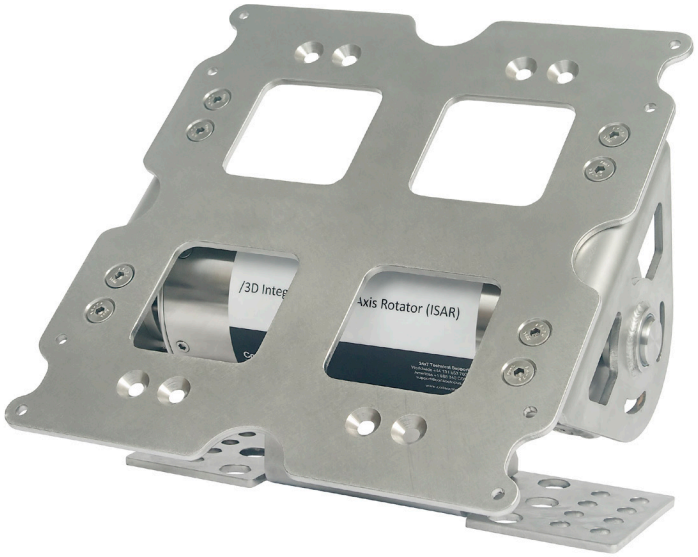
Coda Octopus
Sound Underwater Intelligence

/4G ISAR



Benefits

Integrated 3D solution with Coda Octopus 3D sonars

High resolution angular measurement

Dynamic patch value offset adjustment

Absolute encoder on output shaft

Zero power, static brake for position holding

Robust design for demanding subsea applications

Time-Synchronised output capability

New lightweight and more compact design

Increased angular range coverage

New small profile circular wet mate connector option

New compact and lightweight 3D Integrated Single Axis Rotator with increased range coverage

CodaOctopus® 3D Integrated Single Axis Rotator products are high-performance units designed to meet the demanding requirements of accurate orientation and position control of real-time 3D Coda Octopus sonar products.

Our ISAR units operate as an integrated solution with all CodaOctopus® software applications. The software integration of the rotator unit with the Echoscope® eliminates the need for multiple patch testing during mapping and inspection tasks. All angular and positional offsets are dynamically calculated within the software for accurate, efficient and simple operation.

Incorporating high-torque motors, low-backlash gear boxes, and high precision encoders as standard, capable of station holding the 3D sonar systems in hydro-dynamic environments, the units deliver a maximum of 94 Nm torque. Enclosed in rugged aluminium or stainless steel housings, the units are designed for operation to depths of 500m or 3,000m.

The ISAR is supplied with either a surface vessel pack incorporating a deck Power Supply Unit and 20m cable and mounting bracket, or as an USV/ROV/AUV pack with a 5m whip cable, deck test cable and mounting bracket. The C500 Inspector solution incorporates the 4G ISAR 500m variant directly with the optional ISC (Integrated Service Cable) to power and control an Echoscope and ISAR on a single tether.

The ISAR can also be supplied with a stand-alone application for control of the unit out-with Coda Octopus software. The data o/p messaging allows for user defined update rates when moving for angular position and the data command protocol and message o/p format is very simple and can be via serial or Ethernet for integration with different software packages.

Features

- Includes rugged interface plate to simplify mounting on pole or ROV
- Hard stop index on each axis to simplify configuration of angular range of movement
- Orientation option for sonar mount in portrait and landscape mode
- Interfaces with heading data to report true heading for pan axis
- Integrated software modules for all CodaOctopus® Software
- Includes flange interface plate to simplify mounting on pole or ROV
- Point-and-click positioning of ISAR in 2D control window
- User defined step values for indexed movement
- User defined GOTO controls for commonly used project viewpoints
- Compatible with the ISC (Integrated Service Cable) for operation of the ISAR and Coda Octopus sonar product on a single tether
- Time-Synchronized output capability to prevent latency issues

Coda Octopus
Sound Underwater Intelligence

/4G ISAR

Technical Specifications			
Performance (by Model)	**4G ISAR-30**	**4G ISAR-500**	**4G ISAR-3000**
Depth Rating	30m (98ft)	500m (1650ft)	3000m (9900ft)
Peak Torque	94 Nm	94 Nm	94 Nm
Operational Torque	61 Nm	61 Nm	61 Nm
Resolution (Absolute Encoder)	+/-0.025°	+/-0.025°	+/-0.025°
Harmonic Gear Backlash	0.5° Standard Accuracy Gearbox*	0.5° Standard Accuracy Gearbox*	0.5° Standard Accuracy Gearbox*
Speed Typical	10° per second	10° per second	10° per second
Angular Range	90-270°	90-270°	90-270°
(*High Accuracy Gearbox on request)			
Physical			
Dimensions (w x h / diameter) (includes brackets, fixings, and connectors)	300mm x 171mm/112mm (11.8" x 6.7" / 4.4")	300mm x 171mm/112mm (11.8" x 6.7" / 4.4")	329mm x 171mm/112mm (12.9" x 6.7" / 4.4")
Weight in Air	9.08 kg (20.01 lbs)	13.98 kg (30.82 lbs)	tbd
*All weights inclusive of flange interface plate			
Housing Material	Aluminium	316 Stainless Steel	316 Stainless Steel
Software			
	Integrated module with all CodaOctopus® software including CodaOctopus® Underwater Survey Explorer (USE), CodaOctopus® Construction Monitoring Solution (CMS), CodaOctopus® Underwater Survey Explorer PIPE CORE, CodaOctopus® 4G USE and CodaOctopus® 4G USE DAVD Edition		
	Stand-alone Application for control		
Data Interfaces			
Control Interface	Ethernet or serial (RS-232 standard) for 500m units. 3000m unit is RS-232 only.		
Time Synchronize	Via 3D Time Lock PSU with used with RS232		
Power			
Supply Voltage	24 - 30V DC		
Power Consumption (Dynamic)	Up to 2.0A at 24V DC		
Power Consumption (Static)	180mA (at brake hold position) at 24V DC		
Physical Interface			
Connector	LPBH-12-MP (Serial and Ethernet) also available with Subconn MCBHRA8M (Serial only)		
Output Shaft	316 stainless steel with mounted interface plate		

Coda Octopus
Sound Underwater Intelligence

Sales Worldwide: +44 131 553 1380 Sales Americas: +1 407 735 2400
More Information: sales@codaoctopus.com salesamericas@codaoctopus.com www.codaoctopus.com
Technical Support Worldwide: +44 131 553 7003 Technical Support Americas: +1 888 340 2632