

战术级光纤捷联惯组

The Tactical FOG Strapdown Inertial Measurement Unit



战术级光纤捷联惯组由惯性敏感组件、相关电子线路和机箱组成，具有角速率和加速度输入输出、误差自补偿等功能，可为飞行控制系统、稳定控制系统提供所需的角速度、加速度测量值，适用于短距导弹、小型无人机、天线稳定基准、火箭弹制导化改造等应用领域。

The tactical FOG inertial measurement unit which has the functions of angular rate and acceleration input/output, error compensation, etc. is composed of inertial sensor assembly, electric circuits and chassis. It can provide angular rate and acceleration for flight control system and stabilized control system, which is suite for short distance guided missiles, UAVs, antenna stable reference system, guided rocket reconstruction, etc.

技术特点

- 采用三轴一体闭环光纤陀螺作为核心部件
- 低成本，小体积，重量轻
- 低功耗
- 可靠性高，满足高可靠应用要求

FEATURES

- Adopt three axis closed-loop FOG as the core component
- Low cost, small volume, light weight
- Low power consumption
- High reliability

应用领域

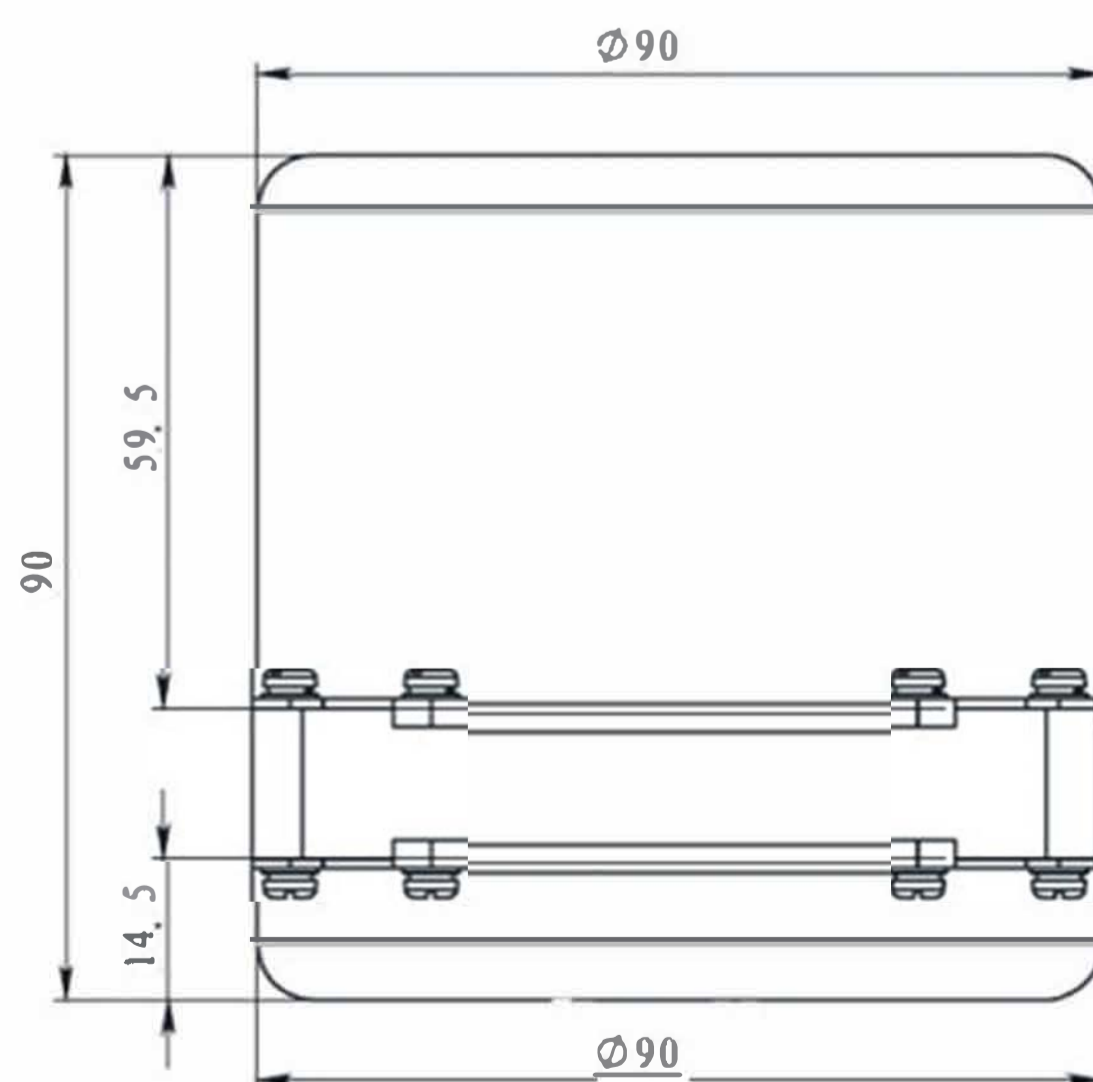
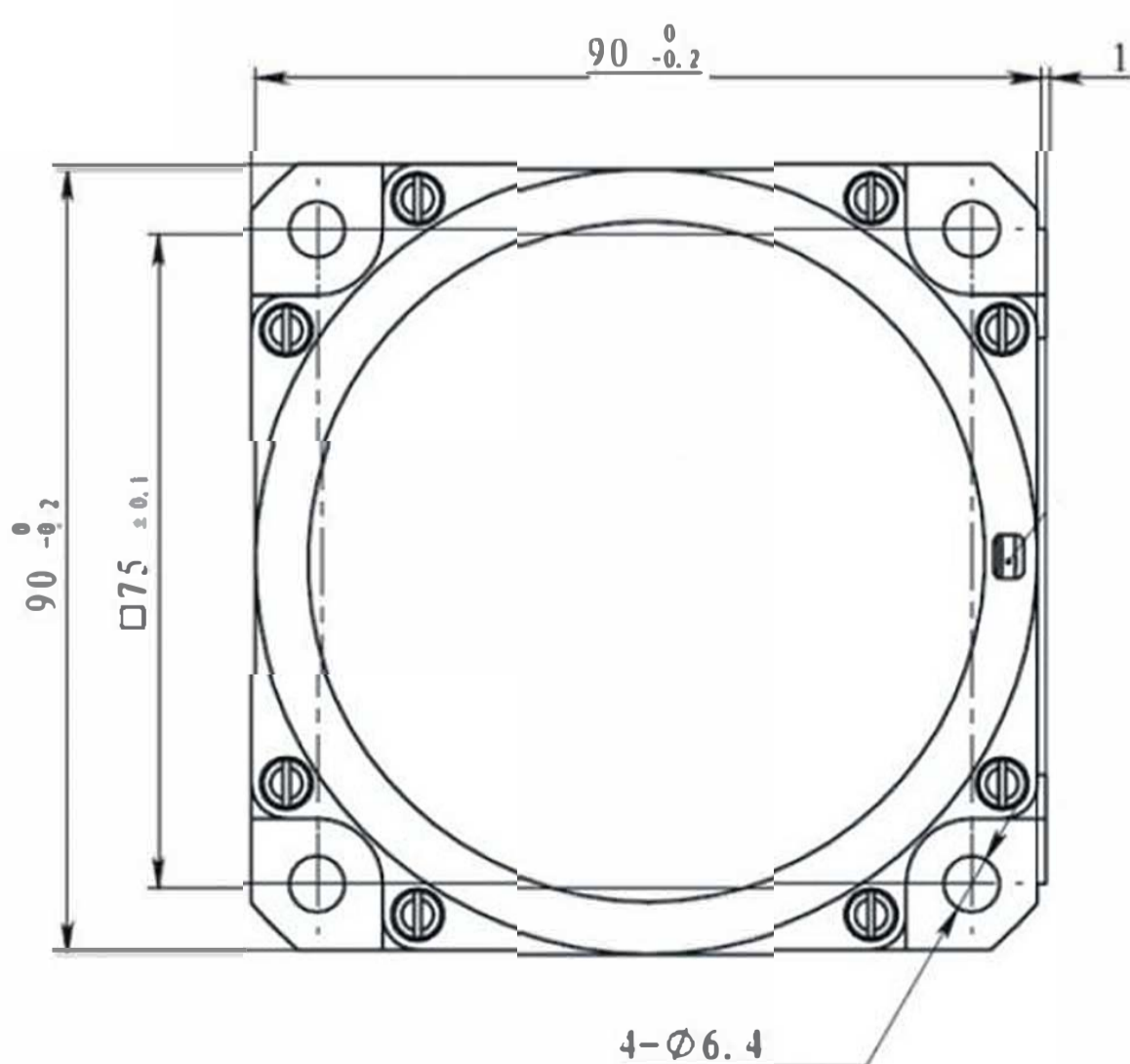
短距导弹、制导火箭弹、小型无人机、天线稳定基准等

