



Product Description:

This product is a high-performance inertial measurement device with built-in high-precision fiber-optic gyro and high-precision quartz flexure accelerometer, which can measure the attitude parameters (roll angle, pitch angle, angular velocity, acceleration) of the moving carriers, and ensure a very high measurement accuracy by nonlinear compensation, quadrature compensation, temperature compensation and Kalman filtering accordingly estimated.

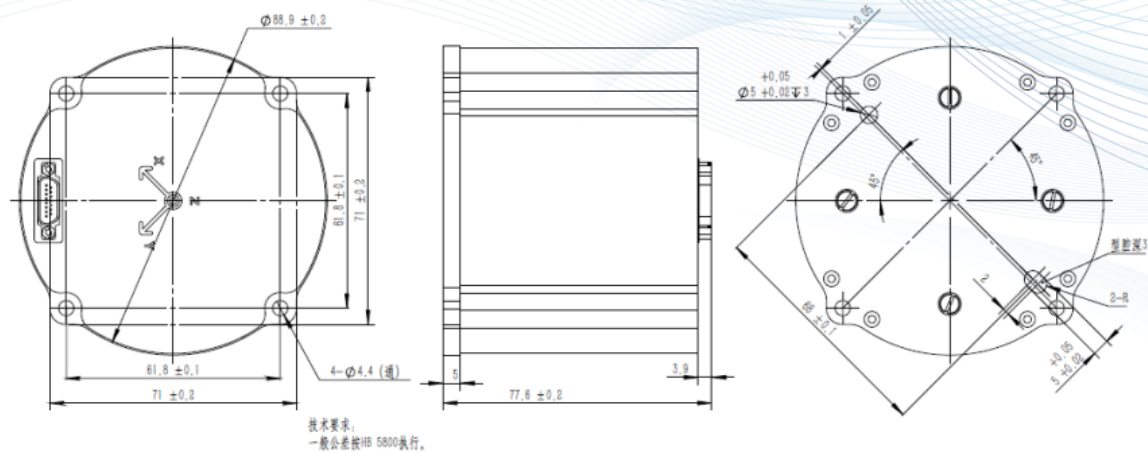
Features:

- Small size and light weight;
- High precision, high reliability;
- Gyro drift compensation;
- Wide temperature range, temperature compensation;
- Orthogonal compensation, dynamic compensation;
- High performance Kalman filtering algorithm.

Applications:

- Autonomous driving
- Unmanned tactical missile guidance
- Gimbal and antenna system stabilization
- Attitude/heading reference system

Dimension:



Specification :

Main Device Characteristic					
Gyroscopes	Range	$\pm 500^\circ/\text{s}$	Accelerometers	Range	$\geq \pm 20 \text{ g}$
	Zero Degree Stability	$\leq 0.2^\circ/\text{h}$ (10s smooth)		Scale factor	0.7 ~ 1.3mA/g
	Zero bias repeatability	$\leq 0.2^\circ/\text{h}$		Second-order nonlinear coefficients	$\leq \pm 20 \mu\text{g}/\text{g}^2$
	Scale factor nonlinearity	$\leq 50\text{ppm}$		Zero bias month repeatability (1 σ)	$\leq 30\mu\text{g}$
	Scale factor repeatability	$\leq 50\text{ppm}$		Scale factor monthly repeatability (1 σ)	$\leq 30\text{ppm}$
	Random walk factor	$0.03^\circ/\text{h}^{1/2}$		Bias temperature coefficient (-40°C ~ +60°C)	$\leq \pm 50 \mu\text{g}/^\circ\text{C}$
				Scale factor temperature coefficient (-40°C to +60°C)	$\leq \pm 50 \text{ppm}/^\circ\text{C}$
Physical property			Interface characteristic		
Supply voltage	24V DC rate (12 ~ 36V DC)		Interface method	RS232/RS422/Support PPS, EVENTMARK input/output	
Electric consumption	< 14W			Transmission rate	115200bps (configure)
Operating temperature	-40°C ~ +70°C		Data update rate	400Hz (configure)	
Shock	6.06g, 20 ~ 2000Hz		Impact	15g, 11ms Half-sine shock	
storage temperature	-55°C ~ +85°C		User mode	Vehicle-mounted (default), aircraft-mounted, ship-mounted	
Protection level	IP65				
Physical dimensions	$\leq \Phi 89 \times 77.2\text{mm}$				
Weight	$\leq 0.7\text{Kg}$				

The data contained in this document is intended for the use of technical trainers only. The customer's technical department is responsible for assessing the suitability of the product for the intended application and the completeness of the product information given in this document in relation to such application. For further information on products, technology, terms and conditions of delivery and prices, please contact our nearest office (www.senstechxyz.com).

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