

Fibre Optic Gyros and Inertial Systems



Fibre Optic Rate sensors FOG2

The Fibre Optic Rate Sensors FOG2 are small palm-of-the-hand-sized rate sensor. They provide turn rate for one rotational axis. The modular design allows a cost effective realisation of single or multiple sensing axis units.

Key Features and Benefits:

- Fibre optic technology without moving parts
- High reliability
- Forceful design
- Analogue voltage output and Build-In-Test functionality
- Robust metal housing
- Temperature output for compensation

The FOG2 is highly suitable for the use in Inertial Measurement Units and Navigation Systems for helicopters and aircrafts. The sensor is also well installed in airliners and missiles for the flight stabilisation and attitude control.

Other application examples comprise azimuth measurement of land vehicle, optics or antenna stabilisation as well as high dynamical sensor platforms or other industrial purposes.



FOG2-60



FOG2-80

Basic Data and Specifications Rate Sensor

	FOG2-60	FOG2-80
Measuring range	± 60 °/sec up to ± 900 °/sec	± 300 °/sec
Bias stability (typical)	1 °/hr	0,2 °/hr
Dimensions	60 * 60 * 20 mm ³	80 * 80 * 20 mm ³
Weight	< 100 g	< 120 g
Operating temperature range	-40 °C to +70 °C	-40 °C to +70 °C



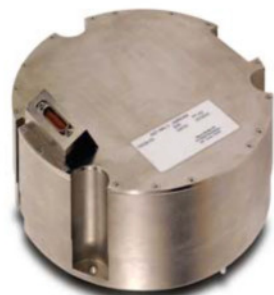
FORU 160



FOWG 260-P



FOWG 160-C9



IMU 360-A

Fibre Optic Rate Units

The Fibre Optic Rate Units are single- or two-axis rate sensors. They provides turn rate information for one or two rotational axis.

The units are built of one or two fibre optic block FOG including sensor electronics, a micro controller module and the housing. The sensor electronic module of each FOG performs the pre-processing of the analogue rate signals and measures the ambient temperature inside the FOG.

The micro controller module reads the analogue signals from the sensor electronic modules and performs the necessary error compensation for the rated gyro output signals. Available outputs are analogue DC or AC and digital SSI/TTL or RS-422.

FORU 160

The FORU 160 is a small single-axis rate unit. Applications include azimuth measurement for vehicles, robotic systems, optics or antenna stabilization, training simulator stabilization and other industrial purposes.

FOWG 160 and FOWG 260

The FOWG 160 and 260 are single- or two-axis rate units with very robust metal housings. They supply azimuth and elevation rate information for the control of the turret and gun drive systems in armoured vehicles. They are also developed for integration in stabilised fire control systems.

Basic Data and Specifications Rate Units

Measuring range	± 60 °/sec or ± 100 °/sec
Bias stability (typical)	< 1 °/hr
Supply Voltage	± 5 VDC / 28 VDC (18-32VDC)
Operating temperature range	-40 °C to +70 °C

Inertial Measurement Unit

The IMU 360 is a three-axis unit which supplies angular rate and acceleration information. The unit is used for attitude control and navigation of missiles.

Basic Technical Data and Specifications IMU 360

Rate measuring range	± 800 °/sec
Acceleration	± 10 g
Bias stability (typical)	< 1 °/hr
Operating temperature range	-40 °C to +70 °C