APPLICATION

Short distance guided missiles, Guided rockets, UAVs, Antenna stable reference system etc.

三视图

STRUCTURAL DIMENSION





技术指标 SPECIFICATIONS

准备时间 Set-up Time		≤1min		
精度 Accuracy	陀螺零偏稳定性 Gyro bias stability	0.5° /h (RMS)		
	陀螺零偏重复性 Gyro bias repeatability	0.5° /h (RMS)		
	加速度计零偏稳定性 Accelerometer bias stability	0.5mg (RMS)		
	加表零偏重复性 Accelerometer bias repeatability	0.5mg (RMS)		
测量范围 Dynamic Range	角速度 Angular rate	± 500° /s		
	加速度 Acceleration	± 30g		
使用条件 Operation Requirement	温度 Temperature	-40 ~ +60 °C		
	冲击 Shock	半正弦波 (half-sine wave)	20g, 11ms	
	振动 Vibration	振幅 (峰值) amplitude of vibration(peak value)	6.0g	
		频率范围 frequency domain	10~2000 Hz	
		扫频速率 sweep rate	≤1oct/min	
可靠性 MTBF		5000h		
电源/功率 Power Supply/Consumption		± 28VDC/10W		
接口 Interface		RS422		
尺寸 Dimension		Φ90 × 102mm		
重量 Weight		≤1.2kg		