

**INTRODUCING THE NEDAERO FOG**

NEDAERO, Components and Parts Specialist for civil and military Aircraft and Helicopters, is the manufacturer of the FOG60 Fiber Optic Gyroscope, a small, palm of the hand-sized angular rate sensor. It provides the turn rate of one rotational axis. The FOG60 is a Fiber Optic Block including sensor electronics. The conception of the FOG60 allows for a variety of different customer setups in single or multiple axis configuration.


**MODEL**

Rotation Rate Sensor FOG60

**APPLICATION FIELDS**

AHRS large commercial aircraft, ground vehicles, robots, optics or RF antenna stabilization, training simulator stabilization and many more.

**KEY FEATURES AND BENEFITS**

- ⊕ Fiber optic technology with no moving parts
- ⊕ High reliability
- ⊕ Short initialization time
- ⊕ Analogue voltage output
- ⊕ Modular design adaptable for 2 and 3 axis units
- ⊕ Robust design

**SELECTION OPTIONS**

- ⊕ With or without metallic cover
- ⊕ Surface treatments: chromated, anodized, nickel plated
- ⊕ Low-noise, improved noise parameters:  
ARW optimized by ~15-20%

**GENERAL SPECIFICATIONS**

Measuring Range	± 300 °/sec (Standard)
Bias Setting, Full Temperature Range	± 200 °/hr
Bias Repeatability 1σ, Full Temperature Range	15 °/hr
Stability @ Room Temperature 1)	1 °/hr (typical)
Scale Factor (SKF) @ Room Temperature	(-24 ± 2) mV/°/sec
SKF Repeatability 1σ, Full Temperature Range	0.002
Temp.-Co. (TC) of SKF, Mean Average	-0.028 % / K (typical)
SKF Sensitivity, Full Temperature Range	~ 0 ... - 0.05 % / K
Noise, Angle Random Walk 1)	< 6 °/hr / √Hz (0.1 °/Vhr)
Frequency Range	0 ... 125 Hz (Standard)
Run-up Time	< 0.5 sec
Misalignment of Sensitive Axis	< 5 mrad
MTBF	> 40,000 hrs @ R.T.

1) Bias stability and Angle Random Walk determined by Allan variance method. Parameters denoted as "Standard" can be changed on request within certain limits.

**PHYSICAL SPECIFICATIONS**
**Mechanical**

Mass	85 g
Dimensions approx.	60 x 60 x 19.5 mm <sup>3</sup>

**Electrical**

Supply Voltage	+ 5 VDC ± 5 %
Supply Current	< 200 mA
Rate Signal Analogue Output	Differential, Rate_P / Rate_N
Output Load	R(L) ≥ 10 kOhm, C(L) < 0.5 nF
Signal GND Isolation from Case	≥ 10 Mohm

**ENVIRONMENTAL SPECIFICATIONS**

Operating Temperature Range	-40 °C to +70 °C
Storage Temperature Range	-54 °C to +80 °C
Vibration, 20 Hz to 2 kHz	10 G (rms)
Shock 0.5 msec, Half Sine	500 G (rms)

**ROTATION RATE OPTIONS**

The modular design of the fiber optic gyroscope enables tuning of specifications to customer specific applications, e.g. dynamic range, bandwidth, bias-stability, noise and physical/environmental specifications.