

# Fiber Optic Gyroscopes

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# Introduction to fiber optic gyroscopes

Fiber optic gyroscopes are instruments that can accurately determine the orientation of moving objects and are widely used in the aerospace, naval and military defense industries. Our fiber optic gyroscope has the advantages of light weight, small size, high accuracy and high reliability.



# Why choose our fiber optic gyroscopes?

- **Advanced Stability:** the gyroscopes ensure stable performance even in dynamic environments.
- **High Accuracy:** Experience precise data output with minimal error margins.
- **Compact Design:** Our sleek and compact gyroscopes fit seamlessly into any system or device.
- **Longevity:** Built with durability in mind, our gyroscopes guarantee long-term reliability.
- **More options:** we have Single-axis, Two-axis, Three-axis; and different size options.

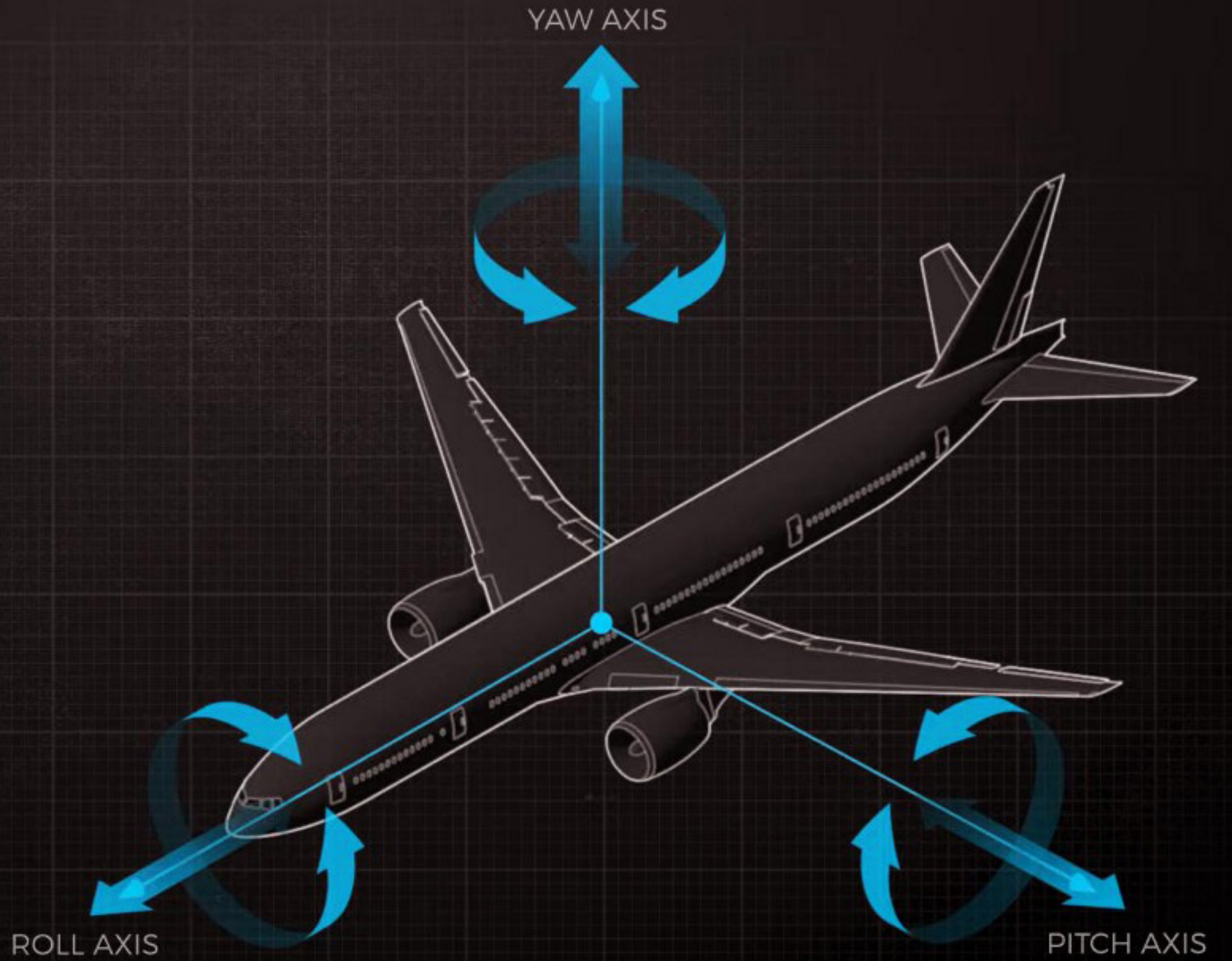




**GYROSCOPES**  
Rotation assesment



**ACCELEROMETERS**  
Motion sensing



# Fiber optic gyroscope parameters

**Single axis fiber optic gyroscope**

Model and specification	G5X Series			G6X Series			G7X Series		G8X Series		G9X Series			G2X Series		
	G5XA	G5XB	G5XC	G6XA	G6XB	G6XC	G7XA	G7XB	G8XHA	G8XHB	G9XHA	G9XHB	G9XHC	G2XHA	G2XHB	G2XHC
Dynamic range (°/s)	±500	±500	±500	±500	±500	±500	±500	±500	±500	±500	±500	±500	±500	±500	±500	±500
Zero bias stability (°/h)	≤0.30	≤0.20	≤0.10	≤0.20	≤0.10	≤0.05	≤0.05	≤0.02	≤0.02	≤0.015	≤0.02	≤0.015	≤0.01	≤0.01	≤0.007	≤0.005
Zero bias repeatability(°/h)	≤0.20	≤0.20	≤0.10	≤0.20	≤0.10	≤0.05	≤0.05	≤0.02	≤0.02	≤0.010	≤0.02	≤0.015	≤0.01	≤0.01	≤0.007	≤0.005
Scale factor nonlinearity (ppm)	≤20	≤20	≤20	≤20	≤20	≤20	≤20	≤10	≤20	≤10	≤10	≤10	≤10	≤10	≤10	≤10
Scale factor repeatability(ppm)	≤20	≤20	≤20	≤20	≤20	≤20	≤20	≤10	≤20	≤10	≤20	≤10	≤10	≤10	≤10	≤10
