

CDL MINIPOSNAV3

Ring Laser Gyro with DVL

The CDL MiniPOSNAV3 is a high accuracy fully inertial navigation solution for ROV and AUV applications, providing true north seeking heading, full attitude and Doppler Velocity Log (DVL) data. This full inertial navigation system (INS) operates with multiple aiding options (USBL, LBL and GPS), is hardware independent and can work with any USBL or LBL system and with a variety of topside software packages.

The CDL MiniPOSNAV3 eliminates almost all of the inherent noise and availability issues of traditional positioning systems. Developed from the successful CDL MiniPOSNAV, the CDL MiniPOSNAV3 has increased accuracy capabilities and aided positioning for most subsea constructions, inspection and survey related tasks for ROV and AUV. System options include: connectors mounted on the top or side, as well as the option to include a Valeport miniIPS (0.01% scale factor) depth sensor.

The system can also form an integral part of a Mid Water Station Keeping System; by fusing the INS, DVL and USBL it can produce a highly stable INS solution feeding precise position, acceleration and rotation information directly to the closed loop system on the ROV/AUV at update rates of 50Hz.



PRODUCT FEATURES AND BENEFITS

- Full INS capability
- Integrated RDI Workhorse Navigator DVL
- RLG optical technology - no moving parts
- High accuracy heading, pitch and roll
- Low noise, high update rate solution
- USBL, LBL, GPS and DVL aiding
- Proven mid water station keeping capability
- Depth options to 6000m



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TECHNICAL SPECIFICATIONS

		Standard T16 IMU	High Performance T24 IMU
Performance	Heading accuracy	+/- 0.169° secant latitude RMS	0.028° secant latitude RMS
	Roll & pitch accuracy	0.028° RMS	
	Heave accuracy	5cm or 5%	
	Alignment time	30 minutes	
	Angular rate	+/- 1000°/s	
	Operating latitude	+/- 70°	
Position	Free inertial drift	<5 nautical mile per hour	<1 nautical mile per hour
	DVL aiding	20m per hour CEP	3m per hour CEP
	GPS aiding	10m CEP	10m CEP
	USBL & LBL aiding	>3 times improved USBL/LBL	>3 times improved USBL/LBL
DVL	1200kHz (Al) standard, 600kHz (Ti) option - see Teledyne RDI Workhorse Navigator datasheet		
Power	Power supply	18 - 30Vdc	
	Power consumption	20 -35W (depends on configuration)	
Interface	Bi-directional RS422 or RS232		
	1 x 115 kbaud, up to 50/100Hz inertia data with fixed format		
	2 x up to 115 kbaud, up to 50Hz ascii data with a variety of user-selectable formats		
	Inputs for GOS, DVL and depth		
Physical Characteristics	Dimensions	200mm (d) x 392mm (h)	
	Weight in air	9.8kg	
	Weight in water	2.5kg	
	Rating	3000m	
Environmental and EMC	Operating temperature	-10°C to +55°C	
	Storage temperature	-40°C to +60°C	
	Environmental	Designed to meet IEC 60945	
	EMC	Designed to meet IEC 60945	
	MTBF	N/A	
Options		4000m depth rating (6000m DVL)	4000m depth rating (6000m DVL)
		6000m depth rating (6000m DVL)	6000m depth rating (6000m DVL)
		MiniRLG2/MiniPOS2 to MiniPOS3 upgrade	
Compliance	Standards	N/A	
	Export	UK	ECCN 7A0003d
		USA	These goods are controlled under the International Traffic in Arms Regulations (ITAR)
Warranty	12 months international warranty including parts and labour		
Mounting	Industry Standard adaptor plate		

COMPANY WITH
MANAGEMENT SYSTEMS
CERTIFIED BY DNV
= ISO 9001 =
= ISO 14001 =
= OHSAS 18001 =

Specifications subject to change without notice.
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