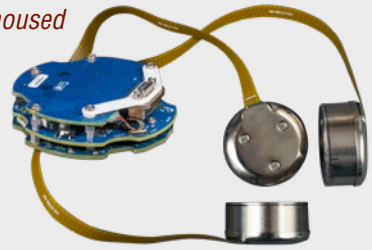
DSP-1760 光纤陀螺仪

单轴或多轴高性能光纤陀螺仪

Housed

Unhoused



Available in 1-, 2-, or 3-axes

Key Features

•优异的偏置不稳定性

≤0.05°/ hr，1σ（典型值）；

≤0.1°/小时，1σ（最大）

•单轴或多轴高性能FOG

•所有封装的变体都可用Micro-D连接器或圆形连接器

•Micro-D连接器提供无外壳的变体

•角度随机游走（ARW）≤0.012°/√hr（0.7°/ hr / √Hz）

•带宽（容纳）：≥440Hz带宽（容纳）：≥1000Hz

•提供九种配置：

-容纳1轴，2轴或3轴

-带Micro-D连接器的无外壳1轴，2轴或3轴拴在PCB上

•KVH E•Core®ThinFiber术

紧凑的单轴或多轴光纤陀螺仪，旨在最大程度地简化集成

KVH的DSP-1760光纤陀螺仪（FOG）结合了单轴或多轴易于集成的外壳中有世界上最小的高性能FOG，也没有提供OEM配置的外壳。 DSP-1760 FOG在偏置稳定性，比例因子和角度随机游动方面具有出色的性能，并提供9种配置以解决最具挑战性的设计项目。
DSP-1760 FOG非常适合空中，陆地或海上稳定和指示应用。 由于它的多功能性以及准确，可靠的输出，它也可以用于导航，制导和控制系统。

专为灵活性和性能而设计

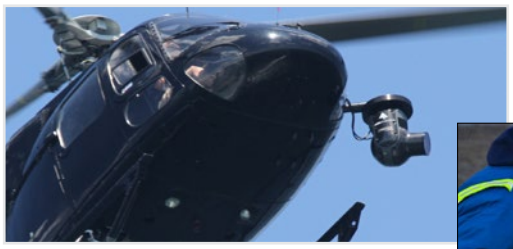
DSP-1760 FOG提供单轴或多轴陀螺仪配置，高带宽，极低噪声的传感器。 DSP-1760 FOG使用KVH专有的E•Core ThinFiber（世界上最小的D形光纤），为客户提供两种接口选择：Micro-D或圆形连接器。 此外，DSP-1760 FOG在内部集成了磁屏蔽。
陀螺仪外壳，在磁环境有问题的系统中提供改进的性能。

卓越的质量和可靠性

KVH是唯一一家拉制自己的光纤的美国FOG制造商，确保质量一致，性能保证，稳定可靠
在每个陀螺仪和陀螺仪系统中开启到开启偏置的重复性。
DSP-1760 FOG是固态的，具有改进的电子设计，在诸如偏置稳定性，ARW和比例因子非线性之类的关键性能领域提供了显着改进。

独家技术

KVH专有的偏振保持E•Core ThinFiber可在小得多的陀螺仪（例如DSP-1760）中提供出色的精度性能。 通过减小KVH的标准E•Core光纤的总直径最终的E•Core ThinFiber光电路的厚度仅为170微米，大大提高了我们标准尺寸陀螺仪的精度，并产生了可提供极高带宽和低噪声的小型陀螺仪。



Ideal for the stabilization and orientation of high-speed gimbals, the versatile and lightweight DSP-1760 FOG offers nine configurations for ultimate integration flexibility.

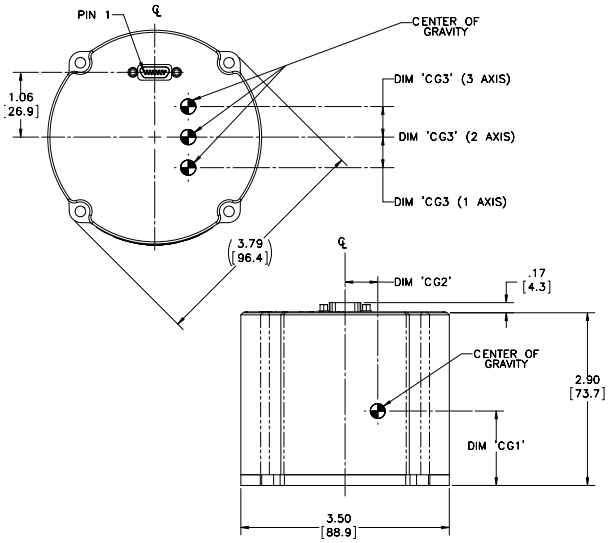
Pipelines deliver massive amounts of crude daily and ensuring safe operation is key. The KVH DSP-1760, coupled to additional sensors, provides these inspection robots with extremely accurate angular data.

