



Benefits

- Lighter, smaller and more robust than previous version
- Integrated Real-Time 3D solution with Coda Octopus sonar
 - 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

The fourth generation of the 3D Integrated Pan and Tilt Unit

CodaOctopus® 3D Integrated Pan and Tilt (IPT) products are high-performance units designed to meet the demanding requirements of accurate orientation and position control of the real-time 3D Coda Octopus sonar product.

Our IPT units operate as an integrated solution within the CodaOctopus® Underwater Survey Explorer (“USE”) software application. The software integration of the pan and tilt unit with the real-time 3D sonar eliminates the need for multiple patch testing during mapping and inspection tasks. All angular and positional offsets are dynamically calculated within the software for simple and accurate operation.

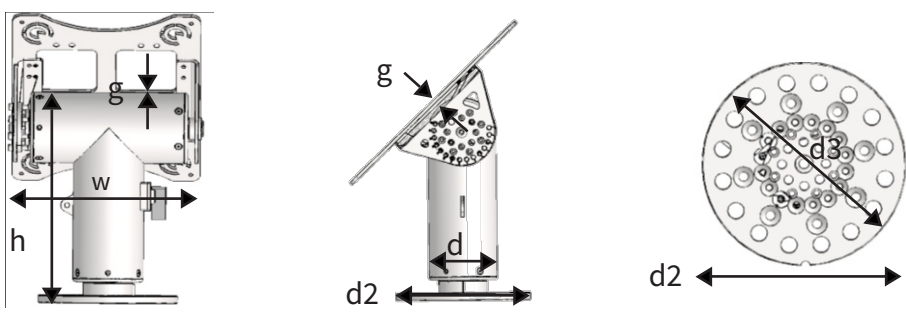
Capable of station holding the 3D sonar systems in hydro-dynamic environments, the units deliver 94 Nm peak-torque to move payloads up to 50kg (110 lbs). Enclosed in rugged stainless steel housings, the units are designed for operation to depths of 30m, 500m, and 3000m. Units are also available in aluminium and titanium.

Incorporating high-torque motors, low-backlash gear boxes, and high-precision encoders as standard, the units meet the demanding operational requirements of marine applications.

A single axis unit is also available.

Features

- ☞ $\pm 90^\circ$ tilt and $\pm 180^\circ$ pan motion 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 CodaOctopus® Underwater Survey Explorer
- ☞ Includes flange interface plate to simplify mounting on pole or ROV
- ☞ Point-and-click positioning of IPT in 2D control window
- ☞ User defined step values for indexed movement
- ☞ User defined GOTO controls for commonly used project viewpoints
- ☞ Time-Synchronized output capability to prevent latency issues

Technical Specifications			
Performance (by Model)	IPT-30	IPT-500	IPT-3000
Depth Rating	30m (99ft)	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 (Pan)	0-359°	0-359°	0-359°
Angular Range (Tilt)	0-180°	0-180°	0-180°
(Single axis option available on request) (*High accuracy/ low back-lash (0.05°) gearbox available on request)			
Software			
Integrated module within CodaOctopus® Underwater Survey Explorer			
Data Interfaces			
Control Interface	Ethernet or serial (RS-232 standard) for 30m and 500m units. 3000m unit is RS-232 only.		
Time Synchronization	Via 3D Time Lock PSU when used with RS232 protocol		
Power			
Supply Voltage	24 - 30V DC		
Power Consumption (Dynamic)	Up to 2.0A per axis at 24V DC		
Power Consumption (Static)	200 mA (at brakehold position) at 24V DC		
Physical			
<p>IPT-30 & IPT-50</p> <p>w 310mm (12.2") h 335mm (13.2") d 112mm (4.4") g 9mm (0.35")</p> <p>IPT-3000</p> <p>w 340mm (13.4") (all other dimensions same as 30/500m)</p> <p>Pan Plate</p> <p>d2 222mm (8.75") d3 180mm (7.08") 16 x 18mm holes</p>			
			
Weight in Air	Stainless Steel Construction = 24.8kg (54.7lbs) *All weights inclusive of flange interface plate and sonar mounting plate		
Connector	LPBH - 12 - MP & Subconn MCBHRA8M (serial only). Other connector options available on request.		
Construction	Welded 'T', 316/A4 marine grade stainless steel (Aluminium and titanium options available on request)		
Output Shaft	35mm diameter, Nitronic 60 steel, splined interface with pre-installed interface plate		