

INERTIAL NAVIGATION SYSTEM

## Guidance & Orientation

MBI-100 is the full Inertial MEMS-based solution proposed by GEM elettronica to meet the stringent demands for Guidance and Stabilization Operations, even in GNSS-denied environments.

MBI-100 take advantage of GEM elettronica's innovative sensor fusion algorithm and provides a continuous precision positioning and orientation data in all condition.



### FEATURE

- High stability MEMS sensor architecture
- 72-channel advanced GNSS receiver
- Innovative sensor fusion technology
- High update range
- Compact Rugged Enclosure

### BENEFITS

- All-in-one self-contained navigation solution
- Easy to integrate with existing software suites and survey sensors
- Consistent performance under vibration, high-temperature and magnetic distortion
- Real time stable flight parameters

## ADVANCED NAVIGATION SOLUTION FOR UNMANNED AIRCRAFT SYSTEMS



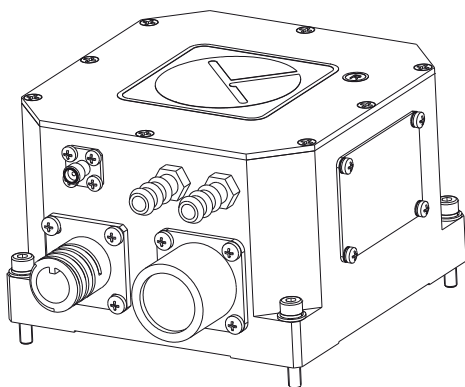
# MBI-100



With its outstanding reliability and stable performances, MBI-100 is designed for both civil and military applications and represents a fundamental support for real-time navigation, guidance and flight control of Unmanned Aerial Vehicle (UAV).

Parameters	GPS/INS	Only Baro (no GPS)		Full Inertial (no Baro & GPS)	
Position (CEP)	< 2.5 m	< 75 m	for 5 minutes after GPS outage	< 75 m	for 5 minutes after GPS outage
Velocity (1 $\sigma$ )	< 0.1 m/sec	< 0.4 m/sec	for 5 minutes after GPS outage	< 0.4 m/sec	for 5 minutes after GPS outage
Pitch & Roll static accuracy (1 $\sigma$ )	< 0.2°	< 0.3°		< 0.5°	
Pitch & Roll dynamic accuracy (1 $\sigma$ )	< 0.4°	< 1.5°		< 3.0°	
Heading dynamic accuracy (1 $\sigma$ )	< 1°	< 1.5°	for 5 min outage	< 1.5°	for 5 min outage
Altitude	< 10 m	< 20m		-	

dimension in mm



Weight: 400 gr

