

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.

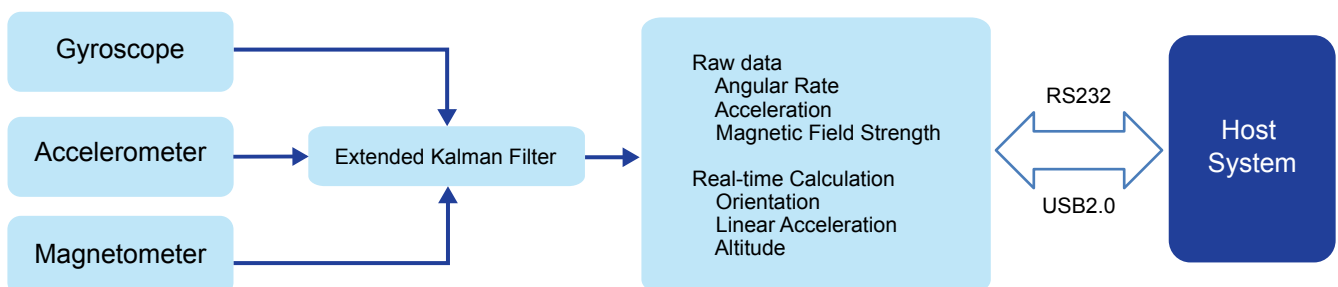


Key Features

- 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

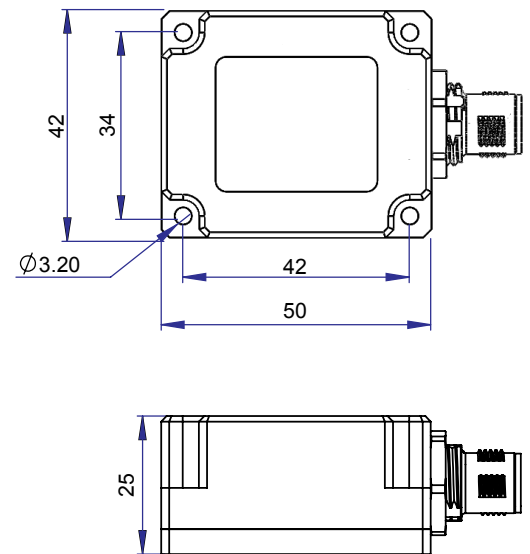


Sensor Specifications



Sensor Model	LPMS-RS232AL3	
Dimensions	50x42x25mm	
Weight	71g	
Communication Interfaces	RS232	USB
Max. Baudrate	921.6Kbit/s	921.6Kbit/s
Communication Protocol	LP-BUS / ASCII	LP-BUS
Orientation Range	Roll: $\pm 180^\circ$; Pitch: $\pm 90^\circ$; Yaw: $\pm 180^\circ$	
Resolution	0.01°	
Accuracy	< 0.5° (Static), < 2°RMS (Dynamic)	
Accelerometer	3-axis, $\pm 2 / \pm 4 / \pm 8 / \pm 16$ g, 16bits	
Gyroscope	3-axis, $\pm 125 / \pm 250 / \pm 500 / \pm 1000 / \pm 2000$ dps / ± 4000 dps, 16bits	
Magnetometer	3-axis, $\pm 2 / \pm 8$ 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 ~ 18V 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

