LPMS-CANAL3

LIFE PERFORMANCE RESEARCH

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

The LPMS-CANAL3 is an innovative and high performance miniature motion sensor with waterproof housing. Integrating CAN Bus and USB interfaces into one unit, the LPMSCANAL3 perfectly fits machine motion measurements for industrial applications.

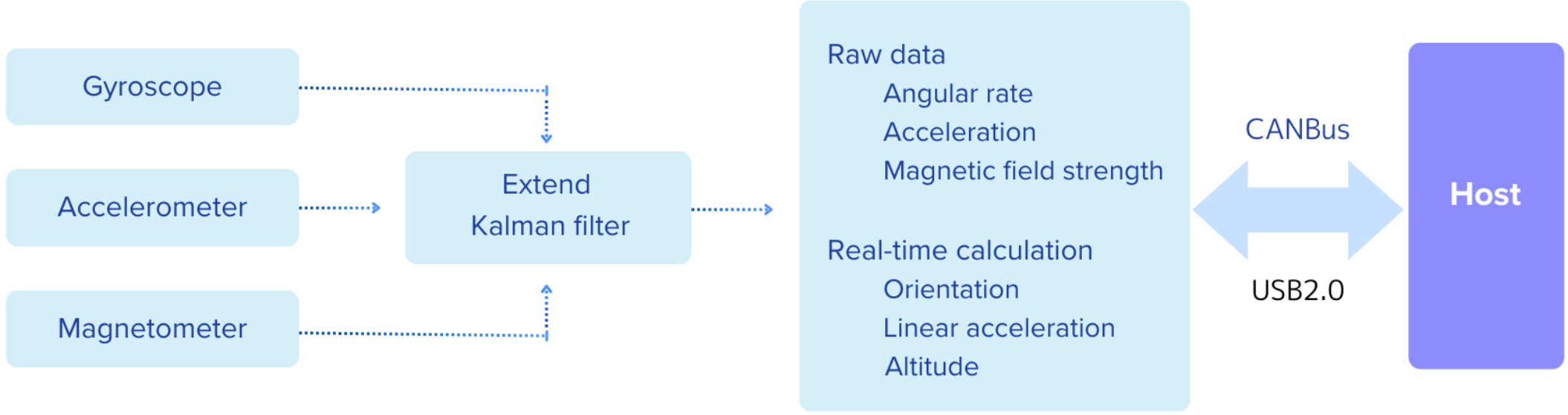


Key Feature

- 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: CAN Bus and USB
- Control applications and SDK for Window, Linux

Application

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

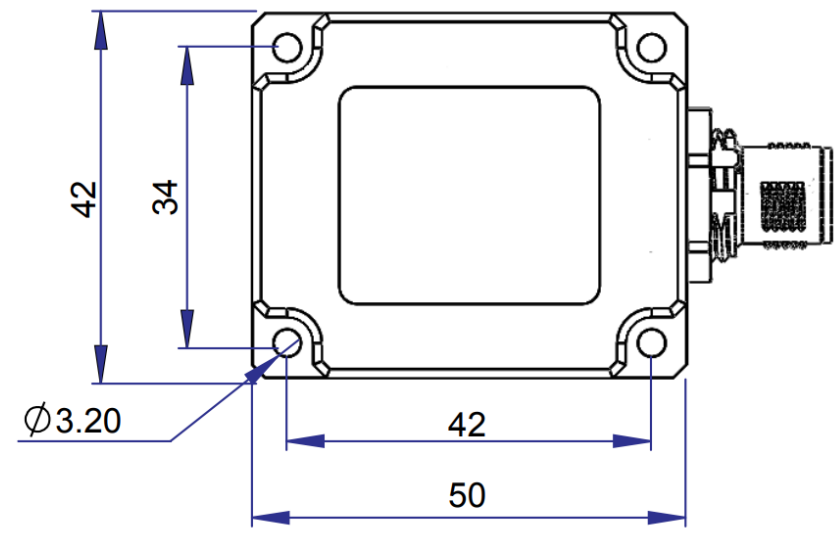


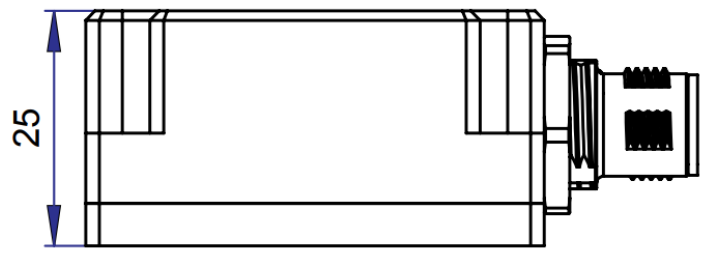
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Sensor Specifications

