

LPMS-RS232AL2



LIFE PERFORMANCE RESEARCH

LPMS Waterproof Wired Motion Sensor / IMU / AHRS with RS232 Connectivity

The LPMS-RS232AL2 is an innovative and high performance motion sensor with waterproof connector design. Using RS232 as the communication interface, the LPMS-RS232AL2 perfectly fits machine motion measurements for industrial applications.

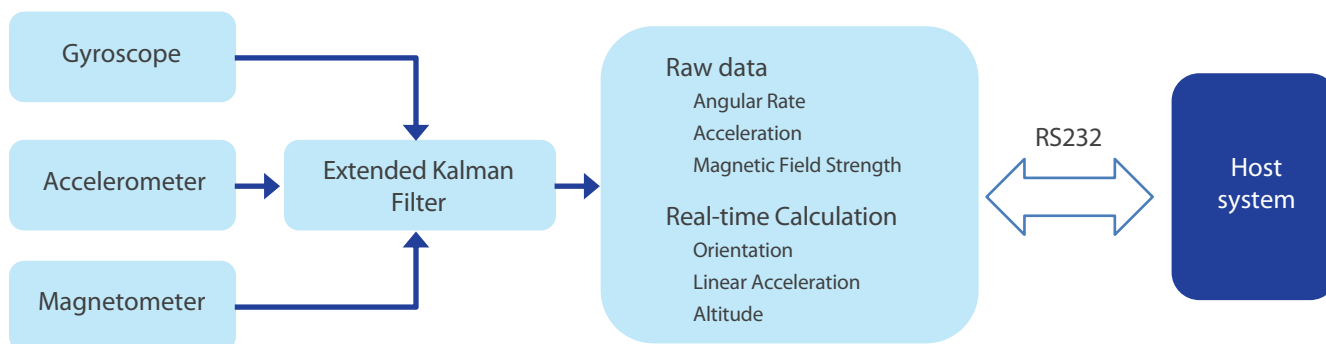


Key Features

- MEMS miniature inertial measurement unit (IMU)
- Integration of 3-axis gyroscope, accelerometer, magnetometer, temperature and barometric pressure sensor in one unit
- Real-time, on-device calculation of sensor orientation, linear acceleration and altitude
- Data output rates of up to 400Hz
- Industrial standard interface: RS232
- Control application and SDK for Windows, Linux

Applications

- Human motion capture
- Internet of Things (IoT) devices
- Sports performance evaluation
- Drone flight control



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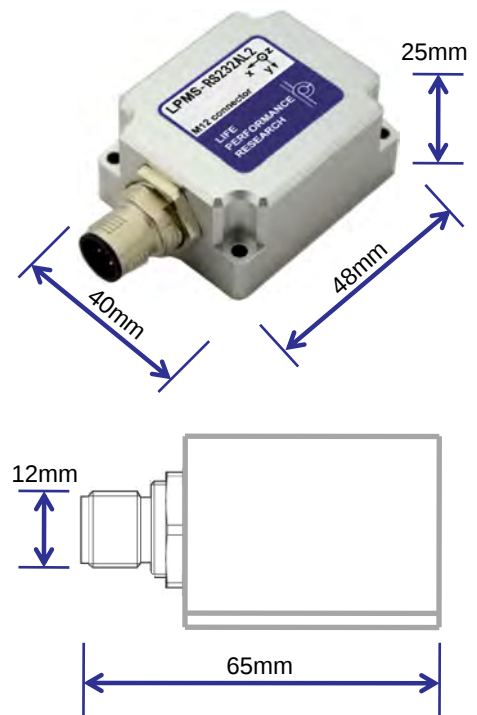
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Sensor Specifications

Wired interface	RS232
Max. baudrate	921.6 k bit/s
Communication protocol	LpBUS
Size	48 × 40 × 25 mm
Weight	67.5g
Orientation range	360° about all axes
Resolution	<0.01°
Accuracy	< 0.5° (static), < 2° RMS (dynamic)
Accelerometer	3-axis, $\pm 2 / \pm 4 / \pm 8 / \pm 16$ g, 16 bits
Gyroscope	3-axis, $\pm 125 / \pm 245 / \pm 500 / \pm 1000 / \pm 2000$ dps, 16 bits
Magnetometer	3-axis, $\pm 4 / \pm 8 / \pm 12 / \pm 16$ gauss, 16 bits
Pressure sensor	300-1100 hPa
Data output format	Raw data / Euler angle / Quaternion
Data output rate	up to 400Hz
Power consumption	155 mW @ 3.3 V
Power supply	5 V ~30 V DC
Connector	SACC-DSI-MS-5CON-PG 9/0,5 SCO, M12
Case material	Aluminum
Temperature range	- 40 ~ +80°C
Software	C++ library for Windows, LpmsControl software and Open Motion Analysis Toolkit (OpenMAT) for Windows.

Mechanical drawing

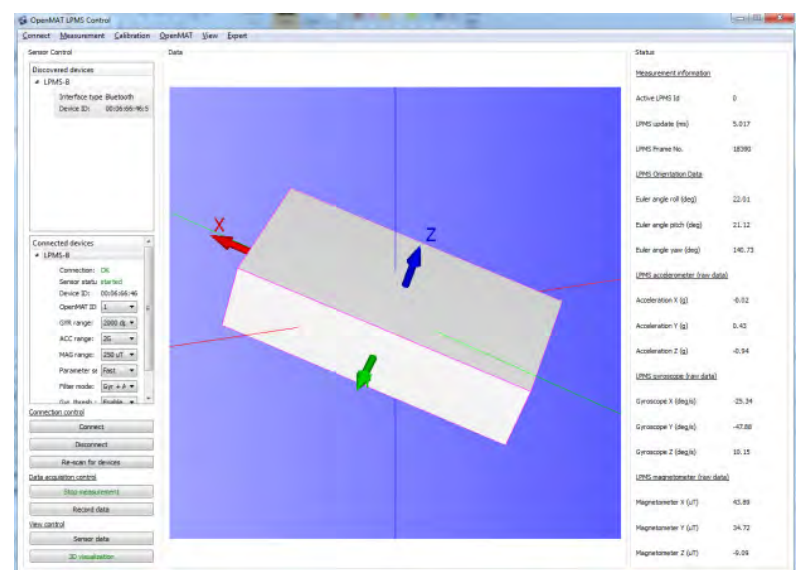


Package

- LPMS-RS232AL2 sensor x 1
- User guide card x 1
- Cable x 1
- Box x 1
- Warranty (1 year)



LpmsControl Utility Software



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