Rovins Nano

Compact and cost effective inertial navigation system for ROV navigation.

Rovins Nano merges the established high-grade Exail Inertial Navigation System (INS) with our competitive Inertial Measurement Unit (IMU).

It is built on Exail's renowned Fiber-Optic Gyroscope (FOG) solid state technology and offshore instrumentation expertise. Rovins Nano offers the unbeatable stability and accuracy of the inertial position while simplifying the operation with its autonomous external sensor management. Rovins Nano is the navigation solution you can rely on, bringing an additional level of safety in case of deficient aiding



Offshore Rental

Features

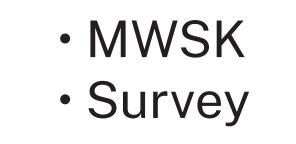
- True north, roll & pitch, rotation rates
- DVL & depth sensor available as options
- Optimized interface with ramses for extending operations
- Web GUI and legacy serial control commands
- Stand-alone, small and lightweight

Benefits

- Inertial position & velocity, available with and without DVL
- Open architecture; for all 3rd party sensors brands: DVL, USBL, LBL, depth sensor ...
- Sparse array enhancement to your existing LBL network
- Identical interfacing to Rovins, Phins, Octans INS
- ITAR-free, fast export under O&G regulations
- Cost effective: better ROI, lower TCO



ROV OP & Navigation IRM



Dredging

TECHNICAL SPECIFICATIONS

Performance/Characteristics

Position accuracy ⁽¹⁾	
With GNSS/USBL/LBL	Three times better than GNSS/USBL/LBL
DVL-aided straight line performance	0.20 %TD (CEP 50)
DVL-aided optimal performances in typical conditions	0.04 %TD (CEP 50)
No aiding for 60 s / 120 s	0.6 m / 2.2 m (CEP50)
Heading accuracy ⁽²⁾⁽³⁾	
With GNSS (or USBL/LBL) & DVL	0.10 deg secant latitude RMS
With GNSS or DVL or USBL/LBL	0.15 deg secant latitude RMS
Roll and pitch dynamic accuracy (no aiding)	0.05 deg RMS

Physical Characteristics

Material	Titanium
Weight in air/water	11.2 kg / 6.5 kg
Mounting (Ø in mm)	8 Ø 6.5 holes
Dimensions (Ø x H in mm)	Ø178 x 266 mm
Connector	3 x 12 pins, 1 x 26 pins SEACON

Operating range/Environment

Operating/storage temperature	-20 to 55 °C /-40 to 80 °C
Rotation rate dynamic range	Up to 250 ° /Sec
Acceleration dynamic range	±5 g
Heading/roll/pitch ranges	0 to +360 deg / ±180 deg / ±90 deg
MTBF	150,000 hours (System observed) 500,000 hours (FOG + Accelerometers)
Robust to harsh environment	Robust to harsh environment, shock and vibration proof
Depth rating	6,000 m

Interfaces GNSS / USBL / LBL / DVL / EMLOG / DEPTH / CTD / SVP Sensors Serial 5 ports : RS422 or RS232 10/100 Mbits, UDP/TCP (client / server) / web server (GUI) Ethernet 1 input for PPS Pulse Configurable 7i / 5o, Industry standards: NMEA, ASCII, Exail STD BIN Input/output etc... more than 130 output protocols Up to 460 kbaud Baud rate Data output rate 0.1 Hz to 200 Hz 24 VDC (20 - 32 V) / < 14 W Power supply

PO Box 2143, 5504 Haugesund | Eikeskogveien 54, 5570 Aksdal, Norway | +47 47 47 52 30 | post@offshorerental.no | offshorerental.no