



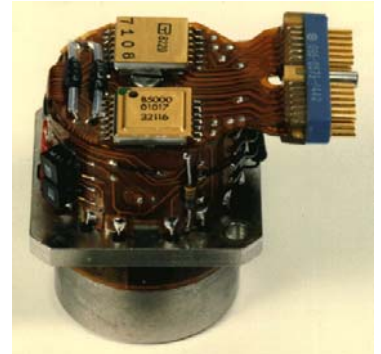
MOD II CONEX[®] GYRO

The MOD II CONEX[®] gyro is a miniature, two-degree-of-freedom, dry, flexure-joint-suspended, tuned rotor gyro. Its small size, excellent performance, and high rate capability make it particularly suitable for medium to high accuracy strapdown navigation systems applications.

The gyro has been designed to operate in an unheated environment and the output can be thermal modeled between -65°F to $+185^{\circ}\text{F}$. It is a self-contained entity having all the required electrical trim components and pickoff preamplifiers permanently attached to the gyro body. This permits complete gyro interchangeability without additional calibration being required at the system level.

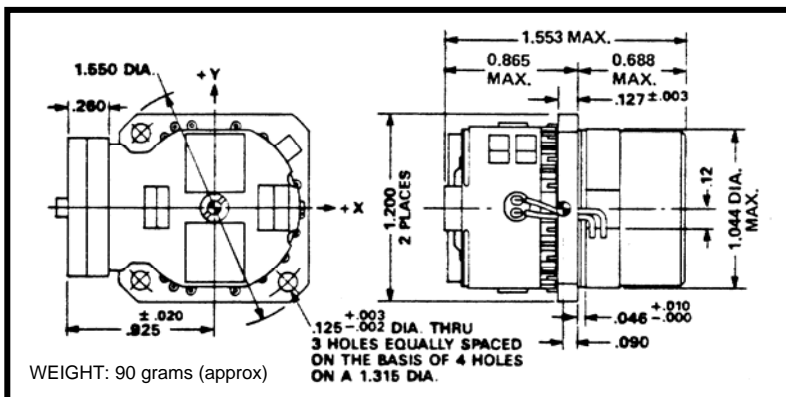
A wheel position marker has been included as a special feature to provide an output pulse for every rotation of the wheel. This becomes useful for compensating the gyro torquer scale factor variations due to motor speed perturbations and also for reducing day-to-day drift. A resistive-type wrap-around thermal sensor is also provided to monitor the average temperature of the gyro case and is used in unheated applications for gyro compensation. Provisions for an optional heater have also been included for those applications that require thermal control.

Additional processing has been incorporated to further enhance the gyro aging characteristics over a five year period.



CHARACTERISTICS

RATE CAPABILITY	Continuous ($^{\circ}/\text{s}$) Intermittent ($^{\circ}/\text{s}$) Survivability (rad/s)	200 400 25
DRIFT	g Insensitive Drift ($^{\circ}/\text{h}$) g Sensitive Drift ($^{\circ}/\text{h}/g$) g^2 Sensitive Drift ($^{\circ}/\text{h}/g^2$) Threshold ($^{\circ}/\text{h}$) Random Drift ($^{\circ}/\text{h}$, 1σ) Day-To-Day Drift Repeatability ($^{\circ}/\text{h}$, 1σ)	± 40 ± 20 ± 0.10 < 0.01 < 0.02 < 0.1
ENVIRONMENTAL CAPABILITY	Storage Temperature ($^{\circ}\text{F}$) Operating Temperature ($^{\circ}\text{F}$) Vibration in accordance with MIL-STD-810-C Method 514.2 Shock in accordance with MIL-STD-810 Hard Mounted	-85 to $+200$ -25 to $+200$ $10 g$ ($0 - 2000 \text{ Hz}$) $300 g$
PERFORMANCE CAPABILITY	Thermal Model Capability (-65°F to $+185^{\circ}\text{F}$) <ul style="list-style-type: none"> • Restraint ($^{\circ}/\text{h}$) • Mass unbalance ($^{\circ}/\text{h}/g$) • Scale factor (ppm) Run up time from -65°F (sec)	< 0.3 < 0.2 < 100 < 2



APPLICATIONS

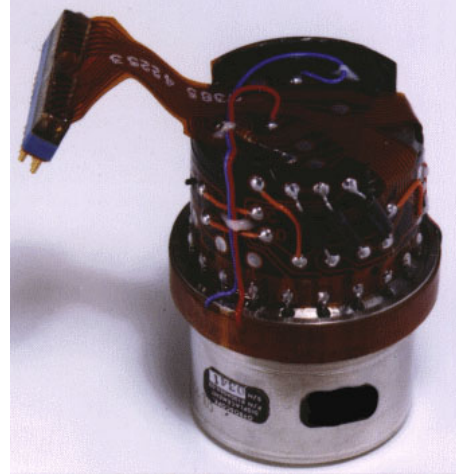
- MK-48 ADCAP (US NAVY)
- TAI (US NAVY)
- ERIS

KEARFOTT FAMILY OF CONEX[®] GYROS

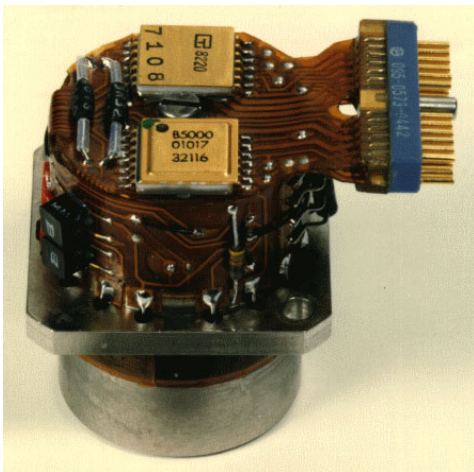
MOD 0 CONEX[®]



MOD I CONEX[®]



MOD II CONEX[®]



**MOD I/S CONEX[®]
SPACE QUALIFIED**



*For further information on these gyros or any other gyro product applications, Please contact
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Visit our website: www.kearfott.com