

# Xsens Sirius VRU

- › Achieve new levels of accuracy with high-quality calibrated roll, pitch and unreferenced yaw data
- › Vibration- and shock- resistant signal pipeline
- › Rugged and military standard certified
- › Flexible interface and protocols for seamless integration



## Description

The Xsens Sirius VRU features vibration- and shock-resistant signal pipeline and offers high-quality calibrated inertial data and orientation data (roll, pitch, unreferenced yaw), even in extreme vibration conditions.

With Xsens technology inside, the all-in-one sensor system supports optimized temperature calibration, high frequency output, robustness against magnetic disturbances, and has configurable output settings for synchronization with any third-party device.

The Xsens Sirius VRU is supported by the MT Software Suite which includes MT Manager (GUI for Windows/Linux), SDK, example codes and drivers for many platforms.

- › White label options available
- › 3D models available on request

### Sensor fusion performance

Roll, Pitch	0.2 ° RMS
Yaw/Heading	unreferenced, low drift
Strapdown Integration (SDI)	Yes

### Gyroscope

Standard full range	$\pm 300$ °/s
In-run bias stability	7 °/h
Bandwidth (-3dB)	400 Hz
Noise Density	0.003 °/s/ $\sqrt{\text{Hz}}$
g-sensitivity (calibr.)	0.08 °/s/g

### Accelerometer

Standard full range	$\pm 8$ g
In-run bias stability	15 $\mu\text{g}$
Bandwidth (-3dB)	470 Hz
Noise Density	15 $\mu\text{g}/\sqrt{\text{Hz}}$

### Magnetometer

Standard full range	$\pm 8$ G
Total RMS noise	1 mG
Non-linearity	0.2%
Resolution	0.25 mG

### Mechanical

IP-rating	IP68
Operating Temperature	-40 to +85 °C
Casing material	Aluminum

Mounting orientation	No restriction, full 360° in all axes
Dimensions	56.50 x 40.90 x 24.75 mm
Connector	Main: ODU (AMC HD 12 pins)
Weight	78.5 grams
Certifications	CE, FCC, RoHS, MIL-STD-202, ITAR free

### Electrical

Input voltage	4.5V-24V
Power consumption (typ)	<1W

### Interfaces / IO

Interfaces	RS232, RS422, CAN
Sync Options	SyncIn, SyncOut, ClockSync
Protocols	Xbus, ASCII (NMEA), CAN
Clock drift	10 ppm (or external)
Output Frequency	Up to 2kHz, 400Hz SDI
Built-in-self test	Gyr, Acc, Mag

### Software Suite

GUI (Windows/Linux)	MT Manager, Firmware updater, Magnetic Field Mapper
SDK (Example code)	C++, C#, Python, Matlab, Public source code
Drivers	LabVIEW, ROS, GO
Support	Online manuals, community and knowledge base