



GH-4001/4200 electronic standby instrument systems for aircraft



Agile and dependable solutions for military flight guidance and safety systems.

Acron Aviation brings innovative Electronic Standby Instrument Systems (ESIS) to military pilots by offering two distinct backup systems, the GH-4001 and GH-4200, that provide an agile and dependable solutions for critical awareness of aircraft configuration and flight control, even in the most challenging conditions.

GH-4001 ESIS

The GH-4001 ESIS and GHR-4000 repeater display represents the next generation of standby technology specifically designed to meet the demanding needs of high performance military aircraft, including ruggedized helicopter environments.

Built and tested to Military Qualification standards, the GH-4001 is an intuitive panel-mounted, solid-state instrument that provides flexible hardware configurations, including internal air data to support both supersonic and subsonic applications, and external air data using Acron Aviation ADC-4000 or ARINC 429 air data from an existing aircraft source. The GH-4001 also provides optional heading using the MAG-3000 magnetometer or an existing aircraft ARINC 429 heading source, making it the ideal solution for both forward-fit and retrofit programs.

The LED backlight LCD display provides greater situational awareness and efficiency. The sunlight-readable display includes an ambient light sensor and illuminated menu and knob enabling compatibility with night vision imaging systems (NVIS) and allowing pilots to read gauges and other indicators while maintaining night vision. The GH-4001 stands ready to provide advanced flight data including attitude, heading, altitude, airspeed, barometric setting, vertical speed, Mach number, angle of attack, navigation and rotor speed with the typical on-ground alignment start-up in less than a minute.

With field-loadable software and display settings, the GH-4001 is a direct replacement to the popular GH-3001, using the same wiring harness and connector to make installation quick and easy. The GH-4001 space-saving footprint and status menu simplifies installation and maintenance, making it the ideal standby for military aircraft operators.

KEY FEATURES

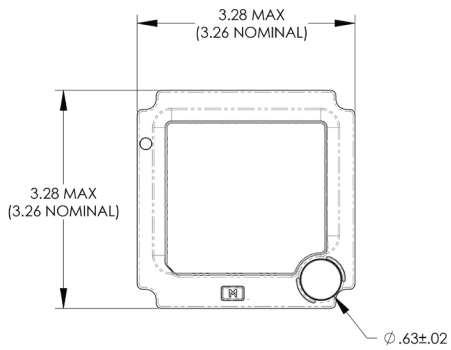
GH-4001 ESIS

- > Military Qualification
- > High rate sensors
- > ARINC 429 or MIL-STD-1553 interface
- > Retrofit plug-and-play replacement to the GH-3009
- > Repeater display available for numerous cockpit configurations
- > Designed for single and tandem high-performance military aircraft
- > Integrates with existing magnetometers
- > Aligns in less than a minute after startup
- > In-cable configuration module
- > Field-loadable software and display settings
- > Rotor speed indicator (external sensor required)
- > Sunlight readable Active Matrix Liquid Crystal Display (AMLCD) with LED backlight
- > Ambient light sensor
- > Illuminated menu button and knob
- > NVIS compatible

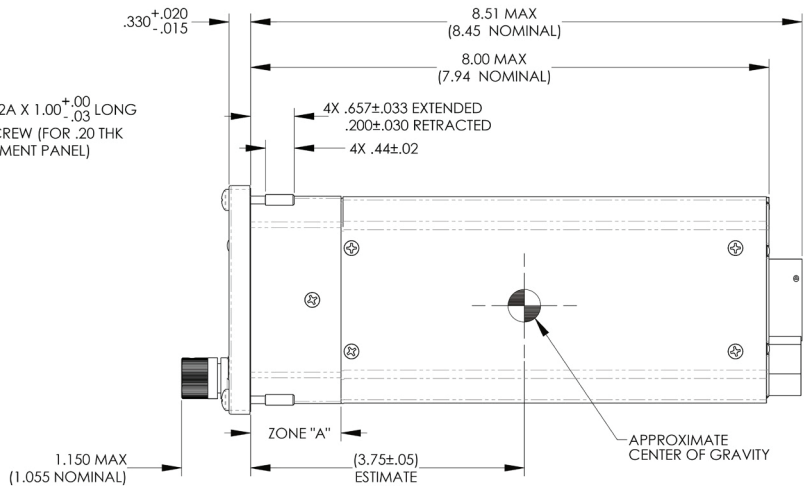
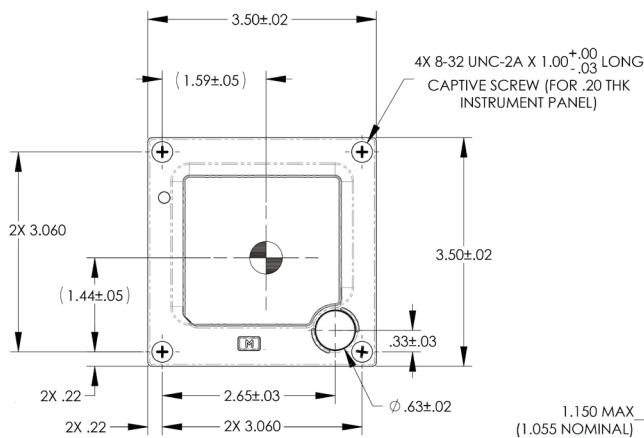
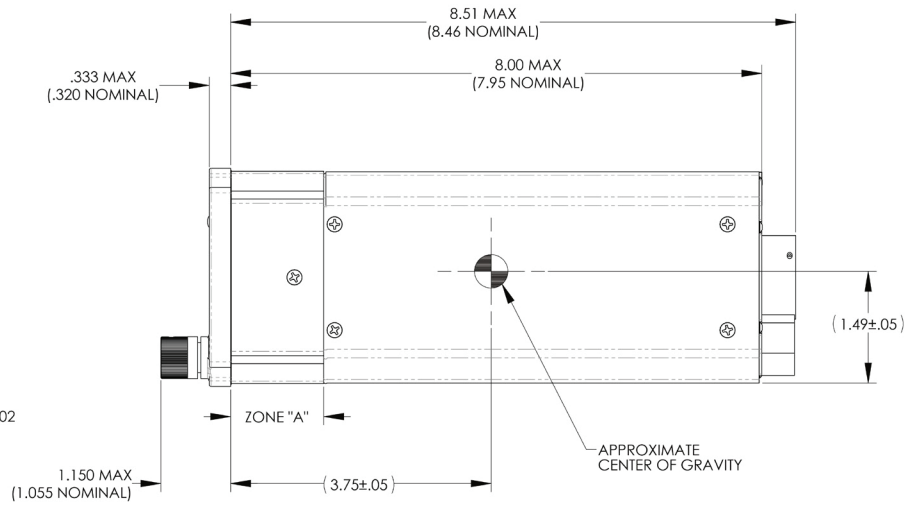
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**CLAMP MOUNT
(TOP)**