Part number	**LPMS-CANAL3**	
Communication Interface	CANBus	USB
Max. Baudrate	1 Mbit/s	921.6Kbit/s
Communication Protocol	CANopen / Sequential CAN	LP-BUS
Orientation Range	Roll: ±180°; Pitch: ±90°; Yaw: ±180°	
Size	50×42×25mm	
Weight	106.8 (±4) g	
Resolution	0.01°	
Accelerometer	3-axis, ±2 / ± 4 / ± 8 / ± 16 g, 16bits	
Gyroscope	3-axis, ± 125 / ± 250 / ± 500 / ± 1000 / ± 2000dps / ± 4000dps, 16bits	
Pressure Sensor	300-1100 hPa	
Magnetometer	3-axis, ± 2 / ± 8 gauss,16bits	
Accuracy	< 0. 5° (static), < 2° RMS (Dynamic)	
Data Output format	Raw & Calibrated data, Euler Angle, Quaternion, Linear Acceleration	
Data Output Rate	500 Hz	
Power Consumption	<135mW@5V	
Power Supply	5V ~ 18V DC	
Connector	M12 8 Pin (SACC-DSI-MS-8CON-PG 9/0,5 SCO equivalent)	
Case Material	Aluminum alloy, IP67 Waterproof	
Operation Temperature	-40 to +80 °C	
Software & Driver	LpmsControl2 interface software (Windows), Open source sensor driver for Windows and Linux (OpenZen, supports C, C++, Python, C#, Unity, ROS)	

External dimensions





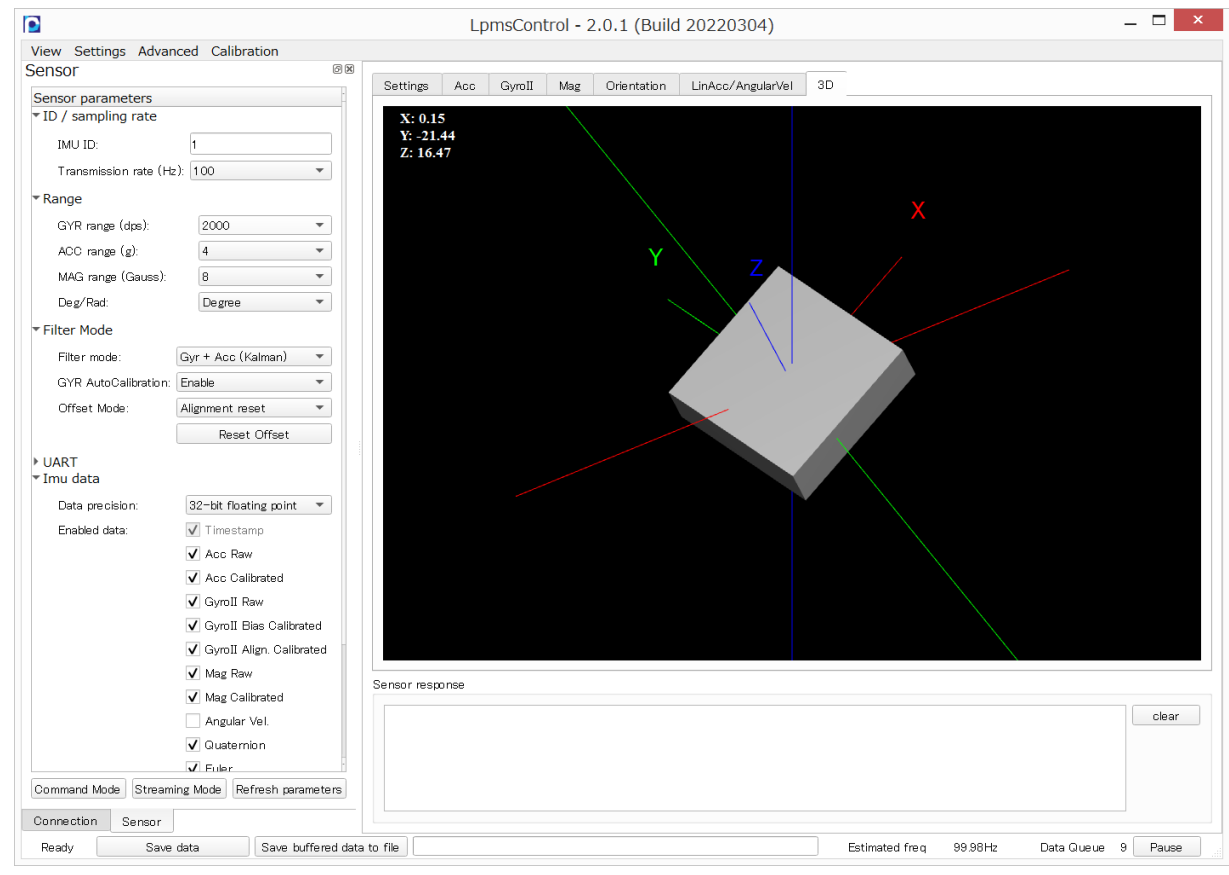
* Performance parameters are measured at +25°C. Other temperatures may result in varying reference values.
※Please refer to the product manual for more detailed specifications.

Package

- LPMS-CANAL3 Sensor × 1
- Cable × 1
- Box x 1
- User guide card × 1
- Warranty (1 Year)



LpmsControl (Interface Software)



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