



HRG Crystal™

GEONYX™ M

GNSS-denied Attitude and Heading Reference System (AHRS) / Inertial Navigation System (INS) for both Amphibious and Speed boats vehicles

Geonyx™ M provides attitudes and heading for systems such as guns, rocket launchers, radars & observation sights intended to be used on both amphibious vehicles and speed boats, with or without GNSS.

Robustness and reliability

Easily integrated into any type of vehicle or ship, including amphibious as primary AHRS/INS* system, Geonyx™ M is specifically designed to withstand stringent environmental conditions such as vibrations, shocks, climate and radio-environment. Thanks to the embedded HRG Crystal™, Geonyx™ M is the most reliable INS on the market.

Operational efficiency

Stand-alone, resilient, compact and robust, Geonyx™ M provides without any link to external sensor (such as a vehicle motion sensor and/or Loch sensor):

- 1 mils pointing accuracy at high latitude
- Short alignment time
- Position capability (INS) for land and naval platforms



Technical specifications

Optimized architecture

- Size : 205/245 x 158 x 169 mm
- Weight : 6.4 kg
- Consumption : < 17W
- Hard-mounted (no external mount needed)
- Immune to magnetic stress & high vibrations/shocks
- Gyro technology : HRG Crystal™

Maintenance

- MTBF (mean time between failure) : 200,000 hours in naval applications

Flexible Interfaces

- GNSS embedded (external GNSS possible)
- RS422
- Ethernet
- CANBUS

Navigation standards

- Environment : MIL-STD-810
- Electrical : MIL-STD-1275
- EMC : MIL-STD-461

FITTED FOR

Amphibious vehicle
 Military/Paramilitary ship
 Guns
 Radar
 Rocket launcher
 Observation sight
 Speed boat
 Airboat

European in-house technology

Subject to French export control authorization

ITAR Free

Performances

	GEONYX™ M		
	Naval AHRS	Naval platform	Land platform
Sea heading / Land azimuth (RMS*) at 65° lat.	0.05°	0.05°	1 mils (⇔ 0.42 mils seclat)
Pitch & Roll (RMS)	0.03°	0.03°	0.5 mils
Position	N/A	1Nm/1h (TDRMS*)	0.1% DT (CEP*)
Static Alignment time**	Depending on platform	< 15 min	< 5 min
On the move Alignment time**	Depending on platform	< 30 min	< 10 min

*AHRS: Attitude and Heading Reference System / INS: Inertial Navigation System / GNSS: Global Navigation Satellite System / HRG: Hemispherical Resonator Gyroscope / RMS: Root Mean Square / CEP: Circular Error Probable / TDRMS: Time Distance Root Mean Square

** Time to full performance

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