**FLANGE MOUNT
(BOTTOM)**



GH-4001 ESIS ELECTRONIC STANDBY INSTRUMENT SYSTEM

	GH-4001	GH-4001 REPEATER DISPLAY
Physical Description		
Weight	2.9 lb. maximum (1.32 kg)	2.3 lb. maximum (1.04 kg)
Power	10 W nom., 22 W max. at 28 VDC	7 W nom., 16 W max. at 28 VDC
Interfaces		
	ARINC 429 receivers (4) and outputs (2)	1553B: 1 dual redundant Remote Terminal
	RS-232 serial bus	RS422 (for Magnetometer)
	Discrete: 5 In, 1 Out	Discrete: 5 In, 1 Out
	Pneumatic ports	
Qualifications		
	MIL-STD-810, MIL-STD-461, MIL-STD-704, MIL-STD-3009	

GH-4200 ESIS

When military aircraft must operate in challenging environments, the go-to back-up system is the Acron Aviation GH-4200 ESIS. Designed specifically for the F-15 and F/A-18 single and tandem high-performance military aircraft, the solid-state GH-4200 can now be engineered for other platforms as well. It embodies the next generation of

standby technology with a GHR-4000 repeater display and has the ability to be installed into various cockpit configurations. The system contains internal attitude, air data and accelerometer sensors and is able to receive turn-rate data as well as analog deviation data from a navigation receiver. With a configurable display of flight cues, valuable airspeed, altitude, attitude, turn rate and vertical speed data provides pilots with crucial information in the event of a panel failure.



The 3-ATI (Air Transport Indicator) self-contained instrument only weighs 3 lbs. (1.36 kg) and its compact and flexible design allows it to be installed virtually anywhere in the cockpit. The GH-4200 ESIS includes a flat-panel AMLCD that is also sunlight-readable and NVG compatible. This system supports multiple input/output data transfer protocols, including ARINC 429, RS-232, discrete and analog signals. The flexible system works seamlessly with new digital cockpit avionics as well as older analog systems, making it the ideal standby system to meet the demanding needs of high performance military aircraft for flight support and back-up safety.



KEY FEATURES

GH-4200 ESIS

- > Designed for single and tandem high-performance military aircraft
- > Custom engineering for additional commercial platforms available
- > Repeater display available for numerous cockpit configurations
- > Configurable display of flight cues
- > 3-ATI self-contained unit weighs only 3 lb. (1.36 kg)
- > Interfaces support ARINC 429, RS-232 serial bus, discrete and analog inputs
- > Flat-panel AMLCD is sunlight-readable and NVG-compatible
- > High-rate attitude sensors and supersonic air data sensors
- > Military-qualified for rugged carrier environments
- > Field-loadable software

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GH-4200 ESIS ELECTRONIC STANDBY INSTRUMENT SYSTEM

	GH-4200	GH-4000* REPEATER DISPLAY
Physical Description		
Dimensions**	9.92 in. (L) x 3.50 in. (W) x 3.50 in. (H) 250 mm (L) x 89 mm (W) x 89 mm (H)	9.92 in. (L) x 3.50 in. (W) x 3.50 in. (H) 250 mm (L) x 89 mm (W) x 89 mm (H)
Weight	3.0 lb. max. (1.36 kg)	2.4 lb. max. (1.10 kg)
Power	+28 VDC nominal	+28 VDC nominal
Interfaces		
	ARINC 429 receivers (2) and transmitter (1)	1553B: 1 dual redundant Remote Terminal
	RS-232 serial bus	RS422 (for Magnetometer)
	Analog inputs (3) and outputs (3)	Discrete: 5 In, 1 Out
	Discrete inputs (5) and output (1)	
	Pneumatic pressure ports	

* The GHR-4000 Repeater relies on the GH-4200 for data and contains no internal sensors

** Includes knob and connector