KVH DSP-1760 Fiber Optic Gyro

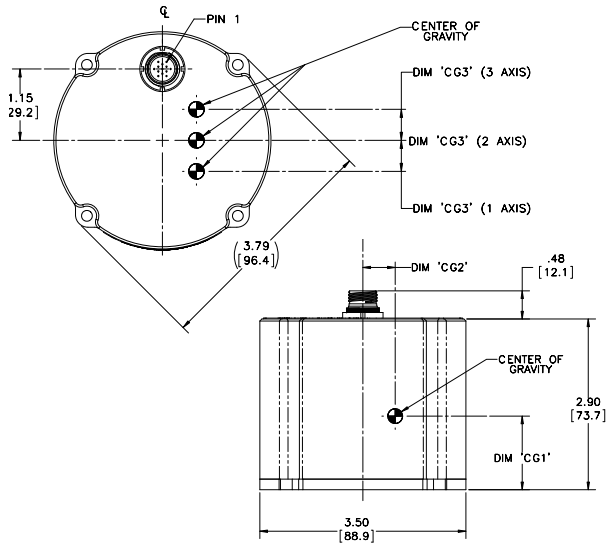
Performance Specifications	
Input Rate *(max)*	±490°/sec
Bias Instability *(25°C)*	≤0.1°/hr, 1σ (max), ≤0.05°/hr, 1σ (typical)
Bias vs. Temperature *(≤1°C/min)*	≤1.5°/hr, 1σ (max), ≤1°/hr, 1σ (typical)
Bias Offset *(25°C)*	±2°/hr
Scale Factor Non-linearity *(full rate, 25°C)*	≤50 ppm, 1σ
Scale Factor vs. Temperature *(≤1°C/min)*	≤200 ppm, 1σ (max), ≤100 ppm, 1σ (typical)
Angle Random Walk *(25°C)*	≤0.012°/√hr (0.7°/hr/√Hz)
Bandwidth *(-3 dB)*	Housed: ≥440 Hz Unhoused: ≥1000 Hz
Electrical/Mechanical Interface	
Initialization Time	≤1.25 secs housed, ≤1.5 secs unhoused
Data Interface	Asynchronous or Synchronous RS-422
Baud Rate	User Selectable 9.6 Kbps to 921.6 Kbps (housed) User Selectable 9.6 kbps to 4147 Kbps (unhoused)
Data Rate	User Selectable 1 to 1000 Hz (housed) User Selectable 1 to 5000 Hz (unhoused)
Physical Specifications	
Dimensions - Housed *(max)*	88.9 mm Dia x 73.7 mm H (3.5" x 2.9")
Dimensions - Unhoused	PCB stack: 81 mm Dia x 24.8 mm H (3.19" x 0.978") (nominal) Gyro sensor: 44.7 mm Dia x 21.8 mm H (1.76" x 0.86")
Weight - Housed *(max)*	Single-axis: 0.50 kg (1.1 lbs.) Dual-axis: 0.54 kg (1.2 lbs.) 3-axis: 0.60 kg (1.3 lbs.)
Weight - Unhoused *(nominal)*	PCB stack: 0.11 kg (0.25 lbs.) Gyro sensor: 0.07 kg (0.16 lbs.) Flex cables: 0.0005 kg (0.001 lbs.)
Power Consumption	Single-axis: 6 W (max), 3W (typical) Dual-axis: 7 W (max), 4W (typical) 3-axis: 8 W (max), 5W (typical)
Input Voltage	+9 to +36 VDC
Environmental Specifications	
Temperature *(operating)*	-40°C to +75°C (-40°F to +167°F)
Shock *(operating)*	25 g, 11 msec, sawtooth
Vibration *(operating)*	8 g rms, 20-2000 Hz, random

Housed DSP-1760s

Micro-D Connector Option

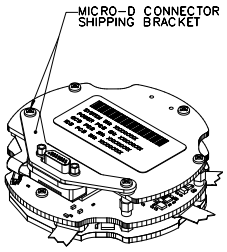


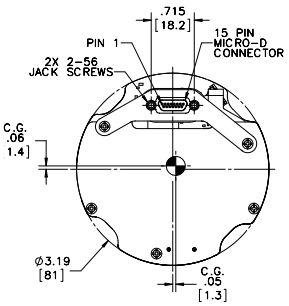
Circular Connector Option



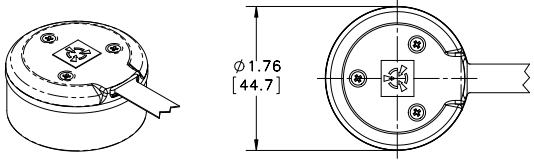
Unhoused DSP-1760s

PCB Stack





Gyro Sensor(s)*



*1, 2, or 3 gyro sensors

ISO 9001

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