

NovaCompass

The next-generation MEMS gyrocompass delivers precise true North tracking without relying on magnetic fields

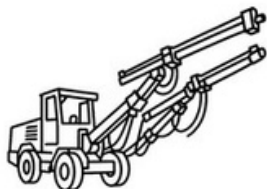


The NovaCompass is an orienteering device equipped with a tactical-grade Inertial Measurement Unit (IMU) and a north-finding gyrocompass, the AHRS provides precise azimuth and inertial navigation data tailored for dual-use applications requiring reliable orientation and navigation in challenging operational conditions.

FEATURES & BENEFITS

- High-Precision MEMS Gyrocompassing
- Cost-effective solution
- Drift-free azimuth technology
- Rapid Initialization
- Rugged design for harsh environments
- Advanced dead-reckoning capabilities
- Dual-use applications
- Azimuth tracking for INS
- AHRS drift mitigation
- American made
- GNSS-Denied Operation
- Low SWaP
- ITAR-free
- Versatile integration

APPLICATIONS



Drill Rig
Alignment



Unmanned
Vehicles



GNSS-Denied
Environments



Attitude & Heading
Reference System

TECHNICAL SPECIFICATIONS

Performance

Heading accuracy after 15 minutes*	0.078° seclat RMS (1)
Heading accuracy after 5 minutes*	0.197° seclat RMS (1)
Roll	0.1° RMS
Pitch	0.1° RMS
Resolution for Heading/Roll/Pitch	0.01°
Range	Heading: 0° to 360° Roll: -180° to +180° Pitch: -90° to +90°
Pitch with Azimuth Range	Pitch: -85° to +85°

(1) Secant latitude = 1/cosine latitude

* Accuracy measured at 1 σ

Operating Range/Environment

Operating	-20 °C to +55 °C
Rotation rate dynamic range	Up to 300 deg/s
Acceleration dynamic range	±8 g
Heading/Roll/Pitch	0 to +360 deg / ±180 deg / ±90 deg

Physical Characteristics

Dimensions (L x W x H)	170 x 115 x 157 mm
Weight	2 kg
Material	Aluminum and Plastic

Interfaces

Communication	RS422 or RS232 100 Mbit - UDP / TCP server / TCP client / Web
Inputs/Outputs Baud rates	Up to 460 kbaud
Data output rate	0.1 Hz to 200 Hz real measurements
Power Supply/Consumption	24 VDC / < 10 W max