through or signals
Operating Temperature Range	-40 to +60°C
Radiation Tolerance	100 krad
Availability	Q3 2013



## Contact

Honeybee is ISO9001:2000 and AS9100C certified.

**Honeybee Robotics**  
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