

Acceleration Sensor GSV-MTi620

Item number: 17590



The **Xsens MTi-620** is a compact inertial measurement unit (IMU) with an integrated **Vertical Reference Unit (VRU)** for precise measurement of motion and inclination. The module combines a 3-axis accelerometer, a 3-axis gyroscope and a 3-axis magnetometer with powerful sensor fusion.

In addition to calibrated raw data for acceleration, angular velocity and magnetic field, the MTi-620 directly provides the calculated orientation. As a Vertical Reference Unit, it determines in particular the **roll and pitch angles relative to the direction of gravity**. This makes the module suitable for inclination and orientation measurement of platforms, machinery, vehicles and other moving systems.

The integrated Xsens sensor fusion combines the measurements from the individual sensors while compensating for typical effects such as sensor noise and drift. Compared with simple static inclination measurement using accelerometers, this enables reliable orientation measurement even under conditions involving motion, acceleration and vibration.

The MTi-620 is designed for industrial applications and can be integrated directly into higher-level control and measurement systems via **CAN**. The CAN bus lines and power supply are routed through an **M12 panel-mount male connector and an M12 panel-mount female connector**. This allows the module to be easily integrated into a CAN bus line topology. A **120 Ω CAN termination resistor** can be enabled by jumper when required.

The MTi-620 supports **UART, RS232 and CAN** as standard. For particularly easy commissioning and configuration via CAN, **ME-Meßsysteme has integrated an additional USB interface**. This interface provides convenient configuration of parameters such as CAN IDs, data rate and output frequency.

The wide supply voltage and operating temperature ranges, compact design and integration into an **IP67 enclosure** make the unit suitable for both mobile measurement systems and stationary machinery and equipment.

Typical applications include **platform leveling, inclination and orientation monitoring, machinery and vehicle technology, robotics, and motion analysis.**

Downloads

- MTManager, part of Software Development Kit,
https://www.xsens.com/hubfs/Downloads/Software/MVN/Releases/2026.8/Windows/mvn_sdk_2026.8.exe
- Overview Documents: <https://mtidocs.xsens.com/home>

Technical Data

Basic Data

Unit

Electrical Data

Unit

Accuracy Data

Unit

Supply

Unit

Supply voltage from	5	V
Supply voltage to	24	V
Current consumption from	100	mA
Current consumption to	200	mA

Environmental Data

Unit