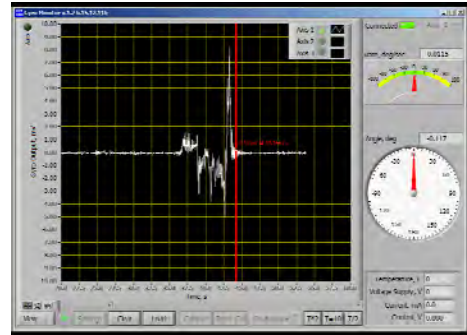


Introduction

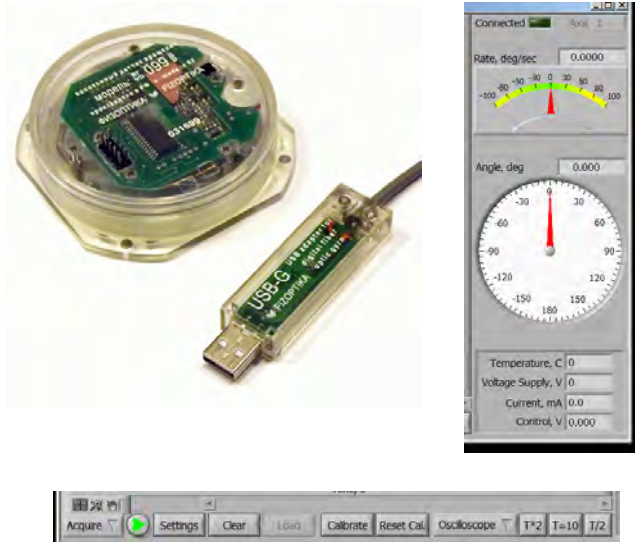
G-monitor software works under Windows on the PC connected to Fizoptika digital FOG (including 3-axis assemblies). It generates FOG signal waveform and can write gyro data into file and can read data from. Besides, main panel contains arrow indicators of the current angular rate and angle of turn.



General

Digital FOG **VGxx.D** integrates analog open loop fiber optic gyro (core sensor) and miniature single-board ADC (μ ADC) finished by RS232-port driver. μ ADC may be set in 4 working modes with different baud rates, data repetition rates and data content. They are as follows:

- (1, **default mode**) = 115 kbaud, 1200 Hz, 24 bit FOG output (LSB=0.0003 mV), several 10 bit channels of "slow" FOG parameters (temperature, supply voltage, consumption current, reserved..);
- (2/3) – 38/9.6 kbaud, 300/70 Hz, same data content as mode (1);
- (4, **high speed**)¹ = 115 kbaud, **4800 Hz** data repetition, data content – only 14 bit FOG output (LSB=0.3 mV)



USB-G adapter

To connect easy digital FOG to PC Fizoptika supplies special RS232-USB adapter². It converts gyro interface and also delivers +5V (0.5A max) to FOG. USB-G has color indicators of power and data connecting.

USB-G driver and G-Monitor download

At first connecting USB-G to PC, the computer system seeks and installs driver for new device. If it's not found you may download³ as well as G-monitor installer.

Start program

1. Connect USB-G to PC (driver installed already) and wait till red diode (near USB connector) not flashing (this indicates that system identified the device).
2. Connect FOG to USB-G and wait till red diode not flashing.

Get serial port number via "Device Manager". Start G-monitor via executive file Gyro_monitor.exe. It's necessary to configure program properly for gyro data visualization and recording as required.

Configuring can be done via "Settings" controls or by modifying gyro.ini –file.

It covers:

- communication- type of gyro (data format), port number, port rate
- data displayed plot (oscilloscope type) – time scale, output scale, data averaging, calibration period, etc
- data file – data averaging, data file location
- rate indicator – limits (set via gyro.ini)

¹ Recently introduced working mode to fit bandwidth of analog FOG (about 1kHz), for dynamic tests and digital angular stabilization

² <http://fizoptika.com/products/catalog/usbset.html>

³ <http://fizoptika.com/downloads/index.html>