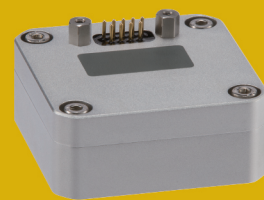




## Fiber Optic Gyroscope Products



Single Axis Gyroscope  
[FG 150]



Inertial Measurement Unit  
[FI 200P]



Gyrocompass



Inertial Measurement Unit (IMU)

# FI 200C

High Performance Tactical Grade **FOG IMU** **ITAR FREE**



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LEA-FI 200C-03

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# Inertial Measurement Unit (IMU)

FIBERPRO's FI 200C is a fiber optic-based Inertial Measurement Unit, which is small, lightweight and offers the highest performance / price ratio of its kind. FI 200C provides inertial data of incremental velocity and angular rate through digital format. Its low operating voltage and low power consumption provide one of the lowest ownership cost.

## Applications

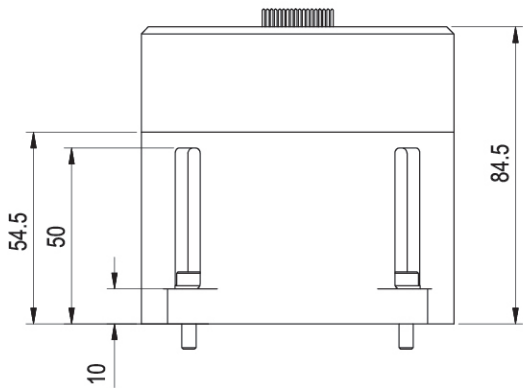
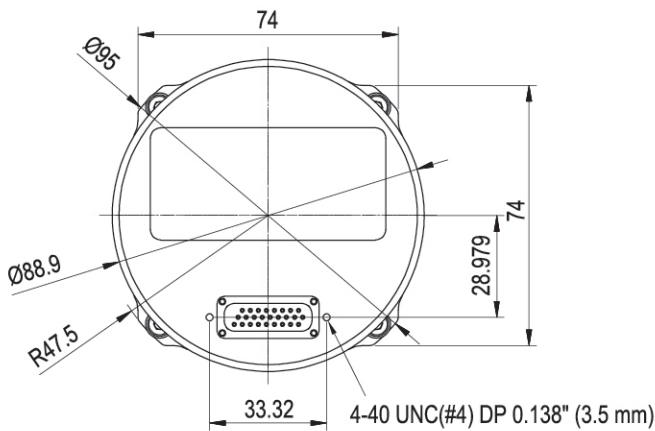
- Autonomous Underwater Vehicle
- Pipeline Inspection Gauge
- Remoted-operated Vehicle
- Motion Compensation
- Autonomous Vehicle
- Mining & Agriculture



FI 200C

## Dimensions

(Unit : mm)



## Specifications

| Performance                                  |  |
|--|--|
| Rate Sensor                                  |  |
| Technology                                   | Closed-loop FOG  |
| Operating Range                              | ± 490°/sec   |
| Bias Repeatability (over temp. range)        | ≤ 0.5°/hr (1σ, RMS)                                    |
| In-run Bias Stability                        | 0.03°/hr (typical, 1σ)<br>≤ 0.05°/hr (max, 1σ)         |
| Scale Factor Accuracy                        | ≤ 100 ppm (1σ, RMS)                                    |
| Scale Factor Non-linearity (full rate, 25°C) | ≤ 20 ppm   |
| Angle Random Walk                            | 0.025°/√hr (typical, 1σ)                               |
| Axis Misalignment                            | ≤ 100 μRad   |
| Accelerometer <sup>1)</sup>                  |  |
| Technology                                   | MEMS   |
| Operating Range                              | ± 10 g   |
| Bias Repeatability (over temp. range)        | 1.2 mg (1σ, RMS)                                       |
| In-run Bias Stability                        | 15 μg (typical, 1σ)                                    |
| Scale Factor Accuracy                        | ≤ 300 ppm (1σ, RMS)                                    |
| Velocity Random Walk                         | 0.015 m/s/√hr (typical, 1σ)                            |
| Axis Misalignment                            | ≤ 200 μRad   |
| Bandwidth                                    | ≥ 200 Hz (-3 dB)                                       |
| Electrical/Mechanical                        |  |
| Start-up Time                                | < 0.6 sec  |
| Signal Input/Output                          | UART(RS-422), SDLC                                     |
| Baud Rate (UART)                             | 460.8 Kbps   |
| Data Rate                                    | 100 / 400 / 600 / 1,000 Hz <sup>2), 3)</sup>           |
| Input Voltage                                | + 5 V  |
| Power Consumption                            | 5 W @ 25°C (< 8 W, @ - 40°C)                           |
| Dimensions                                   | 88.9 mm Ø × 84.5 mm H (3.5" Ø × 3.3" H, w/o connector) |
| Weight                                       | 790 g (1.74 lbs)                                       |
| Environment                                  |  |
| EMC/EMI                                      | MIL-STD-461F   |
| Humidity                                     | Up to 95 %   |
| Low Pressure                                 | 1750 Pa, 30 min (@ 55,000 ft)                          |
| Temperature (operating)                      | - 40°C to + 71°C (- 40°F to 160°F)                     |
| Shock (MIL-STD-810G)                         | 40 g, 11 msec, Sawtooth (operation)                    |
| Vibration (MIL-STD-810G)                     | 7.7 g RMS (20 Hz to 2,000 Hz)                          |

- 1) Replacement upon request
- 2) Select one data rate
- 3) In case of SDLC, 1,600 Hz is available

The specification and technical information contained herein are subject to change without notice and are furnished without charge or obligation. They are given and accepted at recipients sole risks.