



K130A124-06

MOD I/S CONEX[®] SPACE QUALIFIED GYRO

As an extension of its family of GYROFLEX[®] and CONEX[®] type, nonfloated, Dynamically Tuned Gyros, Kearfott has adapted its proven MOD I CONEX[®] gyro for long life & high reliability space applications. The heart of this gyro is Kearfott's proven two-axis rotating flexure system which is "tuned" to eliminate any fixed restraints on the gyroscopic flywheel, while being capable of withstanding a wide range of environmental effects.

"The primary enhancement, which has been applied to this version of the CONEX[®] gyro, relates to the spin bearings, which are of comparable quality and with similar processing to the proven high performance space versions of the GYROFLEX[®] GYRO. The MOD I/S CONEX[®] is utilized in numerous space applications and has accumulated over 750,000 hours of operation while demonstrating its capability of operating for periods of over 10 years and 100,000 ON-OFF cycles. One version of the gyro that utilized TiC coated ball bearings provides an instrument with a projected operating life in excess of 15 years."



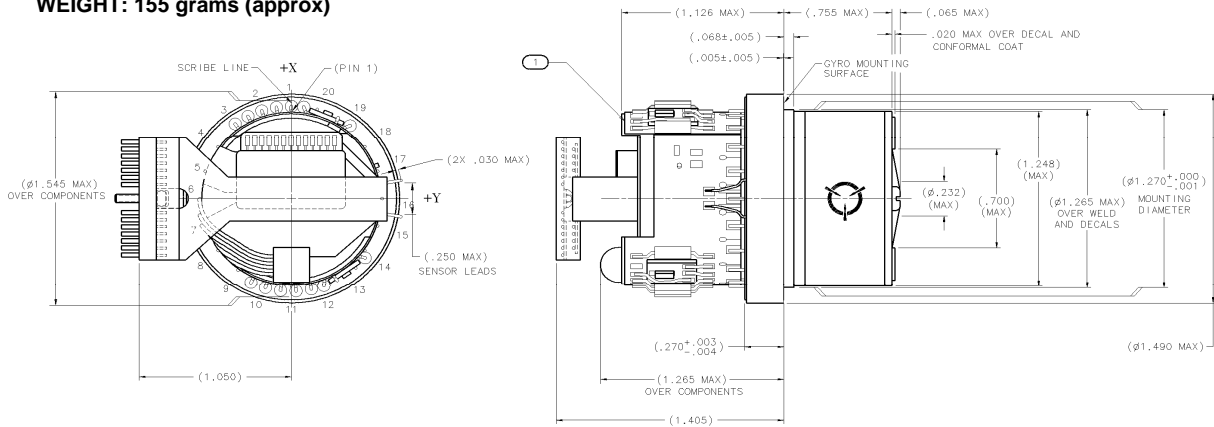
CHARACTERISTICS

RATE CAPABILITY	<ul style="list-style-type: none"> Continuous (°/s) Intermittent (°/s) Survivability (rad/s) 	<p>160</p> <p>320</p> <p>25</p>
DRIFT	<ul style="list-style-type: none"> g Insensitive Drift (°/h) g Sensitive Drift (°/h/g) g² Sensitive Drift (°/h/g²) Threshold (°/h) Random Drift (°/h, 1σ) Day-To-Day Drift Repeatability (°/h, 1σ) 	<p>±10</p> <p>±10</p> <p>±0.035</p> <p><0.01</p> <p><0.02</p> <p><0.1</p>
ENVIRONMENTAL CAPABILITY	<ul style="list-style-type: none"> Storage Temperature (°F) Operating Temperature (°F) Vibration in accordance with MIL-STD-10-C Method 514.2 Shock per MIL-STD-810 Hard Mounted Life (Operating) 	<p>-85 to +200</p> <p>-25 to +200</p> <p>10 g's (at nonresonant frequencies)</p> <p>225 g's</p> <p>>87,600 h</p>
OPTIONAL FEATURES	<ul style="list-style-type: none"> Class H or K dual pickoff amplifier hybrid Temperature Sensor for Wide Operational Range Thermal Modeling Heaters for temperature controlled applications Magnetic shielding 	

SPACE APPLICATIONS

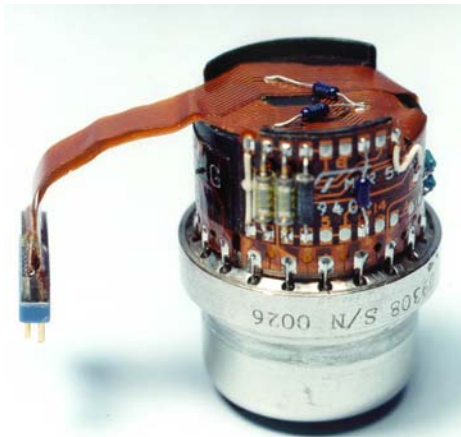
- AEROJET:** SOUNDING ROCKET (NASA)
- BALL:** NPP (NASA) QUICKBIRD 1 & 2
- HUGHES / BOEING:** HS 601 SPACECRAFT
- NASA:** MAP SDO
- OHB:** SAR-Lupe (w/TiC coated bearings)
- ORBITAL:** BSAT 2A, B & C AIM (NASA) DAWN (NASA)
- SPECTRUM-ASTRO / GENERAL DYNAMICS:** LEO MSTI 1 & 2 NFIRE SWIFT (NASA)
- TRW / NORTHROP GRUMMAN:** KOMSAT-1 ROCSAT-1 SSSI / LEWIS (NASA) TOMS-EP (NASA)

WEIGHT: 155 grams (approx)



KEARFOTT FAMILY OF CONEX[®] GYROS

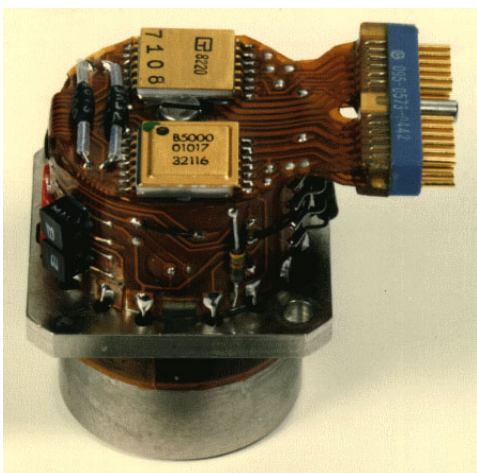
MOD 0 CONEX[®]



MOD I CONEX[®]



MOD II CONEX[®]



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SPACE QUALIFIED**



*For further information on these gyros or any other gyro product applications, Please contact
Kearfott Marketing at:
Telephone (973) 785-6555 or fax: (973) 785-5905*

Visit our website: www.kearfott.com