ER-FOG-120H High Performance & Ultr-High Precision FOG Gyroscope (Φ120mm)

ER-FOG-120H Ultr-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. 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 which plays an important role in precise north-seeking device, vehicle positioning orientation and high precision inertial navigation system (INS).

Application

Precise north-seeking

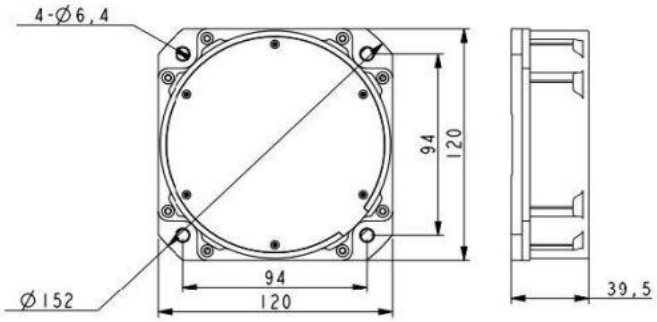
High precision inertial navigation system

Vehicle positioning orientation

Specifications

Item	Unit	ER-FOG-120HA	ER-FOG-120HB	ER-FOG-120HC	ER-FOG-120HD
Measuring range	º/s	-500~500	-500~500	-500~500	-500~500
Bias stability	º/h	≤ 0.002	≤ 0.003	≤ 0.005	≤ 0.007
Bias repeatability	º/h	≤0.001	≤ 0.002	≤0.003	≤0.005
Random walk coefficient	º/√h	≤0.0003	≤0.0005	≤0.0008	≤0.0009
Scale factor nonl-inearity	ppm	≤ 2	≤5	≤ 10	≤ 20
Scale factor repeatability	ppm	≤ 2	≤ 5	≤10	≤ 20
Scale factor asymmetry	ppm	≤ 2	≤5	≤ 10	≤ 20
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~2000Hz			
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-FOG120H A, B, C, D fiber optic gyro dimensions