Total temperature scale factor repeatability (ppm)	≤1000	≤300	≤200	≤300	≤200	≤200	≤100	≤50	≤150	≤50	≤150	≤100	≤100	≤50	≤50	≤50
Magnetic field sensitivity (°/h/Gs)	-	-	≤0.05	≤0.05	≤0.05	≤0.05	≤0.03	≤0.02	≤0.02	≤0.010	≤0.02	≤0.010	≤0.01	≤0.01	≤0.01	≤0.01
Size(mm)	50x50x36.5			60x60x29.5			70x70x32		80x80x33		98x98x35			120x120x38		
Weight(g)	130±10			150±20			220±30		350±30		540±30			850±50		
Bandwidth(Hz)	≥200															
Working temperature (°C)	-40~+60															

# Fiber optic gyroscope parameters

<b>Two axis fiber optic gyroscope</b>		
Model and specification	GD2X60 Series	
	GD2X60H	GD2X60L
Dynamic range (°/s)	±500	±500
Zero bias stability (°/h)	≤0.50	≤1.0
Zero bias repeatability(°/h)	≤0.50	≤1.0
Scale factor nonlinearity (ppm)	≤50	≤50
Scale factor repeatability(ppm)	≤50	≤50
Total temperature scale factor repeatability (ppm)	≤1000	≤1000
Magnetic field sensitivity (°/h/Gs)	≤0.20	≤0.5
Size(mm)	64×60×42	
Weight(g)	300±50	
Bandwidth(Hz)	≥200	
Working temperature (°C)	-40~+60	

<b>Three axis fiber optic gyroscope</b>						
Model and specification	GD3X80 Series			GD3X90 Series		
	GD3X80H	GD3X80M	GD3X80L	GD3X90H	GD3X90M	GD3X90L
Dynamic range (°/s)	±500	±500	±500	±500	±500	±500
Zero bias stability (°/h)	≤0.30	≤0.50	≤0.80	≤0.10	≤0.20	≤0.30
Zero bias repeatability(°/h)	≤0.30	≤0.50	≤0.80	≤0.10	≤0.20	≤0.30
Scale factor nonlinearity (ppm)	≤50	≤50	≤50	≤20	≤30	≤50
Scale factor repeatability(ppm)	≤50	≤50	≤50	≤50	≤30	≤50
Total temperature scale factor repeatability (ppm)	≤1000	≤1000	≤1000	≤1000	≤1000	≤1000
Magnetic field sensitivity (°/h/Gs)	≤0.10	≤0.10	≤0.10	≤0.10	≤0.10	≤0.10
Quartz accelerometer	Configurable			Configurable		
Size(mm)	Φ80×70			90×90×90		
Weight(g)	680±50			880±50		
Bandwidth(Hz)	≥200					
Working temperature (°C)	-40~+60					