

Fizoptika Malta TO SHOWCASE ITS ULTRA-COMPACT INERTIAL PRODUCTS

AT XPONENTIAL 2024

Mosta, Malta (EU), April 11, 2024 - Fizoptika Malta will be showcasing a range of its ultra-compact inertial products – the smallest fiber optic gyroscopes (FOGs) VG221s and miniature FOG-based inertial measurement units (FOG IMUs) at Xponential 2024 (April 23-25, San Diego, USA, [Booth 3652](#)).

The [fiber optic gyro VG221](#) is a revolutionarily small and lightweight sensor with an ultra-low power consumption – measuring just $\varnothing 33 \times 12$ mm, weighing 15gr, and consuming 0.3W. It features low noise performance with $0.05^\circ/\text{Vh}$ ARW (angle random walk) and a bias stability of $1^\circ/\text{h}$. The low noise performance variant VG221LN delivers lower ARW of $0.025^\circ/\text{Vh}$.

Fizoptika Malta SWaP-optimized [inertial measurement units](#) combine its smallest fiber optic gyros with MEMS accelerometers. The FOG IMU U121D is housed in a compact aluminium case ($63 \times 56 \times 40$ mm, 145gr) and consumes just 1.5W of power. It features bias stability of $1^\circ/\text{h}$ and ARW of $0.05^\circ/\text{Vh}$. The small cylindrical FOG IMU U123D ($\varnothing 40 \times 100$ mm, 150gr) delivers $1^\circ/\text{h}$ bias stability and $0.05^\circ/\text{Vh}$ ARW. The unit has very low power consumption of 1.5W, too. The U183(M) is another FOG IMU with a cylindrical form-factor. It is 46mm in diameter and 111 mm in length and weighs 200gr. The unit consumes as low as 2W of power and features $0.03^\circ/\text{Vh}$ ARW and $1^\circ/\text{h}$ bias stability.

Fizoptika Malta inertial sensors are designed to suit various space- and layout-limited applications including inertial navigation systems (INSs) in UAVs / UUVs / USVs and gimbal / camera stabilization.

Fizoptika Malta is a manufacturer of the smallest fiber optic gyroscopes (FOGs) and FOG-based inertial measurement units (FOG IMUs) with 35 years of industrial experience and over 190,000 units supplied worldwide.

For more information, please visit <https://fizoptika.com/>.

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