ER-FOG-120 High Performance FOG Gyroscope

ER-FOG-120 high precision FOG gyroscope is a very important angular rate sensor, which has the characteristics of long life, fast start up, high precision and lower power consumption. It plays a very important role in precise north-seeking device, vehicle positioning orientation, high precision inertial navigation system (INS). The FOG gyroscope has no moving parts and doesn’t rely on inertial resistance to movement compared with other classic spinning-mass gyroscopes or mechanical gyroscopes. Hence, the FOG is an excellent alternative to a mechanical gyroscope.

Application

Precise north-seeking

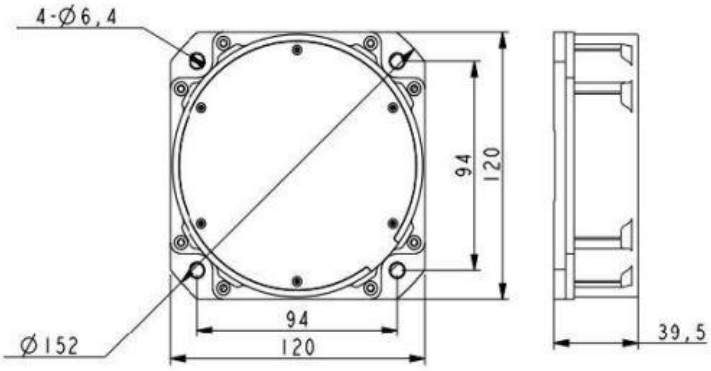
High precision inertial navigation system

Vehicle positioning orientation

Specifications

Item	Unit	ER-FOG-120A	ER-FOG-120B	ER-FOG-120C	ER-FOG-120D
Measuring range	°/s	-500~+500	-500~+500	-500~+500	-500~+500
Bias stability	°/h	≤ 0.003	≤ 0.008	≤ 0.01	≤ 0.03
Bias repeatability	°/h	≤0.003	≤ 0.008	≤0.01	≤0.03
Random walk coefficient	°/√h	≤0.0004	≤0.0008	≤0.001	≤0.003
Scale factor non-linearity	ppm	≤5	≤ 10	≤20	≤ 30
Scale factor repeatability	ppm	≤ 5	≤ 10	≤20	≤ 30
Scale factor asymmetry	ppm	≤5	≤ 10	≤20	≤30
Start Time	s	≤ 1	≤ 1	≤ 1	≤ 1

Bandwidth	Hz	>100	>100	>100	>100
Power supply	V	-5~+5	-5~+5	-5~+5	-5~+5
Power	W	≤ 18	≤ 18	≤ 18	≤ 18
Operating temperature	℃	-40~+65	-40~+65	-40~+65	-40~+65
Storage temperature	℃	-45~+85	-45~+85	-45~+85	-45~+85
Vibration	/	2g (RMS), 20Hz~2000H			
Shock		40g, 1 ms	40g, 1 ms	40g, 1 ms	40g, 1 ms
Output method	/	RS-422	RS-422	RS-422	RS-422
Connector	/	J30J-15TJL	J30J-15TJL	J30J-15TJL	J30J-15TJL
Dimensions	mm	Φ120×39	Φ120×39	Φ120×39	Φ120×39



Note: Unfilled dimensional tolerances are performed in accordance with GB/T1804-2000 Class C.

Figure 1 ER-FOG-120 Type A, Type B, Type C, Type D Fiber Optic Gyro Dimensions