



LPMS-NAV2-RS232

LPMS-NAV2-RS232: Single-Axis Inertial Sensor with RS232 Interface for Autonomous Robot Navigation

LPMS-NAV2-RS232 is a single-axis, high performance inertial measurement unit (IMU) with an RS232 communication interface. The sensor uses a high-quality gyroscope with excellent noise characteristics to calculate accurate relative heading information. We created this unit especially with automotive, mobile robotics and automatic guided vehicle (AGV) application cases in mind.

The sensor is contained in a rugged, IP67-rated aluminium enclosure. Sensor functionality and parameters can be configured using our NAV-Control software.

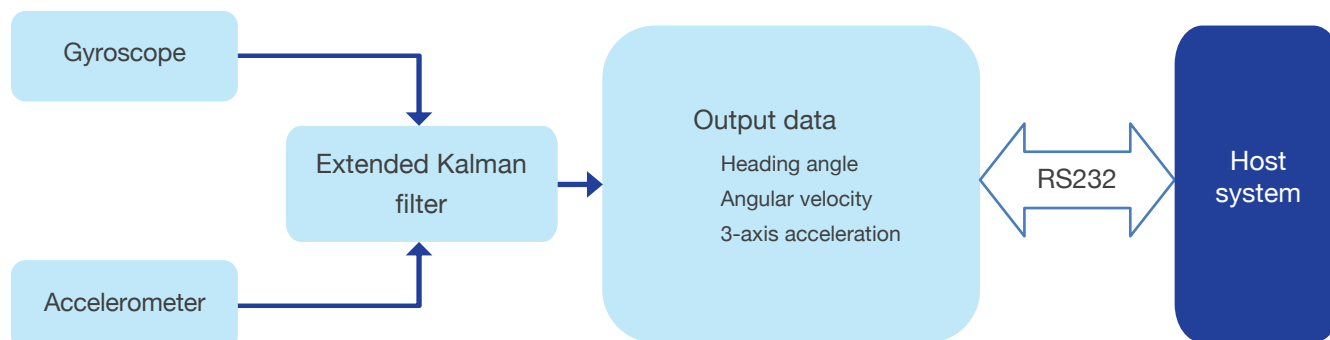


Main Features

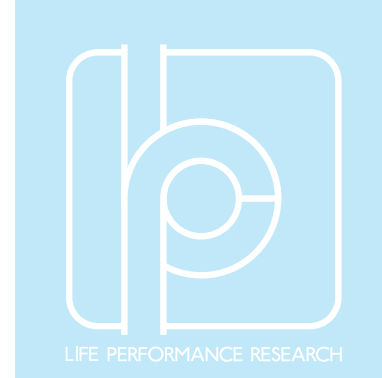
- MEM-based single-axis heading measurement system
- Integrating a single-axis ultra-low-noise gyroscope and 3-axis accelerometer
- Precise heading data output
- Ultra-low noise gyroscope
- RS232 communication interface
- IP67-rated waterproof enclosure
- Ideal for autonomous navigation applications

Applications

- Robotic manipulator forward kinematics control
- Automotive dead reckoning
- Object orientation tracking for VR/AR
- Automatic guided vehicle (AGV) navigation



NOTE: Diagram is simplified. Please ask us, if you need more detailed information.

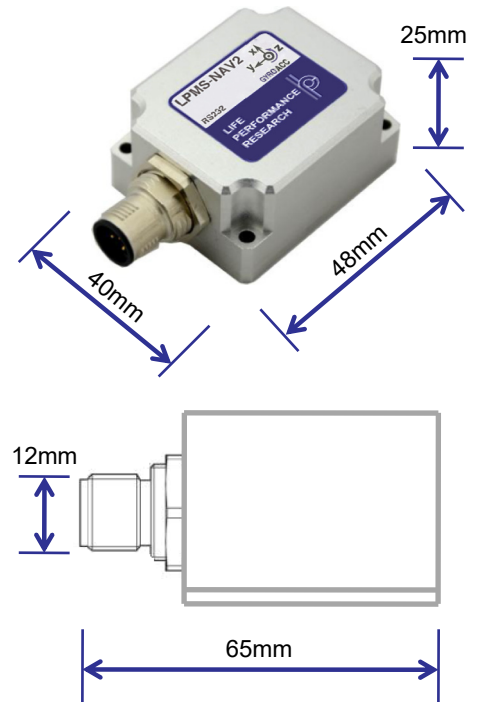


Specifications

Parameter	LPMS-NAV2-RS232
Size	40×48×25mm
Weight	70.1g
Heading range	±180° / 0~360° (selectable)
Angle resolution	0.01° (max.)
Angular speed	± 400dps
Acceleration range	± 4g
Data output rate	10~100 Hz selectable
RS232 baudrate	19200~115200bps selectable
Heading linear error	< 0.1°/m
Angle random walk	0.18°/√h
Bias stability (f=10Hz)	< 5°/h
Power consumption	~14mA (@12V)
Power supply	5~18V DC
Water proof	IP67
Housing material	Aluminum
Working temperature	-20~80°C
Stock temperature	-40~85°C

Dimension

LPMS-NAV2-RS232:



Package

- LPMS-NAV2-RS232 sensor x 1
- User guide card x 1
- Water proof cable x 1
- Package box x 1
- Warranty: 1 year



Windows NAV2-Control GUI

