

Honeywell

THE POWER OF **CONNECTED**



HG4930 MEMS Inertial Measurement Unit

Aerospace performance. Industrial prices.

Possibilities of Navigation. *Made Easy.*

HG4930 MEMS Inertial Measurement Unit



The HG4930 is a Micro-Electro-Mechanical System (MEMS) based Inertial Measurement Unit (IMU) designed to meet the needs of a range of applications across various markets including agriculture, AUVs, industrial equipment, robotics, survey/mapping, stabilized platforms, transportation, UAVs, and UGVs. With industry standard communication interfaces and a wide input voltage range the HG4930 is easily integrated into the variety of architectures that these applications present. The extremely small size, light weight, and low power make the HG4930 ideal for most applications.

The HG4930 includes MEMS gyroscopes and accelerometers. In addition, the HG4930 employs an internal environmental isolation system to attenuate unwanted inputs commonly encountered in real world applications. The internal isolation and other proprietary design features ensure the HG4930 is rugged enough to meet the needs of the most demanding users.

Three different performance grades of the HG4930 are available as off-the-shelf items. The HG4930 offers many configurable features, such as output data rate and feedback control signal filtering, to simplify system integration. Honeywell screens and calibrates all of the MEMS inertial sensors utilized in the HG4930 IMU.

The HG4930 is not ITAR controlled. Its Export Control Classification Number (ECCN) is 7A994.

Key Honeywell advantages:

- Highest performing MEMS IMU of its size and price.
- World class inertial sensor development, calibration, and compensation.
- Smaller, lower power, and cost effective replacement for a fiber optic gyro (FOG) IMU.
- RS-422 Asynchronous standard protocol.
- Proven reliability, dependability, and ruggedness, through unit life.

HG4930 IMU TYPICAL KEY CHARACTERISTICS	
Volume/ Size	82 cm ³ (5in ³), (65 x 51 x 35.5 mm Envelope)
Weight	140 grams, 0.3 lbs
Power Consumption	<2 Watts
Operating Temperature Range	-54°C to 85°C
Data Rate	100 Hz (Guidance) and 600 Hz (Control)
Gyroscope Operating Range	< 200 deg/sec standard (400 deg/sec available upon request)
Accelerometer Operating Range	+/- 20 g
Supply Voltage	+5 VDC +/- 5%

HG4930 IMU TYPICAL PERFORMANCE OVER FULL OPERATING TEMPERATURE RANGE						
Distributor Ordering Part number ¹	Gyro Bias Repeatability (%/hr 1σ)	Gyro Bias In-run Stability (%/hr 1σ)	ARW (%/√hr)	Accel Bias Repeatability (mg 1σ)	Accel Bias In-run Stability (mg 1σ)	VRW (m/s/√hr)
HG4930CA51	7	0.25	0.04	1.7	0.025	0.030
HG4930BA51	10	0.35	0.05	2.0	0.050	0.040
HG4930AA51	20	0.45	0.06	3.0	0.075	0.060

¹ When ordering direct from Honeywell, use part numbers 68904930-CA51, 68904930-BA51, 68904930-AA51.

Find Out More

Visit us at: aerospace.honeywell.com/HG4930



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