

## F3X90-IMU type fiber optic gyroscope Inertial Measurement Unit



### ■ Introduction

Fiber optic gyroscope as a new type of all-solid-state gyroscope, has the advantages of fast start-up, wide measurement range and high reliability. Among them, F3X90-IMU type fiber optic gyroscope inertial group is designed for the needs of low and medium precision application background, using three-axis common technology, low cost and stable performance; the structure of the optical circuit, circuit integrated package, simple structure, easy installation, can be applied with small missiles, guided bombs in navigation guidance, attitude measurement and control systems.

### ■ Application Scope

This manual is only applicable to F3X90-IMU type products, and contains performance indicators, technical conditions, external dimensions and installation and use. Among them, the technical conditions include the environmental range, electrical performance, and physical characteristics of the product.



### ■ Main Parameters

Table 1 Main performance indicators of the product

Main index Parameters	H type	M type
Room temperature zero drift repeatability(period by period, day by day)( $^{\circ}$ /h)	$\leq 0.1$	$\leq 0.2$
Zero stability at fixed temperature( $^{\circ}$ /h)	$\leq 0.1$	$\leq 0.2$
Room temperature scale factor repeatability(ppm) ( $1\sigma$ )	$\leq 20$	$\leq 50$
Scale factor asymmetry at constant temperature(ppm) ( $1\sigma$ )	$\leq 20$	$\leq 50$
Scale factor non-linearity at constant temperature(ppm) ( $1\sigma$ )	$\leq 30$	$\leq 50$
Threshold value( $^{\circ}$ /h)	$\leq 0.2^{\circ}$ /h	
Angular rate range( $^{\circ}$ /s)	-500~+500 $^{\circ}$ /s	
Bandwidth (Hz)	$\geq 200$	
Dimension (mm)	$\Phi 90 \times 90$	
Weight (g)	980 $\pm$ 20(with accelerometer)	
Operating temperature ( $^{\circ}$ C)	-45 ~ +65	