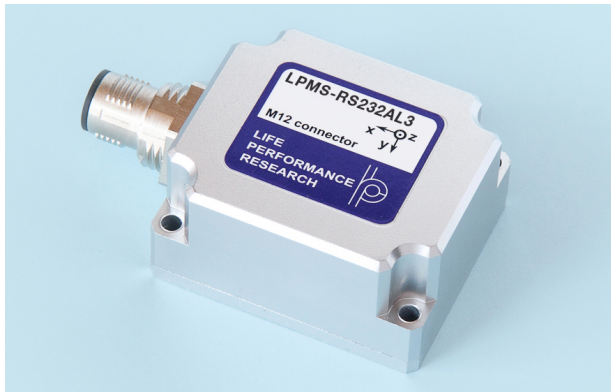


LPMS-RS232AL3



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

The LPMS-RS232AL3 is an innovative and high performance miniature motion sensor with waterproof housing. Integrating RS232 and USB interfaces into one unit, the LPMS-RS232AL3 perfectly fits machine motion measurements for industrial applications.

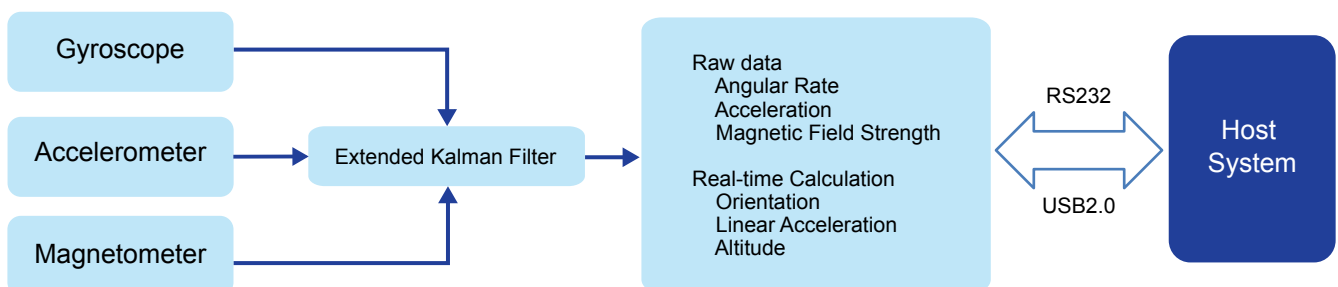


Key Features

- 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 500Hz
- Variety of wired interfaces: RS232 and USB
- Control applications and SDK for Windows, Linux

Applications

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

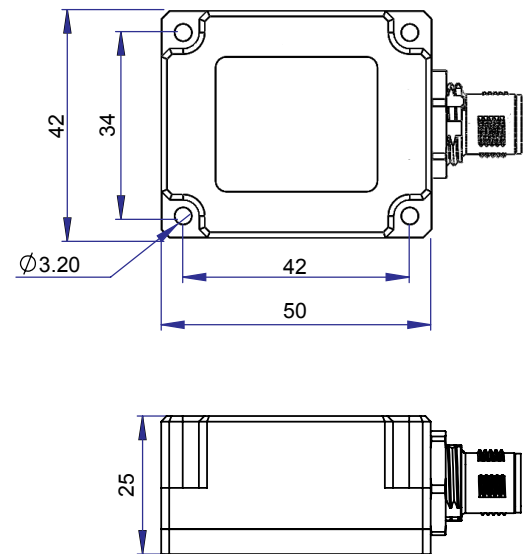


Sensor Specifications

| | | |
|--------------------------|---|-------------|
| Sensor Model | LPMS-RS232AL3 | |
| Dimensions | 50×42×25mm | |
| Weight | 71g | |
| Communication Interfaces | RS232 | USB |
| Max. Baudrate | 921.6Kbit/s | 921.6Kbit/s |
| Communication Protocol | LP-BUS / ASCII | LP-BUS |
| 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, 16bits | |
| Gyroscope | 3-axis, ± 125 / ± 250 / ± 500 / ± 1000 / ± 2000dps / ± 4000dps, 16bits | |
| Magnetometer | 3-axis, ± 2 / ± 8 gauss, 16bits | |
| Pressure Sensor | 300-1100 hPa | |
| Data Output Format | Raw & Calibrated data, Euler Angle, Quaternion, Linear Acceleration | |
| Data Output Rate | 500Hz | |
| Current Draw | ~22mA | |
| Power Supply | 5V ~36V DC | |
| Connector | SACC-DSI-MS-5CON-PG 9/0,5 SCO,M12 | |
| Case Material | Aluminum alloy, IP67 Waterproof | |
| Operating Temperature | -40~+80°C | |
| Software & Driver | LpmsControl2 interface software (Windows), Open source sensor driver for Windows and Linux (OpenZen, supports C, C++, Python, C#, Unity, ROS) | |



Mechanical Drawing



Package

- LPMS-RS232AL3 Sensor x 1
- User guide card x1
- Cable x1
- Box x1
- Warranty (1 Year)



Interface Software

