

LPMS-RS232AL2

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.

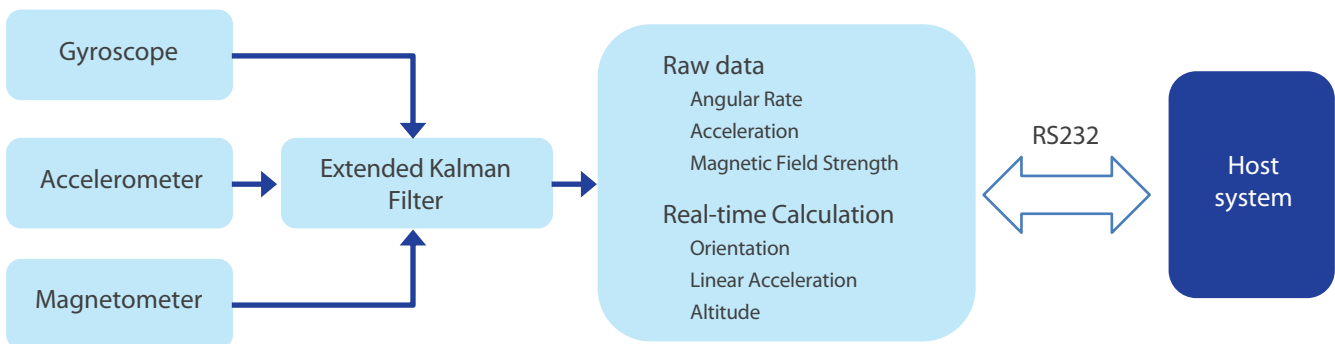


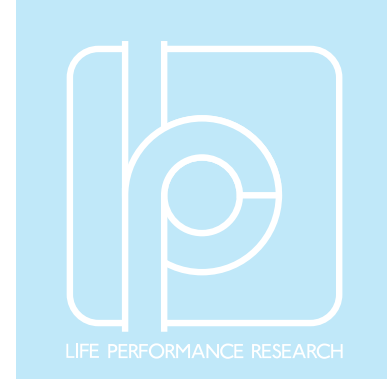
Key Features

- 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

- Manipulator balance control
- Driving navigation
- Racing car status monitoring
- Robot arm control

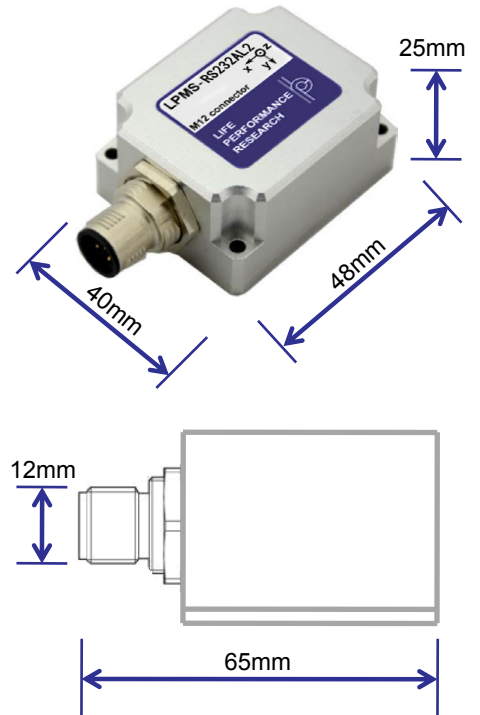




Sensor Specifications

| | |
|------------------------|---|
| Wired interface | RS232 |
| Max. baudrate | 921.6 k bit/s |
| Communication protocol | LpBUS |
| Size | 48 × 40 × 25 mm |
| Weight | 66.2g |
| Orientation range | Roll: ±180°; Pitch: ±90°; Yaw: ±180°; |
| Resolution | < 0.01° |
| Accuracy | < 0.5° (static), < 2° RMS (dynamic) |
| Accelerometer | 3-axis, ±2 / ±4 / ±8 / ±16 g, 16 bits |
| Gyroscope | 3-axis, ±125 / ±245 / ±500 / ±1000 / ±2000 dps, 16 bits |
| Magnetometer | 3-axis, ±4 / ±8 / ±12 / ±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 | < 182 mW @ 3.3V |
| Power supply | 5 V ~15 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

